

BEFORE THE HON'BLE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO.

IN THE MATTER OF: -

Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024 for approval of application towards determination of Supplementary Tariff for Emission Control System in **Vallur Thermal power Station (1500 MW)**.

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Executive Summary of Supplementary tariff Petition (Summary of Issues)

NTECL Vallur Thermal Power Station (3x 500 MW)

The major highlights of the NTECL Vallur TPS (1500 MW) supplementary tariff petition are as follows:-

The present petition is being filed under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024 for approval of application towards determination of Supplementary Tariff for Emission Control System installed in **NTECL Vallur Thermal Power Station (3x 500 MW)**.

Brief Background of the Petitioner: The Petitioner herein NTECL TAMIL NADU ENERGY CO. LIMITED (hereinafter referred to as 'Petitioner' or 'NTECL'), is a Government of India Company within the meaning of the Companies Act, 1956. Further, it is a 'Generating Company' as defined under Section 2(28) of the Electricity Act, 2003 and is located in the Indian state of Tamil Nadu and comprises of three units of 500 MW each with their respective COD's as 29.11.2012, 25.08.2013 & 26.02.2015.

Brief Background of the Respondents: The power generated from NTECL Vallur TPS is being supplied to discoms of southern region (i.e discoms of Andhra Pradesh, Telangana, Tamil Nadu, Karnataka, Kerala & Puducherry) as per MoP allocations and respective PPAs.

Background of the ECS system installed at the station: This is to mention that that NTPC vide affidavit dated 27.11.2019 had filed a petition, being no. 19/MP/2021, seeking in-principal approval with regards to the above issues related to installation of the ECS at NTECL Vallur TPS. The Hon'ble Commission vide order dated 03.11.2021 (Attached as **Annexure-A2**) accorded the in-principal approval for installation of ECS at NTECL Vallur TPS.

It is submitted that the Emission Control system for Vallur TPS (3x500 MW) comprises of following subsystem:

- a) SO₂ removal system i.e., Wet limestone based FGD system individually for all the units of Vallur TPS.
- b) Combustion Modification System for NO_x Control for all the units of Vallur TPS.

Brief description of important events relevant to the Petition:

Combustion Modification System of Emission Control System:

The Combustion Modification System of Emission Control System (ECS) of unit-1, unit-2 & unit-3 has been commissioned on 23.02.2021, 16.10.2021 & 12.09.2022 respectively. The Petitioner has filed separate tariff forms for approval of supplementary tariff of Emission Control System (ECS) after truing up exercise from commissioning of Combustion Modification System of respective units till 31.03.2024. The year wise actual capital expenditure for ECS (Combustion Modification System) has been indicated and enclosed as part of Appendix-Ia.

Wet Limestone based FGD System:

It is further submitted that for SO₂ removal, wet limestone based FGD system of Unit-1 of Vallur TPS has been declared commercial operation w.e.f 15.01.2026 and the FGD of Unit-3 of Vallur TPS is declared Commercial on 20.03.2026. Subsequent to this, the present petition is being filed for approval of supplementary tariff for Emission Control System being installed in the generating station after Commercial Operation declaration (ODE) of Unit-1 of FGD on 15.01.2026 and Unit-3 FGD system based on their actual capital expenditure as on ODEs and projected additional capitalization related with ECS of NTECL Vallur TPS till 31.03.2029.

The petitioner has provided the delay reasons for time overrun in ODE of FGD system in NTECL Vallur TPS, the details of which has been provided from Para 19 to Para 36 of the present petition along with supporting documents. In this regard, the petitioner humbly submits that the delay reasons mentioned in the petition were beyond the reasonable control of the petitioner and have created various hurdles intermittently throughout the project execution. It is pertinent to mention that the MOEF&CC, vide its notification dated 31.01.2024, revised the timeline for FGD implementation for the station categorized under Category-A, and the project is required to achieve FGD implementation by December 2027, however, the petitioner, despite various challenges and unprecedented disruptions caused by the pandemic and technological

hurdles, has successfully operationalized the FGD systems much before the stipulated timelines, thereby ensuring full compliance with the MOEF&CC mandate. The Hon'ble Commission is therefore requested to kindly condone the delay as prayed in the petition.

Summary of Claims:

The Petitioner respectfully prays that the Hon'ble Commission may be pleased to:

- i. Allow the instant application for approval and determination of Supplementary Tariff for Emission Control System including Combustion modification System of Vallur thermal power station.
- ii. Condone the delay in declaration of Unit-I FGD and Unit-III FGD under Commercial operation.
- iii. Allow the Petitioner to bill provisional Supplementary Tariff based on implementation of FGD system in the instant station till the Supplementary Tariff is finally determined and approved by the Hon'ble Commission.
- iv. Allow the recovery of the cost of reagent consumption through Supplementary Energy Charges from the date of operationalization (ODE) of the ECS Schemes till 31.03.2029.
- v. Direct the beneficiaries of the instant station not to consider the Supplementary Energy Charge for Merit Order Dispatch purpose.
- vi. Pass any other order as it may deem fit in the circumstances mentioned above.

Place: Chennai

Date: 13-04-2026

Petitioner

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO.

IN THE MATTER OF:

Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024 for approval of application towards determination of Supplementary Tariff for Emission Control System in **Vallur Thermal power Station (1500 MW)**.

AND IN THE MATTER OF:

Petitioner : NTECL TAMIL NADU ENERGY CO. LIMITED
NTPC Bhawan
Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi – 110003

Versus

- Respondents
1. A.P. Eastern Power Distribution Company Ltd.
P&T Colony, Seethammadhara,
Vishakapatnam-503013
 2. A.P. Southern Power Distribution Company Ltd
Beside Srinivassakalyana Mandapam,
Tiruchanur Road, Kesavayana Gunta,
Tirupati- 517501
 3. A.P. Central Power Distribution Company Ltd

Corporate Office, Beside Govt. Polytechnic, ITI
Road, VIJAYAWADA, Andhra Pradesh

4. Telangana State Southern Power Distribution
Company Ltd.
Mint Compound, Corporate Office
Hyderabad – 500 063
5. Telangana Northern Power Distribution Company
Ltd.
H.No. 2-5-31/2, Vidyut Bhavan
Nakkalagutta, Hanamkonda
Warangal – 506 001
6. Tamil Nadu Generation & Distribution Corporation
Ltd. (TANGEDCO) (formerly TNEB)
144, Anna Salai, Chennai – 600 002
7. Bangalore Electricity Supply Company Ltd.
(BESCOM)
Krishna Rajendra Circle
Bangalore - 560 009
8. Mangalore Electricity Supply Company Ltd
(MESCOM)
MESCOM bhavana, Corporate Office,
Bejai, kavoor cross road, Mangaluru,
575004, Karnataka
9. CESC (Chamundeshwari Electricity Supply Corp.
Ltd.)
Corporate Office, No. 29,
Vijayanagar, 2nd stage, Hinkal,

Mysore – 570 017

10. Gulbarga Electricity Supply Company Ltd.
(GESCOM)
Main road, Gulbarga, Karnataka.
Gulbarga – 585 102
11. Hubli Electricity Supply Company Ltd.
(HESCOM)
Corporate office, P.B.Road, Navanagar
Hubli – 580 025
12. Kerala State Electricity Board Ltd.(KSEBL)
Vaidyuthi Bhavanam, Pattom
Thiruvananthapuram – 695 004
13. Superintending Engineer-1
Electricity department
Govt. of Puducherry,
137, Netaji Subhash Chandra Bose Salai,
Puducherry- 605001

The petitioner humbly states that:

1. The Petitioner herein NTECL (NTECL Tamil Nadu Energy Company Limited), is a Joint Venture company between NTECL Limited and TNEB (Presently TANGEDCO), is incorporated under provisions of the Company Act, 1956 and a Government Company as defined under Section 2(45) of the Companies Act, 2013. Further, NTECL is a 'Generating Company' as defined under Section 2(28) of the Electricity Act, 2003.
2. In terms of Section 79(1)(a) of Electricity Act, 2003, the Hon'ble Commission has been vested with the functions to regulate the tariff of NTECL, being a Generating

Company owned and controlled by the Central Government. The regulation of the tariff of NTECL is as provided under Section 79(1)(a) read with Section 61, 62 and 64 of the Electricity Act, 2003 and the Regulations notified by the Hon'ble Commission in exercise of powers under Section 178 read with Section 61 of the Electricity Act, 2003.

3. The Petitioner is having a power project namely Vallur Thermal Power Station (3X500 MW) (hereinafter referred to as **VTPS**) located in the State of Tamil Nadu. The power generated from VTPS is being supplied to the respondents herein above.
4. It is submitted that under Section 79(1)(a) of Electricity Act, 2003, this Hon'ble Commission is vested with the jurisdiction to regulate the tariff of the Generating Companies owned or controlled by the Central Government. Further, in exercise of powers under Section 178 of the Electricity Act, 2003, Hon'ble Commission has notified the Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 (hereinafter referred to as the 'Tariff Regulation 2019') and Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2024 (hereinafter referred to as the 'Tariff Regulation 2024').
5. The petitioner vide affidavit 27.11.2024 had filed tariff petition for determination of tariff of Vallur Thermal power Station (1500 MW) for the period from 01.04.2019 to 31.03.2024 after carrying out truing up exercise. In this affidavit, the petitioner submitted a separate tariff form as Appendix_Ia for computation of supplementary tariff pertaining to the combustion modification system which got capitalized on 23.02.2021 for Unit-1, 16.10.2021 for Unit-2 and 12.09.2022 for Unit-3.
6. Further, FGD System of Unit-1 of NTECL Vallur TPS has been declared commercial w.e.f 15.01.2026 and Unit-3 FGD system of the instant station has been declared Commercial w.e.f 20.03.2026. Therefore, the petitioner is being filed for approval and determination of supplementary tariff for the emission control system (including Combustion modification system) installed at the generating station, based on the actual capital expenditure incurred as on the ODe of Unit-1

and Unit-3 FGD system and the projected capital expenditure related with ECS of NTECL Vallur till 31.03.2029.

7. It is submitted that on 07.12.2015, Ministry of Environment Forest and Climate Change, Government of India (“**MoEF&CC**”) notified the Environment (Protection) Amendment Rules, 2015 (“**MoEF&CC Notification**”) mandating all thermal power plants installed and to be installed, like the Petitioner’s Projects, to comply with the revised norms as specified in the notification. A copy of the notification dated 07.12.2015 is attached as **Annexure-A1**.
8. In compliance of revised emission standards under the Gazette Notification dated 07.12.2015, the Petitioner was required to install various Emission Control Systems (hereinafter referred to as “**ECS**”) in the instant station.
9. It is further submitted that on 07.03.2019 the Hon’ble Commission notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter referred to as “Tariff Regulations 2019”). Regulation 29 of the Tariff Regulations 2019 in respect of additional capitalization on account of revised emission standards provides as below:

“29. Additional Capitalization on account of Revised Emission Standards:

(1) A generating company requiring to incur additional capital expenditure in the existing generating station for compliance of the revised emissions standards shall share its proposal with the beneficiaries and file a petition for undertaking such additional capitalization.

(2) The proposal under clause (1) above shall contain details of the proposed technology as specified by the Central Electricity Authority, scope of the work, phasing of expenditure, schedule of completion, estimated completion cost including foreign exchange component, if any, detailed

computation of indicative impact on tariff to the beneficiaries, and any other information considered to be relevant by the generating company.

(3) Where the generating company makes an application for approval of additional capital expenditure on account of the implementation of revised emission standards, the Commission may grant approval after due consideration of the reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost benefit analysis, and such other factors as may be considered relevant by the Commission.

(4) After completion of the implementation of revised emission standards, the generating company shall file a petition for determination of tariff. Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on the reasonableness of the cost and impact on operational parameters shall form the basis of the determination of tariff.”

10. It is further submitted that on 25.08.2020, the Hon'ble Commission has notified First Amendment of the Tariff Regulations 2019 (Terms and Conditions of Tariff, where following addition to regulation 29 of the Tariff Regulations 2019 has been made:

“(5) Un-discharged liability, if any, on account of the emission control system shall be allowed as additional capital expenditure during the year it is discharged, subject to prudence check.”

11. It is humbly stated that NTECL vide affidavit dated 24.12.2020 had filed a petition, being no. 19/MP/2021, seeking in-principal approval with regards to the above issues related to installation of the ECS at Vallur TPS. The Hon'ble Commission vide order dated 03.11.2023 (Attached as **Annexure-A2**) accorded the in-principle approval for installation of ECS at Vallur TPS and disposed of the matter and observed as follows:

“ 60..... (a) The process from the stage of identification of the FGD package to NoA waswith the approval of the Petitioner’s Board of Directors and as per the procedure laid down under its DoP, We consider that the bidding process has been carried out in a transparent manner.

(b) The Petitioner has identified and proposed a WFGD system for reduction in the SO2 emissions and a Combustion Modification system for reduction of NOx, taking into consideration the effectiveness, availability, cost, size of the plant, operational expenses and availability of the reagents, we accordingly, approve the same.

(c) The costs claimed by the Petitioner towards the installation of the WFGD system and Combustion Modification system have been discovered through a competitive bidding process. The hard costs claimed by the Petitioner for the WFGD system are higher than the indicative cost recommended by CEA, but the Petitioner has provided justification and reasons for the same. Accordingly, “In-principle approval” is accorded to the claimed hard cost of ₹58.40 lakh/MW towards installation of the WFGD system to meet emission control norms for SO2 and claimed cost of ₹26.29 crore (without IDC) towards Combustion Modification System to meet emission control norms for NOx.

12. It is further submitted that on 15.03.2024, the Hon’ble Commission has notified the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2024 (hereinafter referred to as “Tariff Regulations 2024”). Tariff Regulations, 2024 do not introduce any material changes to Regulation 29 of Tariff Regulation 2019 regarding additional capitalization for revised emission standards.

13. It is submitted that the Emission Control system for NTECL Vallur (3x500 MW) comprises of following subsystem:

- a) SO2 removal system i.e., Wet limestone based FGD system individually for both the units of Vallur TPS.
- b) Combustion Modification System for NOx Control for all the units of Vallur TPS

14. The petitioner humbly submits that the Combustion Modification System of Emission Control System (ECS) of unit-1, unit-2 & unit-3 has been commissioned on 23.02.2021, 16.10.2021 & 12.09.2022 respectively. It is respectfully submitted that since the Combustion Modification system had been commissioned during 2019-24 period, the separate tariff forms related to the capitalization of Combustion Modification system has been attached here in this petition named as Appendix_Ia. It is prayed before the Hon'ble Commission to kindly consider the same as a part of this petition.
15. Investment Approval (IA) for NTECL Vallur (3X500 MW) Combustion Modification system was accorded by NTECL Board on 27.06.2018 in its 79th Board Meeting and the Investment Approval (IA) of FGD system for NTECL Vallur was accorded by NTECL Board on 26 March 2020 in 90th meeting of the Board of Directors, at an estimated total cost of Rs 1135.51 Crore. Copy of Investment Approval is attached as **Annexure-A3**.
16. It is submitted that the Notification of Award (NOA) was issued to M/s Tata Projects Limited on 06.04.2020 (attached as **Annexure-A4**) for installation of Wet limestone based FGD in the instant station. The petitioner humbly submits that the FGD has been installed in two of the units (i.e. Unit-1 and Unit-3) of the instant station as shown below.

Unit/Station	Date of Operationalization (ODe) of FGD
Unit-1	15.01.2026
Unit-3	20.03.2026

17. As per the Tariff Regulations, the Management Certificates with respect to the date of Operation (ODe) of FGD for Unit-1 and Unit-3 of Vallur TPS are enclosed as **Annexure-A5**.
18. For computation of working capital on account of FGD, as per Tariff Regulations, the supplementary ECR is to be computed based on the landed cost of Reagent as per Form-16 for preceding 03 months prior to the date of Operation of the FGD

system of Unit-1. Accordingly, Form-16 for the preceding months from Unit-1 ODe has been considered to calculate Supplementary ECR for computation of working capital.

Delay Reasons for time overrun in ODe of FGD NTECL Vallur (3x500 MW)

19. The details of schedule completion date and actual operational declaration of unit ODe is as follows:

Details	Date of NOA (Start/Zero Date)	Schedule Completion date as per contract	Actual Operational Declaration (ODe)	Time Overrun (in months)
Unit-I	06.04.2020	05.10.2022 (30 Months)	15.01.2026	approx. 39 Months
Unit-III	06.04.2020	05.04.2022 (30 Months)	20.03.2026	approx. 41 Months

20. EPC Package of NTECL Vallur TPS FGD was awarded by NTECL on 06.04.2020 to M/S Tata Projects Limited. It is one of the most reputed EPC companies in the power sector.
21. However, the technology of FGD is still an emerging one especially in India with most of the parts /equipment /material being imported from other countries. So, dependency on other foreign suppliers, technical experts, worldwide economic condition, geographical condition Covid-19, etc. had large impact on the timeline of completion of the FGD project at NTECL Vallur TPS .
22. Various reasons that are attributable to unavoidable delays are depicted in following paras in sequential manner:
- I. At the outset it is respectfully submitted that the schedule outlined in the contract was not realistic, as it was based on estimates rather than benchmarks, given that FGD (Flue Gas Desulfurization) technology was new to India at the time of award and lacked established references. It is further

submitted that the project is delayed by approx. 39 months for Unit-I and approx. 41 months for Unit-III of NTECL Vallur (3X500 MW) Station.

- II. It is further submitted that the challenges arising from the lack of expertise and skilled manpower for the FGD system in India have also been elaborated upon in this submission. It is also submitted that the Central Electricity Authority (CEA) and IIT Delhi have recognized these challenges in their published reports. The relevant observations from these reports are also outlined in the submission.

At a time when the Flue Gas Desulphurisation ("FGD") works were in advanced progress, the COVID-19 pandemic and the consequent restrictions notified under the Disaster Management Act, 2005 led to nationwide lockdowns, supply-chain disruptions, workforce constraints and mobility limitations. In these force-majeure circumstances, the Petitioner, acting prudently and in the public interest, implemented continuity measures—re-sequencing works, staggering outages, extending/realigning contracts, arranging alternative logistics and enforcing enhanced health-and-safety protocols—to mitigate disruption while maintaining generation and progressing the FGD installations mandated for SOx emission control. The decisions taken were reasonable, timely and consistent with prudent utility practice and statutory environmental obligations. The Petitioner, therefore, prays that these actions be duly recognised and supported by the Hon'ble Commission, and that the progress, timelines and costs of the FGD projects be evaluated with due regard to the extraordinary constraints prevailing during the pandemic period.

- III. COVID pandemic was dealt under force majeure condition in compliance with the Office memorandum issued by Ministry of Finance, GOI dated 13 May'20. Further as per the existing standard condition of the FGD contracts, Force majeure for an aggregate period of more than 120 days period, stipulates that parties will attempt to develop a mutually satisfactory solution or resolve as per the Settlement of disputes clauses.

- Hence, optimal solution of continuing with existing contracts was adopted, incorporating revised contractual schedule and other modalities acceptable to both parties with a mutual understanding for not invoking any provisions of the contracts relating to Termination/mutually satisfactory solution etc. due to extended Force Majeure on the account of Covid-19 in future. However, this arrangement necessarily included a revised contractual schedule up to Actual completion of facilities (COF) for supply, execution, and associated activities.
- COVID has substantially Impacted both parties signing the contract during the implementation of FGD system. It involved reviving the contract with extended validity of contractual agreement period, with support from NTECL Board.
- At this juncture, the best possible option was to continue with the existing contract and avoid termination of contract. Otherwise, Tendering & award of new contract would have meant higher price and extended timeline. This option could have also posed changes in FGD system design aspects involving foundation and equipment. As the contract awarded before COVID was based on the specific design and process layout along with matching Civil, Mechanical and other components. Now after COVID, even if new agency was called in to retrofit their different design parameters, it would have involved reworking of previous foundations & equipment causing much more investment of time and cost.
- In these circumstances the most prudent measure was to allow extended timeline and compensation to the existing agency and opting for comparatively much lower cost overrun and timeline extension.

IV. Additionally, the petitioner humbly submits that the delay occurred due to various factors beyond its control, which has led to the deferral of the project

beyond the scheduled date. These major challenges faced by petitioner are detailed hereunder.

New constraint on import of materials by MoF, Gol (change in law)

- V. It is submitted that Ministry of Finance (Department of Revenue), Government of India has issued notification No. 2/2021-customs dated 1st February 2021 introducing/amending several provisions for the import of goods. This notification has introduced additional conditions for import of goods under S. No. 413 of earlier notification of the MoF (DoR), Gol (Notification No. 50/2017-customs dated the 30th June, 2017).
- VI. As per the earlier notification, only one condition (S. No. 53) is applicable for items listed at S. No. 413 (*All goods, for renovation or modernization of a power generation plant (other than captive power generation plant)*). However, the new notification dated 1st February 2021 replaced earlier condition with two conditions (S. No. 9 and 53) thereby adding one more condition (S. No. 9). These conditions as per the notification is as follows:

Condition S. No. 9:

“If the importer follows the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017.”

Condition S. No. 53:

“If,-

- (i) *in the case of a power plant (except a nuclear power plant),-*
- a) *in the case of Central Power Sector Undertakings, the Chairman of the concerned Undertaking or an officer authorized by him certifies that the scheme for renovation or modernization as the case may be, of such power plant, has been approved and an officer not below the rank of a Deputy Secretary to the Government of India in the Ministry of Power recommends, in each case, the grant of the aforesaid exemption to the goods for such scheme;*
- b) *in other cases, an officer not below the rank of the Chief Engineer of the concerned State Electricity Board or State Power Utility certifies that the scheme for renovation or modernization, as the case may be, of such power plant, has been approved and an officer not below the rank of a Secretary in the State Government concerned dealing with the subject of*

power or electricity recommends, in each case, the grant of the aforesaid exemption to the goods for such scheme;

- (i) in the case of nuclear power plant, an officer not below the rank of a Deputy Secretary to the Government of India in the Department of Atomic Energy certifies the scheme for renovation or modernization as the case may be, of such power plant, has been approved and recommends the grant of the aforesaid exemption to the goods for such scheme; and*
- (ii) in all cases, the importer furnishes an undertaking to the Deputy Commissioner of Customs or the Assistant Commissioner of Customs, as the case may be, to the effect that the said goods shall be used for the purpose specified above and in the event of his failure to use the goods for the renovation or modernization of the said power generation plant, he shall pay an amount equal to the difference between the duty leviable on the said imported goods but for the exemption under this notification and that already paid at the time of importation.*

- VII. It is respectfully submitted that an additional condition was introduced vide Notification No. 2/2021-Customs dated 01.02.2021 (Annexure-A6), requiring importers to comply with the procedure stipulated under the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017, in order to avail exemption. This condition was not applicable at the time of award of the contract.
- VIII. Consequently, considerable additional time was required to complete the prescribed procedure and obtain exemption for the critical items pertaining to the Flue Gas Desulphurisation (FGD) system, which otherwise qualified for such exemption. The said requirement has significantly impacted the timely supply of key components such as the Absorber, Chimney, and other associated equipment.
- IX. In view of the above, the delay in supply of essential FGD materials is directly attributable to this supervening statutory change, which was beyond the reasonable control of the Petitioner. The notification No. 2/2021-customs dated 1st February 2021 is attached as Annexure-A6.

It is submitted that delay due to new constraint on import of materials imposed by the MoF, Gol (i.e change in law) is about three months from February 2021 to April 2021 and was entirely beyond the control of petitioner. The Petitioner respectfully prays that the Hon'ble Commission may kindly condone the delay attributable to this uncontrollable factor, being a Change in Law event.

Delay due to Covid-19 first wave in 2020

- X. The year 2020 in its early start witnessed an unprecedented crisis in the form of a new virus called Coronavirus ("Covid-19") around the Globe. The various restrictions, which were imposed by the Govts. concerning this Covid-19 issue, created havoc and resulted in the adverse impact on the performance of all the industrial activities. Due to rapid spread of COVID-19 virus across the globe, the World Health Organization (WHO) declared it a pandemic. Subsequently, foreseeing the threat of this pandemic in the country, Ministry of Home Affairs, Government of India, imposed lockdown in the country vide its Order (No. 40-3/2020-DM-I(A)) dated 24.03.2020 for containment of its spread in the country under the Disaster Management Act. Subsequently, this epidemic was declared as Pandemic by various ministries under Govt of India (Copies of the MHA orders for lockdown are collectively attached as **Annexure-A7**).
- XI. During the lockdown period, only classified essential activities were allowed and several restrictions and preventive measures were adopted to contain the spread of virus such as suspension of public transport services, hospitality services, closure of manufacturing units, work-with-minimum-number-of-employees/work-from-home measures etc. There was a complete ban on international and domestic travel, quarantine facilities were set up, contact tracing of persons infected with virus was done, and several public advisories including social distancing measures and hygiene standards were announced by Govt of India as well as State Govts.

- XII. In order to prevent further spread of Covid-19 in the country, the initial lockdown for a period of 21 days w.e.f. from 25.03.2020 was extended further in the following manner:

Phase 1 Lockdown	25.03.2020 to 14.04.2020
Phase 2 Lockdown	15.04.2020 to 03.05.2020
Phase 3 Lockdown	04.05.2020 to 17.05.2020
Phase 4 Lockdown	18.05.2020 to 31.05.2020

Vide various orders, MHA, Gol further issued many guidelines/orders to extend lockdown or re-opening of prohibited activities in phased manner etc. Further the state Government of Andhra Pradesh has time to time issued various directions / guidelines / standard operating procedures etc. through various Notifications for the State for prevention and containment of Corona virus disease. (Copies of orders are collectively attached as **Annexure-A8**)

- XIII. The Petitioner humbly submits that due to the spread of pandemic and the lockdown imposed, the construction and erection works at site of the instant station came to complete standstill. Although the petitioner was permitted to resume the work by Govt of India granting relaxation in some of the specific areas only, the construction activities at site could not pick up the pace because of various restrictions imposed on the movement by different states/districts/local administrations. Moreover, the impact of fear created by the said Pandemic was up to such extent that the work could not be resumed despite ease in lockdown measures. In fact, after the easing out of the lockdown conditions from Jun'2020, there was a sudden migration of labours under lockdown to their home states, which has again prevented the project construction activities to resume. NTECL took various steps for facilitating for the remobilization of manpower which included facilities for mandatory quarantine of workers coming from outside states as well as payment of wages for the quarantine period any many other measures.

- XIV. It is worthwhile to submit that the FGD works were of varied nature and of substantial quantum, thereby requiring several skilled manpower pertaining to

different streams as well as unskilled manpower. During the lockdown period and as COVID-19 started to have a larger impact on each activity and aspect of life, a large segment of migrant workers became increasingly anxious about the well-being of their families in their native places and left the site abruptly leaving the completion of balance works in completely uncertain situation. Therefore, the challenge in mobilization of migrant labours was one of the key issues during the period of lockdown as well as thereafter, which was faced by all parts in India including NTECL Vallur site.

XV. It is further submitted that on account of this pandemic, manufacturing units of various vendors either completely stopped or worked at part capacity, causing the delay in supply of material at site. Supplies from many vendors falling in red/containment zones, could not be dispatched on time. Due to suspension of public transport services, the periodic visits of technical advisors/ experts for supervision of the commissioning of various equipment/systems could not take place. Moreover, the non-availability of technical advisors for some of the systems/subsystems delayed the commissioning of the same. In view of the various restrictions caused by the country-wide lockdown for containment of COVID-19, the erection and commissioning activities got badly delayed. This resulted in a very adverse impact on the construction and erection activities of project.

XVI. It is submitted that on account of the enormous devastative effects the COVID-19 pandemic created on the commercial and economic environment in the country, different Courts had to come forward and grant relief to different contracting parties who were severely affected by the COVID-19 pandemic. The petitioner is relying upon the following Judgements which clarifies that COVID-19 was an uncontrollable factor due to which several works were disrupted:

- i. The Hon'ble Delhi High Court considered the matter in June 2020 in the case of **MEP Infrastructure Developers Ltd vs. South Delhi Municipal Corporation and Ors in W.P.(C) 2241/2020**. The Hon'ble Court essentially relied on the Ministry

of Roads Transport and Highways (MORTH) circular and observed that:

“27(i) The respondent Corporation itself referred to Circular dated 19.02.2020 which notified that the COVID-19 pandemic was a force majeure occurrence. In effect, the force majeure clause under the agreement immediately becomes applicable and the notice for the same would not be necessary. That being the position, a strict timeline under the agreement would be put in abeyance as the ground realities had substantially altered and performance of the contract would not be feasible till restoration of the pre-force majeure conditions.”

The Hon'ble Delhi High Court also expounded on the continuous nature of the *force majeure* event and held that the subsequent lockdown relaxations given by the Central Government and the State Government shall not amount to abatement of the *force majeure* event.

- ii. The Hon'ble Madras High Court vide its Judgement dated 14.09.2020 in the case of ***Tuticorin Stevedores' Association vs The Government of India in WP(MD)No.6818 of 2020 and WMP(MD)No.6217 of 2020***, observed that the question as to whether on account of the pandemic outbreak of COVID-19, the parties can invoke the principle of force majeure need not detain us. The calamitous impact and disruption caused by COVID-19 on the economic front has been recognized by the Government itself.
- iii. In ***Confederation for Concessionaire Welfare & Ors. vs Airports Authority of India & Anr in W.P.(C) 2204/2021 & CM APPL.6421-22/202***, the Hon'ble Delhi High Court vide its Judgement dated 17.02.2021 observed inter-alia that the court has perused the clauses relating to force majeure. There can be no doubt that the pandemic is a force majeure event. Since the Petitioners wish to terminate/exit from their respective agreements, while directing completion of pleadings and while the issues are under examination by this Hon'ble Court, there is a need to reduce the risk to both parties as simply postponing the exit by the Petitioners would also make it impossible for the

AAI to re-allot the spaces to willing concessionaires and the outstanding against the Petitioners would continue to mount. Accordingly, as an interim measure the Hon'ble Court directed certain processes to be followed.

- iv. The Hon'ble Supreme Court in the case of **Parvasi Legal Cell and Ors. Vs Union of India and Ors. in Diary No.10966/2020**, observed that the pandemic was an 'unusual' situation, that had impacted the economy globally. This case revolved around the liability of the airlines to compensate passengers who faced cancellation of flights due to Government-imposed lockdowns and restrictions on Inter-State and International travels. The Hon'ble Supreme Court relied on the Office Memorandum issued by the Ministry of Civil Aviation dated 16.05.2020 to dispose of the petition.
- v. The Hon'ble Commission vide its Order dated 15.04.2022 in 3/GT/2021 (Feroze Gandhi Unchahar Thermal Power Station Stage-IV (500 MW) for the 2019-24) has allowed the extension of cut-off date on account of COVID-19 as an unforeseen factors/reason beyond the control of the NTECL while holding as under:

"13. The Petitioner vide additional submissions dated 4.6.2021 has submitted that the additional capital expenditure claimed in respect of assets within the original scope of work for the generating station has spilled over beyond 2020-21 on account of following unforeseen factors/reason beyond the control of the Petitioner:

(I) COVID-19 Pandemic:

The Nationwide lockdown of 68 days affected all balance work in packages such as Main Plant/ BOP Package (Electrical System, HVAC, FDPS, AHP System, CHP system), Coal Handling System, Township/colony civil works, sewerage treatment plant/associated works, site development works etc. All these works were supposed to be completed maximum by March 2021. However, as the lockdown was announced, all the construction work came to standstill condition. The construction activity of balance works at the instant station could not be normalized as the labourers and workforce did not turn

due to Covid 19 scare. Further, social distancing norms were also to be followed strictly at work site on the basis of Government guidelines. The non-availability of required number of skilled and semi-skilled labourers hampered the smooth progress of work and caused a direct disruption in completing the construction activities of balance facilities. The communications regarding the situation from the contractors and vendors indicating the disruption of construction activity at site as well as at the manufacturing facilities due to initial COVID wave are submitted in the present petition.....

14. The Petitioner, on account of the above reasons, has prayed that the works claimed be allowed to be capitalized for purpose of tariff during the 2019-24 tariff period by relaxing the cut-off date beyond 30.9.2020 by eighteen (18) months i.e. up to 31.3.2022 in exercise of Commission's power under Regulation 76 (Power to Relax) and Regulation 77 (Power to Remove Difficulty) of the 2019 Tariff Regulations.

15. The Commission had condoned the time overrun of 116 days considering the COD of the generating station vide its order dated 6.12.2019 in Petition No. 197/GT/2017. In the present petition, the Petitioner has prayed for the extension of cutoff date on account of the consequent and cascading effect of delay in achieving COD and other reasons as stated above in paragraph 13 above.

16. We observe that the Petitioner has faced challenges in the execution of works namely, the disruption of construction activity, delay in connecting Transfer Point-23 and conveyor-30 tunnel portion at the Wagon tippler complex, poor response of contractors towards some packages i.e Sewage Treatment Plant and associated pipelines and delay in the excavation and concreting up to the ground level. Keeping in view that these factors were beyond the control of the Petitioner, we are inclined to consider the additional capitalization claimed by the Petitioner after cut-off date, on a case to case basis, under Regulation 24(1)(b) of the 2019 Tariff Regulations, in exercise of the power to relax under Regulation 76 (Power to Relax) of the 2019 Tariff Regulations."

XVII. It is submitted that delay due to Covid-19 first wave is about 9 months from March 2020 to December 2020 which beyond the control of petitioner. The

Hon'ble Commission is pleaded to condone the delay due to this uncontrollable factor.

Delay due to Covid-19 second wave

- XVIII. It is humbly submitted that while the Project of the Petitioner was recovering from the impact of the first wave of Covid-19, the second wave of covid-19 had spread more ferociously. The second wave of corona virus spread like a 'tsunami' in India and evolved at a phenomenal speed as compared to the 1st wave. The contagious delta variant began to circulate and eventually became dominant. The extent and the speed of spread shocked the nation and the government. Health infrastructure of the country went into a tailspin and was very challenging to manage an unprecedented rise in cases. Apart from the fact the virus was more lethal and was not responding effectively to norms of treatment followed in wave-1, shortages of beds, ICUs, Oxygen supply, essential medicines etc., resulted in tragic deaths of infected people, which was significantly more than wave-1 thereby leading to greater hospitalization and increase in demand of oxygen.
- XIX. Considering the unprecedented surge in Covid-19 cases across the country, Ministry of Health & Family Welfare (MoHFW) vide DO no. Z.28015/85/2021-DM Cell dated 25th April 2021 has issued advisory to all States and Union Territories (UTs) for implementing intensive, local and focused containment framework. And Ministry of Home Affairs, Government of India, introduced several measures/guidelines in the country vide its various Orders (No. 40-3/2020-DM-I(A)) dated 29th April 2021, 27th May 2021 and 29th June 2021 for containment of its spread in the country under the Disaster Management Act. Similarly, the State of Tamil Nadu has also issued various guidelines / directions / standard operating procedures etc. through various Notifications in the state for prevention and containment of Covid during this second wave.
- XX. Also, in view of the rapid rise in Covid cases and resultant humongous demand for medical oxygen, the Empowered Group recommended to prohibit the **supply of Oxygen for Industrial purpose by manufacturers and suppliers forthwith from 22.04.2021**. In view of the recommendation passed by

Empowered Group, Government of India vide letter dated 18.04.2021 had issued necessary instructions to all authorities to ensure compliance to the decision of Empowered Group and to take necessary measures to prohibit supply of Oxygen for industrial purposes. Industrial oxygen is a critical input for erection activities such as metal cutting and welding and shortage of same resulted in stoppage of erection activities. There was a huge scarcity of oxygen cylinder and has increased exorbitantly after the notification from MHA and subsequently from DM regarding the supply of oxygen cylinder only for the medical purposes and prohibition for industrial uses. It is also submitted that due to high priority of oxygen production for medical requirements, suppliers kept hold the production of CO₂, because of this FCAW works also got hampered for want of CO₂ cylinders This also resulted in delay in manufacturing of Materials ordered to various sub vendors by NTECL / Main Contractors. (Copies of orders are collectively attached as **Annexure-A9**)

XXI. It is humbly submitted that right from the onset of COVID-19 cases in India, the Petitioner took extensive measures to prevent the occurrence and spread of COVID-19 among its employees and their family members and contractual workforce engaged at its various power stations including the instant station. Some critical measures as adopted which takes considerable amount of time and energy are placed below:

- a. Thermal scanning of persons at the entry gate.
- b. Issuing gate pass to workers only after medical examination.
- c. Quarantining workers coming from outside the district.
- d. Strict adherence to wearing masks and social distancing measures.
- e. Placing of hand sanitizers and wash basins across multiple locations within the premises including regular sanitization of workplaces.
- f. Organizing regular awareness sessions on COVID-19
- g. Ensuring round the clock availability of Ambulance (Basic and Advance life support).
- h. Strengthening of medical facilities at its own hospitals including facility for testing of COVID-19.

- i. Adhering to guidelines issued by Central/State Government from time to time.

XXII. Such measures, although aimed to contain the spread of the pandemic, they posed significant impediments in inspection of materials, dispatch of goods, transport, and mobilization of manpower & machinery to project site.

Delay due to Covid-19 third wave

XXIII. It is humbly submitted that due to the Omicron variant, the covid-19 case started increasing again in January 2022 leading to third wave. Coronavirus cases in India continued to surge over 3 lakhs for the fifth day in a row as the country registered 306,064 fresh infections on 24th Jan 2022. The daily new infections detected was at an eight-month high which was partly driven by new variant Omicron of COVID-19. India had witnessed daily new infections of over 3 lakh cases last on 15th May 2021 during the peak of 2nd COVID-19 wave. Acknowledging the threat and adverse implications, many state governments and local authorities including Tamil Nadu Administration had started imposing stricter rules and Guidelines to restrict the spread of COVID-19 infection by implementing strict curfews, mandatory COVID test for travelling personnel, restrictions on personnel travel from certain states, etc. Please refer enclosed at **Annexure-A10** for 3rd wave Covid.

XXIV. Deputation of OEM's supervisors required for installation work at site was affected in Jan'22 and Feb'22 due to rapid rise of cases and few positive cases identified in field executives of OEMs. NTECL also issued revised guidelines for issue of gate passes with a view to contain spread of disease and the overall process of providing new gate passes was significantly increased. The procedure of issuance of gate passes and long quarantine period for incoming labour/manpower led to considerable impact on the progress of the works. Our subcontractors informed us that they witnessed positive cases in new manpower being mobilized. Positive cases underwent home isolation/quarantine and complied with all the Govt. guidelines. Contacts of positive cases undergo home isolation as precautionary measure.

extended all possible support to our agencies' staff and workmen with regards to testing and maintaining covid appropriate behaviour as per Govt. guidelines. However, this resulted in idling of manpower and affected further augmentation of manpower and also affected progress of works at site.

XXV. All equipment suppliers (onshore & offshore) were impacted due to the lockdown in view of labour shortages, various government COVID-19 guidelines to be maintained while working in manufacturing places and construction sites.

XXVI. Compared to the second wave, the third wave was observed to be milder in terms of disease course and outcomes, however people panicked as they had already seen the ferocious nature of second wave. In view of the rapid rise in Covid cases, various advisories were announced. Also, the Government publicly acknowledged the arrival of the third wave and urged people to be extra cautious and cooperate in combating the pandemic.

XXVII. It is submitted that delay due to Covid-19 third wave is about 3 months from **January 2022 to March 2022** which was beyond the control of petitioner. The Hon'ble Commission is pleaded to condone the delay due to this uncontrollable factor.

Other uncontrollable impact of Covid in Supply Chain, Raw material & Shipping

XXVIII. FGD Package was awarded in the month of April 2020, however, due to the onset of Covid-19, the immediate mobilization of manpower could not take place due to the imposed lockdown and restrictions.

XXIX. It is submitted that world was facing an unprecedented crisis in the form of COVID-19 which had put an immediate halt to many business activities across the globe, as several countries had shut down their ports, airports and domestic transportation while imposing nation-wide lockdowns, leading to

disruptions in business activity and civil life. Lockdowns and restrictions have impacted manufacturing activities across the globe. India took special measures to control the spread by imposing one of the longest lockdowns in the world, to cushion the scarce availability of healthcare resources. The enormity of the lockdown affected manufacturing activities and supply chains alike, disrupting the overall economy.

XXX. While India had not fully recovered from the first wave, the second wave hit the country the hardest in terms of fatalities. The second wave had led to further State-imposed restrictions, impacting the economy while putting several restrictions in place on key businesses. This was followed by a slowdown in labour-intensive industries involving manufacturing, real estate, construction, and infrastructure, on account of the reduced labour availability during this period. Damaging effects of Covid-19 on Indian economy were such that Indian economy shrunk by over 7% in first quarter of 2020-21. Also, manufacturing output contracted by half from March 2020- March 2021. Further the index for Industrial production (IIP) nosedived to (-) 9.6% in year 2020-21 as depicted below:



The key issues impacting the manufacturing sector are listed below:

a. Supply Chain Disruptions / Raw material Shortage

- b. Capacity underutilization
- c. Liquidity Crunch
- d. Labor Shortage
- e. Special Regulatory Restrictions
- f. Weaker Demand

- XXXI. Covid-19 also resulted in second biggest mass relocation after the partition in 1947. More specifically, it was the “reverse migration.” As indicated by IMO (International Migration Organization, 2011) return or reverse migration is the act/process or movement of individuals back to their local spots who prior moved to urban communities or urban regions looking for employment and to gain bread-butter for their families. COVID-19 resulted in mass reverse migration due to limited employment opportunities, fear of more destruction due to the uncertainty of future crisis, financial crisis, health crisis, and so forth. This created huge shortfall of labour for the manufacturing and construction works.
- XXXII. Covid-19 also resulted in severe supply chain disruption (SCDs) in all manufacturing sectors as major production centres were closed due to worldwide lockdown. With the shutdown in production activities and transportation disruption, the global prices of raw materials and intermediate supplies increased. Border restrictions led to a temporary stoppage in human mobility and transportation activities, which resulted in unparalleled pressure on shipping and road freights and created severe impediments for international trade.
- XXXIII. The transportation disruptions led to substantial interruptions in goods flows, material required for construction of plant, product mobility, and have affected the entire supply chain, thereby leading to operations shutdown, sales loss, late deliveries, and reputational loss. The surge in transport freight costs and container shortage worldwide had significantly impacted the supply chain. Therefore, transportation has been considered a vital logistical driver, which impacted the responsiveness, efficiency, and performance of supply chains.

XXXIV. As per study, COVID-19 has affected about 94% of the Fortune 1,000 companies due to SCDs in affected areas (Linton and Vakil,2020). The COVID-19 pandemic has not been limited to a particular region or confined to a particular time. Different components of manufacturing, distribution centres, logistics and markets have impacted the supply chains. The pandemic has caused widespread damage to the manufacturing, airline, tourism, and hospitality sectors (Asmelash and Cooper, 2020). Disruptions in transport and logistics systems have significantly impacted the normal operations in supply chains. This, in turn, delayed the production of goods and transportation of consignments and construction of power plant as well.

a. Shortage of raw material and experts from OEM

It is submitted that due to global pandemic issues and disruption in supply chain, various essential raw materials were not available due to global material scarcity and import restrictions.

FGD systems require procurement of several high technology products which are not manufactured in India or raw materials which are sourced from other countries (mostly China, Japan, EU & USA). Maximum amount of raw material and finished goods in this project are sourced from outside India. Sudden restrictions in response to the pandemic including export and import control measures announced by Governments worldwide devastated the supply chain and companies struggled to accumulate required material to deliver the finished goods. This led to delay in delivery of goods to site and travel of experts, cascaded effect of which has been on installation activities where these items were required as per sequence of installation.

Further, M/s TPL was executing NTECL Vallur FGD and had ordered lot of equipments from foreign vendors mainly from China along with scope of site supervision and commissioning by OEM. During the Covid period international travel was banned for a long time resulting in non-availability

of OEM experts at site for erection and commissioning of critical equipment / system. Since retrofitting of FGD system is a new thing in India, no experts of such imported equipments were available with TPL, commissioning activities of equipment with remote support was carried out. This has caused an additional delay in commissioning and took longer time for resolution.

As of now, COVID already had an impact delay of more than 18 months on project execution because of frequent demobilization of manpower, delay in supply of indigenous and imported items, experts from different countries and non-availability of consumables like industrial oxygen etc.

Borosilicate adhesive a crucial material used for protecting structures within FGD system from corrosion and extreme condition. This crucial liner material was being imported from China. But due to COVID-19 restrictions and supply chain disruptions worldwide, took considerable time which was beyond the control of the petitioner. The letter of notification of Force Majeure by ABB Shanghai is attached as **Annexure-A11**.

b. Limited vessels/Ships for import of material from China

It is submitted that due to covid-19 pandemic situation the various restrictions were placed on shipping lines between countries. Since the start of COVID-19, several nations worldwide had shut down their seaports and banned most of their export and import activities. The substantial lockdowns and social distancing measures have been enforced in various nations with immediate scale-down in production and consumption. To contain the spread of the COVID-19, countries partly or completely closed their borders.

Due to the COVID -19 pandemic situation, shipping lines had increased the freight cost and cancelled many lines. Moreover, many shipping companies moved vessels from China to India line to China to the USA, Europe due to the current COVID situations in India. Hence, Vendor was

left with very limited options. Shipping companies were reluctant to ship material from China to India on account of implementation of COVID-19 prevention and control norms at the port and its frontline personnel by Chinese government. At Chinese ports, emphasis was placed on strengthening port boarding (international navigation ships) channel management, strictly implementing the closed loop or closed management of high-risk port workers, centralized accommodation, closed management during work, increasing the frequency of testing and other requirements. Due to the quarantine requirements of ships, all ships in China were delayed, depending on their previous port of call, this was a new rule implemented by Chinese government that ships were not allowed to enter the country unless the quarantine period is over, which also caused ships to wait at the port and led to further congestion.

c. Shortage of Containers for shipments

The COVID-19 pandemic revealed several vulnerabilities of global container shipping, with the shortage of containers being one of the most prominent. As ships became immobilized at several key gateway ports, the associated container shortages were the outcome of four factors: enduring trade imbalances, an unexpected and rapid recovery in demand, the decline in the velocity of containers handled at terminals and in the hinterland, and limited capacity to build new containers to match the additional demand. Due to commercial restrictions, border controls, labour availability, and reduced transport capacity, congestion took place at major gateways and some containers were used as long-term storage. Large containerships lined up, waiting to get a berthing slot at a container terminal, tying up thousands of containers for each ship. Besides, reduced workforces provided significant challenges for container handling. The unavailability of containers further increased the lead time of supply. One of the reports of global container shortage is attached as **Annexure-A12**.

23. The petitioner respectfully submits that the delay in commissioning of the FGD system was on account of various factors beyond its reasonable control, as duly evidenced by contemporaneous correspondences on record. In this regard, the

Contractor (TPL), vide its letter dated 30.10.2021 (placed on record as Annexure-A13), had specifically apprised the petitioner of the unprecedented surge in COVID-19 cases in China due to the highly contagious Omicron BA.2 variant since mid-March 2022, and the consequent imposition of strict lockdowns across major industrial cities including Shanghai, resulting in complete closure of factories, ports, and logistics operations. The said letter highlighted that such restrictions severely impacted the global supply chain and led to disruptions in procurement of critical materials such as **clad plates, titanium plates, consumables, filler wire, gypsum, agitators, and pumps**. The Contractor had further intimated that ongoing geopolitical disruptions, including the Russia–Ukraine crisis, coupled with reduction in global production capacity, surge in nickel prices, and widening demand-supply gap, had compounded the situation, resulting in delays in delivery and non-availability of key equipment despite best efforts. It was also conveyed that these events had adversely impacted the execution schedule of mechanical, electrical, and C&I works, and constituted a Force Majeure event under Clause 37.0 of the GCC, thereby entitling the Contractor to extension of time under Clause 40 of the Contract. The Petitioner submits that the aforesaid factors, being external and unavoidable, have materially impacted the project timeline despite diligent efforts and continuous follow-up. Accordingly, the delay in commissioning is neither willful nor attributable to any negligence on the part of the Petitioner, and it is most respectfully prayed that this Hon'ble Commission may kindly condone the delay as prayed. The supporting document in this regard is attached as Annexure-A13.

Delay due to various cyclones between 2020 to 2023

24. It is further submitted that FGD erection works in NTECL Vallur faced significant disruptions due to the adverse effects of multiple cyclones named as Cyclone Nivar during November 2020, cyclone, Mandous during December 2022 and cyclone Michaung during December 2023, severely impacting critical erections works causing further delays. These cyclones caused heavy rainfall and flooding, with widespread disruptions in communications, electricity supply, and transportation due to uprooted trees and waterlogging, severely hampering ongoing works and delaying project timelines. Later in the year, Cyclone Mandous crossed the Tamil

Nadu, causing extensive damage, resulting in the disruptions of the progress of the works and causing further delays in project execution. The supporting documents related to various cyclones is attached as **Annexure-A14**.

Delay in short circuit test of Transformers

25. It is respectfully submitted that the delay in completion of the transformer short circuit testing, forming part of the subject project, occurred due to circumstances entirely beyond the control of the Petitioner and despite diligent and continuous efforts. The transformers, manufactured through approved vendors, were duly dispatched to CPRI (Central Power Research Institute), Bangalore for mandatory type testing. However, CPRI, being the designated and limited testing authority, expressed its inability to undertake the short circuit tests within the scheduled timeframe owing to unforeseen, unavoidable, and emergent constraints at its facility. The Petitioner made bona fide efforts to explore alternative CPRI facilities to mitigate the delay, but no confirmed testing schedule could be secured. Consequently, the project timeline has been impacted by approximately **three(3)** months solely on account of these external and uncontrollable factors. It is respectfully submitted that the delay is neither attributable to any negligence nor lack of diligence on the part of the Petitioner, and therefore merits condonation in the interest of justice. Therefore, it is prayed before this Hon'ble Commission to condone the delay on this part. The relevant documents in support of the prayer made on this account is attached as **Annexure-A15**.

Worker Migration due to Law & Order Issues

26. It is humbly submitted that during the execution of the FGD System Package at Vallur Thermal Power Station (3×500 MW), the progress of site works was severely disrupted on account of a sudden and unforeseen migrant worker crisis that gripped the State of Tamil Nadu in or around March 2023. Viral videos circulating on social media, purportedly depicting attacks on migrant workers in Tamil Nadu, triggered widespread panic and mass exodus of migrant labour from the State, notwithstanding the fact that the Tamil Nadu Police, State Authorities, and independent fact-checkers confirmed that the said videos were either fabricated or

entirely unrelated to events in Tamil Nadu. As a direct consequence of this disinformation-driven panic, the total worker strength at the project site, which stood at 877 as recorded in CLIMS as on 28th February 2023, plummeted by nearly 50% within a span of three weeks, rendering critical site activities including Duct Erection, Absorber Erection, and all civil works across the site practically impossible to sustain or restart. Despite all reasonable efforts made by the Petitioner and M/s Tata Projects Limited, to retain the existing workforce and mobilise replacement labour, the situation remained beyond the Petitioner's control, being entirely attributable to an external, unforeseeable, and irresistible event arising from social unrest and State-wide panic, thereby constituting a force majeure event and/or hindrance beyond the control of the Petitioner. It took around 6 months to bring normalcy to the situation. In view of the foregoing, it is most respectfully prayed before Hon'ble Commission that the consequential delay in project execution caused by the said migrant worker crisis deserves to be condoned for the period so affected. The letter in support is attached as **Annexure-A16**.

Delay due to Fire Incident in Mill Circuit Agitator at M/s Tschamber Germany

27. The Petitioner respectfully submits that the delay occasioned in the execution and commissioning of the Mill Circuit Tank Agitators under Contract References CS-0011-109(5)-9-FC-COA-3922 and CS-0011-109(5)-9-SC-COA-3923, both dated 07.05.2020, is attributable entirely to an unforeseen and catastrophic fire accident that occurred on 30th December 2022 at the manufacturing facility of M/s MUTschamber, Wehr, Germany — the designated sub-vendor engaged for the supply of the said critical equipment. The said fire accident, which was duly intimated to NTPC Limited vide communication dated 20.01.2023 by Tata Projects Limited (TPL), caused severe and extensive damage to the office, production facilities, and testing shop of M/s MUT Schamber, thereby rendering the manufacture, testing, and timely delivery of the Mill Circuit Tank Agitators impossible. The occurrence of such a devastating industrial fire at the overseas vendor's premises constitutes a force majeure event, being entirely beyond the control, anticipation, or preventive capacity of the Petitioner. The financial

implications, procurement timelines for reordering and reproduction of the damaged project supplies, and the consequential impact on overall project readiness could not have been mitigated through any reasonable diligence on the part of the Petitioner. In light of the above, the Petitioner most humbly prays that this Hon'ble Commission may be pleased to condone the delay of 60 days (from 29 December 2022 to 26 February 2023) caused due to the aforesaid force majeure event and grant appropriate extension of time, in the interest of justice. The supporting document in this regard is attached as **Annexure-A17**.

Challenges faced due to lack of expertise and skilled manpower for FGD System in India

28. It is submitted that the initial MOEF&CC notification led to a surge in FGD system orders, exceeding the available technical expertise and skilled manpower. Limited vendor availability for FGD system equipment further complicated the supply chain situation. Further, it is submitted that executing FGD projects in existing power plants (brownfield projects) is inherently complex.
29. It is respectfully submitted that CEA, the technical wing of Ministry of Power (MoP) has already acknowledged these challenges in execution of FGD projects in India in its published reports. In this regard, CEA review report is attached as **Annexure-A15**.

Relevant extract from the report is reiterated below:

"1. Limited vendors for FGD system equipment and materials

- a. *About 525 (199 GW) out of 596 (209 GW) total number of thermal generating units has to install FGD system to comply with new emission norms.*
- b. *Further about 38 (27 GW) units under construction generating are also required to install FGD system.*
- c. *There is a limited vendor base for the FGD equipment and materials suppliers, making it difficult to get equipment deliveries on time due to high demand.*

3. Pandemic induced factors

- a. *Supply chain disruptions and migration of workforce: Many sub-contractors have gone under distress due to work disruptions during pandemic which badly affects work progress*
- b. *Various indigenous and foreign vendors have become stressed*

4. Site execution challenges

- a. *FGD orders envisage retrofitting of FGD components in brown field projects. Such jobs have their distinguished difficulties in terms of conceptualization & design challenges. Standardization could not be done as different sites have different requirement, space constraints, geography, orientation etc. Such jobs are more like Renovation & Modernisation kind of jobs & encounter frequent re-engineering issues.*
- -----

6.Unexpected and unprecedented rise in commodity prices

The prices of base materials like steel, cement, nickel, aluminum and copper have seen a surge in prices: as a result of which items like tanks, ducts, pipe racks, supporting structures have undergone price escalation.

8. Connectivity of FGD system with power plant

After installation of FGD equipment in the thermal power plant including new chimney, the same needs to be connected with existing thermal power plant. The flue gas of the existing power plant shall be rerouted through FGD system for desulfurization. The time required for connectivity is about 30 to 45 days and unit will be under shut down. Grid may not allow shutting down of more than 3-4 generating units in a month (annually 30 - 48 units) for this purpose otherwise the connectivity process may be planned at the time of annual overhauling of units.

9. Completion Cycle time:

*As per the present status of implementation and Vendor's feedback the **average time for completion is about 55 months**. The overall execution cycle for FGD is on basis of past experience, limited vendor base, contingency (pandemic) and complexities in execution like R&M works. **Therefore, time cycle for execution of FGDs may be considered as 43 months for a unit if 12 months delay is considered for Covid-19. Another 30-45 days time is required for successful synchronization of FGD system.***

[Emphasis Supplied]

- 30.** In view of the above, the implementation of Flue Gas Desulphurization (FGD) systems across Indian thermal power plants is facing significant delays due to a limited vendor base, stringent procurement policies, **pandemic-induced supply chain and workforce disruptions** (explained in the preceding paragraphs in details), and escalating commodity prices, all of which are affecting timely equipment delivery and project costs. Retrofitting FGDs, especially in older plants, poses additional challenges such as design complexity, lack of standardization, site-specific constraints, frequent re-engineering, etc. Import restrictions on critical materials—mainly sourced from China—and requirements to procure steel from specific domestic vendors have further aggravated delays and increased costs. The average project completion cycle is now around 55 months as acknowledged by CEA in its report as mentioned above.

31. Further, in addition, a study commissioned by MoP to assess the compliance of thermal power plant to new emission norm was conducted by IIT Delhi. The report by IIT Delhi is attached as **Annexure-A19**. In this report IIT Delhi has acknowledged such complexities and bottlenecks associated with FGD project execution that have been already presented before the Hon'ble commission in this petition. Relevant extract from the report is reiterated below:

“Challenges involved in installation of FGDs in all TPPs by December 2022

there are several genuine challenges and complex issues experienced by the CEA for the implementation of FGD system in thermal power plants across the country. For example, till the end of the year 2015 no SO2 norms were applicable, thus FGD manufacturing capacity was almost non-existent in the country prior to 2015. FGD technology being new to our country, there are at present limited vendors with limited capacity to supply FGD components. Hence, there are genuine availability constraint for raw materials and components of FGD systems in the country. There has been a sudden surge of demand for FGD implementation in the country as all thermal generating units, about 470 running units of 180 GW capacity, must implement FGD system in one go to meet the timeframe given by the MoEF&CC. Proper planning was not there for development of infrastructure to meet this sudden surge in demand for FGD. Although India has the manufacturing capability of nearly 70% FGD components, it still depends on the imports from other country as manufacturing capacity is insufficient to cater to huge surge in demand in a short period of time. To boost up the indigenous production of FGD systems for meeting such huge demand as per required specifications of the TPP developers, more time (at least another 2-3 years) is required. Remaining 30% of FGD components that are not manufactured in India must be imported from other countries because to create a manufacturing capability of these items in India, it would take at least another 2-3 years. A huge foreign exchange is required for importing technology, equipment, and skilled manpower from other FGD manufacturing countries. As per CEA, placing a single order of worth nearly one lakh thirty thousand

crore rupees that is required for installation of FGDs in all TPPs across the country simultaneously without ascertaining the performance of these FGDs in Indian condition may not be a correct decision. As the manufacturers of FGDs will take at least 36 months to implement the FGD in any TPP, all FGD orders are being placed in one go, targeting December 2022 deadline. However, as the timeframe for installation of FGDs instructed by the MoEF&CC is very short, there is insufficient time for fine tuning the specifications of the FGDs according to the requirement and infrastructure conditions prevailing in each individual TPPs. Moreover, due to huge gap in demand and slow supply of FGD equipment, prices of raw materials and FGD components are escalating exorbitantly, and it can also lead to market manipulation by FGD manufacturers. **Impact of Covid-19 pandemic on planning, placing of order, supply chain of equipment and installation of FGD is quite severe. All these factors are likely to ultimately lead to increasing cost of electricity in the country.**

In addition to the genuine concerns of CEA, we believe that although there is no doubt about the fact that FGD implementation will bring down the SO₂ emissions from the TPPs in a significant way.”

[Emphasis Supplied]

32. Based on these considerations, MoP requested MoEF&CC to implement a phased FGD compliance plan, as recommended by IIT Delhi in the report.
33. It is further submitted that the MOEF&CC vide notification dtd. 05.09.2022 (Attached as **Annexure-A20**) revised the timelines for implementation of FGD systems for the Compliance of SO_x emissions. As per the Notification, MOEF&CC has categorized thermal power stations based upon its vicinity to National Capital Region (NCR), cities having million plus population (Category A), Critically polluted Areas or Non-attainment cities (Category B), and all Other areas not covered under category A and B (Category C) and accordingly revised timelines have been prescribed for the implementation and commissioning of FGD systems. The instant station i.e. NTECL Vallur has been designated as under category A as per the notification.

34. Recognizing the various challenges encountered during the commissioning of wet limestone-based FGD systems, the MoEF&CC, vide its notification dated 30.12.2024 (**Annexure-A21**), revised the timeline for FGD implementation for ensuring compliance with SOx emission norms. As per the revised schedule, NTECL Vallur , being categorized under Category-A, is required to achieve FGD implementation by December 2027. Notwithstanding the unprecedented disruptions caused by the pandemic and the technological hurdles, and various other hurdles which were beyond the control of the petitioner impacting all aspects of project execution—including engineering, supply chains, and construction—the petitioner has successfully operationalized the FGD systems much before the stipulated timeline, thereby ensuring full compliance with the MoEF&CC mandate as below:

Units/ Station	Deadline as per MOEF&CC notification dtd 30.12.2024	Date of Operationalization of NTECL Vallur STPS FGD	Remarks
NTECL Vallur FGD (Unit-I, & III)	31-12-2027	15.01.2026 (Unit-I); 20.03.2026 (Unit-III)	FGD in two units of NTECL Vallur (3X500 MW) station has been operationalized in advance w.r.t. the deadline for compliance, and 3 rd unit (i.e Unit-II) is in advance stage of commissioning

35. In view of above, the petitioner humbly submits that the reasons mentioned above were beyond reasonable control of the Petitioner and have created major hurdles in project execution. The Hon'ble Commission is therefore requested to kindly condone the delay.

36. For computation of working capital on account of FGD, as per Tariff Regulations, the supplementary ECR is to be computed based on the landed cost of Reagent as per Form-16 for preceding 03 months prior to the date of Operation of the FGD system of Unit-3. Accordingly, Form-16 for the months of Oct'25, Nov'25 & Dec'25 for Unit-1 and Unit-3 has been considered to calculate Supplementary ECR for computation of working capital.
37. It is submitted that the present petition is being filed as per CERC Tariff regulation 2024 along with the tariff forms for determination of the supplementary tariff on account of ECS implementation. The auditor certified Reconciliation of capitalization is attached as **Annexure-A0**. The relevant tariff forms are enclosed as **Appendix-Ia** (for Combustion modification capitalized during 2019-24) and **Appendix-Ib (2024-29)**. It is prayed before Hon'ble Commission to kindly consider these supplementary tariff forms for computation of tariffs.

FERV and IDC

38. Petitioner has provided details of foreign loans considering Exchange Rate per Japanese Yen, per Euro and per USD as applicable on 15.01.2026 and 20.03.2026 as the Base Exchange rate. The variation of FERV up to ODe of Unit-1 FGD and date of ODe of Unit-3 FGD has been adjusted in the Capital Cost. Further, extra rupee liability towards interest payment and loan repayment in the relevant years shall be recoverable / payable w.r.t. to exchange rate as applicable on ODe as per provisions of Tariff Regulation 2024.
39. During construction period, in the erstwhile IGAAP as per Para 46A of AS-11, FERV on loan was to be capitalized and accordingly the same was claimed as part of capital cost. However, as per IndAS, FERV on Foreign currency loans drawn after 01.04.2016 shall not form part of Gross Block and shall be charged to the statement of Profit & Loss as Borrowing cost/FERV. Further, as per Clause 19(2)(C) of Tariff Regulations 2024, any gain or loss on account of foreign exchange risk variation pertaining to the loan availed during the construction period shall form part of capital cost.

40. It is further submitted that in terms of Regulation 19(2)(b), equity deployed in excess of 30% of the fund deployed has been considered as normative loan and notional IDC of Rs 3858.68 Lakh up to 15.01.2026 (up to ODe of Unit-1 FGD) and notional IDC of Rs 3938.67 Lakh up to 20.03.2026 (up to ODe of unit-3 FGD) has been considered as part of the capital cost of the project.
41. It is respectfully submitted that the installation of the Emission Control Systems (ECS) represents a substantial financial commitment from the Petitioner, exceeding typical additional capitalization expenditures. Furthermore, there are recurring costs associated with FGD system operation in terms of limestone consumption. In the absence of recovery of these costs through the Supplementary Tariff, the Petitioner would face considerable cash flow constraints. Therefore, it is humbly prayed before the Hon'ble Commission to allow the petitioner to bill provisional Supplementary Tariff based on the instant petition.
42. It is further submitted that the Supplementary Energy Charge is solely for meeting the environmental compliance requirements and should not impact the merit order dispatch process. Therefore, it is requested that the Hon'ble commission direct the beneficiaries of the instant station not to consider the Supplementary Energy Charge for Merit Order Dispatch purposes.

Prayers

Considering the above submissions, the Petitioner respectfully prays that the Hon'ble Commission may be pleased to:

- i. Allow the instant application for approval and determination of Supplementary Tariff for Emission Control System including Combustion modification System of Vallur thermal power station.
- ii. Condone the delay in declaration of Unit-I FGD and Unit-III FGD under Commercial operation.

- iii. Allow the Petitioner to bill provisional Supplementary Tariff based on implementation of FGD system in the instant station till the Supplementary Tariff is finally determined and approved by the Hon'ble Commission.
- iv. Allow the recovery of the cost of reagent consumption through Supplementary Energy Charges from the date of operationalization (ODE) of the ECS Schemes till 31.03.2029.
- v. Direct the beneficiaries of the instant station not to consider the Supplementary Energy Charge for Merit Order Dispatch purpose.
- vi. Pass any other order as it may deem fit in the circumstances mentioned above.

Date: 13.04.2026

Place: Chennai

B. Subhakar
13.04.26

Petitioner

SUBHAKAR BUDUPULA
Dy. General Manager (EEMG)
NTPC Tamilnadu Energy Company Ltd.
Vallur Thermal Power Station
P.O.: Vellivoyal Chavadi, Chennai-600 103.

BEFORE THE CENTRAL ELECTRICITY REGULATORY COMMISSION

NEW DELHI

PETITION NO.....

IN THE MATTER OF: -

Petition Under Section 62 and 79 (1) (a) of the Electricity Act, 2003 read with Chapter-III of the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 2023 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 and Regulation-9 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2024 for approval of application towards determination of Supplementary Tariff for Emission Control System in **Vallur Thermal power Station (1500 MW)**.

NTECL TAMIL NADU ENERGY
CO. LIMITED.

NTPC Bhawan

Core-7, Scope Complex

7, Institutional Area, Lodhi Road

New Delhi-110 003

..... Petitioner

Vs

Chairman & Managing Director

APEPDCL (A.P. Eastern Power

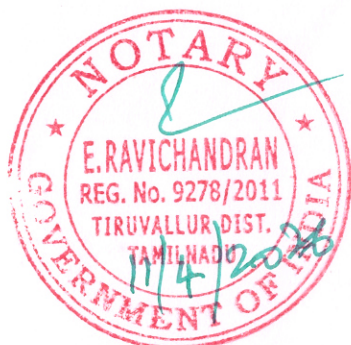
Distribution Company Ltd.)

P&T Colony, Seethammadhara,

Vishakapatnam-503013

And Others

.... Respondent (s)



B. Subhakar
SUBHAKAR BUDUPULA
Dy. General Manager (EEMG)
NTPC Tamilnadu Energy Company Ltd.
Vallur Thermal Power Station
P.O.: Vellivoyal Chavadi, Chennai-600 103.

Budupula
Subhakar

Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
1de53f05de314d924bb1f3b7c9e21dd19b61435d
c72904e54984b056fa385100,
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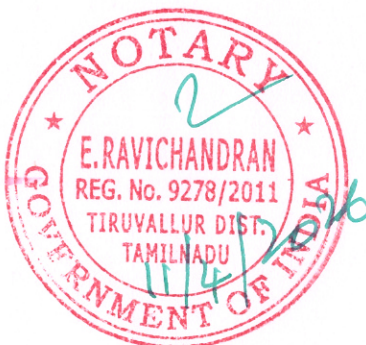
AFFIDAVIT

I, Subhakar Budupula, S/o B.John, aged about 40 years, DGM (Commercial), R/o Vridavanam Nagar, NTECL Township, Vallur, Chennai do hereby solemnly affirm and state as follows:

1. That the deponent is the DGM (Commercial) of the Petitioner NTPC Tamilnadu Energy Company Limited and is well conversant with the facts and the circumstances of the case and therefore competent to swear this affidavit.
2. That the accompanying Petition under Section 62 and 79 (1) (a) of the Electricity Act, 2003, has been filed by me / my authorized representative under my instruction and the contents of the same are true and correct to the best of my knowledge and belief.
3. That the contents of Para No 1 to 42 as mentioned in the Petition are true and correct based on my personal knowledge, belief and records maintained in the office.
4. That the annexures annexed to the Petition are correct and true copies of the respective originals.
5. That the Deponent has not filed any other Petition or Appeal before any other forum or court of law with respect to the subject matter of the dispute.

VERIFICATION

Verified at Chennai on this 11th day of April 2026, that the contents of my above noted affidavit are true and correct to my knowledge and no part of it is false and nothing material has been concealed therefrom.



[Signature]
E. RAVICHANDRAN, M.A., B.L.
ADVOCATE & NOTARY PUBLIC
(GOVERNMENT OF INDIA)
No.122, T.H. Road, Ponneri, Tiruvallur District.

[Signature]
(DEPONENT)
SUBHAKAR BUDUPULA
Dy. General Manager (EEMG)
NTPC Tamilnadu Energy Company Ltd.
Vallur Thermal Power Station
Vallivoyal Chavadi, Chennai-600 103.

[Signature]
(DEPONENT)
SUBHAKAR BUDUPULA
Dy. General Manager (EEMG)
NTPC Tamilnadu Energy Company Ltd.
Vallur Thermal Power Station
Vallivoyal Chavadi, Chennai-600 103.

Budupula Subhakar
Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
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**TRUING UP OF TARIFF
of
Vallur TPS (3x500 MW)
for the period
from Commissioning of Unit-I
Combustion Modification
(i.e 23.02.2021) to 31.03.2024**

Summary of Supplementary Tariff (ECS)								PART-I FORM- 1	
Name of the Petitioner: NTECL Name of the Generating Station: Vallur TPS (3x500 MW) Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)									
(Amount in Rs Lakh)									
S. No.	Particulars	Unit	Existing 2018-19	2020-21	2021-22		2022-23		2023-24
				23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	
1	2	3	4	5	7	8	9	10	11
1.1	Depreciation	Rs Lakh	N.A.	31.04	32.76	82.11	82.11	127.86	130.15
1.2	Interest on Loan	Rs Lakh		40.51	35.40	87.92	79.71	123.27	118.45
1.3	Return on Equity	Rs Lakh		24.04	23.68	59.36	59.36	92.43	107.53
1.4	Interest on Working Capital	Rs Lakh		7.61	2.24	5.99	6.04	8.43	7.89
1.5	O&M Expenses	Rs Lakh		124.00	23.98	68.94	72.66	90.75	51.72
1.6	Special Allowance (If applicable)	Rs Lakh							
1.7	Compensation Allowance (If applicable – relevant for column 4 only)	Rs. Lakh							
	Total	Rs Lakh			227.20	118.07	304.32	299.88	442.74
2.1	Landed Fuel Cost (coal/gas/RLNG/ liquid)	Rs/Ton							
	(%) of Fuel Quantity	(%)							
2.2	Landed Fuel Cost Imported Coal			NA					
	(%) of Fuel Quantity								
2.3	Landed Fuel Cost (coal/gas /RLNG/liquid) other than FSA	Rs/Ton		NA					
	(%) of Fuel Quantity	(%)							
2.4	Landed Fuel Cost Imported Coal other than FSA.			NA					
	(%) of Fuel Quantity								
2.5	Secondary fuel oil cost	Rs/Unit							
	Energy Charge Rate ex-bus (Rs/kWh)	Rs/Unit							
(Petitioner)									

Statement showing claimed capital cost – (Supplementary Tariff - ECS)						PART-I FORM-1(I)	
Name of the Petitioner: NTECL							
Name of the Generating Station: Vallur TPS (3x500 MW)							
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)							
(Amount in Rs Lakh)							
S. No.	Particulars	2020-21	2021-22		2022-23		2023-24
		23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	
1	2	3	5	6	7	8	9
1	Opening Capital Cost	587.86	587.86	1,555.11	1,555.11	2,421.50	2,421.50
2	Add: Addition during the year/period	-	-	-	-	-	87.07
3	Less: De-capitalisation during the year/period	-	-	-	-	-	-
4	Less: Reversal during the year / period	-	-	-	-	-	-
5	Add: Discharges during the year/ period	-	65.32	-	-	-	
6	Closing Capital Cost	587.86	653.17	1,555.11	1,555.11	2,421.50	2,508.57
7	Average Capital Cost	587.86	620.52	1,555.11	1,555.11	2,421.50	2,465.04

Statement showing Return on Equity at Normal Rate (Supplementary Tariff - ECS)							PART-I FORM-1(IIA)
Name of the Petitioner: NTECL Name of the Generating Station: Vallur TPS (3x500 MW) Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)							
(Amount in Rs Lakh)							
S. No	Particulars	2020-21	2021-22		2022-23		2023-24
		23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	
1	2	3	4	5	6	7	8
	Return on Equity						
1	Gross Opening Equity (Normal)	176.36	176.36	466.53	466.53	726.45	726.45
2	Less: Adjustment in Opening Equity						
3	Adjustment during the year						
4	Net Opening Equity (Normal)	176.36	176.36	466.53	466.53	726.45	726.45
5	Add: Increase in equity due to addition during the year / period	-	-	-	-	-	26.12
7	Less: Decrease due to De-capitalisation during the year / period	-	-	-	-	-	-
8	Less: Decrease due to reversal during the year / period	-	-	-	-	-	-
9	Add: Increase due to discharges during the year / period	-	19.60	-	-	-	-
10	Net closing Equity (Normal)	176.36	195.95	466.53	466.53	726.45	752.57
11	Average Equity (Normal)	176.36	186.15	466.53	466.53	726.45	739.51
12	Rate of ROE	13.632%	12.723%	12.723%	12.723%	12.723%	14.541%
13	Total ROE	24.04	23.68	59.36	59.36	92.43	107.53
(Petitioner)							

Name of the Petitioner: NTECL
 Name of the Generating Station: Vallur TPS (3x500 MW)
 Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)

ECS Characteristics

Name of the Petitioner	NTECL
Name of the Generating Station	Vallur TPS (3x500 MW)
Unit(s)/Block(s)/Parameters	3x500 MW
Installed Capacity (MW)-Coal Based	1500 MW
Actual COD (of CMS)	23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)
Type of System	Combustion Modification System (CM System)
Name of CM Manufacturer	M/s GE Power India Limited
Special Technological Features	
Any other special features	Low NOX concentric firing system (LNCFS) with Bypass Over Fire Air (BOFA) dampers
Nox Control (Combustion Modification System)	Less than the 400mg/Nm ³ @6% O ₂ dry basis at ID Fan outlet.

PETITIONER

Normative parameters considered for tariff computations (Supplementary Tariff - ECS)							PART-I FORM-3
Name of the Petitioner: NTECL							
Name of the Generating Station: Vallur TPS (3x500 MW)							
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)							
Year Ending March							
Particulars	Unit	2020-21	2021-22		2022-23		2023-24
		23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Base Rate of Return on Equity	%	11.25	10.50	10.50	10.50	10.50	12.00
Effective Tax Rate	%	17.472	17.472	17.472	17.472	17.472	17.472
Rate of ROE	%	13.632	12.723	12.723	12.723	12.723	14.541
Target Availability	%	85					
Auxiliary Energy Consumption	%	6.69					
Gross Station Heat Rate	kCal/kWh	2243.03					
Specific Fuel Oil Consumption	ml/kWh	NA					
Cost of Coal/Lignite for WC	in Days	NA					
Cost of Main Secondary Fuel Oil for WC	in Months	NA					
Fuel Cost for WC	in Months	NA					
Liquid Fuel Stock for WC	in Months	NA					
O & M expenses	% of Capital Cost	2					
Maintenance Spares for WC	% of O&M	20					
Receivables for WC	in Days	45					
Storage capacity of Primary fuel	MT	NA					
SBI 1 Year MCLR Plus 350 basis points as on	%	11.25	10.50	10.50	10.50	10.50	12.00
Blending ratio of domestic coal/imported coal							
Petitioner							

Calculation of O&M Expenses (Supplementary Tariff - ECS)						FORM-3A ADDITIONAL FORM	
Name of the Petitioner:		NTECL					
Name of the Generating Station:		Vallur TPS (3x500 MW)					
Commissioning Date of CMS:		23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)					
							Rs. in Lakh
S.No.	Particulars	2020-21	2021-22		2022-23		2023-24
		U-1 COD to 31.03.2021	01.04.2021 to 15.10.2021	U-2 COD to 31.03.2022	01.04.2022 to 11.09.2022	U-3 COD to 31.03.2023	
1	2	3	5	6	7	8	9
	No. of days	37	198	167	164	201	366
1	O&M expenses under Reg.35(1)(7)						
1a	Normative O&M expenses- ECS (for the period)	12.57	13.01	31.54	32.65	49.97	51.72
1b	Normative O&M expenses- ECS (Annualised)	124.00	23.98	68.94	72.66	90.75	51.72
2	O&M expenses under Reg. 35(6)						
2a	Water Charges	-	-	-	-	-	-
2b	Security expenses	-	-	-	-	-	-
	Total O&M Expenses	124.00	23.98	68.94	72.66	90.75	51.72
Petitioner							

PART-I
FORM-9A
Additional Form

Yearwise Statement of Additional Capitalization after COD (Supplementary Tariff - ECS)

Name of the Petitioner: NTECL
Name of the Generating Station: Vallur TPS (3x500 MW)
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)
For Financial Year 2019-24 (Summary)

Amount in Rs Lakhs

Sl. No.	Head of Work/ Equipments	ACE Claimed (Actual)						Regulations under which claimed	Justification
		2020-21	2021-22		2022-23		2023-24		
		23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023			
1	2	3	4	5	6	7	8	9	10
1	Balance works related to Combustion Modification System	-		-	-	-	87.07	29	Combustion modification (NOx control) of ECS works
Total Add Cap		-	-	-	-	-	87.07		
2	Discharge of liability	-	65.32	-	-	-	-		
Total Add. Cap. Claimed including discharge of liabilities (1+2)		-	65.32	-	-	-	87.07		

(Petitioner)

Budupula
Subhakar

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Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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Year wise Statement of Additional Capitalisation after COD (Supplementary Tariff - ECS)										PART-I FORM- 9	
Name of the Petitioner: NTECL											
Name of the Generating Station: Vallur TPS (3x500 MW)											
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)											
For Financial Year 2020-21											
Rs. Lakhs											
23.02.2021 to 31.03.2020											
Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)						Regulations under which claimed	Justification	Admitted Cost by the Commission, if any	
		Accrual basis (IndAs)	INDAS adj	Accrual basis (IGAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3				
1	2			3	4	5= (3-4)	6	7	8	9	
1	Balance works related to Combustion Modification System	NIL									
Total Add Cap											
2	Discharge of liability										
Total Add. Cap. Claimed including discharge of liabilities (1+2)											
Petitioner											

Year wise Statement of Additional Capitalisation after COD (Supplementary Tariff - ECS)										PART-I FORM- 9
Name of the Petitioner: NTECL										
Name of the Generating Station: Vallur TPS (3x500 MW)										
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)										
For Financial Year 2021-22										
Rs. Lakhs										
01.04.2021 to 15.10.2021										
Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)						Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis (IndAs)	INDAS adj	Accrual basis (IGAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2			3	4	5= (3-4)	6	7	8	9
1	Balance works related to Combustion Modification System	Nil								
Total Add Cap										
2	Discharge of liability					65.32		25(1)(f)		
Total Add. Cap. Claimed including discharge of liabilities (1+2)						65.32				
Petitioner										

Year wise Statement of Additional Capitalisation after COD (Supplementary Tariff - ECS)										PART-I FORM- 9			
Name of the Petitioner: NTECL													
Name of the Generating Station: Vallur TPS (3x500 MW)													
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)													
For Financial Year 2021-22													
Rs. Lakhs													
		16.10.2021 to 31.03.2022											
Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)						Regulations under which claimed	Justification	Admitted Cost by the Commission, if any			
		Accrual basis (IndAs)	INDAS adj	Accrual basis (IGAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3						
1	2			3	4	5= (3-4)	6	7	8	9			
1	Balance works related to Combustion Modification System	Nil											
Total Add Cap													
2	Discharge of liability												
Total Add. Cap. Claimed including discharge of liabilities (1+2)													
Petitioner													

Year wise Statement of Additional Capitalisation after COD (Supplementary Tariff - ECS)										PART-I FORM- 9
Name of the Petitioner: NTECL										
Name of the Generating Station: Vallur TPS (3x500 MW)										
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)										
For Financial Year 2022-23										
Rs. Lakhs										
01.04.2022 to 11.09.2022										
Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)						Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis (IndAs)	INDAS adj	Accrual basis (IGAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2			3	4	5= (3-4)	6	7	8	9
1	Balance works related to Combustion Modification System	Nil								
Total Add Cap										
2	Discharge of liability									
Total Add. Cap. Claimed including discharge of liabilities (1+2)										
Petitioner										

Year wise Statement of Additional Capitalisation after COD (Supplementary Tariff - ECS)										PART-I FORM- 9			
Name of the Petitioner: NTECL													
Name of the Generating Station: Vallur TPS (3x500 MW)													
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)													
For Financial Year 2022-23													
Rs. Lakhs													
		12.09.2022 to 31.03.2023											
Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)						Regulations under which claimed	Justification	Admitted Cost by the Commission, if any			
		Accrual basis (IndAs)	INDAS adj	Accrual basis (IGAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3						
1	2			3	4	5= (3-4)	6	7	8	9			
1	Balance works related to Combustion Modification System	Nil											
Total Add Cap													
2	Discharge of liability												
Total Add. Cap. Claimed including discharge of liabilities (1+2)													
Petitioner													

Year wise Statement of Additional Capitalisation after COD (Supplementary Tariff - ECS)										PART-I FORM- 9
Name of the Petitioner: NTECL										
Name of the Generating Station: Vallur TPS (3x500 MW)										
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)										
For Financial Year 2023-24										
										Rs. Lakhs
		2023-24								
Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)						Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis (IndAs)	INDAS adj	Accrual basis (IGAAP)	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2			3	4	5= (3-4)	6	7	8	9
1	Balance works related to Combustion Modification System	102.25	-	102.25	15.18	87.07		29	Combustion modification (NOx control) of ECS works	
Total Add Cap		102.25	-	102.25	15.18	87.07				
2	Discharge of liability					-				
Total Add. Cap. Claimed including discharge of liabilities (1+2)						87.07				
Petitioner										

<u>Financing of Additional Capitalisation (Supplementary Tariff - ECS)</u>										PART-I FORM-10
Name of the Petitioner: NTECL Name of the Generating Station: Vallur TPS (3x500 MW) Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)										
(Amount in Rs Lakh)										
	Actual					Admitted				
Financial Year (Starting from COD)	2019-20	2020-21	2021-22	2022-23	2023-24	2019-20	2020-21	2021-22	2022-23	2023-24
1	2	3	4	5	6	7	8	9	10	12
Amount capitalised in Work/Equipment	Additional capitalisation is finance in Debt : Equity ratio of 70:30									
Financing Details										
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										
Petitione r										

Calculation of Depreciation (Supplementary Tariff - ECS)													PART-I FORM- 11	
Name of the Petitioner:		NTECL												
Name of the Generating Station:		Vallur TPS (3x500 MW)												
Commissioning Date of CMS:		23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)												
(Amount in Rs Lakh)														
Sl.No.	Name of the Assets	Gross Block as on COD Unit-I of CMS (23.02.2021)	Gross Block as on 31.03.21	Gross Block as on COD Unit-I of CMS (16.10.2021)	Gross Block as on 31.03.22	Gross Block as on COD Unit-I of CMS (12.09.2022)	Gross Block as on 31.03.24	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount for each period up to 31.03.24					
									23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	2023-24
1	Plant & Machinery	653.17	653.17	1,555.11	1,555.11	2,421.50	2,523.75	5.28%	34.49	34.49	82.11	82.11	127.86	133.25
	TOTAL	653.17	653.17	1,555.11	1,555.11	2,421.50	2,523.75		34.49	34.49	82.11	82.11	127.86	133.25
	Weighted Average Rate of Depreciation (%)								5.28	5.28	5.28	5.28	5.28	5.28

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Statement of Depreciation (Supplementary Tariff - ECS)							PART-I Form-12
Name of the Petitioner: NTECL							
Name of the Generating Station: Vallur TPS (3x500 MW)							
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)							
(Amount in Rs Lakh)							
S. No.	Particulars	23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	2023-24
	No of Days	37	198	167	164	201	366
1	2	4	6	7	8	9	10
1	Opening Capital Cost	587.86	587.86	1,555.11	1,555.11	2,421.50	2,421.50
2	Closing Capital Cost	587.86	653.17	1,555.11	1,555.11	2,421.50	2,508.57
3	Average Capital Cost	587.86	620.52	1,555.11	1,555.11	2,421.50	2,465.04
4	Freehold land	-	-	-	-	-	-
4(a)	IT equipments and software#	-	-	-	-	-	-
5	Rate of depreciation*	5.28	5.28	5.28	5.28	5.28	5.28
6	Depreciable value	529.07	558.46	1,399.60	1,399.60	2,179.35	2,218.53
7.	Balance useful life at the beginning of the	NA					
8	Remaining depreciable value	529.07	555.33	1,381.82	1,362.03	2,142.46	2,148.12
9	Depreciation (for the period)	3.14	17.77	37.57	36.89	70.41	130.15
10	Depreciation (annualised)	31.04	32.76	82.11	82.11	127.86	130.15
11.	Cumulative depreciation at the end of the period	3.14	20.91	58.48	95.37	165.78	295.93
12.	Less: Cumulative depreciation adjustment on account of un-discharged liabilities deducted as on 01.04.2009	-	-	-	-	-	-
13.	Less: Cumulative depreciation adjustment on account of de-capitalisation	-	-	-	-	-	-
14.	Net Cumulative depreciation at the end of the period	3.14	20.91	58.48	95.37	165.78	295.93
(Petitioner)							

**PART-I
FORM- A**

**Abstract of Capital Cost Estimates and Schedule of Commissioning for
Combustion Modification Project**

Name of the Petitioner	NTECL	
Name of the Generating Station	Vallur TPS (3x500 MW)	
<u>Capital Cost Estimates</u>		
Board of Director/ Agency approving the Capital cost estimates:	Board of Directors	
Date of approval of the Capital cost estimates:	24-May-2018	
	Present Day Cost	Completed Cost
<u>Capital cost Including IDC, IEDC, FC, FERV, Hedging Cost & WCM</u>		
Foreign Component, if any (In Million US \$ or the relevant Currency) [in Rs Crs]	-	-
Domestic Component (Rs. Crs)	26.29	26.29
Capital cost Including IDC, IEDC& FC (Rs. Crs)	26.29	26.29
<u>Schedule of Commissioning</u>		
Date of Commissioning of CM in Unit-I	23-02-2021	
Date of Commissioning of CM in Unit-I	16-10-2021	
Date of Commissioning of CM in Unit-I	12-09-2022	
(Petitioner)		

Capital Cost for ECS (FGD + CM) (Supplementary Tariff - ECS)									PART-I FORM- B
Name of the Petitioner: NTECL									(Amount in Rs. Lakh)
Name of the Generating Station: Vallur TPS (3x500 MW)									
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)									
2 Combustion Modification									
Sl. No.	Break Down	As per Investment Approval	Capitalisation as on date of Operationalization of CM in Unit-I (23-02-2021)	Liabilities corresponding to Capitalisation shown in Column (4)	Capitalisation as on date of Operationalization of CM in Unit-II (16-10-2021)	Liabilities corresponding to Capitalisation shown in Column (6)	Capitalisation as on date of Operationalization of CM in Unit-I (12-09-2022)	Liabilities corresponding to Capitalisation shown in Column (8)	Specific Reasons for Variation
1	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A	a. Mechanical Works including structure	2,629	563.17	65.32	1,555.11	-	2,421.50	-	
b1. Initial Spares			Included in above		Included in above		Included in above		
b2. Taxes & Duties			Included in above		Included in above		Included in above		
	Plant and Machinery		563.17	65.32	1,555.11	-	2,421.50	-	
c. IDC, FC, IEDC, FERV & Hedging Cost									
i.1 Interest During Construction									
i.2 Financing Charges (FC)									
i.3 Incidental Expenditure During Construction (IEDC)									
i.4 Foreign Exchange Rate Variation (FERV)									
i.5 Hedging Cost									
	Total of IDC, FC, IEDC, FERV & Hedging Cost		Included in above		Included in above		Included in above		
	Capital cost of CM System including IDC, FC, FERV & Hedging Cost	2,629	563.17	65.32	1,555.11	-	2,421.50		
(Petitioner)									

Calculation of Interest on Normative Loan (Supplementary Tariff - ECS)							PART 1 FORM- N
Name of the Petitioner: NTECL							
Name of the Generating Station: Vallur TPS (3x500 MW)							
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)							
(Amount in Rs Lakh)							
S. No.	Particulars	23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	2023-24
1	2	3	4	5	6	7	8
1	Gross Normative loan – Opening	411.50	411.50	1,088.57	1,088.57	1,695.05	1,695.05
2	Cumulative repayment of Normative loan up to previous year	0	3.14	20.91	58.48	95.37	165.78
3	Net Normative loan – Opening	411.50	408.36	1,067.66	1,030.10	1,599.68	1,529.27
Add-Cap							
4	Add: Increase due to addition during the year / period	-	-	-	-	-	60.95
5	Less: Decrease due to de-capitalisation during the year / period						
6	Less: Decrease due to reversal during the year / period						
7	Add: Increase due to discharges during the year / period	-	45.72	-	-	-	-
	Less: Repayment of Loan	3.14	17.77	37.57	36.89	70.41	130.15
8	Net Normative loan - Closing	408.36	436.31	1,030.10	993.20	1,529.27	1,460.07
9	Average Normative loan	409.93	422.34	1,048.88	1,011.65	1,564.47	1,494.67
10	Weighted average rate of interest	9.8832%	8.3825%	8.3825%	7.8796%	7.8796%	7.9246%
11	Interest on Loan	40.51	35.40	87.92	79.71	123.27	118.45
(Petitioner)							

Calculation of Interest on Working Capital (Supplementary Tariff - ECS)								PART I FORM- O
Name of the Petitioner: NTECL								
Name of the Generating Station: Vallur TPS (3x500 MW)								
Commissioning Date of CMS: 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3)								
(Amount in Rs Lakh)								
S. No .	Particulars		23.02.2021 to 31.03.2021	01.04.2021 to 15.10.2021	16.10.2021 to 31.03.2022	01.04.2022 to 11.09.2022	12.09.2022 to 31.03.2023	2023-24
1	2		3	4	5	6	7	8
	No of days in year		365	365		365		366
1	Cost of Limestone/Reagent Stock	20 days	Reagent Not Required					
	Cost of Limestone/Reagent Advance Payment	30 Days						
2	Receivables	45 days	28.01	14.56	37.52	36.97	54.58	51.12
3	O & M Expenses	1 month	10.33	2.00	5.74	6.05	7.56	4.31
4	Maintenance Spares	@20%	24.80	4.80	13.79	14.53	18.15	10.34
5	Total Working Capital		63.14	21.35	57.05	57.56	80.30	65.77
6	Rate of Interest	%	12.05	10.50	10.50	10.50	10.50	12.00
7	Interest on Working Capital		7.61	2.24	5.99	6.04	8.43	7.89
(Petitioner)								

Flow of Capital liabilities for ECS (Supplementary Tariff - ECS)

Name of the Petitioner: NTECL
Name of the Generating Station: Vallur TPS
COD
For Financial Year

					2020-21					
Sr. No.	Name of the Party	Name of the work	Year	liability in additional capitalisation for 2020-21	Contract ors ERV updation	Discharge during the year 2020-21		Total discharge	Undischarged liabilities relating to GB 31.03.2021	
						-by payment	-by reversal			
(1)	(2)	(3)								
		2020-21								
110	GE Power India	Combustion modification package	2020-21	65,31,738				0	65,31,738	
		2021-22								
		2022-23								
		2023-24								
175	1000010 GE POWER INDIA LTD	Burner Modification for NOx Control	2023-24							
		Total		65,31,738	-	-	-	-	65,31,738	

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Flow of Capital liabilities for ECS (Supplementary Tariff - ECS)

Name of the Petitioner: NTECL

Name of the Generating Station: Vallur TPS

COD

For Financial Year

Sr. No.	Name of the Party	Name of the work	Year	liability in additional capitalisation for 2021-22	Contract ors ERV updation	2021-22		Total discharge	Undischarged liabilities relating to GB 31.03.2022	liability in additional capitalisation for 2022-23
						Discharge during the year 2021-22.				
						-by payment	-by reversal			
(1)	(2)	(3)								
		2020-21								
110	GE Power India	Combustion modification package	2020-21			65,31,738		65,31,738	-	
		2021-22								
		2022-23								
		2023-24								
175	1000010 GE POWER INDIA LTD	Burner Modification for NOx Control	2023-24							
		Total		-	-	65,31,738	-	65,31,738	-	-

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Flow of Capital liabilities for ECS (Supplementary Tariff - ECS)

Name of the Petitioner: NTECL
Name of the Generating Station: Vallur TPS
COD
For Financial Year

Sr. No.	Name of the Party	Name of the work	Year	Contract ors ERV updatation	2022-23		Total discharge	Undischarged liabilities relating to GB 31.03.2023	liability in additional capitalisation for 2023-24	Contract ors ERV updatation
					Discharge during the year 2022-23	-by reversal				
(1)	(2)	(3)			-by payment					
		2020-21								
110	GE Power India	Combustion modification package	2020-21				-	-		
		2021-22								
		2022-23								
		2023-24								
175	1000010 GE POWER INDIA LTD	Burner Modification for NOx Control	2023-24						1517621.3	
		Total		-	-	-	-	-	15,17,621	-

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Flow of Capital liabilities for ECS (Supplementary Tariff - ECS)

Name of the Petitioner: NTECL
 Name of the Generating Station: Vallur TPS
 COD
 For Financial Year

Sr. No.	Name of the Party	Name of the work	Year	2023-24		Total discharge	Undischarged liabilities relating to GB 31.03.2024
				Discharge during the year 2023-24			
				-by payment	-by reversal		
(1)	(2)	(3)					
		2020-21					
110	GE Power India	Combustion modification package	2020-21			0	-
		2021-22					
		2022-23					
		2023-24					
175	1000010 GE POWER INDIA LTD	Burner Modification for NOx Control	2023-24			0	15,17,621
		Total		-	-	-	15,17,621

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**SUPPLEMENTARY TARIFF FILING FORMS
(THERMAL)**

**FOR DETERMINATION OF SUPPLEMENTARY TARIFF
OF
NTECL Vallur TPS (3X500 MW)
ECS (FGD+CMS)**

(From 01.04.2024 to 31.03.2029)

Form No.	Title of Tariff Filing Forms (Thermal)	Status
FORM-1	Summary of Supplementary Tariff	Yes
FORM-1(I)	Statement showing claimed capital cost	Yes
FORM-1(II)	Statement showing Return on Equity	Yes
FORM-2	ECS Characteristics	Yes
FORM-3	Normative parameters considered for tariff computations	Yes
FORM-3A**	Statement showing O&M Expenses	Yes
FORM-3B**	Statement of Special Allowance	Yes
FORM-4	Details of Foreign loans	Yes
FORM-4A	Details of Foreign Equity	Yes
FORM-5	Abstract of Admitted Capital Cost for the existing Projects	Yes
FORM-6	Financial Package upto COD	Yes
FORM-7	Details of Project Specific Loans	Yes
FORM-8	Details of Allocation of corporate loans to various projects	Yes
FORM-9A***	Summary of Statement of Additional Capitalisation claimed during the period	Yes
FORM-9 ##	Statement of Additional Capitalisation after Ode	Yes
FORM-10	Financing of Additional Capitalisation	Yes
FORM-11	Calculation of Depreciation on original project cost	Yes
FORM-12	Statement of Depreciation	Yes
FORM-13	Calculation of Weighted Average Rate of Interest on Actual Loans	Yes
FORM-14	Draw Down Schedule for Calculation of IDC & Financing Charges	Yes
FORM-14A*	Notional IDC	Yes
FORM-Oi	Computation of Supplementary Energy Charges	Yes
FORM-16	Details of Reagent for Computation of Energy Charge Rate	Yes
FORM-17	Details of Capital Spares	NA
FORM-18	Non-Tariff Income	NA
FORM-19	Details of Water Charges	NA
FORM-20	Details of Statutory Charges	NA
* Additional froms		
## Provided yearwise for the period 2024-29		
		PART-I
List of Supporting Forms / documents for supplementary tariff filing for Thermal Stations		
Form No.	Title of Tariff Filing Forms (Thermal)	Tick
FORM-A	Abstract of Capital Cost Estimates	Yes
FORM-B	Break-up of Capital Cost for Coal/Lignite based projects	Yes
FORM-C	Break-up of Capital Cost for Gas/Liquid fuel based Projects	NA
FORM-D	Break-up of Construction/Supply/Service packages	NA
FORM-E	Details of variables , parameters , optional package etc. for New Project	NA
FORM-F	Details of cost over run	
FORM-G	Details of time over run	
FORM-H	Statement of Additional Capitalisation during end of the useful life	NA
FORM -I	Details of Assets De-capitalised during the period	NA
FORM-J	Reconciliation of Capitalisation claimed vis-à-vis books of accounts	Yes
FORM-K	Statement showing details of items/assets/works claimed under Exclusions	NA
FORM-L	Statement of Capital cost	Yes
FORM-M	Statement of Capital Woks in Progress	Yes
FORM-N	Calculation of Interest on Normative Loan	Yes
FORM-O	Calculation of Interest on Working Capital	Yes
FORM-P	Incidental Expenditure up to SCOD and up to Actual COD	
FORM-Q	Expenditure under different packages up to SCOD and up to Actual COD	
FORM-R	Actual cash expenditure	
FORM-S	Statement of Liability flow	Yes
FORM-T	Summary of issues involved in the petition	Yes
*** Shall be provided at the time of true up		

Summary of Supplementary Tariff

Name of the Petitioner: NTPC Limited
Name of the Generating Station: NTECL Vallur (ECS)
Place (Region/District/State): Southern/Visakhapatnam/Andhra Pradesh
Commissioning Date of CMS: Unit#1-23.02.2021 (Actual), Unit#2 - 16.10.2021 (Actual) & Unit#3 - 12.09.2022 (Actual)
COD of FGD: Unit#1-15.01.2026 (Actual), Unit#2- 20.03.2026(Actual) & Unit#3 - 01.08.2026 (Anticipated)

Amount in Rs. Lakh

S. No.	Particulars	Unit	Existing 2023-24	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10	11	12
	Summary of Tariff										
1.1	Depreciation	Rs Lakh	130.15	132.80	133.19	3,938.67	5,152.63	5,152.63	6,587.75	6,587.75	6,587.75
1.2	Interest on Loan	Rs Lakh	118.45	125.85	119.70	4,853.12	6,372.05	6,249.51	7,775.23	7,299.85	6,722.11
1.3	Return on Equity	Rs Lakh	107.53	111.09	114.62	3,643.99	4,774.23	4,774.23	6,103.95	6,103.95	6,103.95
1.4	Interest on Working Capital	Rs Lakh	7.89	8.18	8.53	625.40	708.31	693.85	776.60	774.75	773.59
1.5	O&M Expenses	Rs Lakh	51.72	54.44	57.29	1,452.37	1,920.46	2,021.29	2,398.27	2,524.18	2,656.70
	Total	Rs Lakh	415.74	432.36	433.34	14513.55	18927.69	18891.51	23641.79	23290.47	22844.10
2.1	Landed Cost of Reagent	Rs/Ton	NA	NA	NA	4,789.1	4,789.1	4,789.1	4,789.1	4,789.1	4,789.1
2.2	Supplementary ECR ex-bus	Rs/ Unit	NA	NA	NA	0.129	0.129	0.129	0.129	0.129	0.129

Petitioner

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Subhakar

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Statement showing claimed capital cost

Name of the Petitioner: NTPC Limited

Name of the Generating Station: NTECL Vallur (ECS)

Commissioning Date of CMS: Unit#1-23.02.2021 (Actual), Unit#2 - 16.10.2021 (Actual) & Unit#3 - 12.09.2022 (Actual)

COD of FGD: Unit#1-15.01.2026 (Actual), Unit#2- 20.03.2026(Actual) & Unit#3 - 01.08.2026 (Anticipated)

Amount in Rs. Lakh

S. No.	Particulars	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10
1	Capital Cost		2521.88	76125.38	101130.06		134332.54		
1a	Un-Amortized Finance Charges								
1b	Notional IDC			3858.68	3938.67				
1c	Loan ERV Charged to P&L								
1d	Opening Capital Cost	2,508.57	2521.88	79984.06	105068.73	105068.73	134332.54	134332.54	134332.54
2	Add: Addition during the year / period	-		-	-	-		-	-
3	Less: De-capitalisation during the year / period	-	-	-	-	-		-	-
4	Less: Reversal during the year / period								
5	Add: Discharges during the year / period	13.31	1.32	421.90	-	-		-	-
6	Closing Capital Cost	2,521.88	2523.20	80405.96	105068.73	105068.73	134332.54	134332.54	134332.54
7	Average Capital Cost	2,515.22	2522.54	80195.01	105068.73	105068.73	134332.54	134332.54	134332.54

(Petitioner)

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Statement showing Return on Equity linked to SBI MCLR

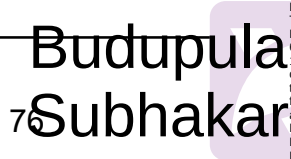
Name of the Petitioner: NTPC Limited
Name of the Generating Station: NTECL Vallur (ECS)
Commissioning Date of CMS: Unit#1-23.02.2021 (Actual), Unit#2 - 16.10.2021 (Actual) & Unit#3 - 12.09.2022 (Actual)
COD of FGD: Unit#1-15.01.2026 (Actual), Unit#2- 20.03.2026(Actual) & Unit#3 - 01.08.2026 (Anticipated)

Amount in Rs. Lakh

S. No.	Particulars	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10
	Return on Equity (beyond the original scope of work including additional capitalization due to Change in Law, ECS, Force Majeure)								
1	Gross Opening Equity (Normal)	752.57	756.56	23,995.22	31,520.62	31,520.62	40,299.76	40,299.76	40,299.76
2	Less: Adjustment in Opening Equity								
3	Adjustment during the year								
4	Net Opening Equity (ECS)	752.57	756.56	23,995.22	31,520.62	31,520.62	40,299.76	40,299.76	40,299.76
5	Add: Increase in equity due to addition during the year / period	-	-		-	-		-	
7	Less: Decrease due to De-capitalisation during the year / period	-	-		-	-		-	
8	Less: Decrease due to reversal during the year / period	-	-		-	-		-	
9	Add: Increase due to discharges during the year / period	3.99	0.40	126.57	-	-		-	-
10	Net closing Equity (ECS)	756.56	756.96	24,121.79	31,520.62	31,520.62	40,299.76	40,299.76	40,299.76
11	Average Equity (ECS)	754.57	756.76	24,058.50	31,520.62	31,520.62	40,299.76	40,299.76	40,299.76
12	Rate of ROE (%)	14.722%	15.146%	15.146%	15.146%	15.146%	15.146%	15.146%	15.146%
13	Total ROE	111.09	114.62	3,643.99	4,774.23	4,774.23	6,103.95	6,103.95	6,103.95

Petitioner

ECS Characteristics

Name of the Petitioner	NTECL
Name of the Generating Station	VTPS St-I (ECS)
Unit(s)/Block(s)/Parameters	
Installed Capacity (MW)-Coal Based	3X500 MW
Actual COD (CMS)	05.10.2022
Actual COD (FGD)	Unit-1:15.01.2026, Unit-3: 20.03.2026
Type of System	Flue Gas Desulfurization System (FGD)
Name of the FGD Manufacturer	TATA Projects Pvt. Ltd (TPL)
Design Flue Gas Quantity at WFGD inlet	2935588 Kg/h
Design Flue Gas Quantity at WFGD outlet	3073862 kg/h
Design Coal Sulphur Content	0.28%
Design Sox At Inlet	2079 mg/Nm3-wet
Design Sox at Outlet	94 mg/Nm3-wet
Design FGD Efficiency	95.19%
Reagent Details	
Primary Fuels	Limestone
Secondary Fuels	--
Alternate Fuels	--
Special Features/ Site Specific Features	Wet Limestone based FGD technology has been employed for control of SO ₂ in Vallur Thermal Power Station, Vallur. This process is suitable for large-scale flue gas treatment, and uses a low cost absorbent (limestone), and produces stable and valuable by-products (gypsum).
Special Technological Features	
Environmental Regulation related features	
Any other special features	Wet Chimney without Gas to Gas Heater
Types of NOX Control System	Combustion modification System
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Normative parameters considered for Supplementary Tariff computations

Name of the Petitioner: NTPC Limited
Name of the Generating Station: NTECL Vallur (ECS)
Commissioning Date of CMS: Unit#1-23.02.2021 (Actual), Unit#2 - 16.10.2021 (Actual) & Unit#3 - 12.09.2022 (Actual)
COD of FGD: Unit#1-15.01.2026 (Actual), Unit#2- 20.03.2026(Actual) & Unit#3 - 01.08.2026 (Anticipated)

(Year Ending March)

Particulars	Unit	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10
Base Rate of Return on Equity	%	12.15	12.50	12.50	12.50	12.50	12.50	12.50	12.50
Effective Tax Rate	%	17.472	17.472	17.472	17.472	17.472	17.472	17.472	17.472
Rate of ROE (Pre Tax)	%	14.722	15.146	15.146	15.146	15.146	15.146	15.146	15.146
Target Availability (NAPAF)									
Peak Hours	%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
Off-Peak Hours	%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
β- Average Monthly Frequency Response Performance ⁵	0-1								
Auxiliary Energy Consumption	%	6.69	6.69	6.69	6.69	6.69	6.69	6.69	6.69
Auxiliary Energy Consumption for emission control system	%	NA	NA	1.00	1.00	1.00	1.00	1.00	1.00
Gross Station Heat Rate (GSHR)	Kcal/Kwh	2,375.22	2,375.22	2,375.22	2,375.22	2,375.22	2,375.22	2,375.22	2,375.22
Rate of Interest on Working Capital	%	11.90	12.25	12.25	12.25	11.95	11.95	11.95	11.95
O&M Expenses	% of Capital Cost		2						
Maintenance Spares for WC	% of O&M		20						
Receivables for WC	in days	45	45	45	45	45	45	45	45
Norms for consumption of reagent	g/Kwh	-	K x Norm HR (kcal/kWh) x Sulphur content (%) / CVPF in kCal/Kg] x [85/LP]g/kWh						
Specific Limestone consumption for Wet Limestone FGD		-	K x Norm HR (kcal/kWh) x Sulphur content (%) / CVPF in kCal/Kg] x [85/LP]g/kWh						

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Calculation of O&M Expenses

Name of the Petitioner: NTPC Limited
Name of the Generating Station: NTECL Vallur (ECS)
Commissioning Date of CMS: Unit#1-23.02.2021 (Actual), Unit#2 - 16.10.2021 (Actual) & Unit#3 - 12.09.2022 (Actual)
COD of FGD: Unit#1-15.01.2026 (Actual), Unit#2- 20.03.2026(Actual) & Unit#3 - 01.08.2026 (Anticipated)

Amount in Rs. Lakh

S.No	Particulars	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10
1	O&M expenses under Reg.36(1)(9)								
1a	Normative O&M expenses- ECS	54.44	57.29	1452.37	1920.46	2021.29	2398.27	2524.18	2656.70
2	O&M expenses under Reg.36(1)(6)								
2a	Water Charges*								
2b	Security expenses*								
2c	Capital Spares*								
2d	Sale of Gypsum*								
	Total O&M Expenses	54.44	57.29	1452.37	1920.46	2021.29	2398.27	2524.18	2656.70

*Shall be provided at the time of true up

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Name of the Company
Date of Commercial Operation of the Station

NTPC Tamil Nadu Energy Company Limited
15.01.2026 UNIT I COD FGD
20.03.2026 UNIT III COD FGD

Financial Package as Approved

Financial Package as on COD		
(Rs. In Lacs)		
Particulars	Currency and amount	Financial Package as on COD
SBI Loan 1	INR	680
SBI Loan 2	INR	150
Total	INR	830
Cummulative Repayment upto Unit III COD date 20.03.2026	INR	177.42
Net Loan	INR	652.58

Details of project specific loans						
Name of the Petitioner		#REF!				
Name of the Generating Station		#REF!				
Particulars	Package1	Package2	Package3	Package4	Package5	Package6
1	2	3	4	5	6	7
Source of Loan ¹	State Bank of India					
Currency ²	INR					
Amount of Loan sanctioned	Loan 1 -Rs. 680 Crores & Loan 2- Rs. 150 Crores					
Amount of Gross Loan drawn upto COD	Loan 1 -Rs. 680 Crores & Loan 2- Rs. 150 Crores					
Interest Types	Loan 1 - SBI 6 Months MCLR & Loan 2- SBI 3 Months MCLR					
Fixed Interest Rate, if applicable	NA					
Base Rate, if Floating Interest ⁷	NA					
Margin, if Floating Interests	NA					
Are there any Caps/Floors	NA					
If above is yes, specify caps/floor	NA					
Moratorium Period ¹⁰	Loan 1 - Repayment started from march 2023. Loan 2 - Repayment started from November 2025.					
Moratorium effective from	Loan 1 - Repayment started from march 2023. Loan 2 - Repayment started from November 2025.					
Repayment Period ¹¹	Loan 1 - 11 years & 9 months , Loan 2 - 10 years					
Repayment effective from	Loan 1 - Repayment started from march 2023. Loan 2 - Repayment started from November 2025.					
Repayment Frequency ¹²	Quarterly					
Repayment Instalment ^{13,14}	47 & 40 instalments					
Base Exchange Rates ¹⁵	NA					
Are foreign currency loan hedged?	NA					
If above is yes, specify details ¹⁷	NA					
Note:						
1. Source of loan means the agency from whom the loan has been taken such as WB, ADB, WMB, PNB, SBI, ICICI, IFC, PFC etc.						
2. Currency refers to currency of loan such as US\$, DM, Yen, Indian Rupee etc.						
3. Details are to be submitted as on 31.03.2019 for existing assets and as on COD for the remaining assets.						
4. Where the loan has been refinanced, details in the Form is to be given for the loan refinanced. However, the details of the original loan is to be given separately in the same form.						
5. If the Tariff in the petition is claimed separately for various units, details in the Form is to be given separately for all the units in the same form.						
6. Interest type means whether the interest is fixed or floating.						
7. Base rate means the base as PLR, MCLR, LIBOR etc. over which the margin is to be added. Applicable base rate on different dates from the date of drawl may also be enclosed.						
8. Margin means the points over and above the floating rate.						
9. At times caps/floor are put at which the floating rates are frozen. If such a condition exists, specify the limits.						
10. Moratorium period refers to the period during which loan servicing liability is not required.						
11. Repayment period means the repayment of loan such as 7 years, 10 years, 25 years etc.						
12. Repayment frequency means the interval at which the debt servicing is to be done such as monthly, quarterly, half yearly, annual, etc.						
13. Where there is more than one drawl/repayment for a loan, the date & amount of each drawl/repayment may also be given separately						
14. If the repayment instalment amount and repayment date cannot be worked out from the data furnished above, the repayment schedule to be furnished separately.						
15. In case of Foreign loan, date of each drawl& repayment along with exchange rate at that date may be given.						
16. Base exchange rate means the exchange rate prevailing as on 31.03.2019 or COD, whichever is later						
17. In case of hedging, specify details like type of hedging, period of hedging, cost of hedging, etc.						
18. In case of foreign loans, provide details of exchange rate considered on date of each repayment of principal and date of interest payment.						
19. At the time of truing up rate of interest with relevant reset date (if any) to be furnished separately						
20. At the time of truing up, provide details of refinancing of loans considered earlier. Details such as date on which refinancing done, amount of refinanced loan, terms and conditions of refinanced loan, financing and other charges incurred for refinancing, etc.						
Petitioner						

FORM- 7(Annexure 1)							Amount in Rs.	
Loan 1		SL.NO.	DRAWAL OF LOAN	NOD NO.	DATE OF DRAWAL	Rate of Interest	Loan Drawl	Interest Drawl
		1	18,20,00,000	1	31.07.2020	7.95%	18,20,00,000	
		2	13,65,00,000	2	30.09.2020	7.95%	13,65,00,000	
		3	2,31,78,172	3	30.01.2021	7.95%	2,31,78,172	
		4	13,65,47,667	4	26.02.2021	7.95%	13,65,47,667	
		5	10,93,55,650	5	30.03.2021	7.95%	10,93,55,650	
		6	2,10,98,396	6	12.04.2021	7.95%	2,10,98,396	
		7	10,09,12,335	7	23.04.2021	7.95%	10,09,12,335	
		8	8,51,11,004	8	11.05.2021	7.95%	8,51,11,004	
		9	13,42,70,653	9	1.06.2021	7.95%	13,42,70,653	
		10	3,15,90,176	10	16.06.2021	7.95%	3,15,90,176	
		11	6,61,71,423	11	28.06.2021	7.95%	6,61,71,423	
		12	5,04,26,011	12	1.07.2021	7.95%	5,04,26,011	
		13	1,15,46,573	13	14.07.2021	7.95%	1,15,46,573	
		14	7,43,36,096	14	29.07.2021	7.95%	7,43,36,096	
		15	6,47,45,269	15	24.08.2021	7.95%	6,47,45,269	
		16	1,27,66,493	16	1.09.2021	7.95%	1,27,66,493	
		17	2,60,31,714	17	08.09.2021	7.95%	2,60,31,714	
		18	2,07,89,819	18	30.09.2021	7.95%	2,07,89,819	
		19	1,25,51,409	19	28.10.2021	7.95%	1,25,51,409	
		20	4,98,23,768	20	08.11.2021	7.95%	4,98,23,768	
		21	3,56,02,028	21	12.11.2021	7.95%	3,56,02,028	
		22	5,95,52,571	22	23.11.2021	7.95%	5,95,52,571	
		23	1,34,57,664	23	18.12.2021	7.95%	1,34,57,664	
		24	2,69,80,288	24	30.12.2021	7.95%	2,69,80,288	
		25	1,13,09,375	25	30.12.2021	7.95%	1,13,09,375	
		26	3,21,90,719	26	24.01.2022	7.95%	3,21,90,719	
		27	4,33,40,286	27	24.01.2022	7.95%	4,33,40,286	
		28	2,87,35,579	28	25.01.2022	7.95%	2,87,35,579	
		29	2,19,20,247	29	31.01.2022	7.95%	2,19,20,247	
		30	1,53,56,285	30	11.02.2022	7.95%	1,53,56,285	
		31	5,69,47,980	31	19.02.2022	7.95%	5,69,47,980	
		32	10,81,95,855	32	21.02.2022	7.95%	10,81,95,855	
		33	9,31,54,394	33	28.02.2022	7.95%	9,31,54,394	
		34	3,42,16,109	34	02.03.2022	7.95%	3,42,16,109	
		35	6,11,56,192	35	21.03.2022	7.95%	6,11,56,192	
		36	1,17,45,065	36	21.03.2022	7.95%	1,17,45,065	
		37	12,20,96,184	37	31.03.2022	7.95%	12,20,96,184	
		38	10,12,78,425	38	18.04.2022	7.95%	10,12,78,425	
		39	5,56,53,187	39	28.04.2022	7.95%	5,56,53,187	
		40	11,50,27,214	40	29.04.2022	7.95%	11,50,27,214	
		41	1,71,50,737	41	29.04.2022	7.95%	1,71,50,737	
		42	7,63,60,717	42	04.05.2022	7.95%	7,63,60,717	
		43	1,14,03,435	43	19.05.2022	7.95%	1,14,03,435	
		44	10,34,07,595	44	31.05.2022	7.95%	10,34,07,595	
		45	8,61,11,775	45	31.05.2022	7.95%	8,61,11,775	
		46	2,44,19,873	46	09.06.2022	7.95%	2,44,19,873	
		47	2,14,51,350	47	22.06.2022	7.95%	2,14,51,350	
		48	10,51,83,154	48	05.07.2022	7.95%	10,51,83,154	
		49	5,76,50,832	49	14.07.2022	7.95%	5,76,50,832	
		50	1,50,04,842	50	22.07.2022	7.95%	1,50,04,842	
		51	6,12,18,733	51	27.07.2022	7.95%	6,12,18,733	
		52	4,34,66,899	52	01.08.2022	8.45%	4,34,66,899	
		53	4,12,39,359	53	16.08.2022	8.45%	4,12,39,359	
		54	9,65,25,925	54	29.08.2022	8.45%	9,65,25,925	
		55	4,35,50,434	55	30.08.2022	8.45%	4,35,50,434	
		56	4,38,49,315	56	20.09.2022	8.45%	4,38,49,315	
		57	4,15,20,954	57	27.09.2022	8.45%	4,15,20,954	
		58	11,41,45,606	58	30.09.2022	8.45%	11,41,45,606	
		59	99,61,053	59	25.10.2022	8.45%	99,61,053	

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60	3,18,47,870	60	25.10.2022	8.45%	3,18,47,870
61	9,30,43,666	61	31.10.2022	8.45%	9,30,43,666
62	7,48,76,669	62	16.11.2022	8.45%	7,48,76,669
63	3,99,32,340	63	30.11.2022	8.45%	3,99,32,340
64	2,38,13,139	64	05.12.2022	8.45%	2,38,13,139
65	5,69,65,448	65	07.12.2022	8.45%	5,69,65,448
66	2,70,54,334	66	23.12.2022	8.45%	2,70,54,334
67	3,75,52,590	67	23.12.2022	8.45%	3,75,52,590
68	4,76,76,189	68	12.01.2023	8.45%	4,76,76,189
69	78,06,425	69	04.02.2023	9.30%	78,06,425
70	6,16,06,367	70	04.02.2023	9.30%	6,16,06,367
71	5,64,10,594	71	21.02.2023	9.30%	5,64,10,594
72	6,97,28,831	72	03.03.2023	9.30%	6,97,28,831
73	8,42,35,617	73	14.03.2023	9.30%	8,42,35,617
74	8,84,28,383	74	14.03.2023	9.30%	8,84,28,383
75	1,08,40,845	75	30.03.2023	9.30%	1,08,40,845
76	2,37,13,860	76	30.03.2023	9.30%	2,37,13,860
77	3,19,26,024	77	31.03.2023	9.30%	3,19,26,024
78	7,70,27,479	78	28.04.2023	9.30%	7,70,27,479
79	10,55,14,072	79	04.05.2023	9.30%	10,55,14,072
80	33,36,521	80	04.05.2023	9.30%	33,36,521
81	5,99,68,745	81	15.05.2023	9.30%	5,99,68,745
82	3,37,96,538	82	31.05.2023	9.30%	3,37,96,538
83	2,03,98,856	83	31.05.2023	9.30%	2,03,98,856
84	4,20,29,194	84	30.06.2023	9.30%	4,20,29,194
85	3,95,24,023	85	30.06.2023	9.30%	3,95,24,023
86	2,16,05,889	86	24.07.2023	9.30%	2,16,05,889
87	3,67,82,493	87	31.07.2023	9.45%	3,67,82,493
88	4,71,15,009	88	31.07.2023	9.45%	4,71,15,009
89	6,52,45,718	89	30.08.2023	9.45%	6,52,45,718
90	2,23,66,232	90	30.08.2023	9.45%	2,23,66,232
91	3,81,98,988	91	15.09.2023	9.45%	3,81,98,988
92	6,23,71,070	92	27.09.2023	9.45%	6,23,71,070
93	3,31,44,520	93	27.09.2023	9.45%	3,31,44,520
94	2,35,93,980	94	19.10.2023	9.45%	2,35,93,980
95	43,41,909	95	31.10.2023	9.45%	43,41,909
96	2,30,93,484	96	31.10.2023	9.45%	2,30,93,484
97	6,29,60,094	97	09.11.2023	9.45%	6,29,60,094
98	13,11,00,836	98	28.11.2023	9.45%	13,11,00,836
99	5,21,14,101	99	21.12.2023	9.45%	5,21,14,101
100	1,69,79,836	100	21.12.2023	9.45%	1,69,79,836
101	3,29,43,338	101	12.01.2024	8.95%	3,29,43,338
102	4,95,22,437	102	12.01.2024	8.95%	4,95,22,437
103	1,77,02,525	103	11.03.2024	9.05%	1,77,02,525
104	16,67,21,809	104	11.03.2024	9.05%	16,67,21,809
105	1,02,98,892	105	27.03.2024	9.05%	1,02,98,892
106	90,28,359	106	27.03.2024	9.05%	90,28,359
107	12,36,74,771	107	19.04.2024	9.05%	12,36,74,771
108	5,37,45,241	108	03.05.2024	9.05%	5,37,45,241
109	1,35,58,117	109	24.05.2024	9.05%	1,35,58,117
110	1,43,11,448	110	24.05.2024	9.05%	1,43,11,448
111	1,10,66,061	111	28.06.2024	9.05%	1,10,66,061
112	7,67,73,878	112	28.06.2024	9.05%	7,67,73,878
113	4,43,54,443	113	25.07.2024	9.05%	4,43,54,443
114	5,69,20,827	114	30.07.2024	9.05%	5,69,20,827
115	60,51,878	115	14.08.2024	9.25%	60,51,878
116	1,89,28,302	116	14.08.2024	9.25%	1,89,28,302
117	3,77,30,821	117	30.08.2024	9.25%	3,77,30,821
118	2,85,32,739	118	16.09.2024	9.25%	2,85,32,739
119	88,94,318	119	27.09.2024	9.25%	88,94,318
120	8,35,82,836	120	08.10.2024	9.25%	8,35,82,836
121	88,64,534	121	21.10.2024	9.25%	88,64,534
122	4,72,18,327	122	28.10.2024	9.25%	4,72,18,327
123	1,50,88,271	123	30.10.2024	9.25%	1,50,88,271
124	1,24,21,786	124	06.11.2024	9.25%	1,24,21,786
125	4,82,71,092	125	30.11.2024	9.25%	4,82,71,092
126	74,24,241	126	19.12.2024	9.25%	74,24,241
127	2,04,78,918	127	23.12.2024	9.25%	2,04,78,918
128	4,95,39,149	128	31.12.2024	9.25%	4,95,39,149
129	1,89,36,910	129	31.01.2025	9.40%	1,89,36,910
130	1,10,58,792	130	14.02.2025	9.40%	1,10,58,792
131	22,99,733	131	24.02.2025	9.40%	22,99,733
132	1,83,32,759	132	28.02.2025	9.40%	1,83,32,759
133	2,06,42,970	133	06.03.2025	9.40%	2,06,42,970
134	23,42,344	134	20.03.2025	9.40%	23,42,344
135	1,16,10,176	135	29.03.2025	9.15%	1,16,10,176
136	33,91,69,322	136	12.01.2026	8.95%	33,91,69,322
6800000000					6800000000

Loan 2					Amount in Rs.	
SL.NO.	DRAWAL OF LOAN	NOD NO.	DATE OF DRAWAL	Rate of Interest	Total Loan Drawl	
1	1500000000.00	1	01.05.2025	8.80%	1,50,00,000.00	
	1500000000.00				1500000000.00	

PETITIONER

Budupula
Subhakar

PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner
Name of the Generating Station
For Financial Year

NTPC Limited
NTECL Vallur (ECS)
2024-25

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
				-				
2	Discharge of liabilities (CMS)			13.31		24(1)(a)	Liability discharged under original scope	
	Total	-	-	13.31	-			

(Petitioner)

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Subhakar

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PART-I
FORM- 9

Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner
Name of the Generating Station
For Financial Year

NTPC Limited
NTECL Vallur (ECS)
2025-26 (01.04.2025 to 14.01.2026)

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
1	Discharge of liabilities (CMS)			1.32			Liability discharged under original scope	
	Total	-	-	1.32	-			

(Petitioner)

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Subhakar

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner
Name of the Generating Station
For Financial Year

NTPC Limited
NTECL Vallur (ECS)
2025-26 (15.01.2026 to 19.03.2026)

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
1	FGD Works			-				
2	Discharge of liabilities			421.90			Liability discharged under original scope	
	Total	-	-	421.90	-			

(Petitioner)

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner
Name of the Generating Station
For Financial Year

NTPC Limited
NTECL Vallur (ECS)
2025-26 (20.03.2026 to 31.03.2026)

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Actual)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
1	FGD balance works							
5	Discharge of liabilities	To be provided at the time of truing up						
	Total	-	-	-	-			

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner
Name of the Generating Station
For Financial Year

NTPC Limited
NTECL Vallur (ECS)
2026-27

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment		ACE Claimed (Actual)			Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
	To be provided at the time of truing up							
	Total	-	-	-	-			

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Subhakar

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner NTPC Limited
Name of the Generating Station NTECL Vallur (ECS)
For Financial Year 2027-28

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
1	To be provided at the time of truing up							
2								
3								
4								
5	Discharge of liabilities							
	Total	-	-	-	-			

(Petitioner)

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Subhakar

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Year wise Statement of Additional Capitalisation after COD

Name of the Petitioner
Name of the Generating Station
For Financial Year

NTPC Limited
NTECL Vallur (ECS)
2028-29

Amount in Rs Lakh

Sl. No.	Head of Work /Equipment	ACE Claimed (Projected)				Regulations under which claimed	Justification	Admitted Cost by the Commission, if any
		Accrual basis as per IGAAP	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3			
1	2	3	4	5= (3-4)	6	7	8	9
1	To be provided at the time of truing up							
2								
3								
4								
5	Discharge of liabilities					-	Liability discharged under original scope	
	Total	-	-	-	-			

(Petitioner)

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Subhakar

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Financing of Additional Capitalisation

Name of the Petitioner NTPC Limited
Name of the Generating Station NTECL Vallur (ECS)
Date of Commercial Operation of FGD Unit#1-29.09.2024 (Actual), Unit#3-20.03.25 (Actual), U#2-01.08.2026 (Anticipated)

(Amount in Rs Lakh)

Financial Year (Starting from COD)1	Actual					Admitted				
	2024-25	2025-26	2026-27	2027-28	2028-29	2024-25	2025-26	2026-27	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10	11
Amount capitalised in Work/ Equipment										
Financing Details	As per Form-14A									
Loan-1										
Loan-2										
Loan-3 and so on										
Total Loan										
Equity										
Internal Resources										
Others (Pl. specify)										
Total										

Note:
1. Year 1 refers to Financial Year of COD and Year 2, Year 3 etc. are the subsequent financial years respectively.
2. Loan details for meeting the additional capitalisation requirement should be given as per FORM-7 or 8 whichever is relevant.

Calculation of Depreciation

Name of the Company : NTPC Limited
Name of the Power Station : NTECL Vallur (ECS)

(Amount in Rs Lakh)

Sl.No.	Name of the Assets ¹	Gross Block as on date 01.04.2024	Gross Block as on date of Operationalization of ECS in Unit-1 (15-01-2026)	Gross Block as on date of Operationalization of ECS in Unit-3 (20-03-2026)	Depreciation Rates as per CERC's Depreciation Rate Schedule	Depreciation Amount			
						2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)
1	2	3	4	5	6	7	8	9	10
	Plant & Machinery								
1	Plant & Machinery	2523.746	60,261.59	78,592.70	5.280%	133.25	133.25	3,181.81	4,149.69
2	FGD -Civil Works		14,136.88	18,890.78	3.340%			472.17	630.95
	TOTAL	2523.746	74398.468	97483.481		133.25	133.25	3,653.98	4,780.65
	Weighted Average Rate of Depreciation (%)					5.28%	5.28%	4.91%	4.90%

Budupula
Subhakar

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Tamilnadu Energy Company Limited, OU=
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Statement of DepreciationName of the Company :
Name of the Power Station :NTPC Limited
NTECL Vallur (ECS)

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2023-24	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10	11
1	Opening Capital Cost	2421.50	2,508.57	2,521.88	79,984.06	1,05,068.73	1,05,068.73	1,34,332.54	1,34,332.54	1,34,332.54
2	Closing Capital Cost	2508.57	2,521.88	2,523.20	80,405.96	1,05,068.73	1,05,068.73	1,34,332.54	1,34,332.54	1,34,332.54
3	Average Capital Cost	2465.04	2,515.22	2,522.54	80,195.01	1,05,068.73	1,05,068.73	1,34,332.54	1,34,332.54	1,34,332.54
4	Freehold land		-	-	-	-	-	-	-	-
5	Rate of depreciation (%)	5.28%	5.28%	5.28%	4.91%	4.90%	4.90%	4.90%	4.90%	4.90%
6	Depreciable value	2218.53	2,263.70	2,270.28	72,175.51	94,561.86	94,561.86	1,20,899.28	1,20,899.28	1,20,899.28
7	Balance useful life at the beginning of the period (Main Plant)	15.65	14.65	13.65	13.65	13.65	12.65	12.65	11.65	10.65
8	Balance useful life at the beginning of the period (ECS)		20.35	19.35	19.35	19.35	18.35	18.35	17.35	16.35
9	Remaining depreciable value	2148.12	2,263.70	2,270.28	71,641.32	93,337.05	93,167.65	1,17,782.82	1,17,782.82	1,06,809.26
10	Depreciation (for the period)	130.15	132.80	105.46	690.62	169.40	1,722.25	4,385.81	6,587.75	6,587.75
11	Depreciation (annualised)	130.15	132.80	133.19	3,938.67	5,152.63	5,152.63	6,587.75	6,587.75	6,587.75
12	Cumulative depreciation at the end of the period	295.93	428.73	534.19	1,224.81	1,394.21	3,116.46	7,502.27	14,090.02	20,677.77
13	Less: Cumulative depreciation adjustment on account of un-	-	-	-	-	-	-	-	-	-
14	Less: Cumulative depreciation adjustment on account of de-	-	-	-	-	-	-	-	-	-
15	Net Cumulative depreciation at the end of the period	295.93	428.73	534.19	1,224.81	1,394.21	3,116.46	7,502.27	14,090.02	20,677.77
	No of days during the period	366	365.00	289.00	64	12	122	243	366	365
	No of days in the year	366	365	365	365	365	365	365	366	365

Petitioner

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Calculation of Weighted Average Interest Rate on Actual Loans

Name of the Company: NTPC TamilNadu Energy Company Limited UNIT I COD 15.01.2026
 UNIT III COD 20.03.2026
 Name of the Power Station: Vallur Thermal Power Project UNIT II COD 01.08.2026
 Project FGD-ECS

FGD loan 1 SBI	15.01.2026 to 19.03.2026	20.03.2026 to 31.03.2026	1.04.2026 to 31.07.2026	1.08.2026 to 31.03.2027	2027-28	2028-29
Gross loan - Opening	680.000	680.000	680.000	680.000	680.000	680.000
Cumulative repayments of Loans upto previous year	169.920	169.920	184.080	198.240	240.720	297.360
Net loan - Opening	510.080	510.080	495.920	481.760	439.280	382.640
Add: drawal(s) during the Year	0.000	0.000	0.000	0.000	0.000	0.000
Less: Repayment(s) of Loans during the year	0.000	14.160	14.160	42.480	56.640	56.640
Net loan - Closing	510.080	495.920	481.760	439.280	382.640	326.000
Average Net Loan	510.080	503.000	488.840	460.520	410.960	354.320
Rate of Interest on Loan on annual basis	8.88%	8.85%	8.85%	8.85%	8.85%	8.85%
Interest on Loan	7.94	1.46	14.46	23.67	36.37	31.36

FGD loan 2 SBI	15.01.2026 to 19.03.2026	20.03.2026 to 31.03.2026	1.04.2026 to 31.07.2026	1.08.2026 to 31.03.2027	2027-28	2028-29
Gross loan - Opening	150.000	150.000	150.000	150.000	150.000	150.000
Cumulative repayments of Loans upto previous year	3.750	7.500	7.500	11.250	22.500	37.500
Net loan - Opening	146.250	142.500	142.500	138.750	127.500	112.500
Add: drawal(s) during the Year	0.000	0.000	0.000	0.000	0.000	0.000
Less: Repayment(s) of Loans during the year	3.750	0.000	3.750	11.250	15.000	15.000
Net loan - Closing	142.500	142.500	138.750	127.500	112.500	97.500
Average Net Loan	144.375	142.500	140.625	133.125	120.000	105.000
Rate of Interest on Loan on annual basis	8.51%	8.50%	8.50%	8.50%	8.50%	8.50%
Interest on Loan	2.16	0.40	4.00	6.57	10.20	8.93

FGD Total Loan	15.01.2026 to 19.03.2026	20.03.2026 to 31.03.2026	1.04.2026 to 31.07.2026	1.08.2026 to 31.03.2027	2027-28	2028-29
Gross loan - Opening	830.000	830.000	830.000	830.000	830.000	830.000
Cumulative repayments of Loans upto previous year	173.670	177.420	191.580	209.490	263.220	334.860
Net loan - Opening	656.330	652.580	638.420	620.510	566.780	495.140
Add: drawal(s) during the Year	0.000	0.000	0.000	0.000	0.000	0.000
Less: Repayment(s) of Loans during the year	3.750	14.160	17.910	53.730	71.640	71.640
Net loan - Closing	652.580	638.420	620.510	566.780	495.140	423.500
Average Net Loan	654.455	645.500	629.465	593.645	530.960	459.320
Rate of Interest on Loan on annual basis	8.78%	8.82%	8.77%	8.76%	8.77%	8.77%
Interest on Loan	10.094	1.862	18.456	30.244	46.570	40.282

(Petitioner)

Name of the Bank	Interest Details					
	Period		No. of Days	ROI		Effective ROI
	From	To				

SBI Loan 1	15-01-2026	31-01-2026	17	8.95%	1.5215	
	01-02-2026	19-03-2026	47	8.85%	4.1595	8.88%
	20-03-2026	31-03-2026	12	8.85%	1.062	8.85%
	01-04-2026	31-07-2026	122	8.85%	10.797	8.85%
	01-08-2026	31-03-2027	243	8.85%	21.5055	8.85%
	01-04-2027	31-03-2028	366	8.85%	32.391	8.85%
	01-04-2028	31-03-2029	365	8.85%	32.3025	8.85%
	01-04-2029	31-03-2030	365	8.85%	32.3025	8.85%

SBI Loan 2	15-01-2026	31-01-2026	17	8.55%	1.4535	
	01-02-2026	19-03-2026	47	8.50%	3.995	8.51%
	20-03-2026	31-03-2026	12	8.50%	1.02	8.50%
	01-04-2026	31-07-2026	122	8.50%	10.37	8.50%
	01-08-2026	31-03-2027	243	8.50%	20.655	8.50%
	01-04-2027	31-03-2028	366	8.50%	31.11	8.50%
	01-04-2028	31-03-2029	365	8.50%	31.025	8.50%
	01-04-2029	31-03-2030	365	8.50%	31.025	8.50%

Details of IDC for NTECL FGD upto 15.01.2026

Year	INTEREST DOMESTIC LOAN	INTEREST DOMESTIC LOAN	Financial charges capitalised	Prev Period - Financial charges capitalised	Total Finance Charges Capitalized (4)
2020-21	1,64,16,500	1,64,16,500	4,41,32,000	-	4,41,32,000
2021-22	10,04,37,467	10,04,37,467	-	-	-
2022-23	27,70,52,422	27,70,52,422	-	-	-
2023-24	42,11,96,659	42,11,96,659	-	-	-
2024-25	47,57,74,143	47,57,74,143	-	-	-
2025-26 (upto 14.01.2026)	45,15,57,454	45,15,57,454	-	-	-
2025-26 (from 15.01.2026 - 19.03.2026)	10,08,11,320	10,08,11,320	-	-	-
	1,84,32,45,964	1,84,32,45,964	4,41,32,000	-	4,41,32,000

Details of IDC for NTECL FGD upto 15.01.2026

Year	ERV treated As BC	Prev Period - ERV treated As BC	ERV treated As BC (5)	Total Interest and Finance Charges (6=1+2+3+4+5)	Amort Exp Vendor Disc-ind AS (7)	Amort Exp Leasehold Land Discounting-ind AS (8)	Total IDC incl IND AS ADJ (9=6+7+8)	Charged to P&L (10)	IDC taken to CWIP (11=6-10)
2020-21	-		-	6,05,48,500	-	-	6,05,48,500	-	6,05,48,500
2021-22	-		-	10,04,37,467	-	-	10,04,37,467	-	10,04,37,467
2022-23	-		-	27,70,52,422	-	-	27,70,52,422	-	27,70,52,422
2023-24	-		-	42,11,96,659	-	-	42,11,96,659	-	42,11,96,659
2024-25	-		-	47,57,74,143	-	-	47,57,74,143	-	47,57,74,143
2025-26 (upto 14.01.2026)	-		-	45,15,57,454	(25,129)	-	45,15,32,325	-	45,15,57,454
2025-26 (from 15.01.2026 - 19.03.2026)				10,08,11,320	(8,435)	-	10,08,02,885	6,29,82,943	3,78,28,376
	-	-	-	1,88,73,77,964	(33,564)	-	1,88,73,44,400	6,29,82,943	1,82,43,95,021

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Subhakar

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Details of IDC for NTECL FGD upto 15.01.2026

Year	Cummulative IDC in CWIP- Ind AS (12)
2020-21	6,05,48,500
2021-22	16,09,85,967
2022-23	43,80,38,389
2023-24	85,92,35,048
2024-25	1,33,50,09,191
2025-26 (upto 14.01.2026)	1,78,65,41,516
2025-26 (from 15.01.2026 - 19.03.2026)	1,82,43,61,457

IDC Capitalized as Unwinding of Vendor Discounting (13)	IDC capitalised to CWIP - IGAAP (14= 11-13)	Cummulative IDC in CWIP post capitalisation IGAAP (15)
-	6,05,48,500	-
-	10,04,37,467	-
-	27,70,52,422	-
-	42,11,96,659	-
-	47,57,74,143	-
-	45,15,57,454	67,03,90,146
-	3,78,28,376	31,96,59,956

1,82,43,95,021

Cumulative IDC Capitalized to Gross Block -Ind AS (15)	Cumulative Vendor Discounting in GB as IDC (18)	Cumulative IDC Capitalized to Gross Block - IGAAP (19= 17-18)
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
1,11,61,51,369	-	1,11,61,51,369
1,50,47,01,501	-	1,50,47,01,501

Cumulative IDC Capitalized to CWIP - Ind AS (16= 12-15)
67,03,90,146
31,96,59,956

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	Description	2020-21 (01-JUL-20 - 30-SEP-20)	2020-21 (01-OCT-20 - 31-DEC-20)	2020-21 (01-JAN-21 - 31-MAR-21)	2020-21	2021-22 (01-APR-21 - 30-JUN-21)	2021-22 (01-JUL-21 - 30-SEP-21)
Name of the Company	NTECL						
Name of the Power Station	FGD						
Name of the Loan / Bonds							
SBI Loan 1 & 2	Drawl Amount	318500000	0	269081489	587581489	439753987	260641975
	Interest Debit	2447838	6382218	7586444	16416500	15510098	23585707
	Interest Credit	0	0	0	0	0	0
	Withholding Tax	0	0	0	0	0	0
	Adj. Amount	0	0	0	0	0	0
	Net Charge	2447838	6382218	7586444	16416500	15510098	23585707
	Financial charges	0	0	44132000	44132000	0	0

Cummulative Loan	318500000	318500000	587581488.9	587581488.9	1027335476	1287977451
Cummulative interest + charges	2447838	6382218	51718444	60548500	15510098	23585707
	0.77%	2.00%	8.80%		1.51%	1.83%

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	Description	2021-22 (01-OCT-21 - 31-DEC-21)	2021-22 (01-JAN-22 - 31-MAR-22)	2021-22	2022-23 (01-APR-22 - 30-JUN-22)	2022-23 (01-JUL-22 - 30-SEP-22)	2022-23 (01-OCT-22 - 31-DEC-22)
Name of the Company	NTECL						
Name of the Power Station	FGD						
Name of the Loan / Bonds							
SBI Loan 1 & 2	Drawl Amount	209277102	629054894	1538727958	612264307	663356053	395047109
	Interest Debit	27523964	33817698	100437467	48876697	63815202	76156486
	Interest Credit	0	0	0	0	0	0
	Withholding Tax	0	0	0	0	0	0
	Adj. Amount	0	0	0	0	0	0
	Net Charge	27523964	33817698	100437467	48876697	63815202	76156486
	Financial charges	0	0	0	0	0	0

Cummulative Loan	1497254553	2126309447	2126309447	2738573754	3401929807	3796976916
Cummulative interest + charges	27523964	33817698	100437467	48876697	63815202	76156486
	1.84%	1.59%		1.78%	1.88%	2.01%

	Description	2022-23 (01-JAN-23 - 31-MAR-23)	2022-23	2023-24 (01-APR-23 - 30-JUN-23)	2023-24 (01-JUL-23 - 30-SEP-23)	2023-24 (01-OCT-23 - 31-DEC-23)	2023-24 (01-JAN-24 - 31-MAR-24)
Name of the Company	NTECL						
Name of the Power Station	FGD						
Name of the Loan / Bonds							0
							0
SBI Loan 1 & 2	Drawl Amount	482373135	2153040604	381595429	326829919	314184239	286217359.4
	Interest Debit	88204037	277052422	99934715	106413013	105809071	109039860
	Interest Credit	0	0	0	0	0	0
	Withholding Tax	0	0	0	0	0	0
	Adj. Amount	0	0	0	0	0	0
	Net Charge	88204037	277052422	99934715	106413013	105809071	109039860
	Financial charges	0	0	0	0	0	0

Cummulative Loan	4279350051	4279350051	4660945480	4987775398	5301959637	5588176997
Cummulative interest + charges	88204037	277052422	99934715	106413013	105809071	109039860
	2.06%		2.14%	2.13%	2.00%	1.95%

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	Description	2023-24	2024-25 (01-APR-24 - 30-JUN-24)	2024-25 (01-JUL-24 - 30-SEP-24)	2024-25 (01-OCT-24 - 31-DEC-24) (01-OCT-24 - 31-DEC-24)	2024-25 (01-Jan-25 - 31-03-25)	2024-25
Name of the Company	NTECL						
Name of the Power Station	FGD						
Name of the Loan / Bonds							
SBI Loan 1 & 2	Drawl Amount	1308826946	293127515	201413328	292889155	85223684	872653681
	Interest Debit	421196659	113429035	118842988	122305588	121196532	475774143
	Interest Credit	0	0	0	0	0	0
	Withholding Tax	0	0	0	0	0	0
	Adj. Amount	0	0	0	0	0	0
	Net Charge	421196659	113429035	118842988	122305588	121196532	475774143
	Financial charges	0	0	0	0	0	0

Cummulative Loan	5588176997	5881304512	6082717839	6375606994	6460830678	6460830678
Cummulative interest + charges	421196659	113429035	118842988	122305588	121196532	475774143
		1.93%	1.95%	1.92%	1.88%	

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	Description	2025-26 (01-APR-25 - 30-JUN-25)
Name of the Company	NTECL	
Name of the Power Station	FGD	
Name of the Loan / Bonds		
SBI Loan 1 & 2	Drawl Amount	1500000000
	Interest Debit	118268645
	Interest Credit	0
	Withholding Tax	0
	Adj. Amount	0
	Net Charge	118268645
	Financial charges	0

Cummulative Loan	7960830678
Cummulative interest + charges	118268645
	1.49%

	Description	2025-26 (01-JUL-25 - 30-SEP-25)	2025-26 (01-OCT-25 - 31-DEC-25)	2025-26 (01-jan-26 - 14.01.2026)	2025-26 (15-jan-26 - 19.03.2026)	2025-26	Total
Name of the Company	NTECL						
Name of the Power Station	FGD						
Name of the Loan / Bonds							
SBI Loan 1 & 2	Drawl Amount	0	0	339169322.1	0	1839169322	8300000000
	Interest Debit	169427305	142430154	21431350	100811320	552368773	1843245964
	Interest Credit	0	0	0	0	0	0
	Withholding Tax	0	0	0	0	0	0
	Adj. Amount	0	0	0	0	0	0
	Net Charge	169427305	142430154	21431349.57	100811319.5	552368773	1843245964
	Financial charges	0	0	0	0	0	44132000

Cummulative Loan	7960830678	7960830678	8300000000	8300000000	8300000000	
Cummulative interest + charges	169427305	142430154	21431349.57	100811319.5	552368773.1	1887377964
	2.13%	1.79%	0.26%	1.21%		

102 Budupula Subhakar

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NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

Qtr Ended on	Expr. During Qtr	IEDC	IDC
30-09-2020	47.99		0.24
31-12-2020	0.00		0.64
31-03-2021	41.74		5.17
30-06-2021	67.51		1.55
30-09-2021	37.56		2.36
31-12-2021	29.90		2.75
31-03-2022	89.86	0.33	3.38
30-06-2022	87.58	0.30	4.89
30-09-2022	94.77	0.46	6.38
31-12-2022	56.44	0.33	7.62
31-03-2023	68.91	0.80	8.82
30-06-2023	54.51	0.88	9.99
30-09-2023	46.69	0.84	10.64
31-12-2023	48.26	1.57	10.58
31-03-2024	55.18	1.06	10.90
30-06-2024	29.00	1.09	11.34
30-09-2024	40.71	1.02	11.88
31-12-2024	29.90	1.94	12.23
31-03-2025	12.17	1.03	12.12
30-06-2025	11.77	0.94	11.83
30-09-2025	6.44	1.46	16.94
31-12-2025	14.03	0.82	14.24
14-01-2026	5.68	4.03	2.14
19-03-2026	5.20	3.89	3.78

NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

Qtr Ended on	Cumulative Expr. Upto the end of Qtr	Debt Applied (Dom Borr and Bonds) 1
30-09-2020	48.23	31.85
31-12-2020	48.87	0.00
31-03-2021	95.78	26.91
30-06-2021	164.84	43.98
30-09-2021	204.76	26.06
31-12-2021	237.41	20.93
31-03-2022	330.99	62.90
30-06-2022	423.75	61.22
30-09-2022	525.36	66.33
31-12-2022	589.74	39.56
31-03-2023	668.28	48.23
30-06-2023	733.67	38.15
30-09-2023	791.84	32.68
31-12-2023	852.25	31.41
31-03-2024	919.39	28.62
30-06-2024	960.82	29.31
30-09-2024	1014.44	20.14
31-12-2024	1058.51	29.28
31-03-2025	1083.83	8.52
30-06-2025	1108.37	0.00
30-09-2025	1133.21	0.00
31-12-2025	1162.30	0.00
14-01-2026	1174.15	33.92
19-03-2026	1187.02	0.00

648.1454553

NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

Qtr Ended on	Debt Applied (Dom Borr and Bonds) 12	Repayments of DB & Bonds
30-09-2020		0.00
31-12-2020		0.00
31-03-2021		0.00
30-06-2021		0.00
30-09-2021		0.00
31-12-2021		0.00
31-03-2022		0.00
30-06-2022		0.00
30-09-2022		0.00
31-12-2022		0.00
31-03-2023		14.16
30-06-2023		14.16
30-09-2023		14.16
31-12-2023		14.16
31-03-2024		14.16
30-06-2024		14.16
30-09-2024		14.16
31-12-2024		14.16
31-03-2025		14.16
30-06-2025	150.00	14.16
30-09-2025		14.16
31-12-2025		17.91
14-01-2026		0.00
19-03-2026		3.75

177.42

NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

Qtr Ended on	Cumulative debt applied (DB & Bonds)	Debt Applied (ECB)
	0	
30-09-2020	31.85	0.00
31-12-2020	31.85	0.00
31-03-2021	58.76	0.00
30-06-2021	102.73	0.00
30-09-2021	128.80	0.00
31-12-2021	149.73	0.00
31-03-2022	212.63	0.00
30-06-2022	273.85	0.00
30-09-2022	340.18	0.00
31-12-2022	379.74	0.00
31-03-2023	413.81	0.00
30-06-2023	437.80	0.00
30-09-2023	456.32	0.00
31-12-2023	473.57	0.00
31-03-2024	488.03	0.00
30-06-2024	503.18	0.00
30-09-2024	509.16	0.00
31-12-2024	524.28	0.00
31-03-2025	518.64	0.00
30-06-2025	654.48	0.00
30-09-2025	640.32	0.00
31-12-2025	622.41	0.00
14-01-2026	656.33	0.00
19-03-2026	652.58	0.00

0

NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

Qtr Ended on	Repayments of ECB	ERV	Cumulative debt applied (ECB)
30-09-2020	0.00	0.00	0.00
31-12-2020	0.00	0.00	0.00
31-03-2021	0.00	0.00	0.00
30-06-2021	0.00	0.00	0.00
30-09-2021	0.00	0.00	0.00
31-12-2021	0.00	0.00	0.00
31-03-2022	0.00	0.00	0.00
30-06-2022	0.00	0.00	0.00
30-09-2022	0.00	0.00	0.00
31-12-2022	0.00	0.00	0.00
31-03-2023	0.00	0.00	0.00
30-06-2023	0.00	0.00	0.00
30-09-2023	0.00	0.00	0.00
31-12-2023	0.00	0.00	0.00
31-03-2024	0.00	0.00	0.00
30-06-2024	0.00	0.00	0.00
30-09-2024	0.00	0.00	0.00
31-12-2024	0.00	0.00	0.00
31-03-2025	0.00	0.00	0.00
30-06-2025	0.00	0.00	0.00
30-09-2025	0.00	0.00	0.00
31-12-2025	0.00	0.00	0.00
14-01-2026	0.00	0.00	0.00
19-03-2026	0.00	0.00	0.00

0

0

NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

(Rs. crore)

Qtr Ended on	Cumulative debt applied (Total)	Debt Equity Ratio	
30-09-2020	31.85	66:34	
31-12-2020	31.85	65:35	
31-03-2021	58.76	61:39	
30-06-2021	102.73	62:38	
30-09-2021	128.80	63:37	
31-12-2021	149.73	63:37	
31-03-2022	212.63	64:36	
30-06-2022	273.85	65:35	
30-09-2022	340.18	65:35	
31-12-2022	379.74	64:36	
31-03-2023	413.81	62:38	
30-06-2023	437.80	60:40	
30-09-2023	456.32	58:42	
31-12-2023	473.57	56:44	
31-03-2024	488.03	53:47	
30-06-2024	503.18	52:48	
30-09-2024	509.16	50:50	
31-12-2024	524.28	50:50	
31-03-2025	518.64	48:52	
30-06-2025	654.48	59:41	
30-09-2025	640.32	57:43	
31-12-2025	622.41	54:46	
14-01-2026	656.33	56:44	
19-03-2026	652.58	55:45	

NTPC TamilNadu Energy Company limited
Quarterly Debt Equity Ratio for Vallur FGD
Expenditure is provisional

Qtr Ended on	Normative debt	Interest Rate p.a.	Notional IDC	Cumulative Notional IDC
30-09-2020	33.76	0.01	0.01	0.01
31-12-2020	34.21	0.02	0.05	0.06
31-03-2021	67.05	0.09	0.73	0.79
30-06-2021	115.39	0.02	0.19	0.98
30-09-2021	143.33	0.02	0.27	1.25
31-12-2021	166.19	0.02	0.30	1.55
31-03-2022	231.69	0.02	0.30	1.85
30-06-2022	296.63	0.02	0.41	2.26
30-09-2022	367.75	0.02	0.52	2.78
31-12-2022	412.82	0.02	0.67	3.44
31-03-2023	467.79	0.02	1.11	4.56
30-06-2023	513.57	0.02	1.62	6.18
30-09-2023	554.28	0.02	2.09	8.26
31-12-2023	596.57	0.02	2.46	10.72
31-03-2024	643.57	0.02	3.03	13.76
30-06-2024	672.57	0.02	3.27	17.03
30-09-2024	710.10	0.02	3.92	20.94
31-12-2024	740.96	0.02	4.16	25.11
31-03-2025	758.68	0.02	4.51	29.62
30-06-2025	775.86	0.01	1.81	31.43
30-09-2025	793.25	0.02	3.26	34.68
31-12-2025	813.61	0.02	3.42	38.11
14-01-2026	821.90	0.00	0.48	38.5868
19-03-2026	830.91	0.00	0.80	39.3867

Details of Source wise Fuel for Computation of Energy Charges

Name of the Petitioner: NTPC TAMILNADU ENERGY COMPANY LIMITED

Name of the Generating Station: VALLUR THERMAL POWER STATION

S. No.	Particulars	Unit	For preceding 3rd month from FGD ODe (Oct-2025)		
			Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic
A)	OPENING QUANTITY				
1	Opening Quantity of Coal/Lignite	(MT)			3,88,896
2	Value of Stock	(Rs)			1,55,28,87,258
B)	QUANTITY				
3	Quantity of Coal/Lignite supplied by Coal/Lignite Company	(MT)			5,67,350
3.01	Qty Received - By Rail				
3.02	Qty Received - By Road				
3.03	Qty Received - By Ship				
3.04	Qty Received - By MGR				
3.05	Qty Received - By any other mode - Multimodal				5,67,350
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MT)			
5	Coal supplied by Coal/Lignite Company (3+4)	(MT)			5,67,350
6	Normative Transit & Handling Losses	(MT)			5,674
6.01	Normative Loss (Pit Head)				
6.02	Normative Loss (Non Pit Head)				-
6.02	Normative Loss (Multi Mode)				5,674
6.03	Actual Transit & Handling Loss				
7	Net coal / Lignite Supplied (3-4)	(MT)			5,61,677
C)	PRICE				-
8	Amount charged by the Coal/Lignite Company	(Rs.)			1,06,80,00,514
9	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)			
10	Handling, Sampling and such other similar charges	(Rs.)			6,25,28,445

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Details of Source wise Fuel for Computation of Energy Ch							
Name of the Petitioner: NTPC TAMILNADU ENERGY							
Name of the Generating Station:VALLUR THERMAL POWER							
S. No.	Particulars	For preceding 2nd month from FGD ODe (Nov-2025)			For preceding 1st month from FGD ODe(Dec-2025)		
		Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic	Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic
A)	OPENING QUANTITY						
1	Opening Quantity of Coal/Lignite			4,24,401			4,66,621
2	Value of Stock			1,63,91,05,695			1,73,80,27,538
B)	QUANTITY						
3	Quantity of Coal/Lignite supplied by Coal/Lignite Company			6,38,064			5,02,831
3.01	Qty Received - By Rail			-			-
3.02	Qty Received - By Road						
3.03	Qty Received - By Ship						
3.04	Qty Received - By MGR						
3.05	Qty Received - By any other mode - Multimodal			6,38,064			5,02,831
4	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company						
5	Coal supplied by Coal/Lignite Company (3+4)			6,38,064			5,02,831
6	Normative Transit & Handling Losses			6,381			5,028
6.01	Normative Loss (Pit Head)						
6.02	Normative Loss (Non Pit Head)			-			-
6.02	Normative Loss (Multi Mode)			6,381			5,028
6.03	Actual Transit & Handling Loss						
7	Net coal / Lignite Supplied (3-4)			6,31,683			4,97,803
C)	PRICE			-			-
8	Amount charged by the Coal/Lignite Company			1,10,49,36,786			87,38,98,437
9	Adjustment (+/-) in amount charged made by Coal/Lignite Company			6,34,24,573			6,80,29,831
10	Handling, Sampling and such other similar charges			6,86,20,868			3,00,42,867

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PART 1
FORM- 15

Details of Source wise Fuel for Computation of Energy Charges

Name of the Petitioner: **NTPC TAMILNADU ENERGY COMPANY LIMITED**
Name of the Generating Station: **VALLUR THERMAL POWER STATION**

S. No.	Particulars	Unit	For preceding 3rd month from FGD ODe (Oct-2025)		
			Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic
10.1	Unloading Charges				3,02,78,224
10.2	Handling Charges				2,92,63,845
10.3	Sampling Charges				29,86,376
11	Total amount Charged (8+9+10)	(Rs.)			1,13,05,28,959
D)	TRANSPORATION				-
12	Transportation charges by rail/ship/road transport	(Rs.)			98,78,53,531
	Transportation Charges By Rail				45,42,07,610
	Transportation Charges By Road				
	Transportation Charges By Ship				53,36,45,921.20
	Transportation Charges By MGR				
13	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)			-
14	Demurrage Charges, if any	(Rs.)			
15	Cost of diesel in transporting coal through MGR system, if applicable	(Rs.)			-
16	Total Transportation Charges (12+13+14+15)	(Rs.)			98,78,53,531
17	Total amount Charged for coal/lignite supplied including Transportation (11+16)	(Rs.)			2,11,83,82,490
E)	TOTAL COST				-
18	Landed cost of coal/ Lignite (2+17)/(1+7)	Rs/MT			3,862.17
19	Blending Ratio	(Rs.)	0.000%	0.000%	100.000%
20	Weighted average cost of Coal/ Lignite (Including Biomass)	Rs/MT	3862.17		

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Details of Source wise Fuel for Computation of Energy Ch							
Name of the Petitioner: NTPC TAMILNADU ENERO							
Name of the Generating Station:VALLUR THERMAL POWE							
S. No.	Particulars	For preceding 2nd month from FGD ODe (Nov-2025)			For preceding 1st month from FGD ODe(Dec-2025)		
		Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic	Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic
10.1	Unloading Charges			3,30,21,214			17,76,021
10.2	Handling Charges			3,22,07,894			2,55,23,498
10.3	Sampling Charges			33,91,759			27,43,348
11	Total amount Charged (8+9+10)			1,23,69,82,227			97,19,71,134
D)	TRANSPORATION			-			-
12	Transportation charges by rail/ship/road transport			1,05,75,18,353			85,18,59,425
	Transportation Charges By Rail			54,00,99,003			40,90,07,262
	Transportation Charges By Road						
	Transportation Charges By Ship			51,74,19,350.70			44,28,52,163
	Transportation Charges By MGR						
13	Adjustment (+/-) in amount charged made by Coal/Lignite Company			-			-
14	Demurrage Charges, if any						
15	Cost of diesel in transporting coal through MGR system, if applicable			-			-
16	Total Transportation Charges (12+13+14+15)			1,05,75,18,353			85,18,59,425
17	Total amount Charged for coal/lignite supplied including Transportation (11+16)			2,29,45,00,580			1,82,38,30,559
E)	TOTAL COST			-			-
18	Landed cost of coal/ Lignite (2+17)/(1+7)			3,724.71			3,693.25
19	Blending Ratio			100.000%			100.000%
20	Weighted average cost of Coal/ Lignite (Including Biomass)	3724.71			3693.25		

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Details of Source wise Fuel for Computation of Energy Charges

Name of the Petitioner: **NTPC TAMILNADU ENERGY COMPANY LIMITED**
 Name of the Generating Station: **VALLUR THERMAL POWER STATION**

S. No.	Particulars	Unit	For preceding 3rd month from FGD ODe (Oct-2025)		
			Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic
F)	QUALITY				
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company	(kCal/Kg)	0	0	3,639.05
22	GCV of Domestic Coal supplied as per bill of Coal Company	(kCal/Kg)	0	0	3,675.72
23	GCV of Imported Coal of the opening stock as per bill Coal Company	(kCal/Kg)			
24	GCV of Imported Coal supplied as per bill Coal Company	(kCal/Kg)			
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	(kCal/Kg)	3,658.29		
26	GCV of Domestic Coal of the opening stock as received at Station	(kCal/Kg)			2,943.90
27	GCV of Domestic Coal supplied as received at Station	(kCal/Kg)			2,632.26
27.1	GCV of coal recd at Station from Integrated Mines adj. as per Reg. 60(3) of CERCTariff Reg. 2024 **	(kCal/Kg)			
28	GCV of Imported Coal of opening stock as received at Station	(kCal/Kg)			
29	GCV of Imported Coal of opening stock supplied at Station	(kCal/Kg)			
30	Weighted average GCV of Coal/ Lignite as Received (Including Biomass)	(kCal/Kg)	2,780.38		

(Petitioner)

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Details of Source wise Fuel for Computation of Energy Ch							
Name of the Petitioner: NTPC TAMILNADU ENERGY							
Name of the Generating Station:VALLUR THERMAL POWER							
S. No.	Particulars	For preceding 2nd month from FGD ODe (Nov-2025)			For preceding 1st month from FGD ODe(Dec-2025)		
		Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic	Coal Domestic (E-Auction)	Coal-Domestic (NTPC Basket Mines)	Coal-Domestic
F)	QUALITY						
21	GCV of Domestic Coal of the opening coal stock as per bill of Coal Company			3,658.29			3,628.43
22	GCV of Domestic Coal supplied as per bill of Coal Company			3,602.46			3,610.62
23	GCV of Imported Coal of the opening stock as per bill Coal Company						
24	GCV of Imported Coal supplied as per bill Coal Company						
25	Weighted average GCV of coal/ Lignite as Billed (Including Biomass)	3,628.43			3620		
26	GCV of Domestic Coal of the opening stock as received at Station			2,780.38			2,740.77
27	GCV of Domestic Coal supplied as received at Station			2,706.31			2,798.26
27.1	GCV of coal recd at Station from Integrated Mines adj. as per Reg. 60(3) of CERCTariff Reg. 2024 **						
28	GCV of Imported Coal of opening stock as received at Station						
29	GCV of Imported Coal of opening stock supplied at Station						
30	Weighted average GCV of Coal/ Lignite as Received (Including Biomass)	2,740.77			2,767.30		
		(Petitioner)			(Petitioner)		

				PART-I	
				FORM- 15A	
Details of Secondary Fuel for Computation of Energy Charges					
Name of the Company :		NTPC Limited			
Name of the Power Station :		Simhadri Stage-II (ECS)			
Sl.No.	Month	Unit	Oct-25 LDO*	Nov-25 LDO*	Dec-25 LDO*
A)	OPENING QUANTITY				
1	Opening Quantity of Oil	KL	1,872.32	2,213.01	2,140.64
2	Value of Opening	(Rs)	13,89,46,511.50	16,46,29,724.70	15,89,13,983.48
B)	QUANTITY				
3	Quantity of Oil supplied by Oil Company	KL	394.00	430.000	0
4	Adjustment (+/-) in quantity supplied made by Oil Company	KL		-	
5	Oil supplied by oil company (3+4)	KL	394.00	430.00	-
6	Normative Transit & Handling Losses	KL	-	-	
7	Net Oil Supplied (5-6)	KL	394.00	430.00	-
C)	PRICE				
8	Amount charged by the Oil Company	(Rs)	2,96,48,972.00	3,15,78,054	-
9	Adjustment(+/-) in amount charged made by Oil Company	(Rs)		-	
10	Handling, Sampling and such other Similar Charges	(Rs)			
11	Total amount charged (8+9+10)	(Rs)	2,96,48,972.00	3,15,78,054.00	-
D)	TRANSPORATION				
12	Transportation charges by rail / ship / road transport				-
	By Rail	(Rs)			
	By Road	(Rs)			
	By Ship	(Rs)			
13	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs)			
14	Demurrage Charges, if any	(Rs)			
15	Cost of diesel in transporting Oil through MGR system, if applicable	(Rs)			
16	Total Transportation Charges (12+/-13-14+15)	(Rs)			-
17	Total amount Charged for fuel supplied including Transportation (11+16)	(Rs)	2,96,48,972.00	3,15,78,054.00	-
E)	TOTAL COST				
18	Landed Cost of Oil (LDO/HFO) (2+17)/(1+7)	(Rs)	74,391.90	74,236.60	74,236.60
19	Blending Ratio		100.00%	100.00%	100.00%
20	Weighted average cost of Oil				
F)	QUALITY				
21	GCV of Oil of the Opening stock as per bill of Oil company	(kCal/btr)			

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					PART-I	
					FORM- 15A	
Details of Secondary Fuel for Computation of Energy Charges						
Name of the Company :				NTPC Limited		
Name of the Power Station :				Simhadri Stage-II (ECS)		
Sl.No.	Month	Unit	Oct-25 LDO*	Nov-25 LDO*	Dec-25 LDO*	
22	GCV of oil supplied as per bill of oil company	(kCal/Ltr)				
23	GCV if Imported coal of the opening stock as per bill of Oil company	(kCal/Ltr)				
24	GCV of Imported Oil supplied as per bill of coal company	(kCal/Ltr)				
25	Weighted average GCV if Oil as billed	(kCal/Ltr)				
26	GCV of Oil of the Opening stock as received at station	(kCal/Ltr)	9,439.56	9,439.56	9,439.56	
27	GCV of Oil supplied	(kCal/Ltr)	9,439.56	9,439.56	9,439.56	
28	GCV of Imported coal of the Opening stock as received at station	(kCal/Ltr)				
29	GCV of Imported coal supplied as received at station	(kCal/Ltr)				
30	Weighted average GCV of Oil	(kCal/Ltr)	9,439.56	9,439.56	9,439.56	
Petitioner						

Wtd. Avg. Price of Oil	Rs./kL	74,288.37
GCV (as received) of Oil	(kCal/Kg)	9,439.56

11 Budupula Subhakar

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EMPLOYEE, ST=Tamil Nadu, postalCode=
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					Form-16A
					Annexure -I
Details of Reagent for Computation of Supplementary Energy Charge Rate					
Name of the Petitioner			NTECL		
Name of the Generating Station			Vallur-Thermal Power Plant		
S. No.	Particulars	Unit	For preceding 3rd Month (from ODe) October 25	For preceding 2nd Month (from ODe) November 25	For preceding 1st Month (from ODe) December 2025
a.	Opening Quantity				
i.	Opening Quantity of Limestone	tonne	2,446.90	2,264.20	389.28
ii.	Value of Limestone Stock		1,17,18,326.45	1,08,43,367.01	18,64,281.38
1	Quantity of Limestone supplied by Reagent supply Company	tonne	2,264.20	83.30	484.66
2	Adjustment (+/-) in quantity supplied made by Limestone or Reagent supply Company	tonne	-	-	-
3	Net quantity of Limestone Received (1±2)	tonne	2,264.20	83.30	484.66
4	Amount charged for Limestone supply Company Including Transportation & GST @ 5 %	(Rs.)	16,66,564.41	61,312.97	3,56,733.99
5	Adjustment (+/-) in amount charged made for Limestone supply by the Company	(Rs.)	-	-	-
6	Total amount Charged (4±5)	(Rs.)	16,66,564.41	61,312.97	3,56,733.99
7	Transportation charges by rail/ship/road transport	(Rs.)	91,76,802.60	3,37,614.90	19,64,326.98
8	Adjustment (+/-) in amount charged made by Railways/Transport Company	(Rs.)	-	-	-
9	Demurrage Charges, if any	(Rs.)	-	-	-
10	Total Transportation Charges (7±8-9)	(Rs.)	91,76,802.60	3,37,614.90	19,64,326.98
11	Total amount Charged for Limestone supplied including Transportation (6+10)	(Rs.)	1,08,43,367.01	3,98,927.87	23,21,060.97
12	Weighted Average Cost of Limestone during the month	(Rs/tonne)	4,789.05	4,789.05	4,789.05
13	Purity of Limestone received during the month	(%)	89.96%	90.20%	89.70%
14	Sulphur Content of the coal	%	0.59%	0.63%	0.54%

(Petitioner)

Abstract of Capital Cost Estimates and Schedule of Commissioning for the New Projects

Name of the Petitioner	NTECL	
Name of the Generating Station	NTECL Vallur (ECS)	
<u>New Project</u>		
<u>Capital Cost Estimates</u>		Amount in Rs Lakh
Board of Director/ Agency approving the Capital cost estimates:	Board of Directors	
Date of approval of the Capital cost estimates:	03rd May 2019	
	Present Day Cost	Completed Cost
Price level of approved estimates		
Foreign Exchange rate considered for the Capital cost estimates		
<u>Capital Cost excluding IDC, IEDC& FC</u>		
Foreign Component, if any (In Million US \$ or the relevant Currency) [in Rs Crs]		
Domestic Component (Rs. Lakh)		51427.05
Capital cost excluding IDC, IEDC, FC, FERV & Hedging Cost (Rs. Lakh)		51427.05
<u>IDC, IEDC, FC, FERV & Hedging Cost</u>		
Foreign Component, if any (In Million US \$ or the relevant Currency) [in Rs Lakh]		
Domestic Component (Rs. Lakh)		5095.98
Total IDC, IEDC, FC, FERV & Hedging Cost, Other costs (Rs. Lakh)		5095.98
Working Capital Margin (WCM) (Rs. Lakh)		-
<u>Capital cost Including IDC, IEDC, FC, FERV, Hedging Cost, other costs & WCM</u>		
Foreign Component, if any (In Million US \$ or the relevant Currency) [in Rs Lakh]		
Domestic Component (Rs. Lakh)		56523.03
Capital cost Including IDC, IEDC& FC (Rs. Lakh)		56523.03
<u>Schedule of Commissioning</u>		
Date of Operation (ODE) of FGD in Unit-1	29-09-2024 (Actual)	
Anticipated Date of Operation (ODE) of FGD in Unit-2	30-03-2025 (Anticipated)	

Note:

1. Copy of Investment approval letter should be enclosed
2. Details of Capital Cost are to be furnished as per FORM-B or C as applicable
3. Details of IDC & Financing Charges are to be furnished as per FORM-14.

Capital Cost for ECS (FGD + CM) (Supplementary Tariff - ECS)											PART-I FORM- B
Name of the Petitioner: NTECL Name of the Generating Station: Vallur TPS (3x500 MW) Commissioning Date of CMS (Actual): 23.02.2021 (U-1), 16.10.2021 (U-2) & 12.09.2022 (U-3) Commissioning Date of FGD (Anticipated): 15.01.26 (U-1), 20.03.26 (U-2) & 01.08.2027 (U-3)											
(Amount in Rs. Lakh)											
2 Combustion Modification											
Sl. No.	Break Down	As per Investment Approval	Actual Capitalisation as on date of Operationalization of FGD in Unit-I (15-01-2026) (Accrual Basis)	Liabilities corresponding to Capitalisation shown in Column (4)	Actual Capitalisation as on date of Operationalization of FGD in Unit-I (15-01-2026) (Cash Basis)	Actual Capitalisation as on date of Operationalization of FGD in Unit-3 (20.03.2026) (Accrual Basis)	Liabilities corresponding to Capitalisation shown in Column (6)	Actual Capitalisation as on date of Operationalization of FGD in Unit-3 (20.03.2026) (Cash Basis)	Anticipated Capitalisation as on date of Operationalization of FGD in Unit-2 (01.08.2026) [CMS+U1,U2&U-3 FGD]	Liabilities corresponding to Capitalisation shown in Column (6)	Specific Reasons for Variation
1	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)		
A	Plant and Machinery of ECS (including CMS)	1,16,180	57,737.84	6,805.43	50,932.42	76,068.96	8,957.71	67,111.25	91,084.73		
B	Initial Spares		Included in above	Included in above	Included in above	Included in above	Included in above	Included in above			
C	Civil works		14,136.88	1,438.08	12,698.80	18,890.78	1,915.87	16,974.91	22,724.06		
D	Taxes & Duties		Included in above	Included in above	Included in above	Included in above	Included in above	Included in above			
	Pre commissioning expenses		402.83		402.83	722.54		722.54	722.54		
	Total capital cost excluding IDC, IEDC & FC		72,277.55	8,243.50	64,034.05	95,682.27	10,873.58	84,808.69	1,14,531.32	-	
c	IDC, FC, IEDC, FERV & Hedging Cost				-				-		
1	Interest During Construction		11,157.35		11,157.35	15,042.94		15,042.94	18,239.54		
2	Financing Charges (FC)		4.41		4.41				4.41		
3	Incidental Expenditure During Construction		929.57		929.57	1,274.02		1,274.02	1,557.27		
4	Foreign Exchange Rate Variation (FERV)			-				-			
5	Hedging Cost			-				-			
	Total of IDC, FC, IEDC, FERV & Hedging Cost		12,091.33	-	12,091.33	16,321.37	-	16,321.37	19,801.22		
	Capital cost of CM System including IDC, FC, FERV & Hedging Cost (As per IGAAP)	-	84,368.88	8,243.50	76,125.38	1,12,003.64	10,873.58	1,01,130.06	1,34,332.54	-	
(Petitioner)											

Project: Vallur STPS

Details of Gross Block of Station

(Amount in Crs)

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Name of the Petitioner				NTECL VALLUR				NTECL VALLUR FGD					
Name of the Generating Station													
Statement of Capital cost													
S. No.	Particulars	01.04.2024 to 31.03.2025			FY 2025 till 14.01.2026			15.01.2026 to 19.03.2026			20.03.2026 to 31.03.2026		
		Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening Gross Block Amount as per books	2,508.57	15.18	2,493.39	2,508.57	1.87	2,506.70	84,368.88	8,243.50	76,125.38	1,12,003.64	10,873.58	1,01,130.06
	b) Amount of IDC in A(a) above							11,161.76		11,161.76	15,047.35	-	15,047.35
	c) Amount of FC in A(a) above											-	-
	d) Amount of FERV in A(a) above											-	-
	e) Amount of Hedging Cost in A(a) above											-	-
	f) Amount of IEDC in A(a) above							929.57		929.57	1,274.02	-	1,274.02
B	a) Addition in Gross Block Amount during the period (Direct purchases)							-					
	b) Amount of IDC in B(a) above												
	c) Amount of FC in B(a) above												
	d) Amount of FERV in B(a) above												
	e) Amount of Hedging Cost in B(a) above												
	f) Amount of IEDC in B(a) above												
C	a) Addition in Gross Block Amount during the period (Transferred from CWIP)												
	b) Amount of IDC in C(a) above									-			-
	c) Amount of FC in C(a) above												
	d) Amount of FERV in C(a) above							-	-	-	-	-	-
	e) Amount of Hedging Cost in C(a) above							-	-	-	-	-	-
	f) Amount of IEDC in C(a) above							-	-	-	-	-	-
D	a) Deletion in Gross Block Amount during the period											-	-
	b) Amount of IDC in D(a) above												
	c) Amount of FC in D(a) above												
	d) Amount of FERV in D(a) above												
	e) Amount of Hedging Cost in D(a) above												
	f) Amount of IEDC in D(a) above												
E	a) Closing Gross Block Amount as per books	2,508.57	1.87	2,506.70	2,508.57	0.55	2,508.02	84,368.88	7,821.60	76,547.28	1,12,003.64	10,873.58	1,01,130.06
	b) Amount of IDC in E(a) above							11,161.76	-	11,161.76	15,047.35	-	15,047.35
	c) Amount of FC in E(a) above								-	-	-	-	-
	d) Amount of FERV in E(a) above								-	-	-	-	-
	e) Amount of Hedging Cost in E(a) above								-	-	-	-	-
	f) Amount of IEDC in E(a) above							929.57	-	929.57	1,274.02	-	1,274.02
(Petitioner)													

Name of the Petitioner

Name of the Generating Station

NTECL VALLUR

NTECL VALLUR FGD

Form-M

Statement of Capital Works in Progress

		01.04.2024 to 31.03.2025			FY 2025 till 14.01.2026			15.01.2026 to 19.03.2026			20.03.2026 to 31.03.2026		
S. No.	Particulars	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis	Accrual Basis	Un-discharged Liabilities	Cash Basis
A	a) Opening CWIP as per books				0	0	0	49,963.50	5,097.89	44,865.62	22,328.82	2,286.92	20,041.91
	b) Amount of IDC in A(a) above							7,082.19			7,082.19	3,196.60	3,196.60
	c) Amount of FC in A(a) above									-			-
	d) Amount of FERV in A(a) above									-			-
	e) Amount of Hedging Cost in A(a) above									-			-
	f) Amount of IEDC in A(a) above							627.70		627.70	283.25	-	283.25
B	a) Addition in CWIP during the period												-
	b) Amount of IDC in B(a) above												-
	c) Amount of FC in B(a) above									-			-
	d) Amount of FERV in B(a) above									-			-
	e) Amount of Hedging Cost in B(a) above									-			-
	f) Amount of IEDC in B(a) above									-			-
C	a) Transferred to Gross Block Amount during the period										-	-	-
	b) Amount of IDC in C(a) above									-	-	-	-
	c) Amount of FC in C(a) above									-	-	-	-
	d) Amount of FERV in C(a) above									-	-	-	-
	e) Amount of Hedging Cost in C(a) above									-	-	-	-
	f) Amount of IEDC in C(a) above									-	-	-	-
D	a) Deletion in CWIP during the period									-	-	-	-
	b) Amount of IDC in D(a) above									-	-	-	-
	c) Amount of FC in D(a) above									-	-	-	-
	d) Amount of FERV in D(a) above									-	-	-	-
	e) Amount of Hedging Cost in D(a) above									-	-	-	-
	f) Amount of IEDC in D(a) above									-	-	-	-
E	a) Closing CWIP as per books	0	0	0				49,963.50	5,097.89	44,865.62	22,328.82	2,286.92	20,041.91
	b) Amount of IDC in E(a) above							7,082.19	0	7,082.19	3,196.60	0	3,196.60
	c) Amount of FC in E(a) above							0	0	-	0	0	-
	d) Amount of FERV in E(a) above							0	0	-	0	0	-
	e) Amount of Hedging Cost in E(a) above							0	0	-	0	0	-
	f) Amount of IEDC in E(a) above							627.70	0	627.70	283.25	0	283.25

(Petitioner)

Calculation of Interest on Normative Loan

Name of the Company :

NTPC Limited

Name of the Power Station :

NTECL Vallur (ECS)

(Amount in Rs Lakh)

S. No.	Particulars	Existing 2023-24	2024-25	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2	3	4	5	6	7	8	9	10	11
1	Gross Normative loan – Opening	1,695.05	1,756.00	1,765.31	55,988.84	73,548.11	73,548.11	94,032.78	94,032.78	94,032.78
2	Cumulative repayment of Normative loan up to previous year	165.78	295.93	428.74	534.19	1,224.81	1,394.21	3,116.46	7,502.28	14,090.02
3	Net Normative loan – Opening	1,529.27	1,460.07	1,336.58	55,454.65	72,323.30	72,153.90	90,916.31	86,530.50	79,942.75
4	Add: Increase due to addition during the year / period	60.95	-	-	-	-	-	-	-	-
5	Less: Decrease due to de-capitalisation during the year / period	-	-	-	-	-	-	-	-	-
6	Less: Decrease due to reversal during the year / period	-	-	-	-	-	-	-	-	-
7	Add: Increase due to discharges during the year / period	-	9.31	0.92	295.33	-	-	-	-	-
8	Less: Repayment of Loan	130.15	132.80	105.46	690.62	169.40	1,722.25	4,385.81	6,587.75	6,587.75
9	Net Normative loan - Closing	1,460.07	1,336.58	1,232.04	55,059.36	72,153.90	70,431.65	86,530.50	79,942.75	73,355.01
10	Average Normative loan	1,494.67	1,398.32	1,284.31	55,257.00	72,238.60	71,292.77	88,723.41	83,236.63	76,648.88
11	Weighted average rate of interest*	7.92%	9%	9.32%	8.78%	8.82%	8.77%	8.76%	8.77%	8.77%
12	Interest on Loan	118.45	125.85	119.70	4853.12	6372.05	6249.51	7775.23	7299.85	6722.11

Petitioner

Budupula
Subhakar

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Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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Calculation of Interest on Working Capital

Name of the Company : NTPC Limited
Name of the Power Station : NTECL Vallur (ECS)

(Amount in Rs Lakh)

S. No.	Particulars		Existing 2023-24	2024-25 (1.4.24 to 28.9.24)	2025-26 (01.04.2025 to 14.01.2026)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	2		3	4	5	6	7	8	9	10	11
	No of days										
1	Cost of Limestone/Reagent Stock	20 days	NA	NA	NA	505.89	505.89	505.89	505.89	505.89	505.89
2	Cost of Limestone/Reagent Advance Payment	30 Days	NA	NA	NA	758.84	758.84	758.84	758.84	758.84	758.84
3	Receivables	45 days	34.47	53.30	53.42	3,429.07	3,973.28	3,968.82	4,554.47	4,503.31	4,456.13
4	O & M Expenses	1 month	2.91	4.54	4.77	121.03	160.04	168.44	199.86	210.35	221.39
5	Maintenance Spares	@20% of O&M	6.97	10.89	11.46	290.47	384.09	404.26	479.65	504.84	531.34
6	Total Working Capital	Rs Lakh	44.35	68.73	69.66	5105.30	5782.14	5806.24	6498.71	6483.22	6473.58
7	Rate of Interest	%	12.00	11.90	12.25	12.25	12.25	11.95	11.95	11.95	11.95
8	Interest on Working Capital	Rs Lakh	5.32	8.18	8.53	625.40	708.31	693.85	776.60	774.75	773.59

Petitioner

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DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
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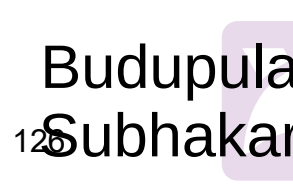
Form-O(i)
ADDITIONAL FORM

Name of the Company
Name of the Power Station

NTPC Limited
NTECL Vallur (ECS)

(Amount in Rs Lakh)

SN	Particulars	Unit	2024-25	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
1	Auxiliary consumption	%	6.69	6.69	6.69	6.69	6.69	6.69	6.69
2	Additional Auxiliary Power Consumption (ECS)	%		1.00	1.00	1.00	1.00	1.00	1.00
3	Design SO2 Removal Efficiency	%		95.19%	95.19%	95.19%	95.19%	95.19%	95.19%
4	SHR	Kcal/Kwh	2380.32	2375.22	2375.22	2375.22	2375.22	2375.22	2375.22
5	SFC	ml/Kwh	0.50	0.50	0.50	0.50	0.50	0.50	0.50
6	CVPF	Kcal/Kg	3265.83	2677.82	2677.82	2677.82	2677.82	2677.82	2677.82
7	LPPF	Rs/ton	5281.15	3760.04	3760.04	3760.04	3760.04	3760.04	3760.04
8	CVSF	Kcal/litre	9193.00	9439.56	9439.56	9439.56	9439.56	9439.56	9439.56
9	LPSFi	Rs/KL	79670.99	74288.37	74288.37	74288.37	74288.37	74288.37	74288.37
10	Specific Reagent Consumption	g/kwh		17.26	17.26	17.26	17.26	17.26	17.26
11	Landed Cost of Reagent	Rs/MT		4789.05	4789.05	4789.05	4789.05	4789.05	4789.05
12	Supplementary Energy Charge	Rs/kwh		0.1290	0.1290	0.1290	0.1290	0.1290	0.1290
13	Installed Capacity	MW	1000	1500.00	1500.00	1500.00	1500.00	1500.00	1500.00
14	No of Days in the year	Days		365.00	365.00	365.00	365.00	366.00	365.00
15	ESO in 1 Day	MU		28.25	28.25	28.25	28.25	28.25	28.25
16	Variable Cost for 1 Day	Rs Lakh		36.44	36.44	36.44	36.44	36.44	36.44
17	Cost of Reagent consumed in a day	Rs Lakh		25.29	25.29	25.29	25.29	25.29	25.29
LP (Limestone purity) ECR Supp dECR SRC K ECRn ECRen Sulphur content in coal (%)								89.95 0.1290 0.0390 17.26 34.90 3.6070 3.6461 0.59	% Rs/Kwh Rs/Kwh g/Kwh Rs/Kwh Rs/Kwh %
								Petitioner	


 Digitally signed by Budupula Subhakar
 DN: C=IN, CN=Budupula Subhakar, O=NTPC
 Tamilnadu Energy Company Limited, OU=
 EMPLOYEE, ST=Tamil Nadu, postalCode=
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Statement of Liability Flow

Name of the Petitioner Name of the Generating Station		NTECL NTECL VALLUR_FGD														
Sr. No.	Name of the work	Name of the Party	Year of creation of liability capitalised in Gross Block	Undischarged liabilities relating to GB 31.03.2024			Undischarged liabilities relating to ECS as on Ode 31.03.2025	Undischarged liabilities relating to GB 31.03.2025			Total liability as on 15.01.2026	Total liability as on 15.01.2026	Undischarged liabilities as on 15.01.2026	15.01.2026-19.03.2026	15.01.2026-19.03.2026	Undischarged liabilities relating to ECS as on Ode of Unit-III : 20.03.2026
(1)	(2)	(3)	(4)	(5)	Addition	Discharge of liability	(6)		Addition	Discharge of liability				Addition	Discharge of liability	(6)
b) For assets eligible for ROE at One year MCLR + 350 bps subject to ceiling of 14.00%.																
1	Burner Modification for NOx Control	M/s. GE POWER INDIA LTD	2022-23	15,17,621.30		13,30,621.00	1,87,000.30	1,87,000.30		1,32,000.30	55,000.00	55,000.00	55,000.00	0	0	55,000.00
2	Main Supply	TATA PROJECTS LTD	2025-26								81,02,20,734.57	50,67,26,045.46	168903166	14911590	66,07,17,621.01	
3	Mandatory Spares	TATA PROJECTS LTD	2025-26								3,31,68,805.59	94,77,014.47	11870579	5990822	1,54,16,771.88	
4	Civil & Architectural Works (LOA 3923 Included)	TATA PROJECTS LTD	2025-26								22,98,45,228.60	14,38,07,820.37	96740078	8960815	19,15,87,083.48	
5	Structural Steel Works	TATA PROJECTS LTD	2025-26								9,12,82,237.55	5,71,12,778.46	19193161	2605497	7,37,00,442.25	
6	Installation Service	TATA PROJECTS LTD	2025-26								16,92,23,987.00	10,58,78,781.45	47886343	8713643	14,50,51,480.95	
7	Main Supply-Transportation	TATA PROJECTS LTD	2025-26								-	-	0	0	-	
8	Mandatory Spares-Transportation	TATA PROJECTS LTD	2025-26								-	-	0	0	-	
9	Safety Aspects	TATA PROJECTS LTD	2025-26								20,66,519.00	12,92,963.94	604941	1068129	8,29,775.48	
10	CONSULTANCY SERVICES FOR PRE & POST AWARD E	1000769 NTPC LIMITED & NTPC consu	2025-26								-	-	0	0	-	
11	PROVIDING SUPERVISORY SERVICES FOR ELECTRICAL	1001621 UTILITY POWERTECH LIMITE	2025-26								-	-	0	0	-	
12	CONSULTANCY SERVICES FOR PRE & POST AWARD E	NTPC CONSULTANCY	2025-26								-	-	0	0	-	
13	Civil & Architectural Works (Pre-SAP)	Civil works PO	2025-26								-	-	0	0	-	
14	Anti-Corrosive Painting of Structural Steel Members	1002899 SHREE KRISHNA INSPECTIO	2025-26								-	-	0	0	-	
15	Main supply	Civil works PO	2025-26								1,33,58,07,512.31					
Total				15,17,621.30	-	13,30,621.00	1,87,000.30	1,87,000.30	-	1,32,000.30	66,000.00	2,67,16,70,024.62	82,43,80,404.15	30,51,98,266.90	4,21,90,496.00	1,08,73,58,175.05

(Petitioner)

Digitally signed by Budupula Subhakar
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Tamilnadu Energy Company Limited, OU=
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Budupula
Subhakar

12

Summary of issue involved in the petition

Name of the Company : NTECL
Name of the Power Station : NTECL Vallur (ECS)

1	Petitioner:	NTECL							
2	Subject	Determination of Supplementary Tariff for 2024-29 period							
3	Prayer: As per petition	i.Allow the instant application for approval and determination of Supplementary Tariff for Emission Control System including Combustion modification System of Vallur thermal power station. ii.Condone the delay in declaration of Unit-I FGD and Unit-III FGD under Commercial operation. iii.Allow the Petitioner to bill provisional Supplementary Tariff based on implementation of FGD system in the instant station till the Supplementary Tariff is finally determined and approved by the Hon'ble Commission. iv.Allow the recovery of the cost of reagent consumption through Supplementary Energy Charges from the date of operationalization (ODE) of the ECS Schemes till 31.03.2029. v.Direct the beneficiaries of the instant station not to consider the Supplementary Energy Charge for Merit Order Dispatch purpose. vi.Pass any other order as it may deem fit in the circumstances mentioned above.							
4	Respondents: APEPDCL, APSPDCL,APCPDCL, Telangana State Southern Power Distribution Company Ltd.,Telangana Northern Power Distribution Company Ltd.,Tamil Nadu Generation & Distribution Corporation Ltd. ,BESCOM, HESCOM, MESCOM, CESC,GESCOM, KSEBL, Govt. of Puducherry								
5	Project Scope	ECS of NTECL Vallur Thermal power Station (3 x500 MW)							
	Claim (in Rs Lakh)	2024-25 (1.4.24 to 28.9.24)	2024-25 (29.09.2024 to 31.03.2025)	2025-26 (15.01.2026 to 19.03.2026)	2025-26 (20.03.2026 to 31.03.2026)	2026-27 (01.04.2026 to 31.07.2026)	2026-27 (01.08.2026 to 31.03.2027)	2027-28	2028-29
	AFC (Supplementary)	432.36	433.34	14513.55	18927.69	18891.51	23641.79	23290.47	22844.10
	Capital cost (ECS)	2,515.22	2,522.54	80,195.01	1,05,068.73	1,05,068.73	1,34,332.54	1,34,332.54	1,34,332.54
Petitioner									

Form-J

Summary of stage-wise Gross Block as on COD of ECS

Project: Vallur STPS

Details of Gross Block of Station

(Amount in Crs)

SI	Particulars	2024-25	01.04.2025 to 15.01.2026	16.01.2026 to 19.03.2026
1	Opening Gross Block as on 01.04.2024 (As per IGAAP)	10,315.43	10,360.96	11,242.40
2	Add: Additions (Ind-AS)	255.99	932.96	276.35
3	Add: Additions out of adjustment column (Ind-AS)	9.02	6.44	0.00
4	Less: Decapitalisation out of adjustment column from 01.04.2024 to ODe (Ind-AS)	99.79	24.59	0.00
5	Total Addition (2 + 3 - 4) (Ind-AS)	165.22	914.81	276.35
6	Add/ Less: IND AS adjustment having impact on addition/adjustment/decap			
6.1	Unamortised Finance Charges			
6.2	FERV Charged to P&L			
6.3	Overhauling Assets	119.69	33.37	0.00
7	Closing Gross Block (As per IGAAP) (1 + 5 + 6)	10,360.96	11,242.40	11,518.75
8	Addition as per IGAAP (7 - 1)	45.53	881.44	276.35
	Breakup of Addition as per IGAAP (SI no. 8) :			
9	Addition of Add- Cap Other than ECS pertaining to NTECL Thermal assets	45.53	62.99	
12	Add- Cap due to ECS	0.00	818.45	276.35
14	Add- Cap on account of ECS already capitalised	0.00		
15	Capitalization pertaining to (ECS Scheme(s)) during Current Period/Year	0.00	818.45	276.35
	Details of Capitalization of ECS			
16	Capitalization pertaining to (ECS Scheme(s))	0.00	818.45	276.35
16a	Liabilities included in above	0.00	82.44	26.30
16b	IDC included in above	0.00	111.62	38.86
16c	IEDC included in above	0.00	9.30	3.44
	Details of ECS			
17	Opening Gross Block of ECS Unit (As per IGAAP)	25.09	25.09	843.53
18	Closing Gross Block of ECS Unit	25.09	843.53	1,119.88
19	Additions pertaining to ECS Unit (as per SI no. 14 & 15)	0.00	818.45	276.35
20	Less: Undischarged liabilities	0.00	82.44	30.52
21	Add: Discharge of Liabilities	0.13	0.01	4.22
22	Net Additional Capital Expenditure Claimed (Cash basis)	0.13	736.03	250.05



(Ashok Kumar Singh)
For Ashok Kumar Singh & co.
Cost Accountants

UDIN:- 2609679ZZJYFIY0525



Budupula
Subhakar

रजिस्ट्री सं० डी० एल०-33004/99

REGD. NO. D. L.-33004/99



भारत का राजपत्र

The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (ii)

PART II—Section 3—Sub-section (ii)

प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

सं. 2620] नई दिल्ली, मंगलवार, दिसम्बर 8, 2015/अग्राहायण 17, 1937
 No. 2620] NEW DELHI, TUESDAY, DECEMBER 8, 2015/AGRAHAYANA 17, 1937

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 7 दिसम्बर, 2015

का.आ. 3305(अ).—केंद्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात्:—

1.(1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) संशोधन नियम, 2015 है।

(2) ये उनके राजपत्र में प्रकाशन की तारीख को प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची 1 में,—

(क) क्रम सं. 5 और उससे संबंधित प्रविष्टियों के स्थान पर निम्नलिखित क्रम सं. और प्रविष्टियां अंतःस्थापित की जाएंगी, अर्थात्:—

क्रम सं.	उद्योग	मापदंड	मानक
1	2	3	4
5क	ताप विद्युत संयंत्र (जल उपभोग सीमा)	जल उपभोग	I. एक बार शीतलन (ओटीसी) के माध्यम से सभी संयंत्र शीतलन टावरों (सीटी) को प्रतिष्ठापित करेंगे और अधिसूचना की तारीख से दो वर्ष की अवधि के भीतर अधिकतम 3.5m ³ /MWh के विनिर्दिष्ट जल उपभोग को हासिल करेंगे।

.5113 GI/2015

(1)

			II. सभी विद्यमान सीटी-आधारित संयंत्र 3.5m³/MWh इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर अधिकतम 3.5m³/MWh तक के विनिर्दिष्ट जल उपभोग को कम करेंगे। III. जनवरी, 2017 के पश्चात् प्रतिष्ठापित किए जाने वाले नए संयंत्र अधिकतम 2.5 m³/MWh तक के विनिर्दिष्ट जल उपभोग को पूरा करेंगे और शून्य जल दुर्व्यय को हासिल करेंगे।
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(ख) क्रम सं. 25 और उससे संबंधित प्रविष्टियों के पश्चात् निम्नलिखित क्रम सं. और प्रविष्टियां रखी जाएंगी, अर्थात् :—

क्रम सं.	उद्योग	मापदंड	मानक
1	2	3	4
		विवक्त पदार्थ	100 mg/Nm ³
		सल्फर डायोक्साइड (SO ₂)	600 mg/Nm ³ (500 मेगावाट से कम क्षमता की इकाईयों से लघु इकाईयां) 200 mg/Nm ³ (500 मेगावाट और उससे अधिक क्षमता की इकाईयां)
		नाइट्रोजन के आक्साइड (NO _x)	300 mg/Nm ³
		पारा (Hg)	0.03 mg/Nm ³ (500 मेगावाट और उससे अधिक क्षमता की इकाईयां)
		1 जनवरी, 2003 के पश्चात् 31 दिसंबर, 2016 तक प्रतिष्ठापित टीपीपी (इकाईयां)	
		विवक्त पदार्थ	50 mg/Nm ³
		सल्फर डायोक्साइड (SO ₂)	600 mg/Nm ³ (500 मेगावाट से कम क्षमता की इकाईयों से लघु इकाईयां) 200 mg/Nm ³ (500 मेगावाट और उससे अधिक क्षमता की इकाईयां)
		नाइट्रोजन के आक्साइड (NO _x)	300 mg/Nm ³
		पारा (Hg)	0.03 mg/Nm ³
		1 जनवरी, 2017 से प्रतिष्ठापित टीपीपी (इकाईयां)	
		विवक्त पदार्थ	30 mg/Nm ³
		सल्फर डायोक्साइड (SO ₂)	100 mg/Nm ³
		नाइट्रोजन के आक्साइड	100 mg/Nm ³

	(NOx)	
	पारा (Hg)	0.03 mg/Nm ³

* टीपीपी (इकाईयां) इस अधिसूचना के प्रकाशन की तारीख से दो वर्ष के भीतर परिसीमाओं को पूरा करेंगी।

** इसके अंतर्गत सभी टीपीपी (इकाईयां) हैं, जिन्हें पर्यावरणीय निकासी प्रदान की गई है और संनिर्माण के अधीन है।

[फा. सं. क्यू-15017/40/2007-सीपीडब्ल्यू]

डा. राशिद हसन, सलाहकार

टिप्पण :- मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii) में सं. का.आ. 844(अ) 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और उनका पश्चातवर्ती का.आ. 433(अ) तारीख 18 अप्रैल, 1987 ; सा.का.नि. 176(अ) तारीख 2 अप्रैल, 1996; सा.का.नि. 97 (अ), तारीख 18 फरवरी, 2009 ; सा.का.नि. 149(अ) तारीख 4 मार्च, 2009 ; सा.का.नि. 543(अ) तारीख 22 जुलाई, 2009 ; सा.का.नि. 739(अ) तारीख 9 सितम्बर, 2010 ; सा.का.नि. 809(अ) तारीख 4 अक्टूबर, 2010, सा.का.नि. 215(अ) तारीख 15 मार्च, 2011 ; सा.का.नि. 221(अ) तारीख 18 मार्च, 2011 ; सा.का.नि. 354(अ) तारीख 2 मई, 2011 ; सा.का.नि. 424(अ) तारीख 1 जून, 2011 ; सा.का.नि. 446(अ) तारीख 13 जून, 2011 ; सा.का.नि. 152(अ) तारीख 16 मार्च, 2012 ; सा.का.नि. 266(अ) तारीख 30 मार्च, 2012 ; सा.का.नि. 277(अ) तारीख 31 मार्च, 2012; सा.का.नि. 820(अ) तारीख 9 नवम्बर, 2012 ; सा.का.नि. 176(अ) तारीख 18 मार्च, 2013 ; सा.का.नि. 535(अ) तारीख 7 अगस्त, 2013 ; सा.का.नि. 771(अ) तारीख 11 दिसम्बर, 2013 ; सा.का.नि. 2(अ) तारीख 2 जनवरी, 2014 ; सा.का.नि. 229(अ) तारीख 28 मार्च, 2014 ; सा.का.नि. 232(अ) तारीख 31 मार्च, 2014 ; सा.का.नि. 325(अ) तारीख 7 मई, 2014, सा.का.नि. 612(अ) तारीख 25 अगस्त, 2014 और अन्तिम संशोधन सा.का.नि. 789(अ) तारीख 11 नवम्बर, 2014 किया गया था।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 7th December, 2015

S.O. 3305(E).— In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

- (1) These rules may be called the Environment (Protection) Amendment Rules, 2015.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, in Schedule – I, -
(a) after serial number 5 and entries relating thereto, the following serial number and entries shall be inserted, namely:—

Sr. No.	Industry	Parameter	Standards
1	2	3	4
"5A.	Thermal Power Plant (Water consumption limit)	Water consumption	I. All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption upto maximum of 3.5m ³ /MWh within a period

			of two years from the date of publication of this notification.
			II. All existing CT-based plants reduce specific water consumption upto maximum of 3.5m ³ /MWh within a period of two years from the date of publication of this notification.
			III. New plants to be installed after 1 st January, 2017 shall have to meet specific water consumption upto maximum of 2.5 m ³ /MWh and achieve zero waste water discharged”;

(b) for serial number 25, and the entries related thereto, the following serial number and entries shall be substituted, namely:-

Sr. No.	Industry	Parameter	Standards
1	2	3	4
25.	Thermal Power Plant	TPPs (units) installed before 31 st December, 2003*	
		Particulate Matter	100 mg/Nm ³
		Sulphur Dioxide (SO ₂)	600 mg/Nm ³ (Units Smaller than 500MW capacity units) 200 mg/Nm ³ (for units having capacity of 500MW and above)
		Oxides of Nitrogen (NOx)	600 mg/Nm ³
		Mercury (Hg)	0.03 mg/Nm ³ (for units having capacity of 500MW and above)
		TPPs (units) installed after 1 st January, 2003, upto 31 st December, 2016*	
		Particulate Matter	50 mg/Nm ³
		Sulphur Dioxide (SO ₂)	600 mg/Nm ³ (Units Smaller than 500MW capacity units) 200 mg/Nm ³ (for units having capacity of 500MW and above)
		Oxides of Nitrogen (NOx)	300 mg/Nm ³
		Mercury (Hg)	0.03 mg/Nm ³
		TPPs (units) to be installed from 1 st January, 2017**	
		Particulate Matter	30 mg/Nm ³
		Sulphur Dioxide (SO ₂)	100 mg/Nm ³
		Oxides of Nitrogen (NOx)	100 mg/Nm ³
		Mercury (Hg)	0.03 mg/Nm ³

*TPPs (units) shall meet the limits within two years from date of publication of this notification.

**Includes all the TPPs (units) which have been accorded environmental clearance and are under construction”.

[F. No. Q-15017/40/2007-CPW]

Dr. RASHID HASAN, Advisor

Note: - The principal rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) vide number S.O. 844(E), dated the 19th November, 1986 and subsequently amended vide the following notifications:—

S.O. 433(E), dated 18th April 1987; G.S.R. 176(E) dated 2nd April, 1996; G.S.R. 97(E), dated the 18th February, 2009; G.S.R. 149(E), dated the 4th March, 2009; G.S.R. 543(E), dated 22nd July, 2009; G.S.R. 739(E), dated the 9th September, 2010; G.S.R. 809(E), dated, the 4th October, 2010; G.S.R. 215(E), dated the 15th March, 2011; G.S.R. 221(E), dated the 18th March, 2011; G.S.R. 354(E), dated the 2nd May, 2011; G.S.R. 424(E), dated the 1st June, 2011; G.S.R. 446(E), dated the 13th June, 2011; G.S.R. 152(E), dated the 16th March, 2012; G.S.R. 266(E), dated the 30th March, 2012; and G.S.R. 277(E), dated the 31st March, 2012; and G.S.R. 820(E), dated the 9th November, 2012; G.S.R. 176(E), dated the 18th March, 2013; G.S.R. 535(E), dated the 7th August, 2013; G.S.R. 771(E), dated the 11th December, 2013; G.S.R. 2(E), dated the 2nd January, 2014; G.S.R. 229(E), dated the 28th March, 2014; G.S.R. 232(E), dated the 31st March, 2014; G.S.R. 325(E), dated the 07th May, 2014, G.S.R. 612(E), dated the 25th August, 2014 and lastly amended vide notification G.S.R. 789(E), dated 11th November, 2014.

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 19/MP/2021

Coram:

**Shri Jishnu Barua, Chairperson
Shri I. S. Jha, Member
Shri Arun Goyal, Member
Shri P. K. Singh, Member**

Date of Order: 03.11.2023

In the matter of:

Petition under Section 79 of the Electricity Act, 2003 read with Regulation 29 of the Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 for approval of additional expenditure on account of installation of various Emission Control Systems at Vallur Thermal Power Station (3X500 MW) in compliance with the Ministry of Environment and Forests and Climate Change, Government of India notification dated 7.12.2015.

And in the matter of:

NTPC Tamil Nadu Energy Company Limited (NTECL),
NTPC Bhawan, Core-7, Scope Complex
7, Institutional Area, Lodhi Road
New Delhi-110003.

.....Petitioner

Vs.

1. AP Eastern Power Distribution Company Limited (APEPDCL),
Corporate Office, P&T Colony, Seethammadhara,
Visakhapatnam-530013 (Andhra Pradesh).
2. AP Southern Power Distribution Company Limited (APSPDCL),
Corporate Office, Back Side Srinivasa Kalyana Mandapam,
Tiruchhanur Road, Kesavayana Gunta,
Tirupathi-517503 (Andhra Pradesh).
3. Telangana State Northern Power Distribution Company Limited (TSNPDCL),
H. No. 2-5-31/2, Vidyut Bhavan,
Nakkalagutta, Hanamkonda,
Warangal-506001 (Andhra Pradesh).
4. Telangana State Southern Power Distribution Company Limited (TSPDCL),
Mint Compound, Corporate Office,



Hyderabad-500063 (Andhra Pradesh).

5. Tamil Nadu Generation & Distribution Corporation Limited (TANGEDCO),
(formerly TNEB),
144, Anna Salai, Chennai-600002.
6. Bangalore Electricity Supply Company Limited (BESCOM),
Krishna Rajendra Circle,
Bangalore-560009.
7. Mangalore Electricity Supply Company Limited (MESCOM),
MESCOM bhavana, Corporate Office,
Bejai, Kavour Cross Road,
Mangaluru-575004, Karnataka.
8. Chamundeshwari Electricity Supply Corp. Limited (CESC),
Corporate Office, No. 29,
Vijayanagar, 2nd stage, Hinkal,
Mysore-570017.
9. Gulbarga Electricity Supply Company Limited (GESCOM),
Main road, Gulbarga, Karnataka,
Gulbarga-585102.
10. Hubli Electricity Supply Company Limited (HESCOM),
Corporate office, P.B. Road,
Navanagar, Hubli-580025.
11. Kerala State Electricity Board Limited (KSEB),
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004.
12. Electricity Department,
Government of Puducherry,
137, Netaji Subhash Chandra Bose Salai,
Puducherry-605001.

.....Respondent(s)

For Petitioner : Shri Venkatesh, Advocate, NTECL
Shri Anant Singh Uleeja, Advocate, NTECL
Shri Abhishek Nangia, Advocate, NTECL

For Respondents : Shri S. Vallinayagam, Advocate, TANGEDCO

ORDER

The Petitioner, NTPC Tamil Nadu Energy Company Limited (NTECL), has filed
the instant petition under Section 79 of the Electricity Act, 2003 read with Regulation



Order in Petition No. 19/MP/2021

**Budupula
Subhakar**

29 of the Central Electricity Regulatory Commission (Terms and Condition of Tariff) Regulations, 2019 for approval of Additional Capital Expenditure (ACE) on account of installation of various Emission Control Systems at Vallur Thermal Power Station (3X500 MW) (hereinafter referred to as "VTPS") in compliance with the Ministry of Environment and Forests and Climate Change, Government of India (hereinafter referred to as "MoEFCC") notification dated 7.12.2015.

2. The Petitioner has made the following prayers in the instant petition:

(i) *"Grant approval for undertaking implementation of various schemes mentioned above in order to meet Revised Emission Standards.*

(ii) *Grant liberty to approach Hon'ble Commission for approval of implementation of Revised Emission Schemes on account of mercury, specific water consumption, and Particulate Matter, if required.*

(iii) *Allow, Gross station heat Rate, additional water consumption, Cost of Reagents etc. as per Regulation-76 i.e. "Power to relax" of the Tariff Regulations 2019.*

(iv) *Allow deemed availability of the station/unit on account of shutdown for the implementation of ECS as per Regulation-76 i.e. "Power to relax" of the Tariff Regulations 2019.*

(v) *Pass such orders as deemed fit and necessary in the facts and circumstances of the present case."*

Background

3. The background of the instant petition is as follows:

(a) The Petitioner is a Joint Venture company between NTPC Limited and TNEB (presently TANGEDCO). The Petitioner is generating power from its Vallur Thermal Power Station (3X500 MW) (VTPS) located in the State of Tamil Nadu and supplying power to the Respondents.

(b) MoEFCC, on 7.12.2015, notified the Environment (Protection) Amendment Rules, 2015 (hereinafter referred to as "MoEFCC Notification") which mandates that all thermal power plants installed (such as the Petitioner's project) and to be installed, are required to comply with the revised emission norms as specified in the MoEFCC Notification. The amended



norms specified by the MoEFCC Notification are as follows:

Sr. No	Industry	Parameter	Standard
1	2	3	4
“5A.	Thermal Power Plant (Water consumption limit)	Water consumption	I. All Plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption up to maximum of 3.5m³/MW/hr within a period of two years from the date of publication of this notification. II. All existing CT-based plants reduce specific water consumption up to maximum of 3.5m³/MW/hr within a period of two years from the date of publication of this notification. III. New Plants to be installed after 1.1.2017 shall have to meet specific water consumption upto maximum of 3.0 m³/MW/hr and achieve zero waste water discharge.

“25.	Thermal Power Plant	TPPs (Units) installed before 31.12.2003*	
		Particulate matter	100 mg/Nm ³
		Sulphur Dioxide (SO ₂)	600 mg/Nm ³ (Units Smaller than 500 MW capacity units) 200 mg/Nm ³ (for units having capacity of 500 MW and above)
		Oxides of Nitrogen	600 mg/Nm ³
		Mercury (Hg)	0.03 mg/Nm ³ (for units having capacity of 500 MW and above)
		TPPs (units) installed after 1.1.2004, upto 31.12.2016	
		Particular Matter	50 mg/Nm ³
		Sulphur Dioxide (SO ₂)	600 mg/Nm ³ (Units smaller than 500 MW capacity units) 200 mg/Nm ³ (for units having capacity of 500 MW and above)
		Oxides of Nitrogen (NO _x)	300 mg/Nm ³
		Mercury (Hg)	0.03 mg/Nm ³
		TPPs (units) to be installed from 1.1.2017**	
		Particular Matter	30 mg/Nm ³
		Sulphur Dioxide (SO ₂)	100 mg/Nm ³
		Oxides of Nitrogen (NO _x)	100 mg/Nm ³
		Mercury (Hg)	0.03 mg/Nm ³

*TPPs (units) shall meet the limits within two years date of publication of this notification.

**Includes all the TPPs (units) which have been accorded environmental clearance and are under construction”.



(c) MoEFCC provided amended norms based on three categories i.e. i) TPP's Units installed before 31.12.2003, ii) TPP's Units installed between 1.1.2004 to 31.12.2016, and iii) TPPs which are executed after 1.1.2017. VTPS was commissioned on 26.2.2015. Accordingly, as per the MoEFCC Notification, the Petitioner falls under category (ii) of the revised emission standards. Therefore, in compliance with the revised emission standards under the MoEFCC Notification, the Petitioner is required to install various Emission Control Systems (hereinafter referred to as "ECS") in the station.

(d) In compliance with the MoEFCC Notification, requiring the capital expenditure, NTPC filed Petition No. 98/MP/2017 for in-principle approval of the capital cost required for the installation of ECS and other facilities in Singrauli STPS and Sipat STPSS-I. The Commission vide order dated 20.7.2018 in Petition No. 98/MP/2017 held that ACE for implementation of ECS as per the MoEFCC Notification is admissible under "change in law". The Commission further observed that it would require TPPs to identify suitable technology depending upon the location of the plant and existing level of emission and accordingly directed CEA to prepare guidelines regarding suitable technology, operational parameters, norms and other technical inputs. The relevant portions of the order dated 20.7.2018 are as follows:

"46.In all these situations, additional capital expenditure on change in law or compliance with any existing law" is allowed. Therefore, additional capital expenditure on implementation of the ECS in terms of the Notification dated 7.12.2015 shall be admissible after due prudence check, under Regulation 14 of the 2014 Tariff Regulations.

47. The compliance of the revised norms specified under the MOEFCC Notification by these generating stations would require identification of suitable technology depending upon location of plant and existing level of emission from such plant. Moreover, the scope of work would also differ from plant to plant, depending upon the type of technology to be adopted....."

"48. Therefore, a mechanism needs to be devised for addressing the issues like identification of suitable technology for each plant for implementation of ECS, its impact on operational parameters and on tariff, and the recovery of additional capital and operational cost. The Commission in this regard directs the CEA to prepare guidelines specifying;

(a) Suitable technology with model specification for each plant, with regard



to implementation of new norms;

(b) Operational parameters of the thermal power plants such as auxiliary consumption, O&M expenses, Station Heat Rate etc., consequent to the implementation of ECS.

(c) Norms of consumption of water, limestone, ammonia etc., required for operation of the plants after implementation of ECS.

(d) Any other detailed technical inputs.”

(e) The Commission, on 7.3.2019, notified the 2019 Tariff Regulations and Regulation 29 provides in respect of ACE on account of revised emission standards.

(f) The Commission amended the 2019 Tariff Regulations vide Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2020 (hereinafter referred to as the “2020 Amendment Regulations”), wherein, separate tariff stream for ECS including determination of capital cost, financial parameters and operational parameters were specified.

(g) On the basis of directions of the Commission in the order dated 20.7.2018 in Petition No. 98/MP/2017, CEA vide its letter dated 21.2.2019 recommended various technologies for the implementation of the MoEFCC Notification.

(h) Further, CEA on 7.2.2020 issued an Advisory on FGD Technology selection for different unit sizes. As per the Advisory, TPPs are required to select the appropriate FGD technology based on parameters like SO₂ removal efficiency, unit size, balance plant life and the geographical location of TPPs.

4. The Petitioner has filed the instant petition under the 2019 Tariff Regulations for approval of the capital cost for implementation of ECS to comply with the revised emission standards. The Petitioner has made the following prayers:

(a) approve undertaking the implementation of ECS in order to meet revised ECNs;

(b) grant liberty to approach the Commission for approval of implementation of ECS on account of mercury, water consumption and particulate matter in



- future, if required;
- (c) allow additional operating norms (APC and GSHR);
- (d) allow additional water consumption;
- (e) allow the cost of reagents;
- (f) allow additional O&M Expenses; and
- (g) allow deemed availability on account of the shutdown.

5. This order is issued considering the submissions made by the Petitioner in the main petition and the subsequent affidavits dated 17.6.2021 and 31.5.2023, the written submission dated 10.5.2023, TANGEDCO's reply vide affidavit dated 28.4.2021, and the Petitioner's rejoinder vide affidavit dated 29.5.2021 in the matter.

Approval for undertaking implementation of ECS and incurring Additional Capital Expenditure (ACE)

6. The Petitioner has sought approval for ACE proposed/ incurred towards the implementation of ECS in order to meet revised ECNs. The Petitioner has proposed a WFGD system and Combustion Modification for control of SO₂ and NO_x emissions respectively from the VTPS Plant.

7. The Petitioner, based on the capital cost of ECS discovered through competitive bidding and on the basis of certain assumptions regarding operating parameters, had arrived at the indicative supplementary tariff and the same is provided in the petition. However, the Commission has introduced the operating parameters through the 2020 Amendment Regulations for additional APC, water consumption and O&M Expenses on account of installation of ECS.

8. The Petitioner has made the following submissions:

- (a) The following capital cost and operating parameters for computing the indicative supplementary tariff were initially considered:



(₹ in crore)					
		FGD	SNCR	Combustion Modification System	Remarks
1	Capital Cost	1135.51	80	26.29	
2	Normative Specific Limestone/ Reagent Consumption (kg/kwh)	0.016 (Limestone)	0.0012 (Urea)	NIL	
3	Additional APC	1%			
4	Additional O&M		2% of capital cost (excluding IDC &FC)		
5	Shutdown Period	45 days	15 days	60 days	
6	Increase in GSHR		14.32 Kcal/kwh	19.09 Kcal/kwh	0.6% increase: due to SNCR 0.8% increase: due to CM

- (b) The indicative supplementary tariff impact (without considering the impact on GSHR as indicated in the table above) due to the installation of schemes in order to meet Revised Emission Standards is FC: 20.17 paise/kwh, VC: 5.14 paise/ kwh (1st year) and FC: 18.52 paise/kwh, (levelised). Further, there would be increase in the Energy Charge Rate and per unit Fixed Charge (@85% Scheduled Generation) of the station by about 9 paise/ kwh due to increased APC and Station Heat Rate.
- (c) WFGD technology adopted by the Petitioner meets the criteria indicated in the CEA advisory dated 7.2.2020, and it would also meet SO₂ emission norms specified by MoEFCC Notification.
- (d) As regards NO_x emissions, Low NO_x Burners (Primary Control) and Selective Non-catalytic Reduction (Secondary Control) systems were initially proposed to be installed in its three units to bring down the present NO_x level within the norm of 300 mg/Nm³.
- (e) The deterioration of the Station Heat Rate due to the installation of primary and secondary De-NO_x systems would be claimed by the Petitioner based on the actual performance of these systems. SNCR demonstration pilot tests at NTPC stations are being conducted, and implementation of SNCR shall be taken up based on the reports of SNCR pilot tests.



(f) The FGD System package was awarded through Domestic Competitive Bidding (DCB) to Tata Projects Limited (TPL).

(g) The awarded cost of WFGD at VTPS was approved at the total value of ₹875.50 crore excluding GST, for the Combustion Modification System ₹26.29 crore and the tentative estimate for capital cost of SNCR is approximately ₹80 crore (including IDC and GST). The awarded cost for implementation of WFGD at VTPS is approximately ₹1135.51 crore (including IDC and GST etc.)

9. On the basis of the submissions made by the Petitioner, the following three issues arise for our consideration as part of the prudence check (a) Selection of suitable ECS (b) approvals and the bidding process; and (c) capital cost of the identified ECS. We deal with them in the following paragraphs.

Selection of suitable ECS

ECS for control of SO₂ emission control

10. In respect of ECS for control of SO₂ emissions, the Petitioner has submitted that on the basis of the directions of the Commission in the order dated 20.7.2018 in Petition No. 98/MP/2017, CEA vide letter dated 20.2.2019 on '*Operation Norms for Thermal Generating Stations for the Tariff Period 2019-2024*' has recommended four technologies to comply with revised SO₂ emission norms reduction, which are as follows: a) Wet limestone based FGD; (b) Lime Spray Drier/ Semi-dry Semi FGD; (c) Dry Sorbent Injection based FGD; and (d) Sea water based FGD.

11. The Petitioner has submitted that the WFGD system is better than the other three FGD systems for the following reasons:

(a) In the case of Dry Sorbent Injection (DSI)/ Dry type FGD, SO₂ removal efficiency is low (typically 30%-50%) which can be increased to 70%, but with high consumption of reagent. The reagent utilization is low when



compared to the WFGD system leading to high operational expenses. DSI is particularly preferable for small unit sizes i.e. 60 MW-250 MW range since the reagent cost in this technology is relatively higher than WFGD and ammonia-based FGD, hence, units running on low PLF and with less balance operating life (07-09 years). Additionally, DSI-based technologies have low CAPEX (1/4th) and less APC (1/10th) as compared to WFGD and ammonia-based FGD technologies.

(b) In the case of ammonia-based FGD technology, there are few providers of such technology as compared to the WFGD system leading to less competition in the competitive bidding process. The storage and handling of aqueous ammonia is potentially risky/ hazardous when compared to the handling of limestone. The FGD technologies based on Ammonia as a reagent are preferable for unit sizes below 500 MW. Though Ammonia based FGD technologies have approximately 10% less CAPEX and APC when compared to WFGD systems and by-products of Ammonia based FGD technologies, i.e. Ammonium Sulphate is easily saleable, handling of Ammonia, which is volatile is a matter of concern. Further, the availability of ammonia is also a matter of concern.

(c) Sea Water FGD system is suitable only for coastal power stations as seawater is required for de-sulphurisation process. The instant generating station is located near the coast but operates in closed cycle cooling water system.

12. The Petitioner has proposed WFGD technology to comply with the revised SO₂ emission norms in the case of the VTPS generating station. The Petitioner has submitted that WFGD technologies based on limestone slurry as a reagent are most versatile and prominent for any unit size. However, for optimum selection of technology plant specific factors like unit size, balance unit life, space availability, salability of by-product etc. need to be considered. WFGD has a large footprint, relatively higher CAPEX and Reagent purity issues when compared with Ammonia-



based and dry type FGD technologies. WFGD is the most cost-effective technology for SO₂ removal at VTPS and is in line with the CEA recommendations. Therefore, the Petitioner has selected the WFGD technology in concurrence with the CEA Norms meeting the evaluation criteria of the CEA Advisory dated 7.2.2020 and letter dated 20.2.2019 and also meeting the SO₂ emission norms as stipulated by MoEFCC Notification dated 7.12.2015.

13. TANGEDCO has submitted that since the units of the Petitioner have been commissioned recently, the Petitioner may be directed to furnish the emission details about suspended particulate matter (SPM level), SO₂ and NO_x from all the three units for the past five years for analyzing any non-compliance and need for the commissioning of ECS systems.

14. In response, the Petitioner has submitted that earlier the SO₂ emission level of VTPS was 849 mg/NM3 which can go maximum up to 994 mg/NM3. The Revised Emission Norms is of 200 mg/NM3, therefore, the ECS system is required to be installed to meet the Revised Emission Norms at the VTPS to meet the norms all the time during the operation of the units.

ECS for NO_x emission control

15. As regards ECS for NO_x, the Petitioner has submitted that CEA in its recommendations vide letter dated 20.2.2019 on Operation Norms for Thermal Generating Stations for the 2019-24 tariff period has provided the norms based on SCR/ SNCR technology. NO_x control technologies are of two categories as follows:

- (a) Primary control technologies wherein the amount of NO_x produced in the combustion/ furnace zone is reduced by modifying fuel burners.



(b) Secondary control technologies reduce the NO_x present in the flue gas by injection of reagent (ammonia [NH₃] or urea) in the flue gas path where it reacts with NO_x to reduce it to N₂ and water.

16. The Petitioner has submitted that initially Low NO_x Burners (Primary Control) and Selective Non-Catalytic Reduction (Secondary Control) systems were proposed to be installed in its three units to bring down the NO_x level within the norm of 300 mg/Nm³.

17. De-NO_x using Low NO_x Burners: The Petitioner has submitted that in this system, normal present burners installed in the unit boilers are to be replaced by Low-NO_x Burners (LNB). An LNB limits NO_x formation by regulating the temperature profiles of the fuel combustion by controlling the aerodynamic distribution and mixing of the fuel and air, thereby yielding reduced oxygen in the primary flame zone, which limits the flame temperature, which in turn limits thermal NO_x formation. The Petitioner has submitted that due to the change in the temperature profile of the furnace and heat transfer pattern, LNB retrofits lead to higher economizer inlet temperatures and an increase in unburnt carbon. This increases the heat loss of the boiler. Accordingly, it is anticipated that the unit heat rate may increase to around 0.8% on account of De-NO_x LNB retrofit.

18. De-NO_x Selective Non-Catalytic Reduction: The Petitioner has submitted that the Selective non-catalytic reduction (SNCR) process involves injecting nitrogen-containing chemicals into the upper furnace or convective pass of a boiler within a specific temperature window without the use of a catalyst. There are different chemicals, that can be used that selectively react with NO_x in the presence of oxygen to form molecular nitrogen and water, but the two most common chemicals are



ammonia and urea. The SNCR to be installed in the station is proposed to be based on urea. This system requires low capital cost, having moderate NO_x removal involves non-toxic chemicals and it requires typically low energy injection. Further, due to the formation of water particles during NO_x reduction, it increases the wet loss of Boilers leading to deterioration of Unit Heat Rate by about 0.6%. The Petitioner has submitted that deterioration of the Station Heat Rate due to the installation of the above-mentioned De- NO_x systems would be claimed by the Petitioner based on the actual performance of these systems. SNCR demonstration pilot tests are being conducted at NTPC stations, and the implementation of SNCR will be taken up based on the reports of SNCR pilot tests.

19. The Petitioner has submitted that the awarded capital cost of the Combustion Modification system is ₹26.29 crore and the tentative estimate for the capital cost of SNCR is approximately ₹80 crore (including capital costs including IDC and GST). The Petitioner has submitted that the installation of the De-Nox-Combustion Modification system is expected to be completed during 2021-22. The shut-down time required for the units to install the system is approximately 45 to 60 days. Further, the SNCR scheme (yet to be awarded) is likely to be implemented during the time period of 15 months from the date of award. The shut-down period required will be around 15 days for each unit. However, decisions on the implementation of SNCR shall be taken based on the outcome of pilot tests.

20. The Petitioner vide affidavit dated 17.6.2021 and written submission dated 10.5.2023, has submitted that after the subsequent revision of NO_x norms from 300 mg/Nm³ to 450 mg/Nm³ by the MoEFCC vide notification dated 19.10.2020 in the light of the Hon'ble Supreme Court order dated 8.7.2020 in I.A. No. 12493/2020, for the



units commissioned before 31.12.2016, there is no requirement of SNCR installation. Accordingly, the Petitioner will be able to comply with NO_x norms with the installation of primary control only i.e. Combustion Modification. Therefore, the claim with respect to Combustion modification may be allowed. Further, with respect to the Combustion Modification System, the Board of Directors of the Petitioner's Company vide its 79th Board Meeting held on 24.5.2018, approved the proposal for "Package for Combustion modification for reduction of NO_x" for the instant station.

21. In response to the Commission's query, the Petitioner vide affidavit dated 31.5.2023 has submitted the monthly minimum and maximum SO₂ and NO_x emission levels, which are given in the following table, of its three units during the last four years and submitted that the SO₂ and NO_x level for a unit depends on many factors including the quality of coal, unit loading etc.

2020-21 (mg/Nm3)												
	Unit 1 NOx		Unit 1 SOx		Unit 2 NOx		Unit 2 SOx		UNIT 3 NOx		UNIT 3 SOx	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Apr-20	320	721	881	996	428	492	859	927				
May-20	447	605	856	982	441	513	877	975	442	503	819	977
Jun-20	442	604	855	992	373	516	900	961	431	524	854	978
Jul-20	368	722	860	996	366	557	936	954	440	582	860	976
Aug-20	442	703	872	996	426	554	854	990	515	695	889	956
Sep-20					466	538	919	954	528	669	859	955
Oct-20	433	744			447	640	863	966	532	717	862	972
Nov-20	442	745	929	996	435	588	870	977	534	831	876	980
Dec-20					438	585	890	946	534	804	899	996
Jan-21	190	300	830	996	448	601	889	978	553	827	880	992
Feb-21	226	404	753	996	434	612	846	981	582	794	823	992
Mar-21	194	437	791	996	445	615	886	957	613	798	880	987

2019-20 (mg/Nm3)												
	Unit 1 NOx		Unit 1 SOx		Unit 2 NOx		Unit 2 SOx		UNIT 3 NOx		UNIT 3 SOx	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Apr-19	118	245		603		226	401	568		279	493	721
May-19	123	245	377	539		214		537		273	480	706
Jun-19	123	244	418	633	174	260	437	652		284	501	735
Jul-19	118				179	928	450	1293	202	280	521	724
Aug-19	504	940	604		275	672	479	1174	331	369	666	769
Sep-19	494	956	589	1251						748		1216
Oct-19	542	952	587	860	248	332	433	579	510		830	
Nov-19	364	915	525	1272	256	346	448	605	532	734	866	1194
Dec-19	518	950	581	831	262	350	457	611	512	719	833	1171
Jan-20	475	961	553	816	257	341	449	595	515	712	839	1158
Feb-20	361	968	572	1074	258	573	450	1154	424	638	844	1038
Mar-20	339	749	791	1237	425	599	855	1204	415	577	826	1148



2018-19 (mg/Nm3)												
	Unit 1 NOx		Unit 1 SOx		Unit 2 NOx		Unit 2 SOx		UNIT 3 NOx		UNIT 3 SOx	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Apr-18	251	321	533	729	194	251	483	628	224	336	636	956
May-18	247	314	512	687	193	244	483	611	220	311	625	884
Jun-18	218	310	474	728	211	298			211	298	599	847
Jul-18	228	313	497	714	175	214	437	533	203	274	571	777
Aug-18					176	231	438	580		292	558	822
Sep-18	225	318	479	644	187	258	470	647	207	303	558	781
Oct-18	218	316	453	661	183	241	460	604	210	283	541	728
Nov-18					184	234	463	587	224	358	577	923
Dec-18	239	317	467	642	173	228	449	569	220	283	554	746
Jan-19		319	452	616	173	219	429	550		286	517	736
Feb-19		249	456	610	171	380	428	952	200	274	514	705
Mar-19		255	480	991	170	223	440	560	204	280	525	718

2017-18 (mg/Nm3)												
	Unit 1 NOx		Unit 1 SOx		Unit 2 NOx		Unit 2 SOx		UNIT 3 NOx		UNIT 3 SOx	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Apr-17	228	311	636	879		257	562	764	202	276		780
May-17	216	310	593	863	232	330	538	767		290	485	822
Jun-17	226	306	644	922	228	421	529	959	223	261	633	741
Jul-17	233	316	638	970	236	329	549	764				
Aug-17	222	314	677	953	254	319	589	741				
Sep-17	216	312	655	903	249	491		995				
Oct-17	219	333	695	996	249	375		950				
Nov-17	217	298	705	996	247	357	625	903				
Dec-17	228	297	583	995	202	339	507	857				
Jan-18	229	309	548	743		236		591				
Feb-18	233	310	557	769		234		585				
Mar-18	234	325	511	653		229	473	572				

22. We have considered the submissions of the Petitioner and TANGEDCO. TANGEDCO has submitted that the Petitioner may be directed to furnish the emission details about Suspended Particulate Matter (SPM level), SO₂ and NO_x from all three units for the past five years for analyzing any non-compliance and the need for commissioning of ECS systems. In response, the Petitioner has submitted that an ECS system is required to be installed to meet the Revised Emission Norms of 200 Mg/ Nm³. Further, the Petitioner has also submitted the monthly minimum and maximum SO₂ and NO_x emission levels of its three units during the last four years.

23. As regards the selection of the suitable technology, it is observed that the suitability and selection of the technology depend on various parameters like the age, size and location of the plant/ generating station, cost and availability of the technology, cost and availability of the reagents, usage of the by-products, etc. CEA



has recommended four types of technologies for control of SO₂ emissions and the Petitioner has selected WFGD technology for all the 3 units of the instant generating station. The Petitioner has mentioned the advantages of WFGD technology over other FGD technologies. Further, a large number of WFGD technology providers provide an opportunity to get competitive prices. The efficiency level of the WFGD system in reducing SO₂ emissions is better than the other three technologies suggested by CEA. The WFGD system proposed by the Petitioner is also in compliance with the CEA's recommendations.

24. With respect to NO_x emission, the MoEFCC vide Notification dated 19.10.2020, has revised the NO_x limit to 450mg/Nm³ against the limit of 300mg/Nm³ for units commissioned before 31.12.2016 in the light of the Hon'ble Supreme Court order dated 8.7.2020 in I.A. No. 12493/2020. Accordingly, the Petitioner would be able to comply with NO_x norms with the installation of primary control only i.e. Combustion Modification. Therefore, the instant station would not require additional capital of ₹80 crore with respect to SNCR installation.

25. The Petitioner has submitted that the selection of technology is in conformity with the recommendation dated 21.2.2019 and Advisory dated 7.2.2020 issued by CEA.

26. We are of the view that the Petitioner has done due diligence in identifying WFGD systems and Combustion Modification as the most suitable technology for reduction of SO₂ and NO_x emissions respectively in compliance with MoEFCC Notification. Accordingly, we approve installation of WFGD and Combustion Modification in all the 3 units of the Petitioner.



Approvals and the bidding process

27. The Petitioner selected the WFGD system to meet the revised ECNs with respect to SO₂ and Combustion Modification to meet the revised NO_x norms. The Petitioner has submitted that the selection of technology was carried out on the basis of the best technology available in terms of plant specifications in line with the recommendation made by CEA vide its letter dated 20.2.2019. The Petitioner has submitted that accordingly, the Board of Directors of the Petitioner vide Circular Resolution No. 4 dated 26.3.2020 approved the proposal to award the contracts for the FGD package and through Circular Resolution No. 3 dated 26.3.2020, accorded the Investment Approval to undertake the implementation of the FGD system at the VTPS. The Petitioner has submitted that the awarded cost of FGD system package for VTPS was approved in the 90th meeting of the Board of Directors of the Petitioner company held on 2.6.2020 through video conferencing, at the total cost of ₹875.50 crore excluding GST. The award contract provides for an escalation factor. The Petitioner has submitted that to meet the revised standards within a stipulated strict timeframe, the Petitioner, proceeded with pre-award activities such as location survey, identification of suitable technology, identification of vendors, preparation of technical specifications, floating of bid/ tender etc. which consumed a substantial amount of time of at least three years. Accordingly, the Petitioner proceeded with tendering and awarding the WFGD systems as early as possible in a phased manner through a transparent competitive bidding process. The Invitation for Bids (IFB) for installation of the WFGD system at the instant station was issued by NTPC (on behalf of the Petitioner) on 27.8.2019. The WFGD System package was awarded through Domestic Competitive Bidding (DCB). Four bids were received from bidders namely TPL, BHEL, Thermax & GEPIL. The L1 among these 4 bidders was Tata Projects



28. The Petitioner has submitted that the Board of Directors of the Petitioner in the 90th Meeting held on 2.6.2020, approved the investment approval for implementation of the FGD system in the VTPS and also approved the award of the FGD System Package to TATA Projects Limited. The contract for the installation of FGD was awarded on 6.4.2020. The process for installation of the FGD system is in progress. The installation of the WFGD system is delayed due to COVID-19 and at present, the civil works as well as Mechanical & Electrical erection work is in progress at VTPS.

30. It is observed that the whole process from the identification of the suitable technology to the award of Notice of Award (NoA) to the selected L1 bidder was with the approval of its Board. The Petitioner has also certified that bidding and award have been carried out in a fair and transparent manner as per the Delegation of Power (DoP) of the Petitioner and it is in line with the Government of India guidelines. NoA was issued on 6.4.2020, and work is in progress. It has been observed that the installation of the WFGD system was delayed due to COVID-19 and presently, TPL has started the works of installation of the WFGD system and the civil works as well



as mechanical & electrical erection work are in progress at the instant station. The commissioning of the WFGD system is expected to be completed in the last quarter of the current financial year. The installation of the De-NO_x /Combustion Modification system is expected to be completed in the current financial year. As stated above, VTPS would not require SNCR. In view of the fact that the process from the stage of identification of the WFGD package to the issue of Notification of Award (NoA) was with the approval of the Petitioner's Board of Directors and as per the procedure laid down under its DoP, we consider that the bidding process has been carried out in a Transparent manner.

31. The Petitioner has claimed ₹1135.51 crore as the total cost for installation of the WFGD system at VTPS, and the details of the same are as follows:

32. TANGEDCO has submitted that as per MoEFCC amendment notification dated 19.10.2020, the capital expenses proposed towards NO_x are not required, and the Commission may dismiss the claim towards SNCR and Combustion modification system totaling ₹106.29 crore. TANGEDCO has further submitted that the Petitioner has proposed the capital cost of ₹1135.51 crore incurred towards WFGD. CEA in their Norms has stated that “*The increase in no. of units will reduce the CAPEX because of common facilities*”. TANGEDCO has submitted that the Petitioner has not spelt out the

cost reduction in view of the installation of WFGD for Units-I, II and III, as there is a possibility of further reduction of expenditure.

33. In response, the Petitioner has submitted that the Combustion Modification is essential in order to comply with the revised norm of 450 mg/Nm³. Therefore, the instant station would not require capital addition with respect to SNCR. The claim of the Petitioner to comply with NO_x norms with installation of primary control i.e., Combustion Modification may be allowed and the other contentions raised by the TANGEDCO may be rejected.

34. The Petitioner has further submitted that the WFGD System package was awarded through DCB. Four bids were received from bidders namely TPL, BHEL, Thermax & GEPIL. The L1 among these 4 bidders was Tata Projects Limited ("TPL"). The awarded cost of the FGD system package for VTPS was approved at the total value of ₹875.50 crore excluding GST. The Petitioner has further submitted that the price has been discovered through a transparent competitive bidding process. Therefore, the prices discovered are reasonable. The said cost is economical and has been arrived at by carrying out DCB. Therefore, the contention of TANGEDCO is without merit.

35. The Petitioner vide affidavit dated 17.6.2021 has submitted that the hard cost without GST as proposed is ₹58.40 lakh/MW which is higher than CEA cost. The same is due to the reason that CEA has provided an indicative cost. The Petitioner has submitted that the instant station is located on the sea coast and seawater is used for various processes of power generation. This involved additional civil works of piling and ground improvement which are costlier in comparison with other stations. The piling work is much longer in the shore plant as piles need to go deeper due to marshy



land and thus increase the overall cost of the project. Further, additional water would be required for operating the WFGD, this necessitated the installation of additional water treatment systems such as RO etc. In view of the installation of an additional seawater treatment plant and additional civil works, the hard cost of WFGD is little on the higher side. However, CEA vide its letter dated 24.2.2021 has itself acknowledged that the earlier cost estimation is approximately three years old and the cost of FGD installation has increased possibly due to various reasons specified therein. In this regard, CEA has sought the latest tendering cost for different sizes and technology from Thermal Power Plants in India. The Petitioner has also submitted that the Commission has also acknowledged that, in recent times, bids for the installation of FGD systems have been floated by other generating stations as well and these may lead to changes in prices of FGD systems in the international and domestic market. The Petitioner has placed reliance on the Commission's *order dated 11.11.2019 in 152/MP/2019 – Maithon Power Ltd. vs. TPDDL & Ors*, *order dated 23.4.2020 in Petition No. 446/MP/2019 – Sasan Power Ltd. vs. MPPMCL & Ors* and *Order dated 6.5.2020 in Petition No. 209/MP/2019 – Sembcorp Energy India Ltd. vs. SPDCTL & Ors.*, wherein, the Commission has recognized that the cost provided by CEA was indicative in nature and the cost of FGD has increased due to various factors.

36. We have considered the submission of the Petitioner and TANGEDCO on the cost of installation of the WFGD system at VTPS. The Petitioner has claimed a hard cost of ₹58.40 lakh/MW (without GST) towards the installation of the WFGD system in VTPS of 3X500 MW against the CEA recommended hard cost of ₹45.00 lakh/MW. TANGEDCO has contended that the capital expenses proposed towards NO_x is not required, and the claim towards SNCR and Combustion Modification system totalling to ₹106.29 crore may be dismissed. TANGEDCO has also contended that the hard



cost of the WFGD system claimed by the Petitioner for VTPS of 3X500 MW is higher than the CEA norms and the Petitioner has not spelt out the cost reduction in view of the installation of FGD for Units-I, II and III, as there is a possibility of further reduction of expenditure. The Petitioner initially proposed the combination of Low NO_x Burners (Primary Control) and SNCR (Secondary Control) systems to meet the target of NO_x below 300 mg/NM3. However, with the revision of NO_x emission norms by the Hon'ble Supreme Court from 300 mg/Nm3 to 450 mg/Nm3, the CM is enough to meet the revised NO_x emission norms. Therefore, the capital cost towards the installation of CM is only claimed in the instant petition. The same has been approved by the Petitioner's 79th Board of Directors meeting held on 27.6.2018.

37. As the instant petition is for in-principle approval of the hard cost of ECS, which excludes IDC, IEDC, FERV, taxes and other costs, we are considering only the hard cost of the FGD system and other components of the cost of the FGD system is not considered in this order. The same will be considered after the implementation of the WFGD system and Combustion Modification system for SO₂ and NO_x reduction respectively in VTPS in a petition to be filed by the Petitioner under Regulation 29(4) of the 2019 Tariff Regulations.

38. The Commission has already recognized in the order dated 23.4.2020 in Petition No. 446/MP/2019 and the order dated 6.5.2020 in Petition No. 209/MP/2019 that the cost recommended by CEA is indicative in nature and that it is not possible to indicate the exact cost that can be discovered through a competitive bidding process. The hard cost of ₹58.40 lakh/MW claimed by the Petitioner towards the installation of WFGD, which is more than the CEA recommended cost and the same has been discovered through the Domestic Competitive Bidding process and has been duly



approved by the Board of Directors of the Petitioner. Moreover, the hard cost recommended by CEA is more than three years old and may have increased as has been acknowledged by CEA itself.

39. In view of the justifications provided by the Petitioner as regards the cost of installation of the WFGD system, we approve the hard cost of ₹58.40 lakh/MW claimed by the Petitioner towards installation of WFGD system to meet emission control norms for SO₂. Further, we also approve the claimed cost of ₹26.29 crore (without IDC) towards the Combustion Modification System to meet emission control norms for NO_x.

Liberty to approach the Commission

40. The Petitioner has submitted that the MoEFCC Notification mandates revised ECNs for water consumption, mercury and particulate matter, besides SO₂ and NO_x. As the Petitioner's Plant meets the norms in respect of water consumption, mercury and particulate matter as stipulated by the MoEFCC Notification, no claim has been made in respect of them in the instant petition. However, the Petitioner has sought liberty to approach the Commission if the Petitioner's Plant is unable to meet those norms and work(s) pertaining to the same is required to be undertaken in future.

41. We have considered the submissions of the Petitioner. It is observed that the MoEFCC Notification specifies revised ECNs for water consumption, particulate matter, Sulphur Dioxide (SO₂) and Oxides of Nitrogen (NO_x) and Mercury (Hg). The Petitioner has submitted that the works pertaining to the same will be taken up in future. Any petition by the Petitioner in future for installation of ECS for control of water consumption, mercury emissions and particulate matter would be dealt with as per the applicable laws and regulations.



Additional Operating Norms (APC and GSHR)

42. The Petitioner has prayed for the grant of additional operating norms (APC & GSHR) over and above the normative APC and GSHR for the station due to the implementation of ECS under Regulation 76 (Power to Relax) of the 2019 Tariff Regulations. The Petitioner has claimed additional APC for ECS @1% as per the 2019 Tariff Regulations and has also submitted that there is an increase in GSHR of 14.32 kcal/kwh due to SNCR and 19.09 kcal/kwh due to CMS.

43. TANGEDCO has submitted that the Petitioner has stated that the supplementary tariff impact due to the installation of schemes in order to meet the Revised Emission Standard is FC: 20.17 paise/kwh, and VC: 5.14 paise/kwh (1st year) and FC: 18.52 paise/kwh (levelised). Further, there would be a further increase in ECR and per unit FC (@ 85% Scheduled Generation) of the station by about 9 paisa/kwh due to increased APC (Auxiliary Power Consumption) and Station Heat rate.

44. We have considered the submissions of the Petitioner and TANGEDCO with respect to APC. The claim for additional APC due to the installation of FGD shall be dealt with as per provisions of the 2019 Tariff Regulations at the time of determination of supplementary tariff under Regulation of 29(4) of the 2019 Tariff Regulations after implementation of ECS.

45. TANGEDCO has submitted that the capital expenses proposed towards NO_x is not required, therefore, the claim of an increase in GSHR on the installation of WFGD may be rejected.

46. We have considered the submissions of the Petitioner and TANGEDCO with respect to GSHR. The Petitioner has sought approval of additional GSHR over and



above the normative GSHR due to the implementation of ECS under Regulation 76 i.e. “Power to relax” of the 2019 Tariff Regulations. TANGEDCO has submitted that the capital expenses proposed towards NO_x are not required and therefore, the claim of an increase in GSHR on the installation of WFGD may be rejected. Since the 2019 Tariff Regulations do not provide for allowing additional GSHR on account of installation of ECS for NO_x, the same is not allowed. The same may be raised by the Petitioner in its petition for determination of supplementary tariff under Regulation 29(4) of the 2019 Tariff Regulations after implementation of ECS.

Additional Water Consumption

47. The Petitioner has submitted that the quantum of water consumption would increase after the installation of the WFGD system. Accordingly, the Petitioner has claimed the cost of additional water consumption under Regulation 76, i.e. “Power to relax” of the 2019 Tariff Regulations.

48. We have considered the submissions of the Petitioner. The Petitioner’s claim for additional water consumption due to the installation of FGD shall be dealt with as per the norms specified by MoEFCC Notification as provided under Regulation 35(1)(6) of the 2019 Tariff Regulations, which provides as follows:

“35 Operation and Maintenance Expenses:

(1) Thermal Generating Station: Normative Operation and Maintenance expenses of thermal generating stations shall be as follows:

xxx

(6) The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:

Provided that water charges shall be allowed based on water consumption and considering the norms of specific water consumption notified by the Ministry of Environment, Forest and Climate Change” depending upon type of plant and type of cooling water system, subject to prudence check. The details regarding the same shall



be furnished along with the petition;”

Cost of Reagents

49. The Petitioner has claimed the cost of chemical/reagents (limestone, ammonia etc.) on account of implementation of ECS in the instant station.

50. TANGEDCO has prayed to direct the Petitioner to furnish all details as per the directions of the CEA such as the Sulphur content of the coal, availability of reagent (if any), disposal and handling of By-product and space requirement etc. In response, the Petitioner has submitted that the Petitioner will submit all the relevant information as and if directed by the Commission.

51. We have considered the submissions of Petitioner and TANGEDCO. **The Petitioner's claim for the cost of reagent due to the installation of FGD shall be dealt with as provided in Regulation 49(F) of the 2020 Amendment Regulations** which provides for norms for consumption of reagent in the petition to be filed for the determination of supplementary tariff under Regulation of 29(4) of the 2019 Tariff Regulations after installation of ECS.

Additional O&M Expenses

52. The Petitioner has submitted that with the installation of various ECS to meet the revised ECNs, there would be a requirement of additional manpower for the operation and maintenance of these systems, spares pertaining to these systems etc. for operating these systems on a sustained basis. Accordingly, the Petitioner would incur additional O&M Expenses. The Petitioner has further submitted that as per Regulation 35(1)(7) of the 2019 Tariff Regulations, additional O&M Expenses on account of implementation of ECS shall be notified separately. However, till the norms



are notified, the Commission may decide on the additional O&M Expenses on a case-to-case basis. The Petitioner has further submitted that as per the first amendment to the 2019 Tariff Regulations, Regulation 35(1)(7) of the Principle Regulations has been substituted as follows:

“(7) The operation and maintenance expenses on account of emission control system in coal or lignite based thermal generating station shall be 2% of the admitted capital expenditure (excluding IDC and IEDC) as on its date of operation, which shall be escalated annually @3.5% during the tariff period ending on 31st March 2024:

Provided that income generated from sale of gypsum or other by-products shall be reduced from the operation and maintenance expenses.”

53. The Petitioner has computed the indicative supplementary tariff for the additional O&M Expenses @ 2% of the capital cost (excluding IDC and FC).

54. We have considered the submissions of the Petitioner. The Petitioner's prayer for the grant of additional O&M Expenses towards deployment of additional manpower on account of installation of ECS to meet the revised norms will be dealt with as per the regulations at the time of determination of supplementary tariff under Regulation of 29(4) of the 2019 Tariff Regulations after implementation of ECS.

Deemed availability on account of shutdown

55. The Petitioner has submitted that the generating unit has to be taken under shutdown for about 45-60 days for implementation of ECS in compliance with MoEFCC Notification and stabilization of the same would take some more time. The Petitioner has submitted that during the period of the shutdown of the unit, there would be a loss of availability of the station and would lead to under-recovery of Annual Fixed Charges on account of the implementation of ECS. Accordingly, the Petitioner has prayed to consider the shutdown period of the unit for implementation of the ECS as “deemed availability”.



58. We have considered the submissions of the Petitioner and TANGEDCO. The Commission in the order dated 22.6.2020 in Petition No. 168/MP/2019 has already held that Petitioner and the beneficiaries shall plan and synchronize the inter-connection of the FGD system with the plant with the annual overhaul. The relevant portion of the order dated 22.6.2020 reads as follows:

59. We are not inclined to go into this issue at this stage, and the same will be considered in the petition that has to be filed by the Petitioner under Regulation 29(4) of the 2019 Tariff Regulations after implementation of the ECS.

(a) The process from the stage of identification of the FGD package to NoA was with the approval of the Petitioner's Board of Directors and as per the procedure laid down under its DoP, We consider that the bidding process has been carried out in a transparent manner.

(b) The Petitioner has identified and proposed a WFGD system for reduction in the SO₂ emissions and a Combustion Modification system for reduction of NO_x, taking into consideration the effectiveness, availability, cost, size of the plant, operational expenses and availability of the reagents, we accordingly, approve the same.

(c) The costs claimed by the Petitioner towards the installation of the WFGD system and Combustion Modification system have been discovered through a competitive bidding process. The hard costs claimed by the Petitioner for the WFGD system are higher than the indicative cost recommended by CEA, but the Petitioner has provided justification and reasons for the same. Accordingly, "In-principle approval" is accorded to the claimed hard cost of ₹58.40 lakh/MW towards installation of the WFGD system to meet emission control norms for SO₂ and claimed cost of ₹26.29 crore (without IDC) towards Combustion Modification System to meet emission control norms for NO_x.

61. This order disposes of Petition No. 19/MP/2020 in terms of the above findings and discussions.

sd/-
(P. K. Singh)
Member

sd/-
(Arun Goyal)
Member

sd/-
(I. S. Jha)
Member

sd/-
(Jishnu Barua)
Chairperson



ANNEXURE-A/1**NTPC Tamil Nadu Energy Company Ltd**(A Joint Venture of NTPC Ltd & TANGEDCO)
CIN : U40108DL2003PLC120487**COPY OF CIRCULAR RESOLUTION NO.4 of 2019-20 PASSED BY THE BOARD OF DIRECTORS THROUGH CIRCULATION ON 26th MARCH 2020****SUB: Flue Gas Desulphurisation (FGD) System Package for Vallur Thermal Power Station (3x500 MW) – Approval of Award**

The Board passed the following resolution:

Resolved that the Proposal to accept the award recommendations forwarded by NTPC and place the award for Flue Gas Desulphurisation (FGD) System Package for NTECL, Vallur Thermal Power Station (3x500 MW) on TATA Projects Limited at the total value of Rs. 875,50,00,000/- (Rupees eight hundred seventy five crores and fifty lakhs only) GST extra at actual (presently @ 18%), as detailed in the background note, be and is hereby approved.

Certified True Copy
For NTPC Tamil Nadu Energy Company Limited

(Amit Garg)

Company Secretary

Membership No.: A20370

**ADDRESS: NTPC Bhawan, Core-7,
Scope Complex, 7, Institutional Area,
Lodi Road, New Delhi-110003**

Regd. Office: NTPC Bhawan, Scope Complex, 7 Institutional Area, Lodhi Road, New Delhi-110003

CIN: U40108DL2003PLC120487

// TRUE COPY//

**Budupula
Subhakar**

Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
1de53f05de314d924bb1f3b7c9e21dd19b61435d
c72904e54984b056fa385100,
telephoneNumber=
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ANNEXURE-A/2

NTPC Tamil Nadu Energy Company Ltd
 (A Joint Venture of NTPC Ltd & TANGEDCO)
 CIN : U40108DL2003PLC120487

Ref.: No. : 01:SEC:BM:79

Dated : 27.6.2018

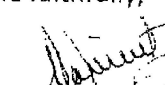
Shri Debasis Sarkar
 Chief Executive Officer
 NTPC Tamil Nadu Energy Co. Limited
 Chennai

SUB: 79th BOARD MEETING

Dear Sir,

We send herewith a copy of Approved Minutes of 79th Meeting of the Board of Directors held on **Thursday, 24th May, 2018 at NTPC Bhawan, Scope Complex, Lodi Road, New Delhi-110001** for your kind perusal and record.

Yours faithfully,


 (Amit Garg)

Company Secretary

Encl: as above

Regd. Off : NTPC Bhawan, Core - 7, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi - 110 003
 Phone : 011- 2438 7889 Fax : 011-24360241 Website : www.ntpcnteccljv.co.in, Email : amit1106.acs@gmail.com

**Budupula
 Subhakar**

Item No.79.2.6 Approval for Cost Estimate & NIT for "Package for combustion modification for reduction of NOX" for Vallur TPP(3X500MW) of NTECL

The Board, after discussion, passed the following resolution:

Resolved that the budget allocation of Rs. 60 crores included in the Project Revised Cost Estimate-2 for "Package for combustion modification for reduction of NOX" for Vallur Thermal Power Project(3x500MW), to meet the boiler stack NOX emission norms, as per revised MoEF & CC notification dated 7.12.2015 and approved by the Board in the 78th Meeting, be approved as the cost estimate for NIT of the subject package.

Further resolved that the NIT for "Package for combustion modification for reduction of NOx" for Vallur Thermal Power Project (3x500MW), to meet the boiler stack NOx emission norms, as per revised MoEF&CC notification dated 7.12.2015, be and is hereby approved.

Further resolved that the proposal that NTPC Ltd carry out the tendering for NTECL and issue the NIT for "Package for combustion modification for reduction of NOx" for Vallur Thermal Power Station(3x500MW), up to award recommendations, the award being subject to NTECL Board approval, be and is hereby approved.

The Meeting concluded at 12.30 P.M. with a vote of thanks to the Chair.

XXXXX



// TRUE COPY //

NTPC TAMIL NADU ENERGY COMPANY LIMITED

MINUTES OF 90th MEETING OF THE BOARD OF DIRECTORS HELD ON TUESDAY, 2ND JUNE, 2020 AT 4:10 P.M. THROUGH VIDEO CONFERENCING

PRESENT (Thru VC):

Shri Ramesh Babu V.	: Chairman
Shri Vikram Kapur, IAS	: Director
Ms. M. M. Bai	: Director
Shri A.N Sahay	: Independent Director
Shri Debasis Sarkar	: Director
Shri A. Ashok Kumar	: Director
Shri C.V. Anand	: Director

IN ATTENDANCE (Thru VC):

Shri Basuraj Goswami	: Chief Executive Officer
Shri Mohammad Fahim Ahemed	: Chief Financial Officer
Shri Amit Garg	: Company Secretary

BY INVITATION (Thru VC):

Ms Nandini Sarkar	: Co. Sec., NTPC Limited
Shri Vinay Kumar	: AGM, (HR), NTECL
Shri Shri Murlidharan	: AGM, Fuel Management, NTECL
Shri John Cherian	: AGM, EEMG

At the outset, Company Secretary requested Chairman of the Meeting to take the roll call, accordingly, roll call was taken by the Chairman for the Members who attended the Meeting through VC in view of complete lockdown across the country and further relaxation provided by Ministry of Corporate Affairs. All the Directors, and attendee identified themselves and declared their presence in the Meeting through VC. They also informed that all the relevant material including agenda(s) was received by them for the Meeting and no one else was attending the meeting with them. Shri Ramesh Babu V., Chairman of the Meeting stated that he was attending the Meeting through Video Conferencing (VC) from NTPC Bhawan, New Delhi. Shri Vikram Kapur stated that he was attending the Meeting through VC from TNEB Office, Chennai, Shri A Ashok Kumar stated that he was attending the Meeting through VC from TNEB Office, Chennai and Ms. M M Bai stated she was attending the Meeting through VC from TNEB Office, Chennai, Tamil Nadu, Shri A N Sahay stated that he was attending the Meeting through VC from his residence, Ranchi, Shri D.Sarkar stated that he was attending the Meeting through VC from NTPC Office, Noida, C V Anand stated that he was attending the Meeting through VC from NTPC SR-HQ Office, Hyderabad. Further, Shri Basuraj Goswami, CEO stated that he was attending the meeting through VC from NTECL Office, Vallur Plant, Chennai and Shri M F Ahmed, CFO stated that he was attending the Meeting through VC from NTECL Office, Vallur plant, Chennai. Further, Ms. Nandini Sarkar stated that she was attending the meeting through VC from, New Delhi & Shri Amit Garg, Co.Sec. stated that he was attending the meeting through VC from NTPC Bhawan, New Delhi.

The Chairman welcomed the Directors and other participants to the 90th Board meeting of the Company.

38

Budupula Subhakar

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EMPLOYEE, ST=Tamil Nadu, postalCode=
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Company Secretary confirmed to the Chair about the presence of quorum for the Meeting. The Chairman then declared that the meeting was in order.

ITEMS FOR INFORMATION

Item No. 90.1.1 Confirmation of minutes of 89th Board Meeting

The Board passed the following resolution:

Resolved that the Minutes of 89th Meeting of the Board of Director held on 24th February, 2020 be and are hereby confirmed.

Item No. 90.1.2 Noting of Minutes of 6th CSR Committee & 5th NRC Committee Meeting as per Secretarial Standard issued by Institute of Company Secretaries of India

The Board passed the following resolution:

Resolved that the Minutes of 6th CSR Committee Meeting and 5th NRC Committee Meeting of the Board of Directors held on 24th February, 2020 in compliance with Secretarial Standard issued by Institute of Company Secretaries of India be and are hereby noted.

Item No. 90.1.3 Noting of Resolutions passed by Circulation

The Board passed the following resolution:

Resolved that, the following resolutions passed by the Board of Directors through circulation on 26th March 2020 & 11th May 2020 respectively be and are hereby noted:

26th March 2020- SUB: Investment Approval for Implementation of Flue Gas Desulphurization (FGD) system for Vallur TPS (3X500MW) of NTECL

Resolved that the Proposal for Capital addition scheme of Flue Gas Desulphurization (FGD) package for Vallur TPS (3x500MW) at an estimated cost of Rs 1135.51 crore, be and is hereby approved.

26th March 2020- Flue Gas Desulphurisation (FGD) System Package for Vallur Thermal Power Station (3x500 MW) – Approval of Award

Resolved that the Proposal to accept the award recommendations forwarded by NTPC and place the award for Flue Gas Desulphurisation (FGD) System Package for NTECL, Vallur Thermal Power Station (3x500 MW) on TATA Projects Limited at the total value of Rs. 875,50,00,000/- (Rupees eight hundred seventy five crores and fifty lakhs only) GST extra at actual (presently @ 18%), as detailed in the background note, be and is hereby approved.

11th May 2020- Change in Directorship of the Company

Resolved that the resignation tendered by Shri Prakash Tiwari as the Part-time Chairman of the Company consequent upon attaining the age of superannuation be and is hereby noted.

Further resolved that pursuant to provisions of the Companies Act, 2013, Article 101 of the Articles of Association of the Company and the nomination received from NTPC Limited

3169

**Budupula
Subhakar**

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Tamilnadu Energy Company Limited, OU=
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ANNEXURE-A/5**ORIGINAL**

NTECL

NTPC Tamilnadu EnergyCo.Ltd.

(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

Ref. No.: CS-0011-109(5)-9-FC-NOA-3922

Date: 06.04.2020

M/s.Tata Projects Limited,
Mithona Towers-I,
1-7-80 to 87, Prenderghast Road,
Secunderabad – 500003

Kind Attn.: Mr. Subrata Roy, Assistant Vice President

Sub.: Notification of Award (NOA) for Ex-works (India) Supply for Flue Gas
Desulphurisation (FGD) System Package for Vallur Thermal Power Station,
(3x500 MW) as per Common Bidding Document No. CS-0011-109(5)-9.

Dear Sir,

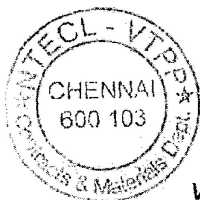
1.0 This has reference to the following:

- Our Invitation for Bids (IFB) No. 40088037 dated 27.08.2019 inviting Envelope-I (Techno-Commercial) Bids and Envelope-II (Price) Bids.
- Bidding Documents for the subject package downloaded by you from SRM portal comprising the following:

S. No.	Description of Bidding Documents
1	Section-I : Invitation for Bids (IFB)
2	Section-II : Instructions to Bidders (ITB)
3	Section-III : Bid Data Sheets (BDS)
4	Section-IV : General Conditions of Contract (GCC)
5	Section- V : Special Conditions of Contract (SCC)
6	Section-VI : Technical Specifications including Tender Drawings and Technical Data Sheets
7	Section-VII : Forms & Procedures (FP) consisting of Part-1 of 3, Part-2 of 3 and Part-3 of 3

- Various Amendments/Clarifications/Errata issued to the Bidding Documents for the subject package as per details given below:

List of Clarifications			
S. No.	Description	Ref. no.	Issuance/ Uploading Date
1	Clarification no. 1 to Bidding Documents	CS-0011-109(5)-9-CLRF.01 (COMM.)	19.09.2019
2	Clarification no. 1 to Bidding Documents	CS-0011-109(5)-9-	03.10.2019



Vallur Thermal Power Project, Vellivoyal Chavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

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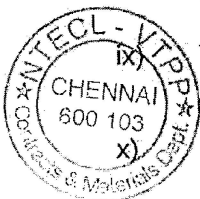
Budupula
Subhakar

	Documents	CLRF-01 (TECH)	
3	Clarification no. 2 to Bidding Documents	CS-0011-109(5)-9-CLRF.02	04.10.2019
List of Amendments			
S. No.	Description	Ref. no.	Issuance/ Uploading Date
1	Amendment no. 1 to Bidding Documents	CS-0011-109(5)-9-AMDT.01	19.09.2019
2	Amendment no. 2 to Bidding Documents	CS-0011-109(5)-9-AMDT.02	28.09.2019
3	Amendment no. 3 to Bidding Documents	CS-0011-109(5)-9-AMDT.03	03.10.2019
4	Amendment no. 4 to Bidding Documents	CS-0011-109(5)-9-AMDT.04	09.10.2019
List of Errata			
S. No.	Description	Ref. no.	Issuance/ Uploading Date
1	Errata No.1 to Bidding Documents (Technical Portion)	CS-0011-109(5)-9-ERRATA-01	10.10.2019
2	Errata No.2 to Bidding Documents (Technical Portion)	CS-0011-109(5)-9-ERRATA-02	15.10.2019
3	Errata No.3 to Bidding Documents (Commercial Portion)	CS-0011-109(5)-9-ERRATA-03	21.10.2019

- iv) Your Envelope-I (Techno-commercial) Bidref. No. NIL dated 23.10.2019 opened on 05.11.2019.
- v) Your declaration regarding Reverse Auction dated 09.12.2019.
- vi) Your Envelope-II (Price) Bidref. no. TPH/P&M/NTPC-LOT5/6298 dated 23.10.2019 opened on 23.01.2020 and Reverse Auction held for subject Package on 23.01.2020.
- vii) Our email dated 12.02.2020 inviting you for discussions regarding rate analysis and price justification.
- viii) Your Letter Ref. No. TPH/P&M/NTPC-LOT5/6335 dated 25.02.2020 regarding discount offered to final Price along with revised Price Schedules.

ix) Your Letter Ref. No. TPH/P&M/NTPC-LOT5/6336 dated 25.02.2020 regarding revised Import Content.

Letter of Intent Ref No. CS-0260-109(5)-9-LOI-3922&3923 Dated 27.03.2020.



Vallur Thermal Power Project, Vellivoyal Chavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

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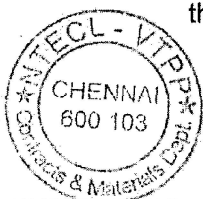
NTECL

NTPC Tamilnadu EnergyCo.Ltd.

(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

- 2.0 We confirm having accepted your Bid comprising Envelope-I (Techno-commercial) opened on 05.11.2019 and Envelope-II (Price) ref. no. TPH/P&M/NTPC-LOT5/6298 dated 23.10.2019 opened on 23.01.2020, read in conjunction with all the Specifications, Terms and Conditions of the Bidding Documents & its Amendments/ Clarifications/ Errata and all the correspondence as referred to in para 1.0 above and award on you the contract for work of Design, Engineering, Manufacturing, Shop fabrication, Assembly, Inspection and Testing at Supplier's work(s), Type Testing, Packing, Forwarding to site of all Ex-Manufacturing Works/Place of Dispatch (both in India) Equipment/ Materials/ Special tools & tackles and Mandatory Spares, etc. covered under Flue Gas Desulphurisation (FGD) System Package for Vallur TPS(3x500 MW) as per Bidding Document and its Amendments/ Clarifications/ Errata as referred to in para 1.0 above (hereinafter referred to as the 'First Contract').
- 3.0 We have also issued Notification of Award on you vide our NOA no.CS-0011-109(5)-9-SC-NOA-3923 dated XX.03.2020 for the work of providing all services i.e. Transportation from manufacturer's works/ place of dispatch to site (both in India), transit insurance, delivery at site, receipt, unloading, handling, storage, in-plant transportation, taking delivery of employer supplied equipment from site stores, comprehensive all risk insurance, installation, civil & architectural works, structural steel works, supervision, pre-commissioning, testing, commissioning and performance testing of all Equipment/systems and materials, and all other services leading to successful "completion of facilities" and handing over to Employer of the Equipment/ Materials including Mandatory Spares, Training and AMC etc.(hereinafter referred to as the 'Second Contract') covered under Flue Gas Desulphurisation (FGD) System Package for Vallur TPS(3x500 MW), as per Bidding Document and its Amendments/ Clarifications/ Errata as referred to in para 1.0 above.
- 3.1 You shall also be fully responsible for the works to be executed under the 'Second Contract' and it is expressly understood and agreed by you that any breach under the 'Second Contract' shall automatically be deemed as a breach of this 'First Contract' and vice- versa and any such breach or occurrence or default giving us a right to terminate the 'Second Contract' and/or recover damages there under, shall give us an absolute right to terminate this Contract and/or recover damages under this 'First Contract' as well and vice- versa. However, such breach or default or occurrence in the 'Second Contract' shall not automatically relieve you of any of your responsibilities/obligations under this 'First Contract'. It is also expressly understood and agreed by you that the equipment/ materials to be supplied by you under this 'First Contract' when installed and commissioned under the 'Second Contract' shall give satisfactory performance in accordance with the provisions of the Contract.



Vallur Thermal Power Project, VellivoyalChavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

Regd.Off : NTECL, NTPC Bhawan, Core-7, SCOPE Complex, 7, Institutional Area, Indira Nagar, New

**Budupula
Subhakar**

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Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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NTPC Tamilnadu EnergyCo.Ltd.

(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

4.0 CONTRACT PRICE

- 4.1 The total Contract Price for the entire scope of work covered under this NOA shall be **INR 546,05,39,634/- (Indian Rupees Five Hundred Forty Six Crore, Five Lakh, Thirty Nine Thousand, Six Hundred Thirty Four only)** as per the following break up:

1.	Ex-Manufacturing Works/Place of Dispatch Price (both in India) for Plant & Equipment	INR 520,18,15,894.00
2.	Ex-Manufacturing Works/Place of Dispatch Price (both in India) for Mandatory spares	INR 25,40,34,851.00
3.	Type Test Charges	INR 46,88,889.00
	Total [1+2+3]	INR 546,05,39,634.00

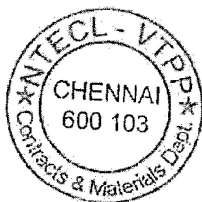
- 5.0 You shall prepare and finalize the Contract Documents for signing of the formal Contract Agreement and shall enter into the Contract Agreement with us, as per Performa enclosed with the Bidding Documents, on non-judicial stamp paper of appropriate value within 28 days from the date of this Notification of Award.
- 6.0 This NOA is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page, by the authorized signatory of your Company as a proof of your acknowledgement and confirmation.

Please take necessary action to commence the work and confirm action.

Thanking You,

Yours faithfully,
For and on behalf of NTECL.

[Signature]
(Hariprasad Salla)
Sr. Manager (CS)
Email : hariprasads@ntpc.co.in



Vallur Thermal Power Project, VellivoyalChavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

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**Budupula
Subhakar**

ORIGINAL
NTECL **NTPC Tamilnadu Energy Co. Ltd.**
 (A Joint Venture of NTPC Ltd. & TANGEDCO)
Vallur

Ref. No.: CS-0011-109(5)-9-SC-NOA-3923

Date: 06.04.2020

M/s. Tata Projects Limited,
 Mithona Towers-I,
 1-7-80 to 87, Prenderghast Road,
 Secunderabad – 500003

Kind Attn.: Mr. Subrata Roy, Assistant Vice President

Sub.: Notification of Award (NOA) for Inland Transportation, Inland Insurance, Installation, Civil & Architectural Works, Structural Steel Works, Testing & Commissioning for Flue Gas Desulphurisation (FGD) System Package for Vallur Thermal Power Station (3x500 MW) as per Common Bidding Document No. CS-0011-109(5)-9.

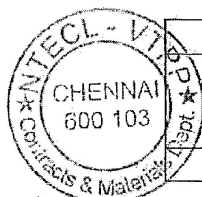
Dear Sir,

1.0 This has reference to the following:

- Our Invitation for Bids (IFB) No. 40088037 dated 27.08.2019 inviting Envelope-I (Techno-Commercial) Bids and Envelope-II (Price) Bids.
- Bidding Documents for the subject package downloaded by you from SRM portal comprising the following:

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6	Section-VI : Technical Specifications including Tender Drawings and Technical Data Sheets
7	Section-VII : Forms & Procedures (FP) consisting of Part-1 of 3, Part-2 of 3 and Part-3 of 3

- Various Amendments/Clarifications/Errata issued to the bidding documents for the subject package as per details given below:



List of Clarifications			
S. No.	Description	Ref. no.	Issuance/ Uploading Date
1	Clarification no. 1 to	CS-0011-	19.09.2019

Vallur Thermal Power Project, Vellivoyal Chavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

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Budupula Subhakar

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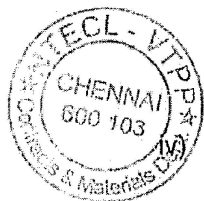


NTPC Tamilnadu EnergyCo.Ltd.

(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

	Bidding Documents	109(5)-9-CLRF.01 (COMM.)	
2	Clarification no. 1 to Bidding Documents	CS-0011-109(5)-9-CLRF-01 (TECH)	03.10.2019
3	Clarification no. 2 to Bidding Documents	CS-0011-109(5)-9-CLRF.02	04.10.2019
List of Amendments			
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2	Amendment no. 2 to Bidding Documents	CS-0011-109(5)-9-AMDT.02	28.09.2019
3	Amendment no. 3 to Bidding Documents	CS-0011-109(5)-9-AMDT.03	03.10.2019
4	Amendment no. 4 to Bidding Documents	CS-0011-109(5)-9-AMDT.04	09.10.2019
List of Errata			
S. No.	Description	Ref. no.	Issuance/ Uploading Date
1	Errata No.1 to Bidding Documents (Technical Portion)	CS-0011-109(5)-9-ERRATA-01	10.10.2019
2	Errata No.2 to Bidding Documents (Technical Portion)	CS-0011-109(5)-9-ERRATA-02	15.10.2019
3	Errata No.3 to Bidding Documents (Commercial Portion)	CS-0011-109(5)-9-ERRATA-03	21.10.2019



Your Envelope-I (Techno-commercial) Bid ref. No. NIL dated 23.10.2019 opened on 05.11.2019.

Vallur Thermal Power Project, VellivoyalChavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

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NTPC Tamilnadu EnergyCo.Ltd.

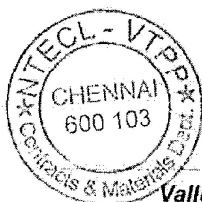
(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

- v) Your declaration regarding Reverse Auction dated 09.12.2019.
- vi) Your Envelope-II (Price) Bid ref. no. TPH/P&M/NTPC-LOT5/6298 dated 23.10.2019 opened on 23.01.2020 and Reverse Auction held for subject Package on 23.01.2020.
- vii) Our email dated 12.02.2020 inviting you for discussions regarding rate analysis and price justification.
- viii) Your Letter Ref. No. TPH/P&M/NTPC-LOT5/6335 dated 25.02.2020 regarding discount offered to final Price along with revised Price Schedules.
- ix) Your Letter Ref. No. TPH/P&M/NTPC-LOT5/6336 dated 25.02.2020 regarding revised Import Content.
- x) Letter of Intent Ref No. CS-0260-109(5)-9-LOI-3922&3923 Dated 27.03.2020.

2.0 We confirm having accepted your Bid comprising Envelope-I (Techno-commercial) opened on 05.11.2019 and Envelope-II (Price) ref. no. TPH/P&M/NTPC-LOT5/6298 dated 23.10.2019 opened on 23.01.2020, read in conjunction with all the Specifications, Terms and Conditions of the Bidding Documents & its Amendments/ Clarifications/ Errata and all the correspondence as referred to in para 1.0 above and award on you the contract for the work of all services i.e. Transportation from manufacturer's works/ place of dispatch to site (both in India), transit insurance, delivery at site, receipt, unloading, handling, storage, in-plant transportation, taking delivery of employer supplied equipment from site stores, comprehensive all risk insurance, installation, civil & architectural works, structural steel works, supervision, pre-commissioning, testing, commissioning and performance testing of all Equipment/ systems and materials, and all other services leading to successful "completion of facilities" and handing over to Employer of the Equipment/ Materials including Mandatory Spares, Training and AMC etc. covered under Flue Gas Desulphurisation (FGD) System Package for Vallur TPS, (3x500 MW), as per Bidding Document and its Amendments/ Clarifications/ Errata as referred to in para 1.0 above (hereinafter referred to as the 'Second Contract').

3.0 We have also issued Notification of Awards on you vide our NOA no. CS-0011-109(5)-9-FC-NOA-3922 dated XX.03.2020 for the work of Design, Engineering, Manufacturing, Shop fabrication, Assembly, Inspection and Testing at Supplier's works, Type Testing, Packing, Forwarding to site of all Ex-Manufacturing Works/Place of Dispatch (both in India) Equipment/ materials/ Special tools & tackles and Mandatory Spares etc. (hereinafter referred to as the 'First Contract') covered under Flue Gas Desulphurisation (FGD) System Package for Vallur TPS, (3x500 MW), as per Bidding Document and its Amendments/ Clarifications/ Errata as referred to in para 1.0 above.



Vallur Thermal Power Project, Vellivoyal Chavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

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NTPC Tamilnadu EnergyCo.Ltd.

(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

- 3.1 You shall also be fully responsible for the works to be executed under the 'First Contract' and it is expressly understood and agreed by you that any breach under the 'First Contract' shall automatically be deemed as a breach of this 'Second Contract' and vice-versa and any such breach or occurrence or default giving us a right to terminate the 'First Contract' and/or recover damages there under, shall give us an absolute right to terminate this Contract and/or recover damages under this 'Second Contract' as well and vice-versa. However, such breach or default or occurrence in the 'First Contract' shall not automatically relieve you of any of your responsibilities/obligations under this 'Second Contract'. It is also expressly understood and agreed by you that the equipment/ materials to be supplied by you under 'First Contract' when installed and commissioned under this 'Second Contract' shall give satisfactory performance in accordance with the provisions of the Contract.

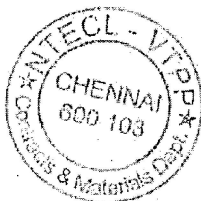
4.0 CONTRACT PRICE

- 4.1 The total Contract Price for the entire scope of work covered under this NOA shall be **INR 329,44,60,366 (Indian Rupees Three Hundred Twenty Nine Crore, Forty Four Lakh, Sixty Thousand, Three Hundred and Sixty Six only)** as per the following break up:

1.	Local Transportation and Inland insurance charges for Plant and Equipment covered under First Contract.	INR 7,09,42,577
2.	Local Transportation and Inland insurance charges for Mandatory Spares covered under First Contract.	INR 50,54,433
3.	Installation Services	INR 78,02,72,384
4.	Civil & Architectural Works	INR 174,44,12,371
5.	Structural Steel Works	INR 62,81,93,814
6.	Training Charges	INR 17,14,897
7.	AMC Charges ✗	INR 8,12,319
8.	Amount linked to Safety Aspects/ compliance to Safety Rules	INR 6,30,57,571
	Total [1+2+3+4+5+6+7+8]	INR 329,44,60,366

* AMC is only for few C&I items relating to wireless link/messaging system/connectivity of CEMS/analytical instruments.

- 5.0 You shall prepare and finalize the Contract Documents for signing of the formal contract Agreement and shall enter into the Contract Agreement with us, as per Performa enclosed with the Bidding Documents, on non-judicial stamp paper of appropriate value within 28 days from the date of this Notification of Award.



Signature

Vallur Thermal Power Project, Vellivoyal Chavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

Regd. Off : NTECL, NTPC Bhawan, Core-7, SCOPE Complex, 7, Institutional Area, Budupula Subhakar, NTPC

**Budupula
Subhakar**



NTPC Tamilnadu EnergyCo.Ltd.

(A Joint Venture of NTPC Ltd. & TANGEDCO)

Vallur

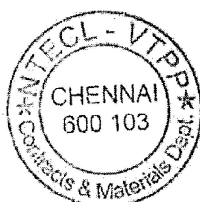
- 6.0 This NOA is being issued to you in duplicate. We request you to return its duplicate copy duly signed and stamped on each page, by the authorized signatory of your Company as a proof of your acknowledgement and confirmation.

Please take necessary action to commence the work and confirm action.

Thanking You,

Yours faithfully,
For and on behalf of NTPC Ltd.

Hariprasad
(Hariprasad Salla)
Sr. Manager (CS)
Email : hariprasads@ntpc.co.in



// TRUE COPY //

Vallur Thermal Power Project, Vellivoyal Chavadi P.O., Ponneri Taluk., Thiruvallur Dist., Chennai 600 103

Tel # 9445030151, 9445030152

Regd. Off : NTECL, NTPC Bhawan, Core-7, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi

**Budupula
Subhakar**


NTPC Tamilnadu Energy Company Ltd

 (A Joint Venture of NTPC Ltd & TANGEDCO)
 CIN : U40108DL2003PLC120487

Vallur Thermal Power Station

Vellivoyal Chavadi: P.O., Ponneri (Taluk), Thiruvallur District, Chennai –600103

Ref. No. NTECL/2026/01

Date: 13.01.2026

CERTIFICATE

This is to certify that Emission Control System (ECS), Wet FGD, has been successfully commissioned and put into use at Unit#1 of NTECL Vallur Thermal Power Station as per the details below:

Unit No.	Capacity (MW)	Name of ECS Scheme	Date of Operation
1	500	Wet Limestone based Flue Gas Desulphurisation (FGD) System	15.01.2026

It is further certified that the above ECS scheme is meeting the applicable technical and environmental standards. The above said unit is meeting the revised emission standards as specified in the MOEF Notification dated 07.12.2015, notified under Environment (Protection) Amendment Rules, 2015.

 Masood
 Akhtar Ansari

 Digitally signed by
 Masood Akhtar Ansari
 Date: 2026.01.13
 19:08:22 +05'30'

(Masood Akhtar Ansari)

Director (NTECL-Vallur)



NTPC Tamilnadu Energy Company Ltd

(A Joint Venture of NTPC Ltd & TANGEDCO)

CIN : U40108DL2003PLC120487

Vallur Thermal Power Station

Vellivoyal Chavadi: P.O., Ponneri (Taluk), Thiruvallur District, Chennai –600103

Ref. No. NTECL/2026/02

Date: 18.03.2026

CERTIFICATE

This is to certify that Emission Control System (ECS), Wet FGD, has been successfully commissioned and will be put into use at Unit#3 of NTECL Vallur Thermal Power Station as per the details below:

Unit No.	Capacity (MW)	Name of ECS Scheme	Date of Operation
3	500	Wet Limestone based Flue Gas Desulphurisation (FGD) System	20.03.2026

It is further certified that the above ECS scheme is meeting the applicable technical and environmental standards. The above said unit is meeting the revised emission standards as specified in the MOEF Notification dated 07.12.2015, notified under Environment (Protection) Amendment Rules, 2015.

Masood
Akhtar
Ansari
(Masood Akhtar Ansari)

Digitally signed by
Masood Akhtar
Ansari
Date: 2026.03.18
17:47:56 +05'30'

Director (NTECL-Vallur)

[TO BE PUBLISHED IN THE GAZETTE OF INDIA, EXTRAORDINARY, PART II, SECTION 3, SUB-SECTION (i)]

GOVERNMENT OF INDIA
MINISTRY OF FINANCE
(DEPARTMENT OF REVENUE)

Notification No. 2/2021-Customs

New Delhi, the 1st February, 2021

G.S.R. (E).- In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962) and sub-section (12) of section 3 of Customs Tariff Act, 1975 (51 of 1975), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby makes the following further amendments in the notification of the Government of India, Ministry of Finance (Department of Revenue), No. 50/2017- Customs, dated the 30th June, 2017, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), *vide* number G.S.R. 785(E), dated the 30th June, 2017, namely:-

In the said notification, -

I. in the Table, -

- (1) against S. No. 20, in column (3), for the entry, the entry “Pulses [other than Peas (Pisum sativum), Tur, Chickpeas, Kabuli Chana, Bengal Gram and Masoor (Lentils)]” shall be substituted;
- (2) against S. Nos. 20A, 21A, 21B, 21C, 21D in column (4), for the entry, the entry “10%” shall be substituted;
- (3) S. No. 21E and the entries relating thereto shall be omitted;
- (4) against S. No. 32A, in column (4), for the entry, the entry “15%” shall be substituted;
- (5) against S. No. 32B, in column (4), for the entry, the entry “35%” shall be substituted;
- (6) S. No. 44 and the entries relating thereto shall be omitted;
- (7) against S. Nos. 57, 61, 70 in column (4), for the entry, the entry “15%” shall be substituted;
- (8) after S. No. 104 and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“104A.	2204, 2205, 2206, 2208	All goods	50%	-	- ”;

- (9) S. Nos. 107, 109, 110, 111, 112, 114, 116, 118 and the entries relating thereto shall be omitted;
- (10) against S. No. 119, in column (3), for the entry, the entry “Shrimp larvae feed” shall be substituted;
- (11) after S. No. 119 and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“119A.	Chapter 23 (except 2309 10 00)	All goods	15%	-	- ”;

- (12) for S. No. 130 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"130.	2528	All goods	2.5%	-	- ”;

- (13) S. Nos. 131, 140 and the entries relating thereto shall be omitted;

- (14) for S. No. 141 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"141.	2701, 2702, 2703	All goods	1%	-	- ”;

- (15) against S. No. 147A, in column (4), for the entry, the entry “2.5%” shall be substituted;

- (16) against S. No. 175, in column (2), for the entry, the entry “2501” shall be substituted;

- (17) S. Nos. 202, 203, 209 and the entries relating thereto shall be omitted;

- (18) against S. No. 210, in column (4), for the entry, the entry “5%” shall be substituted;

- (19) against S. No. 219, in column (2), for the figures “3102 21 00”, the figures “3102 21 00, 3102 30 00,” shall be substituted;

- (20) after S. No. 219 and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"219A.	3102 30 00	All goods	2.5%	-	- ”;

- (21) against S. Nos. 221, 226, 228 in column (4), for the entry, the entry “Nil” shall be substituted;

- (22) S. No. 229 and the entries relating thereto shall be omitted with effect from the 1st day of April, 2021;

- (23) S. No. 230 and the entries relating thereto shall be omitted;

- (24) against S. No. 237, in column (6), for the entry, the entry “9 and 22” shall be substituted;

- (25) against S. Nos. 254, 255, in column (6), for the entry, the entry “9 and 24” shall be substituted;

- (26) For S. No. 257 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"257.	39, 48 or any other Chapter	Tags, labels, stickers, belts, buttons, hangers or printed bags (whether made of polythene, polypropylene, PVC, high molecular or high density polyethylene), imported by bonafide exporters	Nil	-	108”;

- (27) S. No. 272 and the entries relating thereto shall be omitted;

- (28) against S. No. 273, in column (4), for the entry, the entry “5%” shall be substituted;
 (29) against S. No. 284, in column (3), after item (iii), the following explanation shall be inserted, namely: -

“*Explanation.* - For the removal of doubts, this entry does not include toy balloons made of natural rubber latex (toy balloons are classified under Customs tariff heading 9503).”;

- (30) S. No. 285 and the entries relating thereto shall be omitted;
 (31) against S. No. 292, in column (6), for the entry at both the places, the entry “9” shall be substituted;
 (32) For S. No. 293A and the entries relating thereto, the following S. No. and entries shall be substituted, namely, -

(1)	(2)	(3)	(4)	(5)	(6)
“293A.	48	The following goods used in the printing of newspapers, namely: - (i) newsprint; (ii) other uncoated paper conforming to the specifications of newsprint (other than its surface roughness).	5%	-	31”;

- (33) S. Nos. 293B, 305 and the entries relating thereto shall be omitted;
 (34) S. Nos. 311, 312, 313 and the entries relating thereto shall be omitted with effect from the 1st day of April, 2021;
 (35) against S. No. 314, in column (4), for the entry, the entry “5%” shall be substituted;
 (36) S. No. 315 and the entries relating thereto shall be omitted;
 (37) against S. No. 318, in column (3), for the entry, the entry “All goods” shall be substituted;
 (38) S. No. 319 and the entries relating thereto shall be omitted;
 (39) against S. No. 321, in column (3), for the entry, the entry “All goods” shall be substituted;
 (40) S. No. 322 and the entries relating thereto shall be omitted;
 (41) against S. No. 333, in column (6), for the entry, the entry “9” shall be substituted;
 (42) after S. No. 342 and the entries relating thereto, the following S. Nos. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“342A.	7007	All goods other than those suitable for use in – (i) motor vehicles falling under heading 8702 or 8704; (ii) motor cars falling under heading 8703; or	10%	-	-

		(iii) motor cycles falling under heading 8711.			
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- (43) against S. No. 349, in column (2), for the entry, the entry “71 (except 7104 90 90)” shall be substituted;
- (44) against S. No. 354, in column (4), for the entry, the entry “6.9%” shall be substituted;
- (45) against S. No. 355, in column (4), for the entry, the entry “6.1%” shall be substituted;
- (46) against S. No. 356, in column (4), for the entry “12.5%”, at both the places, the entry “7.5%” shall be substituted;
- (47) against S. No. 357, in column (4), for the entry, the entry “7.5%” shall be substituted;
- (48) after S. No. 357 and the entries relating thereto, the following S. Nos. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“357A.	7108	All goods other than those mentioned at S. No. 354	7.5%	-	-
357B.	7106	All goods other than those mentioned at S. No. 355	7.5%	-	-”;

- (49) S. No. 362 and the entries relating thereto shall be omitted;
- (50) against S. No. 364A, in column (4), for the entry, the entry “9.17%” shall be substituted;
- (51) after S. No. 364A and the entries relating thereto, the following S. Nos. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“364B.	7107 00 00, 7109 00 00, 7110, 7111 00 00, 7112, 7118	All goods	10%	-	-
364C.	7113	Gold or silver findings <i>Explanation.-</i> For the purposes of this entry, “gold or silver findings” means a small component such as hook, clasp, clamp, pin, catch, screw back used to hold the whole or a part of a piece of jewellery in place.	10%	-	-”;

- (52) S. No. 365 and the entries relating thereto shall be omitted;
- (53) for S. No. 366 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
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"366.	7201, 7202, 7203, 7205, 7226 11 00	All goods	5%	-	- ”;
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(54) for S. No. 368 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"368.	7204	All goods	Nil	-	- ”;

(55) for S. No. 369 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"369.	7204	All goods	2.5%	-	- ”;

(56) S. Nos. 370 and 371 and the entries relating thereto shall be omitted;

(57) against S. No. 371A, in column (4), for the entry, the entry “7.5%” shall be substituted;

(58) S. Nos. 372, 373, 373A and 373B and the entries relating thereto shall be omitted;

(59) against S. No. 374, in column (4), for the entry, the entry “Nil” shall be substituted;

(60) against S. No. 375 in column (4), for the entry “2.5%”, wherever they occur, the entry “Nil” shall be substituted;

(61) S. Nos. 376 and 376C and the entries relating thereto shall be omitted;

(62) after S. No. 376D and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"376E.	72	All goods other than the following, namely: - (i) goods mentioned against S. Nos. 366, 367, 368, 369, 371A, 371B, 374, 375, 376A, 376B and 376D; (ii) seconds and defectives of goods falling under Chapter 72	7.5%	-	- ”;

(63) against S. No. 377, in column (3), in item (iii), after the word “heading” the figures and word “7318 or” shall be inserted;

(64) for S. No. 377A and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
"377A.	7307 29 00, 7307 99 90, 7308 90 90, 7310 29 90,	All goods other than SIM socket/other mechanical items (Metal) (7326 90 99) for cellular mobile phone	10%	-	- ”;

	7320 90 90, 7325 99 99, 7326 19 90, 7326 90 99				
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(65) against S. No. 380, in column (6), for the entry, the entry “9 and 24” shall be substituted;

(66) for S. No. 382 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“382.	7404	All goods	2.5%	-	- ”;

(67) against S. No. 406, in column (6), for the entry, the entry “9 and 24” shall be substituted;

(68) against S. No. 408, in column (6), for the entry, the entry “9 and 51” shall be substituted;

(69) against S. No. 410, in column (6), for the entry, the entry “9 and 52” shall be substituted;

(70) against S. No. 413, in column (6), for the entry, the entry “9 and 53” shall be substituted;

(71) against S. No. 414, in column (6), for the entry, the entry “9 and 54” shall be substituted;

(72) against S. No. 430, in column (6), for the entries “60(i)” and “60(ii)”, wherever they occur, the entries “60(i) and 9” and “60(ii) and 9” shall respectively be substituted;

(73) against S. No. 431, in column (6), for the entry, the entry “9 and 61” shall be substituted;

(74) for S. No. 446 and the entries relating thereto, the following S. No. and entries shall be substituted, namely, -

(1)	(2)	(3)	(4)	(5)	(6)
“446.	8431	Parts and components for manufacture of tunnel boring machines	2.5%	-	9”;

(75) after S. No. 448F and the entries relating thereto, the following S. Nos. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“448G.	8414 40	All goods	7.5%	-	-
448H.	8414 80 (except 8414 80 11)	All goods	7.5%	-	- ”;

(76) against S. Nos. 471, 472 in column (4), for the entry, the entry “10%” shall be substituted;

(77) after S. No. 485 and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“485A.	8501 10, 8501 20 00, 8501 31, 8501 32, 8501 33, 8501 34, 8501 40, 8501 51, 8501 52, 8501 53	All goods	10%	-	-”;

(78) for S. No. 491 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“491.	8544 (except 8544 30 00 and 8544 70)	All goods (other than USB Cable for cellular mobile phone)	10%	-	-”;

(79) against S. No. 497, in column (6), for the entry, the entry “9 and 24” shall be substituted;

(80) against S. No. 512, -

(a) in column (3), for the entry, the following entry shall be substituted, namely: -

“(a) Parts, components and accessories except Lithium-ion cell and Printed Circuit Board Assembly (PCBA), for use in manufacture of Lithium-ion battery and battery pack;

(b) Sub-parts for use in manufacture of items mentioned at (a) above.”;

(b) in column (4), for the entry, the entry “2.5%” shall be substituted with effect from the 1st day of April, 2021;

(81) after S. No. 512 and the entries relating thereto, the following S. No. and entries shall be inserted with effect from the 1st day of April, 2021, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“512A.	Any Chapter	Inputs, parts or sub-parts for use in the manufacturing of Printed Circuit Board Assembly (PCBA) (falling under tariff item 8507 90 90) of Lithium-ion battery and battery pack	2.5%	-	9”;

(82) against S. No. 513, in column (3), in clause (a), item (i) shall be omitted with effect from the 1st day of April, 2021;

(83) after S. No. 516B and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“516C.	8536 41 00, 8536 49 00	All goods	10%	-	-”;

(84) for S. No. 527 and the entries relating thereto, the following S. Nos. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“527	8507 60 00	Lithium ion cell for use in manufacture of battery or battery pack, other than those mentioned against S. Nos. 527A and 527B	5%	-	9
527A	8507 60 00	Lithium ion cell for use in the manufacture of battery or battery pack of cellular mobile phone	5%	-	9
527B	8507 60 00	Lithium ion cell for use in the manufacture of battery or battery pack of electrically operated vehicle or hybrid motor vehicle	5%	-	9”;

(85) after S. No. 528A and the entries relating thereto, the following S. Nos. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“528B	8507 60 00	Lithium ion battery or battery pack of cellular mobile phones	15%	-	-
528C	8507 60 00	All goods other than the following, namely: - (i) goods mentioned against S. Nos. 528A and 528B; (ii) Power Bank	10%	-	-”;

(86) against S. No. 532, in column (4), for the entry, the entry “15%” shall be substituted;

(87) against S. No. 534, in column (6), for the entry, the entry “9 and 74” shall be substituted;

(88) after S. No. 535 and the entries relating thereto, the following S. Nos. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“535A.	Any Chapter	Components or parts, including engines, of aircraft of heading 8802 –	Nil	-	9 and 109”;

		(a) for manufacture of aircraft falling under heading 8802; (b) for manufacture of parts of aircraft at (a), imported by Public Sector Units under the Ministry of Defence			
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(89) against S. No. 559, in column (3), in the Explanation, in item (i), for the words “jurisdictional jurisdictional Deputy Commissioner of Central tax or the Assistant Commissioner of Central tax or the Deputy Commissioner of State tax or the Assistant Commissioner of State tax, as the case may be”, the words, brackets and figure “Deputy Commissioner of Customs or Assistant Commissioner of Customs having jurisdiction under the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017”, shall be substituted;

(90) after S. No. 581A and the entries relating thereto, the following S. No. and entries shall be inserted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“581B.	9031 80 00	All goods	7.5%	-	-”;

(91) against S. No. 587, in column (4), for the entry, the entry “15%” shall be substituted;

(92) for S. No. 591 and the entries relating thereto, the following S. No. and entries shall be substituted, namely: -

(1)	(2)	(3)	(4)	(5)	(6)
“591.	9503	Parts of electronic toys for manufacture of electronic toys.	15%	-	9 ”;

(93) S. No. 592 and the entries relating thereto shall be omitted;

II. in the first proviso, -

(1) for clause a), the following clause shall be substituted, namely: -

“(a) the goods specified against S. Nos. 368 of the said Table on or after the 1st day of April, 2022.”;

(2) clause (b), (c) and (e) shall be omitted;

III. in the Explanation, after clause (II), the following clause shall be inserted, namely: -

“(III) Consequent to the amendments made with effect from 2nd February, 2021 in the entries against S. Nos. 292, 430, 431 and 559, the Deputy Commissioner of Customs or Assistant Commissioner of Customs having jurisdiction under the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017 shall complete pending action, if any, in respect of imports made earlier therein.”.

IV. in the ANNEXURE, -

- (i) in Condition No. 22, clause (b) shall be omitted;
- (ii) in Condition No. 24, clause (b) shall be omitted;
- (iii) Condition Nos. 30 and 38 shall be omitted;
- (iv) in Condition No. 51, clause (3) shall be omitted;
- (v) in Condition No. 53, clause (iii) shall be omitted;
- (vi) in Condition No. 54, in clause (c), sub-clause (iii) shall be omitted;
- (vii) for Condition No. 60, the following Condition shall be substituted, namely: -

“ 60.	(i) If, - (a) the goods are imported for Research and Development purposes; (b) the imported goods are installed in the said Research and Development Wing of the importer within six months from the date of importation; (c) the goods imported are not transferred or sold for a period of seven years from the date of installation; (ii) If, - (a) the goods are imported for use in the manufacture of commodities; (b) the total value of goods imported does not exceed 25 per cent. of the FOB value of exports made during the preceding financial year; (c) the importer produces a certificate from the Joint Director General of Foreign Trade in the Ministry of Commerce of the Government of India, certifying the value of exports made during the financial year mentioned in clause (b) above, and also the value and quantity of goods already imported under this notification during the current financial year; (d) the imported goods are installed in the factory of the importer within six months from the date of importation; (e) the goods imported are not transferred or sold for a period of seven years from the date of installation.”;
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- (viii) in Condition No. 61, for clause (d), the following clause shall be substituted, namely: -

“ 61.	(d) the imported goods are installed in the said Research and Development wing of the importer within six months from the date of importation;”;
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- (ix) in Condition No. 79, the figure “75.” shall be omitted.
- (x) after Condition No. 107, the following Condition Nos. shall be inserted, namely: -

“ 108.	If, - (i) the said goods have been imported for fixing on articles for export or for the packaging of such articles; (ii) the importer, by execution of a bond in such form and for such sum as may be specified by the Assistant Commissioner of Customs or Deputy Commissioner of Customs, binds himself to pay on demand in respect of the said goods as are not proved to be
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	the satisfaction of the Assistant Commissioner of Customs or Deputy Commissioner of Customs to have been used for the aforesaid purposes, an amount equal to the duty leviable on such goods but for the exemption contained herein; (iii) the importer satisfies the Assistant Commissioner or Deputy Commissioner of Customs, that articles so imported have been exported within six months of the date of importation or within such extended period as may be permitted by the said Assistant Commissioner of Customs or Deputy Commissioner of Customs.
109.	If an officer not below the rank of Joint Secretary to the Government of India in the Ministry of Defence - (i) certifies the quantity, description and technical specifications of the imported goods; (ii) certifies that the said goods are intended for manufacture of aircraft falling under heading 8802 or for manufacture of components or parts, including engines, of such aircrafts; and (iii) recommends the grant of exemption to the imported goods.

V. List 2 and the entries relating thereto shall be omitted.

2. This notification shall come into force on the 2nd February 2021.

[F. No.334/02/2021-TRU]

(Rajeev Ranjan)

Under Secretary to the Government of India.

Note: The principal notification No.50/2017-Customs, dated the 30th June, 2017 was published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), *vide* number G.S.R. 785(E), dated the 30th June, 2017 and last amended *vide* notification No. 43/2020-Customs, dated the 26th November, 2020, published *vide* number G.S.R. 736(E), dated the 26th November, 2020.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001

Dated 24th March, 2020

ORDER

Whereas, the National Disaster Management Authority (NDMA), is satisfied that the country is threatened with the spread of COVID-19 epidemic, which has already been declared as a pandemic by the World Health Organisation, and has considered it necessary to take effective measures to prevent its spread across the country and that there is a need for consistency in the application and implementation of various measures across the country while ensuring maintenance of essential services and supplies, including health infrastructure;

Whereas in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, the National Disaster Management Authority (NDMA), has issued an Order no. 1-29/2020-PP (Pt.II) dated 24.03.2020 (Copy enclosed) directing the Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities to take effective measures so as to prevent the spread of COVID-19 in the country;

Whereas under directions of the aforesaid Order of NDMA, and in exercise of the powers, conferred under Section 10(2)(I) of the Disaster Management Act, the undersigned, in his capacity as Chairperson, National Executive Committee, hereby issues guidelines, as per the Annexure, to Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities with the directions for their strict implementation. This Order shall remain in force, in all parts of the country for a period of 21 days with effect from 25.03.2020.


 24/3/2020
 Home Secretary

To

1. The Secretaries of Ministries/ Departments of Government of India
 2. The Chief Secretaries/Administrators of States/Union Territories
- (As per list attached)

Copy to:

- i. All members of the National Executive Committee.
- ii. Member Secretary, National Disaster Management Authority.

Annexure to Ministry of Home Affairs Order No .40-3/2020-D dated ()24.03.2020

Guidelines on the measures to be taken by Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities for containment of COVID-19 Epidemic in the Country.

1. Offices of the Government of India, its Autonomous/ Subordinate Offices and Public Corporations shall remain closed.

Exceptions:

Defence, central armed police forces, treasury, public utilities (including petroleum, CNG, LPG, PNG), disaster management, power generation and transmission units, post offices, National Informatics Centre, Early Warning Agencies

2. Offices of the State/ Union Territory Governments, their Autonomous Bodies, Corporations, etc. shall remain closed.

Exceptions:

- Police, home guards, civil defence, fire and emergency services, disaster management, and prisons.
- District administration and Treasury
- Electricity, water, sanitation
- Municipal bodies—Only staff required for essential services like sanitation, personnel related to water supply etc

The above offices (Sl. No 1 & 2) should work with minimum number of employees. All other offices may continue to work-from-home only.

3. Hospitals and all related medical establishments, including their manufacturing and distribution units, both in public and private sector, such as dispensaries, chemist and medical equipment shops, laboratories, clinics, nursing homes, ambulance etc. will continue to remain functional. The transportation for all medical personnel, nurses, para-medical staff, other hospital support services be permitted.

4. Commercial and private establishments shall be closed down.

Exceptions:

- Shops, including ration shops (under PDS), dealing with food, groceries, fruits and vegetables, dairy and milk booths, meat and fish, animal fodder. However, district authorities may encourage and facilitate home delivery to minimize the movement of individuals outside their homes.
- Banks, insurance offices, and ATMs.
- Print and electronic media
- Telecommunications, internet services, broadcasting and cable services. IT and IT enabled Services only (for essential services) and as far as possible to work from home.
- Delivery of all essential goods including food, pharmaceutical equipment through E-commerce

- f. Petrol pumps, LPG, Petroleum and gas retail and storage outlets.
- g. Power generation, transmission and distribution units and services.
- h. Capital and debt market services as notified by the Securities and Exchange Board of India
- i. Cold storage and warehousing services.
- j. Private security services

All other establishments may work-from-home only.

5. Industrial Establishments will remain closed.

Exceptions:

- a. Manufacturing units of essential commodities.
- b. Production units, which require continuous process, after obtaining required permission from the State Government

6. All transport services – air, rail, roadways – will remain suspended.

Exceptions:

- a. Transportation for essential goods only.
- b. Fire, law and order and emergency services.

7. Hospitality Services to remain suspended

Exceptions:

- a. Hotels, homestays, lodges and motels, which are accommodating tourists and persons stranded due to lockdown, medical and emergency staff, air and sea crew.
- b. Establishments used/ earmarked for quarantine facilities.

8. All educational, training, research, coaching institutions etc. shall remain closed.

9. All places of worship shall be closed for public. No religious congregations will be permitted, without any exception.

10. All social/ political/ sports/ entertainment/ academic/ cultural/ religious functions / gatherings shall be barred.

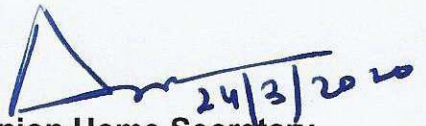
11. In case of funerals, congregation of not more than twenty persons will be permitted.

12. All persons who have arrived into India after 15.02.2020, and all such persons who have been directed by health care personnel to remain under strict home/ institutional quarantine for a period as decided by local Health Authorities, failing which they will be liable to legal action under Sec. 188 of the IPC.

13. Wherever exceptions to above containment measures have been organisations/employers must ensure necessary precautions again.

virus, as well as social distance measures, as advised by the Health Department from time to time.

14. In order to implement these containment measures, the District Magistrate will deploy Executive Magistrates as Incident Commanders in the respective local jurisdictions. The Incident Commander will be responsible for the overall implementation of these measures in their respective jurisdictions. All other line department officials in the specified area will work under the directions of such incident commander. The Incident Commander will issue passes for enabling essential movements as explained.
15. All enforcing authorities to note that these strict restrictions fundamentally relate to movement of people, but not to that of essential goods.
16. The Incident Commanders will in particular ensure that all efforts for mobilisation of resources, workers and material for augmentation and expansion of hospital infrastructure shall continue without any hindrance.
17. Any person violating these containment measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Sec. 188 of the IPC (as per Appendix).
18. The above containment measures will remain in force, in all parts of the country, for a period of 21 days with effect from 25.03.2020.


Union Home Secretary

1. Section 51 to 60 of the Disaster Management Act, 2005

OFFENCES AND PENALTIES

51. Punishment for obstruction, etc.—Whoever, without reasonable cause —

(a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or

(b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or wilfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

54. Punishment for false warning.—Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.

55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and the person

**Budupula
Subhakar**

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EMPLOYEE, ST=Tamil Nadu, postalCode=
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offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly: Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence. (2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section— (a) “company” means any body corporate and includes a firm or other association of individuals; and (b) “director”, in relation to a firm, means a partner in the firm.

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be, or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by— (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or (b) any person who has given notice of not less than 15 days in the manner prescribed, of the alleged offence and his intention to make a complaint.

the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

2. Section 188 in The Indian Penal Code

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or tends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Explanation.—It is not necessary that the offender should intend to produce harm, or contemplate his disobedience as likely to produce harm. It is sufficient that he knows of the order which he disobeys, and that his disobedience produces, or is likely to produce, harm.

Illustration

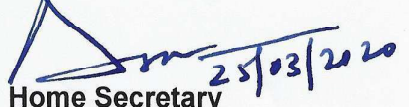
An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

No. 40-3/2020-DM-I (A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 25th March, 2020

ORDER

In continuation of Ministry of Home Affairs's Order No. 40-3/2020-DM-I (A) Dated 24th March, 2020 and in exercise of the powers, conferred under Section 10(2) (I) of the Disaster Management Act, the undersigned, in his capacity as Chairperson, National Executive Committee, hereby issues an Addendum to guidelines, as Annexed to the said Order issued to Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities with the directions for their strict implementation.


Home Secretary

To

- 1. The Secretaries of Ministries/ Departments of Government of India**
- 2. The Chief Secretaries/Administrators of States/Union Territories**
(As per list attached)

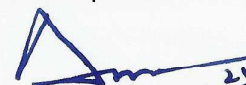
Copy to:

- i. All members of the National Executive Committee.
- ii. Member Secretary, National Disaster Management Authority.

No. 40-3/2020-DM-I(A)
Government of India, Ministry of Home Affairs

**Subject: Addendum to Guidelines annexed to the Ministry of Home Affairs
Order No. 40-3/2020-DM-I(A) dated 24.03.2020**

- A. Addition in exemption to Clause 1:**
- Term treasury includes, Pay & Accounts Offices, Financial Advisers and field offices of the Controller General of Accounts, **with bare minimum staff.**
 - Customs clearance at ports/airports/land border; GSTN; and MCA 21 Registry, **with bare minimum staff.**
 - Reserve Bank of India and RBI regulated financial markets and entities like NPCI, CCIL, payment system operators and standalone primary dealers, **with bare minimum staff.**
- B. Under sub clause (b) to clause 2, term treasury include, field offices of the Accountant General, with bare minimum staff.**
- C. Addition of sub clause (e), (f) & (g) in exceptions to clause 2:**
- e. Resident Commissioner of States, in New Delhi **with bare minimum staff**, for coordinating Covid-19 related activities and internal kitchens operations.
 - f. Forest offices: Staff/ workers required to operate and maintain zoo, nurseries, wildlife, fire fighting in forests, watering plantations, patrolling and their necessary transport movement.
 - g. Social Welfare Department, **with bare minimum staff**, for operations of Homes for children/ disables/ senior citizens/ destitute/ women/ widows; Observation homes; pensions.
- D. Clause 3 includes** veterinary hospitals; pharmacies (including Jan Aushadhi Kendra) and Pharmaceutical research labs.
- E. Sub-clause (b) to Clause 4** includes IT Vendor for banking operations; Banking Correspondent and ATM operation and cash management agencies.
- F. Sub-clause (a) to Clause 4** includes shops for seeds and pesticides.
- G. Addition of sub clause (h) to Clause 4:**
- h. Data and call Centre **for Government activities only.**
- H. Sub-clause (a) to clause 5 to read as:**
- a. Manufacturing units of essential goods, including drugs, pharmaceutical, medical devices, their raw material & intermediates.
- I. Addition of sub clause (c) & (d) to Clause 5:**
- c. coal and mineral production, transportation, supply of explosives and activities incidental to mining operations.
 - d. Manufacturing units of packaging material for food items, drugs, pharmaceutical and medical devices.
- J. Addition of sub clause (c) & (d) to Clause Sub clause 6:**
- a. Operations of Railways, Airports and Seaports for cargo movement, relief and evacuation and their related operational organisations.
 - b. Inter-state movement of goods/cargo for inland and exports.
- K. Addition of sub clause (c) in exceptions to clause 6:**
- c. Cross land border movement of essential goods including petroleum products and LPG, food products, medical supplies.


Home Secretary 25/03/2020

**Budupula
Subhakar**

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Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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Consolidated Guidelines on the measures to be taken by Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities for containment of COVID-19 Epidemic in the Country, as notified by Ministry of Home Affairs on 24.03.2020 and further modified on 25.03.2020 and 27.03.2020.

1. Offices of the Government of India, its Autonomous/ Subordinate Offices and Public Corporations shall remain closed.

Exceptions:

- a. Defence, central armed police forces.
- b. Treasury (including, Pay & Accounts Offices, Financial Advisers and field offices of the Controller General of Accounts, **with bare minimum staff**),
- c. Public utilities (including petroleum, CNG, LPG, PNG), power generation and transmission units, post offices.
- d. Disaster management and Early Warning Agencies
- e. National Informatics Centre.
- f. Customs clearance at ports/airports/land border, GSTN; and MCA 21 Registry **with bare minimum staff**.
- g. Reserve Bank of India and RBI regulated financial markets and entities like NPCI, CCIL, payment system operators and standalone primary dealers **with bare minimum staff**.

2. Offices of the State/ Union Territory Governments, their Autonomous Bodies, Corporations, etc. shall remain closed.

Exceptions:

- a. Police, home guards, civil defence, fire and emergency services, disaster management, and prisons.
- b. District administration and Treasury (including field offices of the Accountant General **with bare minimum staff**)
- c. Electricity, water, sanitation.
- d. Municipal bodies—Only staff required for essential services like sanitation, personnel related to water supply etc.
- e. Resident Commissioner of States, in New Delhi **with bare minimum staff**, for coordinating Covid-19 related activities and internal kitchens operations.
- f. Forest offices :Staff/ workers required to operate and maintain zoo, nurseries, wildlife, firefighting in forests, watering plantations, patrolling and their necessary transport movement.
- g. Social Welfare Department, **with bare minimum staff**, for operations of Homes for children/ disables/ senior citizens/ destitute/ women /widows; Observation homes; pensions.
- h. Agencies engaged in procurement of agriculture products, including MSP operations.

- i. 'Mandis' operated by the Agriculture Produce Market Committee or as notified by the State Government.

The above offices (Sl. No 1 & 2) should work with minimum number of employees. All other offices may continue to work-from-home only.

3. Hospitals, Veterinary Hospitals and all related medical establishments, including their manufacturing and distribution units, both in public and private sector, such as dispensaries, chemist, Pharmacies (including Jan Aushadhi Kendra) and medical equipment shops, laboratories, Pharmaceutical research labs, clinics, nursing homes, ambulance etc. will continue to remain functional. The transportation for all medical personnel, nurses, para-medical staff, other hospital support services be permitted.

4. Commercial and private establishments shall be closed down.

Exceptions:

- a. Shops, including ration shops (under PDS), dealing with food, groceries, fruits and vegetables, dairy and milk booths, meat and fish, animal fodder, fertilizers, seeds and pesticides. However, district authorities may encourage and facilitate home delivery to minimize the movement of individuals outside their homes.
- b. Banks, insurance offices, and ATMs including IT vendors for banking operations; Banking Correspondent and ATM operation and cash management agencies.
- c. Print and electronic media.
- d. Telecommunications, internet services, broadcasting and cable services. IT and IT enabled Services only (for essential services) and as far as possible to work from home.
- e. Delivery of all essential goods including food, pharmaceuticals, medical equipment through E-commerce.
- f. Petrol pumps, LPG, Petroleum and gas retail and storage outlets.
- g. Power generation, transmission and distribution units and services.
- h. Capital and debt market services as notified by the Securities and Exchange Board of India.
- i. Cold storage and warehousing services.
- j. Private security services.
- k. Data and call centers **for Government activities only**.
- l. Farming operations by farmers and farm workers in the field.
- m. 'Custom Hiring Centres (CHC)' related to farm machinery.

All other establishments may work-from-home only.

5. Industrial Establishments will remain closed.

Exceptions:

- a. Manufacturing units of essential goods, including drugs, pharmaceutical, medical devices, their raw materials & intermediates.
 - b. Production units, which require continuous process, after obtaining required permission from the State Government.
 - c. Coal and mineral production, transportation, supply of explosives and activities incidental to mining operations.
 - d. Manufacturing units of packaging material for food items, drugs, pharmaceutical and medical devices.
 - e. Manufacturing and packaging units of Fertilizers, Pesticides and Seeds
6. All transport services – air, rail, roadways – will remain suspended.

Exceptions:

 - a. Transportation for essential goods only.
 - b. Fire, law and order and emergency services.
 - c. Operations of Railways, Airports and Seaports for cargo movement, relief and evacuation and their related operational organisations.
 - d. Inter-state movement of goods/ cargo for inland and exports.
 - e. Cross land border movement of essential goods including petroleum products and LPG, food products, medical supplies.
 - f. Intra and inter-state movement of harvesting and sowing related machines like combined harvester and other agriculture/horticulture implements.
7. Hospitality Services to remain suspended

Exceptions:

 - a. Hotels, homestays, lodges and motels, which are accommodating tourists and persons stranded due to lockdown, medical and emergency staff, air and sea crew.
 - b. Establishments used/ earmarked for quarantine facilities.
8. All educational, training, research, coaching institutions etc. shall remain closed.
9. All places of worship shall be closed for public. No religious congregations will be permitted, without any exception.
10. All social/ political/ sports/ entertainment/ academic/ cultural/ religious functions / gatherings shall be barred.
11. In case of funerals, congregation of not more than twenty persons will be permitted.
12. All persons who have arrived into India after 15.02.2020, and all such persons who have been directed by health care personnel to remain under strict home/ institutional quarantine for a period as decided by local Health Authorities, failing which they will be liable to legal action under Sec. 188 of the IPC.

13. Wherever exceptions to above containment measures have been allowed, the organisations/employers must ensure necessary precautions against COVID-19 virus, as well as social distance measures, as advised by the Health Department from time to time.
14. In order to implement these containment measures, the District Magistrate will deploy Executive Magistrates as Incident Commanders in the respective local jurisdictions. The Incident Commander will be responsible for the overall implementation of these measures in their respective jurisdictions. All other line department officials in the specified area will work under the directions of such incident commander. The Incident Commander will issue passes for enabling essential movements as explained.
15. All enforcing authorities to note that these strict restrictions fundamentally relate to movement of people, but not to that of essential goods.
16. The Incident Commanders will in particular ensure that all efforts for mobilization of resources, workers and material for augmentation and expansion of hospital infrastructure shall continue without any hindrance.
17. Any person violating these containment measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Sec. 188 of the IPC.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 29th March, 2020

ORDER

Whereas, in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act, the undersigned, in his capacity as Chairperson, National Executive Committee, has issued an Order of even number dated 24.03.2020, followed by Addendum Orders of even number dated 25.03.2020 and 27.03.2020 to the Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities with the directions to implement lockdown measures annexed to the said Orders for the containment of spread of COVID-19 in the country;

Whereas, movement of a large number of migrants have taken place in some parts of the country so as to reach their home towns. This is a violation of the lockdown measures on maintaining social distance;

Whereas, to deal with the situation and for effective implementation of the lockdown measures, and to mitigate the economic hardship of the migrant workers, in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act 2005, the undersigned, in the capacity as Chairperson, National Executive Committee hereby directs the State/Union Territory Governments and State/ Union Territory Authorities to take necessary action and to issue necessary orders to their District Magistrate/ Deputy Commissioner and Senior Superintendant of Police/ Superintendant of Police/ Deputy Commissioner of Police, to take following additional measures:

- i. State/Union Territory Governments shall ensure adequate arrangements of temporary shelters, and provision of food etc. for the poor and needy people, including migrant labourers, stranded due to lockdown measures in their respective areas;
- ii. The migrant people, who have moved out to reach their home states/ home towns, must be kept in the nearest shelter by the respective State/Union Territory Government quarantine facilities after proper screening for a minimum period of 14 days as per standard health protocol;
- iii. All the employers, be it in the Industry or in the shops and commercial establishments, shall make payment of wages of their workers, at their work places, on the due date, without any deduction, for the period their establishments are under closure during the lockdown;



Budupula
Subhakar

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Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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- iv. Where ever the workers, including the migrants, are living in rented accommodation, the landlords of those properties shall not demand payment of rent for a period of one month.
- v. If any landlord is forcing labourers and students to vacate their premises, they will be liable for action under the Act.

It is further directed that in case of violation of any of the above measures, the respective State/UT Government, shall take necessary action under the Act. The District Magistrate/ Deputy Commissioner and Senior Superintendant of Police/ Superintendant of Police/ Deputy Commissioner of Police will be personally liable for implementation of the above directions and lockdown measures issued under the above mentioned Orders.


29/03/2020
Home Secretary

To

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories
(As per list attached)

Copy to:

- i. All members of the National Executive Committee.
- ii. Member Secretary, National Disaster Management Authority.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 14th April, 2020

ORDER

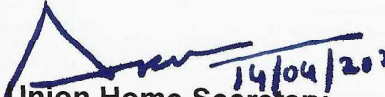
Whereas under directions of the National Disaster Management Authority (NDMA)'s Order dated 24.03.2020, and in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act 2005, the undersigned, in his capacity as Chairperson, National Executive Committee, issued directions vide Order of even number dated 24.03.2020 to all Ministries/ Departments of Government of India, State/ Union Territory Governments and State/ Union Territory Authorities, with the guidelines to implement lockdown measures, to contain the spread of COVID-19, in all parts of the country for a period of 21 days with effect from 25.03.2020;

Whereas, the guidelines to implement lockdown measures were further modified on 25.03.2020, 27.03.2020, 02.04.2020, 03.04.2020 and 10.04.2020 and consolidated guidelines are placed on the website of Ministry of Home Affairs (MHA);

Whereas, NDMA after assessing the situation on COVID-19 epidemic is satisfied that strict social distancing measures need to be implemented for a further period so as to effectively contain the spread of COVID-19 in the country;

Whereas in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, NDMA has issued an Order number 1-137/2018-Mit-II (FTS-10548) dated 14.04.2020 (copy enclosed) directing the Chairperson, National Executive Committee that existing lockdown measures be continued to be implemented in all parts of the Country, upto 03.05.2020.

Whereas under directions of the aforesaid Order of NDMA, and in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act, 2005, the undersigned, in his capacity as Chairperson, National Executive Committee, hereby issues directions to all the all Ministries/ Departments of Government of India, State/Union Territory Governments and State/Union Territory Authorities that the Lockdown measures stipulated in aforesaid Consolidated Guidelines of MHA for containment of COVID-19 epidemic in the country, will continue to remain in force upto 03.05.2020 to contain the spread of COVID-19 in the country.


14/04/2020
Union Home Secretary

To:

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories
(As per list attached)

Copy to:

- i. All members of the National Executive Committee.
- ii. Member Secretary, National Disaster Management Authority.

**Budupula
Subhakar**



Government of India
National Disaster Management Authority
“NDMA Bhawan”,
A-1, Safdarjung Enclave, New Delhi-110029.



No.1-137/2018-Mit-II(FTS-10548)

Dated, the 13th April, 2020.

14th

ORDER

On 24th March, 2020, the National Disaster Management Authority directed the Ministries/Departments of Government of India, State Governments and State Authorities to take measures for ensuring social distancing so as to prevent the spread of COVID 19 in the country. These measures are in force for a period of 21 days w.e.f. from 25th March 2020. Detailed guidelines and addenda were issued by National Executive Committee from time to time under section 10(2)(1) of the Disaster Management Act 2005.

2. Considering the fact that strict social distancing measures need to be implemented for a further period to contain the spread of COVID 19, the National Authority, in exercise of powers under Section 6 (2) (i) of the Disaster Management Act, 2005, directs the Ministries/Departments of Government of India, State Governments and State Authorities to continue the same measures for social distancing upto 3rd May, 2020. In this regard the guidelines/orders issued by NEC shall continue to be applicable throughout the country. The Authority further directs NEC to issue modifications in the guidelines as necessary, keeping in view the need to contain the spread of COVID 19.

14/4/2020

Member Secretary, NDMA

To

Union Home Secretary,
North Block, New Delhi 110011

AJAY BHALLA, IAS



गृह सचिव
Home Secretary
भारत सरकार
Government of India
North Block,
New Delhi

D.O. No. 40-3/2020-DM-I (A)

19th April, 2020

Dear *Chief Secretary,*

Please refer to MHA Order No. 40-3/2020-DM-I(A) dated 15th April 2020, vide which consolidated revised guidelines on the measures to be taken by the Ministries/ Departments of the Government of India, State/UT Governments and State/UT Authorities for containment of COVID-19, has been circulated for the strict implementation in all parts of the Country.

2. I would like to draw your kind attention to clause 4 (i) and (ii) of these guidelines which, *inter alia*, mentions that (i) State/UT Governments shall not dilute these guidelines under the Disaster Management Act, 2005 in any manner and shall strictly enforce the same and (ii) State/ UT Governments, may, however, impose stricter measures than these guidelines as per requirement of the local areas.
3. Your attention is also drawn to the Order dated 31.03.2020 in the Writ Petition (Civil) No 468 of 2020, in which the Hon'ble Supreme Court is pleased to observe that (quote) "we trust and expect that all concerned viz. State Governments, Public Authorities and Citizens of this country will faithfully comply with the directives and orders issued by the Union of India in letter and spirit in the interest of public safety" (unquote). The observations, which must be treated as directions of the Apex Court, was conveyed in my DO letter of even no dated 1st April 2020 to all States/ UTs Governments.
4. It has come to notice that some of the States/ UTs are issuing orders allowing activities which have not been allowed as per guidelines issued by MHA under the Disaster Management Act, 2005.
5. I would again urge you to ensure compliance of the revised consolidated guidelines, and direct all concerned authorities for their strict implementation in letter and spirit without any dilution and to ensure strict compliance of lockdown measures.

With regards,

Chief Secretaries of All States
(As per Standard List attached)

Yours sincerely,

[Signature]
(Ajay Bhalla)

Budupula
Subhakar

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 17th May, 2020

ORDER

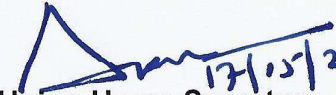
Whereas, the National Disaster Management Authority (NDMA) in exercise of their powers under section 6(2)(i) of the Disaster Management Act, 2005, vide their Orders dated 24.03.2020, 14.04.2020 and 01.05.2020 had directed the National Executive Committee (NEC) to take lockdown measures so as to contain the spread of COVID-19 in the country;

Whereas, Chairperson NEC, in exercise of the powers conferred under Section 10(2)(l) of the Disaster Management Act, 2005, has issued Orders of even number on lockdown measures dated 24.03.2020, 29.03.2020, 14.04.2020, 15.04.2020 and 01.05.2020;

Whereas, save as otherwise provided in the guidelines annexed to this Order, all Orders issued by NEC under Section 10(2)(l) of the Disaster Management Act, 2005, shall cease to have effect from 18.05.2020;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, NDMA has issued an Order number 1-29/2020 - PP dated 17.05.2020 directing the Chairperson, NEC that lockdown measures to contain the spread of COVID-19 be continued to be implemented in all parts of the Country, for a further period upto 31.05.2020;

Now therefore, under directions of the aforesaid Order of NDMA dated 17.05.2020, and in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act, 2005, the undersigned, in his capacity as Chairperson, NEC, hereby issues directions for strict implementation, to all the Ministries/ Departments of Government of India, State/Union Territory Governments and State/ Union Territory Authorities that lockdown measures to contain the spread of COVID-19 will continue for a period of upto 31.05.2020, as per the guidelines annexed to this Order, which will come into effect from 18.05.2020.


17/05/2020
Union Home Secretary

To:

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories
(As per list attached)

Copy to:

- i. All members of the National Executive Committee.
- ii. Member Secretary, National Disaster Management Authority.

Guidelines on the measures to be taken by Ministries/ Departments of Government of India, State/ UT Governments and State/ UT Authorities for containment of COVID-19 in the country upto 31st May, 2020.

[As per Ministry of Home Affairs (MHA) Order No. 40-3/2020-DM-I (A) dated 17th May, 2020]

1. Lockdown shall continue to remain in force upto 31st May, 2020.
2. **The following activities shall continue to remain prohibited throughout the country:**
 - i. All domestic and international air travel of passengers, except for domestic medical services, domestic air ambulance and for security purposes or purposes as permitted by MHA.
 - ii. Metro rail services.
 - iii. Schools, colleges, educational/ training/ coaching institutions etc. will remain closed. Online/ distance learning shall continue to be permitted and shall be encouraged.
 - iv. Hotels, restaurants and other hospitality services, except those meant for housing health/ police/ Government officials/ healthcare workers/ stranded persons including tourists and for quarantine facilities; and running of canteens at bus depots, railway stations and airports. Restaurants shall be permitted to operate kitchens for home delivery of food items.
 - v. All cinema halls, shopping malls, gymnasiums, swimming pools, entertainment parks, theatres, bars and auditoriums, assembly halls and similar places. Sports complexes and stadia will be permitted to open; however, spectators will not be allowed.
 - vi. All social/ political/ sports/ entertainment/ academic/ cultural/ religious functions/ other gatherings and large congregations.
 - vii. All religious places/ places of worship shall be closed for public. Religious congregations are strictly prohibited.
3. **The following activities shall be permitted with restrictions, except in the Containment Zones:**
 - i. Inter-State movement of passenger vehicles and buses, with mutual consent of the State(s)/ UT(s) involved.
 - ii. Intra-State movement of passenger vehicles and buses, as decided by the States and UTs.
 - iii. Standard Operating Procedures (SOPs) for movement of persons, as mentioned in **Annexure I**, shall continue to operate.
4. **National Directives for COVID-19 Management**

National Directives for COVID 19 Management, as specified in **Annexure II**, shall be followed throughout the country.
5. **Containment, Buffer, Red, Green and Orange Zones**
 - i. The delineation of Red, Green and Orange Zones will be decided by the respective State and UT Governments, after taking into consideration the parameters shared by Ministry of Health & Family Welfare (MoHFW), Government of India (GoI).

- ii. Within the Red and Orange Zones, Containment Zones and Buffer Zones will be demarcated by the District authorities, after taking into consideration the guidelines of MoHFW.
- iii. In the Containment Zones, only essential activities shall be allowed. There shall be strict perimeter control to ensure that there is no movement of people in or out of these zones, except for medical emergencies and for maintaining supply of essential goods and services. Guidelines of MoHFW shall be taken into consideration for the above purpose.
- iv. In the Containment Zones, there shall be intensive contact tracing, house-to-house surveillance, and other clinical interventions, as required.

6. Night curfew

The movement of individuals shall remain strictly prohibited between 7.00 pm to 7.00 am, except for essential activities. Local authorities shall issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as prohibitory orders [Curfew] under Section 144 of CrPC, and ensure strict compliance.

7. Protection of vulnerable persons

Persons above 65 years of age, persons with co-morbidities, pregnant women, and children below the age of 10 years, shall stay at home, except for essential and health purposes.

8. All other activities will be permitted, except those which are specifically prohibited.

However, in Containment Zones, only essential activities shall be allowed, as mentioned in para 5(iii) above.

Further, States/ UTs, based on their assessment of the situation, may prohibit certain other activities in the various zones, or impose such restrictions as deemed necessary.

9. Use of Aarogya Setu

- i. *Aarogya Setu* enables early identification of potential risk of infection, and thus acts as a shield for individuals and the community.
- ii. With a view to ensuring safety in offices and work places, employers on best effort basis should ensure that *Aarogya Setu* is installed by all employees having compatible mobile phones.
- iii. District authorities may advise individuals to install the *Aarogya Setu* application on compatible mobile phones and regularly update their health status on the app. This will facilitate timely provision of medical attention to those individuals who are at risk.

10. Special directions to ensure movement of persons and goods in certain cases

- i. All States/ UTs shall allow inter-State and intra-State movement of medical professionals, nurses and para medical staff, sanitation personnel and ambulances, without any restriction.
- ii. All States/ UTs shall allow inter-State movement of all types of goods/ cargo, including empty trucks.

- iii. No State/ UT shall stop the movement of any type of goods/ cargo for cross land-border trade under Treaties with neighbouring countries.

11. Strict enforcement of the guidelines

- i. State/ UT Governments shall not dilute these guidelines issued under the Disaster Management Act, 2005, in any manner.
- ii. All the District Magistrates shall strictly enforce the above measures.
- iii. In order to implement these measures, the District Magistrates will deploy Executive Magistrates as Incident Commanders in the respective local jurisdictions. The Incident Commander will be responsible for the overall implementation of these measures in their respective jurisdictions.

12. Penal provisions

Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Sec. 188 of the IPC, and other legal provisions as applicable. Extracts of these penal provisions are at **Annexure III**.


Union Home Secretary

Standard Operating Procedures (SOPs) issued by MHA

- i. SOP on transit arrangement for foreign national(s) in India issued vide Order dated April 02, 2020.
- ii. SOP on movement of stranded labour within States/ UTs, issued vide Order dated April 19, 2020.
- iii. SOP on sign-on and sign-off of Indian seafarers, issued vide Order dated April 21, 2020.
- iv. SOP on movement of stranded migrant workers, pilgrims, tourists, students and other persons, issued vide Order dated April 29, 2020 and Order dated May 01, 2020.
- v. SOP on movement of Indian Nationals stranded outside the country and of specified persons to travel abroad, issued vide Order dated May 5, 2020.
- vi. SOP on movement of persons by train, issued vide Order dated May 11, 2020.



17/5/2020

National Directives for COVID 19 Management

- i. Wearing of face cover is compulsory in all public and work places.
- ii. Spitting in public & work places shall be punishable with fine, as may be prescribed in accordance with its laws, rules or regulations by the State/ UT local authority.
- iii. Social distancing shall be followed by all persons in public places and in transport.
- iv. Marriage related gathering shall ensure social distancing, and the maximum number of guests allowed shall not be more than 50.
- v. Funeral/ last rites related gathering shall ensure social distancing, and the maximum numbers allowed shall not be more than 20.
- vi. Consumption of liquor, *paan*, *gutka*, tobacco etc. in public places is not allowed.
- vii. Shops will ensure minimum six feet distance (2 *gaz ki doori*) among customers and shall not allow more than 5 persons at the shop.

Additional directives for Work Places

- viii. As far as possible, the practice of work from home should be followed.
- ix. Staggering of work/ business hours shall be followed in offices, work places, shops, markets and industrial & commercial establishments.
- x. Provision for thermal scanning, hand wash and sanitizer will be made at all entry and exit points and common areas.
- xi. Frequent sanitization of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., shall be ensured, including between shifts.
- xii. All persons in charge of work places shall ensure social distancing through adequate distance between workers, adequate gaps between shifts, staggering the lunch breaks of staff, etc.



Offences and Penalties for Violation of Lockdown Measures

A. Section 51 to 60 of the Disaster Management Act, 2005

51. Punishment for obstruction, etc.—Whoever, without reasonable cause —

- (a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or
- (b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or wilfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

54. Punishment for false warning.—Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.

55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be liable to be punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly:

Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section—

- (a) “company” means anybody corporate and includes a firm or other association of individuals; and
- (b) “director”, in relation to a firm, means a partner in the firm.

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be, or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by—

- (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or
- (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

B. Section 188 in the Indian Penal Code, 1860

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or trends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Explanation.—It is not necessary that the offender should intend to produce harm, or contemplate his disobedience as likely to produce harm. It is sufficient that he knows of the order which he disobeys, and that his disobedience produces, or is likely to produce, harm.

Illustration

An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 30th May, 2020

ORDER

Whereas, an Order of even number dated 17.05.2020 was issued for containment of COVID-19 in the country, for a period upto 31.05.2020;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, National Disaster Management Authority (NDMA) has directed the undersigned to issue an order to extend the lockdown in Containment Zones upto 30.06.2020, and to re-open prohibited activities in a phased manner in areas outside Containment Zones;

Now therefore, in exercise of the powers, conferred under Section 10(2)(1) of the Disaster Management Act 2005, the undersigned hereby directs that guidelines, as *Annexed*, will remain in force upto 30.06.2020.


30/05/2020
Union Home Secretary

and, Chairman, National Executive Committee (NEC)

To:

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories

(As per list attached)

Copy to:

- i. All members of the National Executive Committee
- ii. Member Secretary, National Disaster Management Authority

Guidelines for Phased Re-opening (Unlock 1)

[As per Ministry of Home Affairs (MHA) Order No. 40-3/2020-DM-I (A) dated 30th May, 2020]

1. Phased re-opening of areas outside the Containment Zones

In areas outside Containment Zones, all activities will be permitted, except the following, which will be allowed, with the stipulation of following Standard Operating Procedures (SOPs) to be prescribed by the Ministry of Health and Family Welfare (MoHFW), in a phased manner:

Phase I

The following activities will be allowed with effect from 8 June, 2020:

- (i) Religious places/ places of worship for public.
- (ii) Hotels, restaurants and other hospitality services.
- (iii) Shopping malls.

Ministry of Health & Family Welfare (MoHFW) will issue Standard Operating Procedures (SOPs) for the above activities, in consultation with the Central Ministries/ Departments concerned and other stakeholders, for ensuring social distancing and to contain the spread of COVID-19.

Phase II

Schools, colleges, educational/ training/ coaching institutions etc., will be opened after consultations with States and UTs. State Governments/ UT administrations may hold consultations at the institution level with parents and other stakeholders. Based on the feedback, a decision on the re-opening of these institutions will be taken in the month of July, 2020.

MoHFW will prepare SOP in this regard, in consultation with the Central Ministries/ Departments concerned and other stakeholders, for ensuring social distancing and to contain the spread of COVID-19.

Phase III

Based on the assessment of the situation, dates for re-starting the following activities will be decided:

- (i) International air travel of passengers, except as permitted by MHA.
- (ii) Metro Rail.
- (iii) Cinema halls, gymnasiums, swimming pools, entertainment parks, theatres, bars and auditoriums, assembly halls and similar places.
- (iv) Social/ political/ sports/ entertainment/ academic/ cultural/ religious functions and other large congregations.

2. National Directives for COVID-19 Management

National Directives for COVID-19 Management, as specified in Annexure I, shall continue to be followed throughout the country.

30/5/20

**Budupula
Subhakar**

Digitally signed by Budupula Subhakar
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Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
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3. Night curfew

Movement of individuals shall remain strictly prohibited between 9.00 pm to 5.00 am throughout the country, except for essential activities. Local authorities shall issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as under Section 144 of CrPC, and ensure strict compliance.

4. Lockdown limited to Containment Zones

- (i) Lockdown shall continue to remain in force in the Containment Zones till 30 June, 2020.
- (ii) Containment Zones will be demarcated by the District authorities after taking into consideration the guidelines of MoHFW.
- (iii) In the Containment Zones, only essential activities shall be allowed. There shall be strict perimeter control to ensure that there is no movement of people in or out of these zones, except for medical emergencies and for maintaining supply of essential goods and services. In the Containment Zones, there shall be intensive contact tracing, house-to-house surveillance, and other clinical interventions, as required. Guidelines of MoHFW shall be taken into consideration for the above purpose.
- (iv) States/ UTs may also identify Buffer Zones outside the Containment Zones, where new cases are more likely to occur. Within the buffer zones, restrictions as considered necessary may be put in place by the District authorities.

5. States/ UTs, based on their assessment of the situation, may prohibit certain activities outside the Containment zones, or impose such restrictions as deemed necessary.

6. Unrestricted movement of persons and goods

- (i) There shall be no restriction on inter-State and intra-State movement of persons and goods. No separate permission/ approval/ e-permit will be required for such movements.
- (ii) However, if a State/ UT, based on reasons of public health and its assessment of the situation, proposes to regulate movement of persons, it will give wide publicity in advance regarding the restrictions to be placed on such movement, and the related procedures to be followed.
- (iii) Movement by passenger trains and *Shramik* special trains; domestic passenger air travel; movement of Indian Nationals stranded outside the country and of specified persons to travel abroad; evacuation of foreign nationals; and sign-on and sign-off of Indian seafarers will continue to be regulated as per SOPs issued.
- (iv) No State/ UT shall stop the movement of any type of goods/ cargo for cross land-border trade under Treaties with neighbouring countries.

7. Protection of vulnerable persons

Persons above 65 years of age, persons with co-morbidities, pregnant women, and children below the age of 10 years are advised to stay at home, except for essential and health purposes.


30/5/20

**Budupula
Subhakar**

Digitally signed by Budupula Subhakar
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EMPLOYEE, ST=Tamil Nadu, postalCode=
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8. Use of *Aarogya Setu*

- (i) *Aarogya Setu* enables early identification of potential risk of infection, and thus acts as a shield for individuals and the community.
- (ii) With a view to ensuring safety in offices and work places, employers on best effort basis should ensure that *Aarogya Setu* is installed by all employees having compatible mobile phones.
- (iii) District authorities may advise individuals to install the *Aarogya Setu* application on compatible mobile phones and regularly update their health status on the app. This will facilitate timely provision of medical attention to those individuals who are at risk.

9. Strict enforcement of the guidelines

- (i) State/ UT Governments shall not dilute these guidelines issued under the Disaster Management Act, 2005, in any manner.
- (ii) All the District Magistrates shall strictly enforce the above measures.

10. Penal provisions

Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Section 188 of the IPC, and other legal provisions as applicable. Extracts of these penal provisions are at **Annexure II**.


Union Home Secretary

and, Chairman, National Executive Committee

National Directives for COVID-19 Management

1. **Face coverings:** Wearing of face cover is compulsory in public places; in workplaces; and during transport.
2. **Social distancing:** Individuals must maintain a minimum distance of 6 feet (2 gaz ki doori) in public places.
Shops will ensure physical distancing among customers and will not allow more than 5 persons at one time.
3. **Gatherings:** Large public gatherings/ congregations continue to remain prohibited.
Marriage related gatherings : Number of guests not to exceed 50.
Funeral/ last rites related gatherings : Number of persons not to exceed 20.
4. **Spitting in public places** will be punishable with fine, as may be prescribed by the State/ UT local authority in accordance with its laws, rules or regulations.
5. **Consumption of liquor, paan, gutka, tobacco etc.** in public places is prohibited.

Additional directives for Work Places

6. **Work from home (WfH):** As far as possible the practice of WfH should be followed.
7. **Staggering of work/ business hours** will be followed in offices, work places, shops, markets and industrial & commercial establishments.
8. **Screening & hygiene:** Provision for thermal scanning, hand wash and sanitizer will be made at all entry and exit points and common areas.
9. **Frequent sanitization** of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., will be ensured, including between shifts.
10. **Social distancing:** All persons in charge of work places will ensure adequate distance between workers, adequate gaps between shifts, staggering the lunch breaks of staff, etc.



Offences and Penalties for Violation of Lockdown Measures

A. Section 51 to 60 of the Disaster Management Act, 2005

51. Punishment for obstruction, etc.—Whoever, without reasonable cause —

- (a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or
- (b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or wilfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

54. Punishment for false warning.—Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.

55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly:

Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section—

(a) “company” means anybody corporate and includes a firm or other association of individuals; and

(b) “director”, in relation to a firm, means a partner in the firm.

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be, or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by—

- (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or
- (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

B. Section 188 in the Indian Penal Code, 1860

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or tends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Explanation.—It is not necessary that the offender should intend to produce harm, or contemplate his disobedience as likely to produce harm. It is sufficient that he knows of the order which he disobeys, and that his disobedience produces, or is likely to produce, harm.

Illustration

An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 29 June, 2020

ORDER

Whereas, an Order of even number dated 30.05.2020 was issued for containment of COVID-19 in the country, for a period upto 30.06.2020;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, National Disaster Management Authority (NDMA) has directed the undersigned to issue an order to re-open more activities in a calibrated manner, in areas outside the Containment Zones and to extend the lockdown in Containment Zones upto 31.07.2020;

Now therefore, in exercise of the powers, conferred under Section 10(2)(1) of the Disaster Management Act 2005, the undersigned hereby directs that guidelines on **Unlock 2**, as **annexed**, will be in force upto 31.07.2020.


29/06/2020

Union Home Secretary

and, Chairman, National Executive Committee (NEC)

To:

1. The Secretaries of Ministries/ Departments of Government of India
 2. The Chief Secretaries/Administrators of States/Union Territories
- (As per list attached)

Copy to:

- i. All Members of the National Executive Committee
- ii. Member Secretary, National Disaster Management Authority

Guidelines for Phased Re-opening (Unlock 2)

[As per Ministry of Home Affairs Order No. 40-3/2020-DM-I (A) dated 29 June, 2020]

1. Activities permitted during Unlock 2 period outside Containment Zones

In areas outside Containment Zones, all activities will be permitted, except the following:

- (i) Schools, colleges, educational and coaching institutions will remain closed till 31 July, 2020. Online/ distance learning shall continue to be permitted and shall be encouraged.

Training institutions of the Central and State Governments will be allowed to function from 15 July, 2020, for which Standard Operating Procedure (SOP) will be issued by the Department of Personnel & Training (DoPT).

- (ii) International air travel of passengers, except as permitted by MHA.
- (iii) Metro Rail.
- (iv) Cinema halls, gymnasiums, swimming pools, entertainment parks, theatres, bars, auditoriums, assembly halls and similar places.
- (v) Social/ political/ sports/ entertainment/ academic/ cultural/ religious functions and other large congregations.

Dates for re-starting the above activities may be decided separately and necessary SOPs shall be issued for ensuring social distancing and to contain the spread of COVID-19.

Domestic flights and passenger trains have already been allowed in a limited manner. Their operations will be further expanded in a calibrated manner.

2. Night curfew

Movement of individuals shall remain strictly prohibited between 10.00 pm to 5.00 am throughout the country, except for essential activities, including operation of industrial units in multiple shifts, movement of persons and goods on National and State Highways, loading and unloading of cargo and travel of persons to their destinations after disembarking from buses, trains and airplanes. Local authorities shall issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as under Section 144 of CrPC, and ensure strict compliance.

3. National Directives for COVID-19 Management

National Directives for COVID-19 Management, as specified in **Annexure I**, shall continue to be followed throughout the country.

4. Lockdown limited to Containment Zones

- (i) Lockdown shall continue to remain in force in the Containment Zones till 31 July, 2020.


29/06/2020

- (ii) Containment Zones will be demarcated by the District authorities after taking into consideration the guidelines of Ministry of Health & Family Welfare (MoHFW) with the objective of effectively breaking the chain of transmission. These Containment Zones will be notified on the websites by the respective District Collectors and by the States/ UTs and information will be shared with MOHFW.
 - (iii) In the Containment Zones, only essential activities will be allowed. There shall be strict perimeter control to ensure that there is no movement of people in or out of these zones, except for medical emergencies and for maintaining supply of essential goods and services. In the Containment Zones, there shall be intensive contact tracing, house-to-house surveillance, and other clinical interventions, as required. Guidelines of MoHFW shall be effectively implemented for the above purpose.
 - (iv) Activities in the Containment Zones shall be monitored strictly by the State/ UT authorities, and the guidelines relating to containment measures in these zones shall be strictly implemented.
 - (v) States/ UTs may also identify Buffer Zones outside the Containment Zones, where new cases are more likely to occur. Within the buffer zones, restrictions as considered necessary may be put in place by the District authorities.
5. **States/ UTs, based on their assessment of the situation, may prohibit certain activities outside the Containment zones, or impose such restrictions as deemed necessary.**
- However, there shall be no restriction on inter-State and intra-State movement of persons and goods including those for cross land-border trade under Treaties with neighbouring countries. No separate permission/ approval/ e-permit will be required for such movements.
6. **Movement of persons with SOPs**
- Movement by passenger trains and *Shramik* special trains; domestic passenger air travel; movement of Indian Nationals stranded outside the country and of specified persons to travel abroad; evacuation of foreign nationals; and sign-on and sign-off of Indian seafarers will continue to be regulated as per SOPs issued.
7. **Protection of vulnerable persons**
- Persons above 65 years of age, persons with co-morbidities, pregnant women, and children below the age of 10 years are advised to stay at home, except for essential and health purposes.
8. **Use of Aarogya Setu**
- (i) *Aarogya Setu* enables early identification of potential risk of infection, and thus acts as a shield for individuals and the community.
 - (ii) With a view to ensuring safety in offices and work places, employers on best effort basis should ensure that *Aarogya Setu* is installed by all employees having compatible mobile phones.



**Budupula
Subhakar**

- (iii) District authorities may advise individuals to install the *Aarogya Setu* application on compatible mobile phones and regularly update their health status on the app. This will facilitate timely provision of medical attention to those individuals who are at risk.

9. Strict enforcement of the guidelines

- (i) State/ UT Governments shall not dilute these guidelines issued under the Disaster Management Act, 2005, in any manner.
- (ii) All the District Magistrates shall strictly enforce the above measures.

10. Penal provisions

Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Section 188 of the IPC, and other legal provisions as applicable. Extracts of these penal provisions are at **Annexure II**.


29/06/2020
Union Home Secretary

and, Chairman, National Executive Committee

National Directives for COVID-19 Management

1. **Face coverings:** Wearing of face cover is compulsory in public places; in workplaces; and during transport.
2. **Social distancing:** Individuals must maintain a minimum distance of 6 feet (2 *gaz ki doori*) in public places.
Shops will ensure physical distancing among customers.
3. **Gatherings:** Large public gatherings/ congregations continue to remain prohibited.
Marriage related gatherings : Number of guests not to exceed 50.
Funeral/ last rites related gatherings : Number of persons not to exceed 20.
4. **Spitting in public places** will be punishable with fine, as may be prescribed by the State/ UT local authority in accordance with its laws, rules or regulations.
5. **Consumption of liquor, paan, gutka, tobacco etc.** in public places is prohibited.

Additional directives for Work Places

6. **Work from home (WfH):** As far as possible the practice of WfH should be followed.
7. **Staggering of work/ business hours** will be followed in offices, work places, shops, markets and industrial & commercial establishments.
8. **Screening & hygiene:** Provision for thermal scanning, hand wash and sanitizer will be made at all entry and exit points and common areas.
9. **Frequent sanitization** of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., will be ensured, including between shifts.
10. **Social distancing:** All persons in charge of work places will ensure adequate distance between workers, adequate gaps between shifts, staggering the lunch breaks of staff, etc.



Offences and Penalties for Violation of Lockdown Measures

A. Section 51 to 60 of the Disaster Management Act, 2005

51. Punishment for obstruction, etc.—Whoever, without reasonable cause —

- (a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or
- (b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or wilfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

54. Punishment for false warning.—Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.

55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of

his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly:

Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section—

(a) “company” means anybody corporate and includes a firm or other association of individuals; and

(b) “director”, in relation to a firm, means a partner in the firm.

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be, or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by—

(a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or

(b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

B. Section 188 in the Indian Penal Code, 1860

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain

order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or tends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Explanation.—It is not necessary that the offender should intend to produce harm, or contemplate his disobedience as likely to produce harm. It is sufficient that he knows of the order which he disobeys, and that his disobedience produces, or is likely to produce, harm.

Illustration

An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 29th July, 2020

ORDER

Whereas, an Order of even number dated 29.06.2020 was issued for containment of COVID-19 in the country, for a period upto 31.07.2020;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, National Disaster Management Authority (NDMA) has directed the undersigned to issue an order to re-open more activities in areas outside the Containment Zones and to extend the lockdown in Containment Zones upto 31.08.2020;

Now therefore, in exercise of the powers, conferred under Section 10(2)(i) of the Disaster Management Act 2005, the undersigned hereby directs that guidelines on **Unlock 3**, as **annexed**, will be in force upto 31.08.2020.


29/07/2020
Union Home Secretary

and, Chairman, National Executive Committee (NEC)

To:

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories
(As per list attached)

Copy to:

- i. All Members of the National Executive Committee
- ii. Member Secretary, National Disaster Management Authority

Guidelines for Phased Re-opening (Unlock 3)

[As per Ministry of Home Affairs (MHA) Order No. 40-3/2020-DM-I (A)
dated 29th July, 2020]

1. Activities permitted during Unlock 3 period outside the Containment Zones

In areas outside the Containment Zones, all activities will be permitted, except the following:

- (i) Schools, colleges, educational and coaching institutions will remain closed till 31st August, 2020. Online/ distance learning shall continue to be permitted and shall be encouraged.
- (ii) Cinema halls, swimming pools, entertainment parks, theatres, bars, auditoriums, assembly halls and similar places.
Yoga institutes and gymnasiums will be allowed to function from 5th August 2020 for which, Standard Operating Procedure (SOP) will be issued by the Ministry of Health & Family Welfare (MoHFW).
- (iii) International air travel of passengers, except as permitted by MHA.
- (iv) Metro Rail.
- (v) Social/ political/ sports/ entertainment/ academic/ cultural/ religious functions and other large congregations.

Dates for re-starting the above activities may be decided separately and necessary SOPs shall be issued for ensuring social distancing and to contain the spread of COVID-19.

2. Independence day functions

Independence day functions at National, State, District, Sub-Division, Municipal and Panchayat levels and 'At Home' functions, wherever held, will be allowed with social distancing and by following other health protocols e.g. wearing of masks. In this regard instructions issued vide MHA letter no 2/5/2020-Public dated 21.07.2020 shall be followed.

3. National Directives for COVID-19 Management

National Directives for COVID-19 Management, as specified in **Annexure I**, shall continue to be followed throughout the country.

4. Lockdown limited to Containment Zones

- (i) Lockdown shall continue to remain in force in the Containment Zones till 31st August, 2020.
- (ii) Containment Zones will be demarcated by the District authorities after taking into consideration the guidelines of MoHFW with the objective of

effectively breaking the chain of transmission. These Containment Zones will be notified on the websites by the respective District Collectors and by the States/ UTs and information will be shared with MOHFW.

- (iii) In the Containment Zones, only essential activities will be allowed. There shall be strict perimeter control to ensure that there is no movement of people in or out of these zones, except for medical emergencies and for maintaining supply of essential goods and services. In the Containment Zones, there shall be intensive contact tracing, house-to-house surveillance, and other clinical interventions, as required. Guidelines of MoHFW shall be effectively implemented for the above purpose.
- (iv) Activities in the Containment Zones shall be monitored strictly by the State/ UT authorities, and the guidelines relating to containment measures in these zones shall be strictly implemented.
- (v) States/ UTs may also identify Buffer Zones outside the Containment Zones, where new cases are more likely to occur. Within the buffer zones, restrictions as considered necessary may be put in place by the District authorities.

5. States/ UTs, based on their assessment of the situation, may prohibit certain activities outside the Containment zones, or impose such restrictions as deemed necessary.

However, there shall be no restriction on inter-State and intra-State movement of persons and goods including those for cross land-border trade under Treaties with neighbouring countries. No separate permission/ approval/ e-permit will be required for such movements.

6. Movement of persons with SOPs

Movement by passenger trains and *Shramik* special trains; domestic passenger air travel; movement of Indian Nationals stranded outside the country and of specified persons to travel abroad; evacuation of foreign nationals; and sign-on and sign-off of Indian seafarers will continue to be regulated as per SOPs issued.

7. Protection of vulnerable persons

Persons above 65 years of age, persons with co-morbidities, pregnant women, and children below the age of 10 years are advised to stay at home, except for essential and health purposes.

8. Use of *Aarogya Setu*

- (i) *Aarogya Setu* enables early identification of potential risk of infection, and thus acts as a shield for individuals and the community.

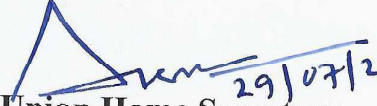
- (ii) With a view to ensuring safety in offices and work places, employers on best effort basis should ensure that *Aarogya Setu* is installed by all employees having compatible mobile phones.
- (iii) District authorities may advise individuals to install the *Aarogya Setu* application on compatible mobile phones and regularly update their health status on the app. This will facilitate timely provision of medical attention to those individuals who are at risk.

9. Strict enforcement of the guidelines

- (i) State/ UT Governments shall not dilute these guidelines issued under the Disaster Management Act, 2005, in any manner.
- (ii) All the District Magistrates shall strictly enforce the above measures.

10. Penal provisions

Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Section 188 of the IPC, and other legal provisions as applicable. Extracts of these penal provisions are at **Annexure II**.


29/07/2020
Union Home Secretary

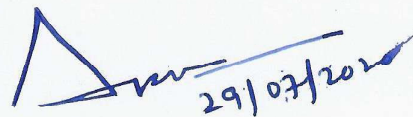
and, Chairman, National Executive Committee

National Directives for COVID-19 Management

1. **Face coverings:** Wearing of face cover is compulsory in public places; in workplaces; and during transport.
2. **Social distancing:** Individuals must maintain a minimum distance of 6 feet (2 gaz ki doori) in public places.
Shops will ensure physical distancing among customers.
3. **Gatherings:** Large public gatherings/ congregations continue to remain prohibited.
Marriage related gatherings : Number of guests not to exceed 50.
Funeral/ last rites related gatherings : Number of persons not to exceed 20.
4. **Spitting in public places** will be punishable with fine, as may be prescribed by the State/ UT local authority in accordance with its laws, rules or regulations.
5. **Consumption of liquor, paan, gutka, tobacco etc.** in public places is prohibited.

Additional directives for Work Places

6. **Work from home (WfH):** As far as possible the practice of WfH should be followed.
7. **Staggering of work/ business hours** will be followed in offices, work places, shops, markets and industrial & commercial establishments.
8. **Screening & hygiene:** Provision for thermal scanning, hand wash or sanitizer will be made at all entry points and of hand wash or sanitizer at exit points and common areas.
9. **Frequent sanitization** of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., will be ensured, including between shifts.
10. **Social distancing:** All persons in charge of work places will ensure adequate distance between workers, adequate gaps between shifts, staggering the lunch breaks of staff, etc.



29/07/2020

Offences and Penalties for Violation of Lockdown Measures

A. Section 51 to 60 of the Disaster Management Act, 2005

51. Punishment for obstruction, etc.—Whoever, without reasonable cause —

- (a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or
- (b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or wilfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

54. Punishment for false warning.—Whoever makes or circulates a false alarm or warning as to disaster or its severity or magnitude, leading to panic, shall on conviction, be punishable with imprisonment which may extend to one year or with fine.

55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished accordingly unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly:

Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section—

(a) “company” means anybody corporate and includes a firm or other association of individuals; and

(b) “director”, in relation to a firm, means a partner in the firm.

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be.

or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by—

- (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or
- (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

B. Section 188 in the Indian Penal Code, 1860

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or trends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

Explanation.—It is not necessary that the offender should intend to produce harm, or contemplate his disobedience as likely to produce harm. It is sufficient that he knows of the order which he disobeys, and that his disobedience produces, or is likely to produce, harm.

Illustration

An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001

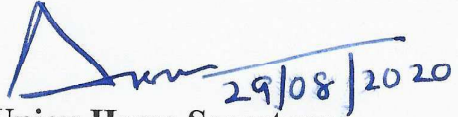
Dated 29th August, 2020

ORDER

Whereas, an Order of even number dated 29.07.2020 was issued for containment of COVID-19 in the country, for a period upto 31.08.2020;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, National Disaster Management Authority (NDMA) has directed the undersigned to issue an order to re-open more activities in areas outside the Containment Zones and to extend the lockdown in Containment Zones upto 30.09.2020;

Now therefore, in exercise of the powers, conferred under Section 10(2)(1) of the Disaster Management Act 2005, the undersigned hereby directs that guidelines on **Unlock 4**, as **annexed**, will be in force upto 30.09.2020.


29/08/2020
Union Home Secretary

and, Chairman, National Executive Committee (NEC)

To:

1. The Secretaries of Ministries/ Departments of Government of India
 2. The Chief Secretaries/Administrators of States/Union Territories
- (As per list attached)

Copy to:

- i. All Members of the National Executive Committee
- ii. Member Secretary, National Disaster Management Authority

Guidelines for Phased Re-opening (Unlock 4)

[As per Ministry of Home Affairs (MHA) Order No. 40-3/2020-DM-I (A)
dated 29th August, 2020]

1. Activities permitted during Unlock 4 period outside the Containment Zones

In areas outside the Containment Zones, all activities will be permitted, except the following:

(i) Schools, colleges, educational and coaching institutions will continue to remain closed for students and regular class activity up to 30th September 2020. However, following will be permitted:

- a. Online/ distance learning shall continue to be permitted and shall be encouraged.
- b. States/ UTs may permit upto 50% of teaching and non-teaching staff to be called to the schools at a time for online teaching/ tele-counselling and related work, in areas outside the Containment Zones only, with effect from 21st September 2020 for which, Standard Operating Procedure (SOP) will be issued by the Ministry of Health & Family Welfare (MoHFW).
- c. Students of classes 9 to 12 may be permitted to visit their schools, in areas outside the Containment Zones only, on voluntary basis, for taking guidance from their teachers. This will be subject to written consent of their parents/ guardians and will be permitted with effect from 21st September 2020 for which, SOP will be issued by MoHFW.
- d. Skill or Entrepreneurship training will be permitted in National Skill Training Institutes, Industrial Training Institutes (ITIs), Short term training centres registered with National Skill Development Corporation or State Skill Development Missions or other Ministries of Government of India or State Governments.

National Institute for Entrepreneurship and Small Business Development (NIESBUD), Indian Institute of Entrepreneurship (IIE) and their training providers will also be permitted.

These will be permitted with effect from 21st September 2020 for which, SOP will be issued by MoHFW.

- e. Higher Education Institutions only for research scholars (Ph.D.) and post-graduate students of technical and professional programmes requiring laboratory/ experimental works. These will be permitted by the Department of Higher Education (DHE) in consultation with MHA, based on the assessment of the situation, and keeping in view incidence of COVID-19 in the States/ UTs.

(ii) Metro rail will be allowed to operate with effect from 7th September 2020 in a graded manner, by the Ministry of Housing and Urban Affairs (MOHUA)/ Ministry of Railways (MOR), in consultation with MHA. In this regard, SOP will be issued by MOHUA.

(iii) Social/ academic/ sports/ entertainment/ cultural/ religious/ political functions and other congregations with a ceiling of 100 persons, will be permitted with effect from 21st September 2020, with mandatory wearing of face masks, social distancing, provision for thermal scanning and hand wash or sanitizer.

However, marriage related gatherings with number of guests not exceeding 50 and funeral/ last rites related gatherings with number of persons not exceeding 20 will continue to be allowed upto 20th September 2020, after which the ceiling of 100 persons will apply.

(iv) Cinema halls, swimming pools, entertainment parks, theatres and similar places will remain closed. However, open air theatres will be permitted to open with effect from 21st September 2020.

(v) International air travel of passengers, except as permitted by MHA.

2. National Directives for COVID-19 Management

National Directives for COVID-19 Management, as specified in **Annexure I**, shall continue to be followed throughout the country.

3. Lockdown limited to Containment Zones

(i) Lockdown shall remain in force in the Containment Zones till 30th September, 2020.

(ii) Containment Zones shall be demarcated by the District authorities at micro level after taking into consideration the guidelines of MoHFW with the objective of effectively breaking the chain of transmission. Strict containment measures will be enforced in these containment zones and only essential activities will be allowed. There shall be strict perimeter control to ensure that there is no movement of people in or out of these zones, except for medical emergencies and for maintaining supply of essential goods and services. In the Containment Zones, there shall be intensive contact tracing, house-to-house surveillance, and other clinical interventions, as required. Guidelines of MoHFW shall be effectively implemented for the above purpose.

(iii) These Containment Zones will be notified on the websites by the respective District Collectors and by the States/ UTs and information will be shared with MOHFW.

4. State/ UT Governments shall not impose any local lockdown (State/ District/ sub-division/City level), outside the containment zones, without prior consultation with the Central Government.

5. No restriction on Inter-State and intra-State movement

There shall be no restriction on inter-State and intra-State movement of persons and goods including those for cross land-border trade under Treaties with neighbouring countries. No separate permission/ approval/ e-permit will be required for such movements.

6. Movement of persons with SOPs

Movement by passenger trains; domestic passenger air travel; movement of persons on Vande Bharat and Air Transport Bubble flights; and sign-on and sign-off of Indian seafarers will continue to be regulated as per SOPs issued.

7. Protection of vulnerable persons

Persons above 65 years of age, persons with co-morbidities, pregnant women, and children below the age of 10 years are advised to stay at home, except for essential and health purposes.

8. Use of *Aarogya Setu*

- (i) *Aarogya Setu* enables early identification of potential risk of infection, and thus acts as a shield for individuals and the community.
- (ii) With a view to ensuring safety in offices and work places, employers on best effort basis should ensure that *Aarogya Setu* is installed by all employees having compatible mobile phones.
- (iii) District authorities may advise individuals to install the *Aarogya Setu* application on compatible mobile phones and regularly update their health status on the app. This will facilitate timely provision of medical attention to those individuals who are at risk.

9. Strict enforcement of the guidelines

- (i) State/ UT Governments shall not dilute these guidelines issued under the Disaster Management Act, 2005, in any manner.
- (ii) For the enforcement of social distancing, State/ UT Governments may, as far as possible, use the provisions of Section 144 of the Criminal Procedure Code (CrPC) of 1973.
- (iii) All the District Magistrates shall strictly enforce the above measures.

10. Penal provisions

Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Section 188 of the IPC, and other legal provisions as applicable. Extracts of these penal provisions are at **Annexure II**.

and, Chairman, National Executive C

3

246

Union Home Secretary

Budupula
Subhakar

29/08/2020
Digitally Signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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National Directives for COVID-19 Management

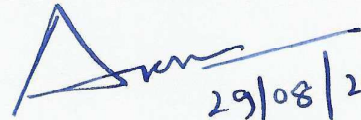
1. **Face coverings:** Wearing of face cover is compulsory in public places; in workplaces; and during transport.
2. **Social distancing:** Individuals must maintain a minimum distance of 6 feet (2 gaz ki doori) in public places.

Shops will ensure physical distancing among customers.

3. **Spitting in public places** will be punishable with fine, as may be prescribed by the State/ UT local authority in accordance with its laws, rules or regulations.

Additional directives for Work Places

4. **Work from home (WfH):** As far as possible the practice of WfH should be followed.
5. **Staggering of work/ business hours** will be followed in offices, work places, shops, markets and industrial & commercial establishments.
6. **Screening & hygiene:** Provision for thermal scanning, hand wash or sanitizer will be made at all entry points and of hand wash or sanitizer at exit points and common areas.
7. **Frequent sanitization** of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., will be ensured, including between shifts.
8. **Social distancing:** All persons in charge of work places will ensure adequate distance between workers, adequate gaps between shifts, staggering the lunch breaks of staff, etc.


29/08/2020

Offences and Penalties for Violation of Lockdown Measures

A. Section 51 to 60 of the Disaster Management Act, 2005

51. Punishment for obstruction, etc.—Whoever, without reasonable cause —

- (a) obstructs any officer or employee of the Central Government or the State Government, or a person authorised by the National Authority or State Authority or District Authority in the discharge of his functions under this Act; or
- (b) refuses to comply with any direction given by or on behalf of the Central Government or the State Government or the National Executive Committee or the State Executive Committee or the District Authority under this Act,

shall on conviction be punishable with imprisonment for a term which may extend to one year or with fine, or with both, and if such obstruction or refusal to comply with directions results in loss of lives or imminent danger thereof, shall on conviction be punishable with imprisonment for a term which may extend to two years.

52. Punishment for false claim.—Whoever knowingly makes a claim which he knows or has reason to believe to be false for obtaining any relief, assistance, repair, reconstruction or other benefits consequent to disaster from any officer of the Central Government, the State Government, the National Authority, the State Authority or the District Authority, shall, on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

53. Punishment for misappropriation of money or materials, etc.—Whoever, being entrusted with any money or materials, or otherwise being, in custody of, or dominion over, any money or goods, meant for providing relief in any threatening disaster situation or disaster, misappropriates or appropriates for his own use or disposes of such money or materials or any part thereof or wilfully compels any other person so to do, shall on conviction be punishable with imprisonment for a term which may extend to two years, and also with fine.

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55. Offences by Departments of the Government.—(1) Where an offence under this Act has been committed by any Department of the Government, the head of the Department shall be deemed to be guilty of the offence and shall be liable to be proceeded against and punished as

unless he proves that the offence was committed without his knowledge or that he exercised all due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a Department of the Government and it is proved that the offence has been committed with the consent or connivance of, or is attributable to any neglect on the part of, any officer, other than the head of the Department, such officer shall be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

56. Failure of officer in duty or his connivance at the contravention of the provisions of this Act.—Any officer, on whom any duty has been imposed by or under this Act and who ceases or refuses to perform or withdraws himself from the duties of his office shall, unless he has obtained the express written permission of his official superior or has other lawful excuse for so doing, be punishable with imprisonment for a term which may extend to one year or with fine.

57. Penalty for contravention of any order regarding requisitioning.—If any person contravenes any order made under section 65, he shall be punishable with imprisonment for a term which may extend to one year or with fine or with both.

58. Offence by companies.—(1) Where an offence under this Act has been committed by a company or body corporate, every person who at the time the offence was committed, was in charge of, and was responsible to, the company, for the conduct of the business of the company, as well as the company, shall be deemed to be guilty of the contravention and shall be liable to be proceeded against and punished accordingly:

Provided that nothing in this sub-section shall render any such person liable to any punishment provided in this Act, if he proves that the offence was committed without his knowledge or that he exercised due diligence to prevent the commission of such offence.

(2) Notwithstanding anything contained in sub-section (1), where an offence under this Act has been committed by a company, and it is proved that the offence was committed with the consent or connivance of or is attributable to any neglect on the part of any director, manager, secretary or other officer of the company, such director, manager, secretary or other officer shall also, be deemed to be guilty of that offence and shall be liable to be proceeded against and punished accordingly.

Explanation.—For the purpose of this section—

- (a) “company” means anybody corporate and includes a firm or other association of individuals; and
- (b) “director”, in relation to a firm, means a partner in

59. Previous sanction for prosecution.—No prosecution for offences punishable under sections 55 and 56 shall be instituted except with the previous sanction of the Central Government or the State Government, as the case may be, or of any officer authorised in this behalf, by general or special order, by such Government.

60. Cognizance of offences.—No court shall take cognizance of an offence under this Act except on a complaint made by—

- (a) the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised in this behalf by that Authority or Government, as the case may be; or
- (b) any person who has given notice of not less than thirty days in the manner prescribed, of the alleged offence and his intention to make a complaint to the National Authority, the State Authority, the Central Government, the State Government, the District Authority or any other authority or officer authorised as aforesaid.

B. Section 188 in the Indian Penal Code, 1860

188. Disobedience to order duly promulgated by public servant.—Whoever, knowing that, by an order promulgated by a public servant lawfully empowered to promulgate such order, he is directed to abstain from a certain act, or to take certain order with certain property in his possession or under his management, disobeys such direction, shall, if such disobedience causes or tends to cause obstruction, annoyance or injury, or risk of obstruction, annoyance or injury, to any person lawfully employed, be punished with simple imprisonment for a term which may extend to one month or with fine which may extend to two hundred rupees, or with both; and if such disobedience causes or trends to cause danger to human life, health or safety, or causes or tends to cause a riot or affray, shall be punished with imprisonment of either description for a term which may extend to six months, or with fine which may extend to one thousand rupees, or with both.

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Illustration

An order is promulgated by a public servant lawfully empowered to promulgate such order, directing that a religious procession shall not pass down a certain street. A knowingly disobeys the order, and thereby causes danger of riot. A has committed the offence defined in this section.

अजय भल्ला, भा.प्र.से.
AJAY BHALLA, IAS



Annexure-A9

गृह सचिव
Home Secretary
भारत सरकार
Government of India
नॉर्थ ब्लॉक/North Block
नई दिल्ली/New Delhi

D.O. No. 40-34/2020-DM-I(A)

19th March, 2021

Dear Chief Secretary,

Kindly refer to Ministry of Home Affairs' (MHA) Order number 40-3/2020-DM.1(A) dated 27.01.2021 by which guidelines for Surveillance, Containment and Caution were issued, which has been extended upto 31st March, 2021.

2. In terms of para 1 of the aforesaid Guidelines, State/UT Governments have been mandated to take all necessary measures to promote COVID-19 appropriate behaviour and ensure wearing of face masks, hand hygiene and social distancing. Further, these measures on COVID appropriate behavior are also included in the National Directives for COVID-19 Management, which have to be strictly followed throughout the country.

3. After the steady decline in COVID-19 cases for about 5 months, for the last few weeks, the number of COVID cases are showing an increasing trend in several parts of the country. It has been observed that it is largely due to laxity in the observance of COVID appropriate behaviour by the people, especially in the crowded places.

4. Keeping in view the fresh surge of cases and upcoming festivals, it will be important to ensure compliance of the Guidelines and to strictly enforce COVID appropriate behaviour, such as wearing of face masks, hand hygiene and social distancing among people.

5. I would, therefore, urge you to take necessary measures for creating awareness among people to follow COVID appropriate behaviour and simultaneously take necessary action for its strict enforcement, so as to fully overcome the pandemic. Further, necessary Orders/guidelines, issued by the respective State Governments/UT Administration in this regard, should be widely disseminated to the public and to the field functionaries for implementation.

With regards,

Yours sincerely,


(Ajay Bhalla)

Chief Secretaries of All States

अजय भल्ला, भा.प्र.से.
AJAY BHALLA, IAS



गृह सचिव
Home Secretary
भारत सरकार
Government of India
नॉर्थ ब्लॉक/ North Block
नई दिल्ली/ New Delhi

D.O. No. 40-34/2020-DM-I(A)

19th March, 2021

Dear Administrator,

Kindly refer to Ministry of Home Affairs' (MHA) Order number 40-3/2020-DM.1(A) dated 27.01.2021 by which guidelines for Surveillance, Containment and Caution were issued, which has been extended upto 31st March, 2021.

2. In terms of para 1 of the aforesaid Guidelines, State/UT Governments have been mandated to take all necessary measures to promote COVID-19 appropriate behaviour and ensure wearing of face masks, hand hygiene and social distancing. Further, these measures on COVID appropriate behavior are also included in the National Directives for COVID-19 Management, which have to be strictly followed throughout the country.
3. After the steady decline in COVID-19 cases for about 5 months, for the last few weeks, the number of COVID cases are showing an increasing trend in several parts of the country. It has been observed that it is largely due to laxity in the observance of COVID appropriate behaviour by the people, especially in the crowded places.
4. Keeping in view the fresh surge of cases and upcoming festivals, it will be important to ensure compliance of the Guidelines and to strictly enforce COVID appropriate behaviour, such as wearing of face masks, hand hygiene and social distancing among people.
5. I would, therefore, urge you to take necessary measures for creating awareness among people to follow COVID appropriate behaviour and simultaneously take necessary action for its strict enforcement, so as to fully overcome the pandemic. Further, necessary Orders/guidelines, issued by the respective State Governments/UT Administration in this regard, should be widely disseminated to the public and to the field functionaries for implementation.

With regards,

Yours sincerely,


(Ajay Bhalla)

Administrators of All UTs

अजय भल्ला, भा.प्र.से.
AJAY BHALLA, IAS



गृह सचिव
Home Secretary
भारत सरकार
Government of India
नॉर्थ ब्लॉक/North Block
नई दिल्ली/New Delhi
23rd March, 2021

No. 40-3/2020-DM-I(A)

Dear Chief Secretary,

Kindly refer to Ministry of Home Affairs (MHA) Order of even number issued today vide which guidelines for effective control of COVID-19 have been issued, which will be effective till 30th April, 2021.

2. As you are aware, with the coordinated efforts of the Central and State agencies, substantial gains have been achieved in containing the spread of COVID-19, which were visible in the sustained decline in the number of active cases, continuously for about 5 months. However, a fresh surge in COVID-19 cases is being witnessed in some parts of the country. Further, the situation might aggravate in view of the upcoming festivals.

3. It has been observed that there is a general laxity in the observance of COVID-19 appropriate behaviour. In this regard, my D.O. letter No. 40-34/2020-DM-I(A) dated 19.03.2021 may also be referred. It is again reiterated that State/UTs should take all necessary measures to promote COVID-19 Appropriate behaviour in work places and in public, especially in crowded places. For strict enforcement of wearing of masks, hand hygiene and social distancing, States/UTs may consider administrative actions, including imposition of appropriate fine.

4. It has further been observed that guidelines issued by Ministry of Health and Family Welfare (MoHFW) on containment measures are not being strictly followed. It is again re-iterated that Containment Zones have to be carefully demarcated by district authorities, at micro level, and containment measures shall be strictly enforced by the authorities concerned, taking into consideration guidelines prescribed by MoHFW.

5. It is of utmost importance to follow test-track-treat protocol in all parts of the country. The protocol includes aggressive testing to detect early COVID-19 positive cases, timely isolation of such positive cases by providing them clinical interventions, timely contact tracing as per protocol and demarcation of Containment Zones. In some States/UTs, the proportion of RT-PCR test in the total mix is low. Such States/UTs should rapidly increase the proportion of RT-PCR test to the prescribed level of 70% or more.

..contd.p/2..

Budupula
Subhakar

6. As emphasized earlier, guidelines/SOPs issued for various activities shall be strictly followed. States/UTs, based on their assessment of the situation, may impose local restrictions at district/sub-district and cities/ward level, with a view to contain the spread of COVID-19. However, there shall be no restriction on inter-State and intra-State movement of persons and goods including those for cross land-border trade under treaties with neighbouring countries.

7. The world's largest vaccination drive, against COVID-19, is proceeding smoothly in the country. However, the pace is uneven across different States and UTs, which is a matter of concern. Vaccination against COVID-19, in the present scenario, is critical to break the chain of transmission. Therefore, all State/UT Governments should rapidly step up the pace of vaccination, to cover all priority groups in an expeditious manner.

8. I would urge you to ensure compliance of the aforesaid guidelines and direct all authorities concerned for its strict implementation. Further, guidelines issued by MHA and consequent Orders issued by the respective State Governments/UT Administrations should be widely disseminated to the public and to the field functionaries for implementation.

With regards,

Yours sincerely,


(Ajay Bhalla)

To

Chief Secretaries of all States

अजय भल्ला, भा.प्र.से.
AJAY BHALLA, IAS



गृह सचिव
Home Secretary
भारत सरकार
Government of India
नॉर्थ ब्लॉक/North Block
नई दिल्ली/New Delhi

D.O. No. 40-6/2020-DM-I(A)/ Pt (2)

16th April, 2021

Dear Administrator,

Please refer to Ministry of Home Affairs' Order No. 40-3/2020-DM-I(A) dated 23.03.2021 whereby Guidelines for effective control of COVID-19 have been issued. As per these Guidelines, lockdown is limited to the Containment Zones and all economic and other activities are permitted outside the containment zone subject to strict adherence to prescribed Standard Operating Procedures (SOPs). Further, there shall be no restriction on inter-State and intra-State movement of persons and goods as also reiterated in my D.O. letter of even number dated 23.03.2021.

2. In last few days, a sharp increase in COVID-19 cases has been observed in the country along with high positivity rate. In order to break the chain of transmission and curb the spread of Covid-19, various States/UTs have imposed additional restrictions on certain activities and curfews etc.

3. As you are aware, **availability of adequate and uninterrupted supply of Medical Oxygen** is an important pre-requisite for managing moderate & severe cases of COVID-19. With increasing cases, the medical oxygen supplies will need to keep pace with the requirements of the States.

4. Keeping in view the requisition of Medical Oxygen and to ensure its smooth supplies to concerned agencies, Empowered Group-II, which is mandated for coordinating medical logistics including oxygen, has prepared a supply plan that is required to be followed by all States/UTs and concerned agencies. A copy of Secretary (Health)'s D.O. letter dated 15.04.2021 along with the aforesaid plan is enclosed.

5. It is emphasised that **Medical Oxygen is an essential public health commodity** and any impediment in the supplies of Medical Oxygen in the country may critically impact the management of patients suffering from COVID-19 disease in other parts of the country.

...contd - 12

**Budupula
Subhakar**

6. Therefore, you are requested to ensure that:

(i) **no such restriction** is imposed on the movement of Medical Oxygen **between the States/ UTs** and transport authorities shall be instructed to accordingly allow **free inter-state movement** of oxygen carrying vehicles;

(ii) **no restrictions** shall be imposed on oxygen manufacturers and suppliers to limit the oxygen supplies only to the hospitals of the State in which they are located;

(iii) there shall be free movement of oxygen carrying vehicles **into the cities**, without any restriction of timings, while also enabling **inter-city supply** without restriction; and

(iv) the supply plan as referred in para 4 above should strictly be adhered to by all the States/UTs.

With regards,

Yours sincerely,


(Ajay Bhalla)

Encl. as above

Administrators of All UTs



राजेश भूषण, आईएएस
सचिव

RAJESH BHUSHAN, IAS
SECRETARY



भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय

Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare

D.O. No. S.12011/45/2020-Proc-I
15th April, 2021

In view of the resurgence in COVID-19 cases across the country again, management of Medical Oxygen supply to States has become very critical. Empowered Group II (EG-II) which has the mandate to coordinate medical logistics including Oxygen has been holding discussions with the concerned Ministries and States to plan such supplies based on Medical Oxygen requirement of the States. Based on such deliberations, EG-II has prepared a supply plan as Annexed. All the States and all the concerned agencies are required to follow this plan to ensure smooth supplies of Medical Oxygen for Management of COVID-19.

In case any State has any suggestion or requires any clarification, they may contact Ms. Sumita Dawra, Addl. Secretary, DPIIT (Tel:011-2306 2983 / Email: dawras@ias.nic.in) or Dr.Nipun Vinayak, Joint Secretary, MoHFW (Tel:011-23061398 / Email: oxygenpmu.mohfw@gmail.com).

Yours sincerely,
Sd/-
(Rajesh Bhushan)

Enclosure: As above.

Addl. Chief Secretary/ Principal Secretary/ Secretary (Health)
Maharashtra, Gujarat, Karnataka, M.P., Delhi, Haryana, U.P., Punjab, Tamil Nadu, Kerala,
Chhattisgarh and Rajasthan.

Copy to:

(1) **Home Secretary** - for information and with a request to issue appropriate orders to facilitate unhindered interstate movement of medical oxygen as per enclosed plan.

(Rajesh Bhushan)

Demand on 20.04.2021																	
State	Manufacturer Name, Location	Capacity (MT/Day)	Balance	4880 Total Allocated	1500 MH	1000 GJ	300 KR	445 MP	300 DL	180 HR	400 UP	126 PB	200 TN	89 KL	215 CG	125 RJ	
AP	RINL Vishakhapatnam Steel Plant	100	3	97	97												
CG	LINDE SAIL - Bhilai	250	0	250	60			72							118		
CG	SAIL Bhilai Captive plant	25	-15	40				40									
GJ	Shree Ram Oxy Gases	130	25	105		105											
GJ	Reliance Industries Ltd, Jamnagar	425	0	425		425											
GJ	Air Liquide, Jhagadia	69	0	69		69											
GJ	Inox Karjan	120	0	120		80		40									
GJ	Inox Hazira	144	0	144		104		40									
GJ	Inox Simej	149	0	149		109		40									
GJ	LINDE Dahej	60	0	60		60											
HR	Air Liquide, Panipat	240	0	240					112	108		20					
HR	Jindal Steel Ltd Hissar	7	0	7						7							
HP	Inox Barotiwala	120	70	50						20		30					
JH	Air Water, Jamshedpur	105	85	20											20		
JH	Inox Bokaro	134	22	112				33			39				40		
JH	LINDE JMP1290	100	80	20				20									
JH	LINDE JMP2550	90	47	43							43						
KR	JSW Industrial Gases Pvt. Ltd	130	50	80			80										
KR	Universal Air Products Pvt Ltd	45	0	45			45										
KR	Bhuruka Gases Ltd	65	0	65			65										
KR	Air Water, Karnataka	90	0	90	45		45										
KR	LINDE Bellary-1	110	2	108	108												
KR	LINDE Bellary-2	65	0	65			65										
KL	Inox Kanjikode	149	60	89										89			
MH	Jindal Steel Works (JTPML) Dolvi	80	8	72	72												
MH	Taiyo Nippon Sanso	80	0	80	80												
MH	Air Liquide, Pune	110	0	110	110												
MH	Kolhapur Oxygen & Acetylene	31	8	23	23												
MH	Inox Vile Bhagad	122	0	122	122												
MH	Inox Dolvi	80	0	80	80												
MH	Inox Chakan	149	0	149	149												
MH	Inox Butibori (Nagpur)	97	12	85	85												
MH	LINDE Murbad	165	0	165	165												
MH	LINDE Talaja	240	0	240	240												

Demand on 20.04.2021		4880	1500	1000	300	445	300	180	400	126	200	89	215	125		
State	Manufacturer Name, Location	Capacity (MT/Day)	Balance	Total Allocated	MH	GJ	KR	MP	DL	HR	UP	PB	TN	KL	CG	RJ
OD	Jindal Steel & Power Ltd Odisha	150	130	20				20								
OD	LINDE Rourkela RSP BOO-1/2	250	213	37											37	
RJ	Inox Bhiwadi	120	0	120				40	15	0						65
TN	National Oxygen Ltd	55	25	30									30			
TN	JSW Steel Limited, Salem Works	12	2	10									10			
TN	Sigilsol Gases Pvt Ltd, Tanjore	50	30	20									20			
TN	Inox Sriperumbudur	149	99	50									50			
TN	LINDE St. Gobain	100	80	20									20			
PY	National Oxygen Ltd	75	45	30									30			
PY	Inox Pudlucherry	84	44	40									40			
UP	Goyal MG Gases, Ghaziabad	60	0	60					35		25					
UP	Inox Surajpur	35	0	35					35							
UP	Inox Modi Nagar	149	0	149				40	0	0	109					
UK	India Glycols Limited Uttarakhand	60	0	60					30	10	20					
UK	LINDE Selaqui	145	0	145					55		60	30				
UK	Air Liquide Roorkee	105	53	52					13	25		14				
	MSME ASU				64	48		60	5	10	104	32				60
	Total Allocation				1500	1000	300	445	300	180	400	126	200	89	215	125
	Shortfall				0	0	0	0	0	0	0	0	0	0	0	0
					MH	GJ	KR	MP	DL	HR	UP	PB	TN	KL	CG	RJ

Demand on 25.04.2021																						
State	Manufacturer Name, Location	Capacity (MT/Day)	Balance	5619 Total Allocated	1750 MH	1050 GJ	155 KR	565 MP	349 DL	180 HR	650 UP	82 PB	320 TN	99 KL	295 CG	124 RJ						
AP	RINL Vishakhapatnam Steel Plant	100	3	97	97																	
CG	LINDE SAIL- Bhilai	250	0	250	60			72							118							
CG	SAIL Bhilai Captive plant	25	-15	40				40														
GJ	Shree Ram Oxy Gases	130	25	105		105																
GJ	Reliance Industries Ltd, Jamnagar	425	0	425		425																
GJ	Air Liquide, Jhagadia	69	0	69		69																
GJ	Inox Karjan	120	0	120		80		40														
GJ	Inox Hazira	144	0	144		104		40														
GJ	Inox Simej	149	0	149		109		40														
GJ	LINDE Dahej	60	0	60		60										7						
HR	Air Liquide, Panipat	240	0	240					105	108		20										
HR	Jindal Steel Ltd Hissar	7	0	7						7												
HP	Inox Barotiwala	120	70	50						20		30										
JH	Air Water, Jamshedpur	105	85	20											20							
JH	Inox Bokaro	134	-31	165				86			39				40							
JH	LINDE JMP1290	100	60	40				40														
JH	LINDE JMP2550	90	47	43							43											
KR	JSW Industrial Gases Pvt. Ltd	130	55	75	30		45															
KR	Universal Air Products Pvt Ltd	45	0	45			45															
KR	Bhuruka Gases Ltd	65	0	65			65															
KR	Air Water, Karnataka	90	40	50	50																	
KR	Inox Bellary	50	0	50	50																	
KR	LINDE Bellary-1	110	0	110	110																	
KL	Inox Kanjikode	149	13	136									37	99								
MH	Jindal Steel Works (JTPML) Dolvi	80	8	72	72																	
MH	Taiyo Nippon Sanso	80	0	80	80																	
MH	Air Liquide, Pune	110	0	110	110																	
MH	Kolhapur Oxygen & Acetylene	31	8	23	23																	
MH	Inox Vile Bhagad	122	0	122	122																	
MH	Inox Dolvi	80	0	80	80																	
MH	Inox Chakan	149	0	149	149																	
MH	Inox Butibori (Nagpur)	97	12	85	85																	
MH	LINDE Murbad	165	0	165	165																	
MH	LINDE Talasari	240	0	240	240																	

Demand on 30.04.2021																		
State	Manufacturer Name, Location			Capacity (MT/Day)	Balance	6593 Total Allocated	2000 MH	1200 GJ	111 KR	700 MP	445 DL	180 HR	800 UP	82 PB	465 TN	104 KL	382 CG	124 RJ
AP	RINL Vishakhapatnam Steel Plant			100	3	97	97											
CG	LINDE SAIL- Bhilai			250	-132	382	60			72							250	
CG	SAIL Bhilai Captive plant			25	-40	65				40							25	
GJ	Shree Ram Oxy Gases			130	25	105		105										
GJ	Reliance Industries Ltd, Jamnagar			425	0	425		325		100								
GJ	Air Liquide, Jhagadia			69	0	69		69										
GJ	Inox Karjan			120	0	120		80		40								
GJ	Inox Hazira			144	0	144		104		40								
GJ	Inox Simej			149	0	149		109		40								
GJ	LINDE Dahej			60	0	60		60										
HR	Air Liquide, Panipat			240	7	233					105	108		20				
HR	Jindal Steel Ltd Hissar			7	0	7						7						
HP	Inox Barotiwala			120	90	30						20		10				
JH	Inox Bokaro			134	-39	173				76			39				58	
JH	LINDE JMP1290			100	60	40				40								
JH	LINDE JMP2550			90	47	43							43					
JH	SAIL Bokaro, Own			10	0	10				10								
KR	JSW Industrial Gases Pvt. Ltd			130	80	50	30		20						0			
KR	Universal Air Products Pvt Ltd			45	0	45			45									
KR	Bhuruka Gases Ltd			65	0	65			46						19			
KR	Air Water, Karnataka			90	40	50	50											
KR	Inox Bellary			50	0	50	50											
KR	LINDE Bellary-1			110	0	110	110											
KL	Inox Kanjikode			149	5	144												
MH	Jindal Steel Works (JTPML) Dolvi			80	8	72	72									40	104	
MH	Taiyo Nippon Sanso			80	0	80	80											
MH	Air Liquide, Pune			110	0	110	110											
MH	Kolhapur Oxygen & Acetylene			31	8	23	23											
MH	Inox Vile Bhagad			122	0	122	122											
MH	Inox Dolvi			80	0	80	80											
MH	Inox Chakan			149	0	149	149											
MH	Inox Butibori (Nagpur)			97	12	85	85											
MH	LINDE Murbad			165	0	165	165											
MH	LINDE Talaja			240	0	240	240											

अजय भल्ला, भा.प्र.से.
AJAY BHALLA, IAS



गृह सचिव
Home Secretary
भारत सरकार
Government of India
नॉर्थ ब्लॉक/North Block
नई दिल्ली/New Delhi

No. 40-3/2020-DM-I(A)

26th April, 2021

Dear Administrator,

Please refer to the guidelines for effective control of COVID-19, issued vide Ministry of Home Affairs' (MHA) Order of even No. dated 23.03.2021, wherein it is prescribed that States and UTs, based on their assessment of the situation, may impose local restrictions at district/sub-district and city/ward level, with a view to contain the spread of COVID-19.

2. In the recent past, a sharp increase in COVID-19 cases has been observed along with high positivity rate. Considering this unprecedented surge, there is an urgent need for States/UTs to consider strict COVID management and control measures, in the surge areas to bring the situation under control. Accordingly, Ministry of Health & Family Welfare (MoHFW), vide their DO no. Z.28015/85/2021-DM Cell dated 25th April 2021, has advised all States and UT Governments to implement an intensive, local and focused containment framework, focused on specific districts/ cities/ areas, and identified based on a prescribed criterion. The containment framework has been outlined in detail in the Annexure to the said MoHFW letter (copy enclosed). All States/UTs have also been advised to consider a further graded response in accordance with local situation, requirements and resources.

3. I would, therefore, urge you to issue directions to district authorities in your State/UT, to take all necessary measures, as advised by MoHFW in their letter, for the implementation of the containment framework, so as to flatten the curve. I would also advise that Orders issued by the respective State Governments/UT Administrations/district authorities, for imposing restrictions, should be widely disseminated to the public and to the field functionaries for their effective implementation.

With regards,

Encl. as above

Administrators of all UTs

Yours sincerely,


(Ajay Bhalla)

Budupula
Subhakar

**Annexure to Ministry of Health & Family Welfare (MoHFW) DO no.
Z.28015/85/2021-DM Cell dated 25th April 2021**

**Annexure – A
Implementation Framework for community containment/large containment areas**

Understanding the virus transmission dynamics:

The virus transmits through the human host. It is imperative to understand that in order to contain the transmission of the virus, the strategies involve not just containing the virus but also the human host.

Broadly, the **strategies** are:

1. **Individual actions** such as wearing of masks, maintaining a distance of 6 feet from others, sanitizing one's hands frequently and not attending any mass gathering; and
2. **Public Health measures** to contain the virus by:
 - **quarantining** and testing individuals suspected to be positive including contacts of SARS-CoV-2 positive persons, SARI cases, persons with flu like symptoms etc. and ensuring that they are not mobile and thus able to spread the infection
 - **isolating** all those who are positive, tracing their contacts, quarantining and testing them.
 - where there are clusters of cases, simply quarantining individuals or families will not help. In that case, **containment zones** with clear boundaries and stringent controls will be required to ensure that the infection does not spread outside. This is in line with the containment strategy followed worldwide and also already enumerated in SOPs of the Ministry of Health. This would mean a large geographical area like a city or district or well defined parts thereof, where cases are high and spiraling up, gets contained physically, However, regulated movement of public transport would be permitted.
3. **Evidence Based Decision:** The decision on where and when to go for large Containment Zone (CZ) has to be evidence based and done at the State/UT level after proper analysis of the situation, such as; the population affected, the geographical spread, the hospital infrastructure, manpower, the ease of enforcing boundaries etc.
4. However, in order to facilitate objective, transparent, and epidemiologically sound decision making, the following broad-based framework is provided to aid States UTs in selection of districts/areas:

S. No.	Parameter	Thresholds
1	Test positivity	Test positivity of 10% or more in the last one week
OR		
2	Bed occupancy	Bed occupancy of more than 60% on either oxygen supported or ICU beds

.....contd/-

5. The areas requiring **Intensive action and local containment** connotes specific and well defined geographical units such as cities/town/part of the towns/district headquarters/semi-urban localities/municipal wards/*panchayat areas* etc.
6. The areas so identified for intensive action and local containment will primarily focus on **the following strategic areas of intervention**:

A. Containment

- i. Focus will be on **containment as a major approach to flatten the current curve of the epidemic.**
- ii. **Night curfew:** Movement of individuals shall be strictly prohibited during night hours, except for essential activities. Local administration shall decide the duration of the night curfew hours and issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as under Section 144 of CrPC, and ensure strict compliance.
- iii. The spread of the infection has to be controlled through **restricting the intermingling amongst people**, the only known host for the COVID-19 virus.
- iv. Social/ political / sports / entertainment / academic / cultural / religious / festival-related and other **gathering and congregations shall be prohibited.**
- v. **Marriages (attended by up to 50 persons) and funerals/ last rites (attended by up to 20 persons) may be allowed.**
- vi. All shopping complexes, cinema halls, restaurants & bars, sports complexes, gym, spas, swimming pool and religious places should remain closed.
- vii. **Essential services and activities** such as **healthcare services, police, fire, banks, electricity, water and sanitation, regulated movement of public transport** including all incidental services and activities needed for a smooth functioning of these activities **shall continue.** Such services shall continue in both **public and private sector.**
- viii. **Public transport** (railways, metros, buses, cabs) **to operate at a maximum capacity of 50%.**
- ix. There shall be **no restrictions on inter-state and intra-state movement including transportation of essential goods.**
- x. All **offices**, both government and private, to function with a **maximum staff strength of 50%.**
- xi. **All industrial and scientific establishments**, both government and private may be **allowed** subject to the **workforce following physical distancing norms.** They shall also be tested through RAT (in case of individuals identified with flu like symptoms) from time to time.
- xii. The SOPs already issued by MoHFW, including training manuals for surveillance teams and supervisors are available on the website & must be followed.
- xiii. **However, these are indicative activities, and States/ UTs should make a careful analysis of the local situation, areas to be covered, and probability of transmission and then take a decision.**

- xiv. The restrictions as above shall continue for a period of 14 days.
- xv. **Before declaring a containment area, make a public announcement, outlining the rationale for the same and the kind of restrictions that will be in place (a leaflet in local language may be distributed highlighting the gravity of the situation and restrictions to be followed)**
- xvi. **Community volunteers, civil society organizations, ex- servicemen, and members of the local NYK/NSS centers etc. should be involved for sustainable management of containment activities, translating the aforementioned leaflets and for encouraging people in the community for sustained behavior change as well as vaccination.**

B. Testing and Surveillance

Districts will continue with the strategy of 'Test-Track-Treat-Vaccinate' and **implementation of Covid Appropriate Behavior across the district as the ongoing strategy for the management of COVID-19.**

- i. **Ensure adequate testing and door to door case search** in the area through adequate number of teams formed for such purpose.
- ii. **Plan for testing of all clinically resembling cases of Influenza like illness (ILI) & SARI through RAT.** All symptomatic individuals turning out to be negative for SARS-CoV-2 infection with RAT need to be **retested through RT PCR.**
- iii. **Ensuring compliance of COVID Appropriate Behaviour aggressively both through creation of awareness through involvement of the community based organizations and through stringent regulatory framework.**

C. Clinical Management

- i. Analysis to be undertaken with respect to **requirement of health infrastructure so as to manage the present and projected cases (next one month)** and necessary action initiated to ensure sufficient oxygen-supported beds, ICU beds, ventilators, ambulances including creation of makeshift hospitals, as needed. Sufficient quarantine facilities shall also be re-activated.
- ii. **Leverage government, private health facilities** including hospital facilities available with **central ministries, railway coaches, temporary field hospitals etc.**
- iii. Ensure that people satisfying protocol for home isolation only are allowed under **home isolation.** Create a **mechanism for their regular monitoring** through Call Centres along with **regular visit of surveillance teams** to such houses.
- iv. Provision of a **customized kit** for all patients under home isolation, **including detailed dos and don'ts** to be followed by them.
- v. **Specific monitoring shall be done for high risk cases and their timely shifting to the health facility.** Similarly, **elderly and co-morbid contacts of positive cases shall be shifted to quarantine centres and monitored.**

.....contd/-

- vi. Appoint **senior district officials as In-charge** for all Covid dedicated hospitals and create a **mechanism for seamless shifting** of patients (including home isolation cases) as per their symptom to the relevant facilities.
- vii. Ensure availability of **sufficient ambulances** for such purpose.
- viii. Coordinate **availability of oxygen, other related logistics, drugs** etc. in collaboration with state officials and ensure their rational use.
- ix. **Oxygen therapy** for the admitted cases shall follow the **guidelines issued by Ministry of Health** on the rational use of oxygen
- x. Use of **investigative drugs** (Remdesivir / Tocilizumab etc.) shall also **strictly follow the clinical management protocol/advisories issued by Ministry of Health**.
- xi. **Facility wise cases and deaths** shall be analyzed on **daily basis** by the **Incident Commander/District Collector/Municipal Commissioner**. **Death-audit** shall be undertaken for **all deaths** in the hospitals and in the community to provide supportive supervision to field staff/hospitals.

D. Vaccination

100% vaccination for the **eligible age-groups** shall be undertaken duly **creating additional vaccination centres** and **optimal capacity utilization of existing Centres**.

E. Community Engagement

- i. Ensure **adequate advance information to community**, also highlighting the need for stringent containment actions so as to win their involvement and support.
- ii. Provide enough time for people movement for essential requirements etc. before announcing the large scale containment
- iii. Take necessary actions to **avoid misinformation & panic** in the community.
- iv. **Involve local level NGOs/CBOs/CSOs, Opinion Makers and subject experts** to create a positive environment and for sustained dialogue with the community.
- v. **Create wide publicity on early warning signals** and self-reporting so as to identify cases early and to prevent avoidable deaths among home isolation patients.
- vi. Give **wide publicity on the mechanism** whereby people can get themselves tested, details of available health facilities, requisitioning an ambulance etc (community based organizations should be encouraged to create WhatsApp groups for quick dissemination of information so that the individuals in need of prevention and/or care services do not suffer delay).
- vii. Ensure that **details of hospital beds and their vacancy status is made available on-line and also released to media on a daily basis**.
- viii. Details on **availability of oxygen, drugs, vaccine and vaccination centres**; including the guidelines related with use of Remdesivir/Tocilizumab etc. be also widely publicized so as to create confidence in the community.

.....contd/-

: 5 :

- ix. Community should be oriented about the feasibility of managing mild COVID-19 cases at home with appropriate monitoring of vital parameters such as temperature and oxygen saturation with the help of pulse oxymeter.
- x. **Need for COVID Appropriate Behaviour** including **regulatory framework for enforcement** should be **widely publicized**.
- xi. **Build confidence** in community duly highlighting the nature of disease, the fact that **early identification** helps in early recovery and more than 98% people recover to **remove fear as well as stigma** related with Covid-19. Involvement of civil society organizations to hold such orientations go a long way in this regard.

**Annexure to Ministry of Health & Family Welfare (MoHFW) DO no.
Z.28015/85/2021-DM Cell dated 25th April 2021**

**Annexure – A
Implementation Framework for community containment/large containment areas**

Understanding the virus transmission dynamics:

The virus transmits through the human host. It is imperative to understand that in order to contain the transmission of the virus, the strategies involve not just containing the virus but also the human host.

Broadly, the **strategies** are:

1. **Individual actions** such as wearing of masks, maintaining a distance of 6 feet from others, sanitizing one's hands frequently and not attending any mass gathering; and
2. **Public Health measures** to contain the virus by:
 - **quarantining** and testing individuals suspected to be positive including contacts of SARS-CoV-2 positive persons, SARI cases, persons with flu like symptoms etc. and ensuring that they are not mobile and thus able to spread the infection
 - **isolating** all those who are positive, tracing their contacts, quarantining and testing them.
 - where there are clusters of cases, simply quarantining individuals or families will not help. In that case, **containment zones** with clear boundaries and stringent controls will be required to ensure that the infection does not spread outside. This is in line with the containment strategy followed worldwide and also already enumerated in SOPs of the Ministry of Health. This would mean a large geographical area like a city or district or well defined parts thereof, where cases are high and spiraling up, gets contained physically, However, regulated movement of public transport would be permitted.
3. **Evidence Based Decision:** The decision on where and when to go for large Containment Zone (CZ) has to be evidence based and done at the State/UT level after proper analysis of the situation, such as; the population affected, the geographical spread, the hospital infrastructure, manpower, the ease of enforcing boundaries etc.
4. However, in order to facilitate objective, transparent, and epidemiologically sound decision making, the following broad-based framework is provided to aid States UTs in selection of districts/areas:

S. No.	Parameter	Thresholds
1	Test positivity	Test positivity of 10% or more in the last one week
OR		
2	Bed occupancy	Bed occupancy of more than 60% on either oxygen supported or ICU beds

.....contd/-

5. The areas requiring **Intensive action and local containment** connotes specific and well defined geographical units such as cities/town/part of the towns/district headquarters/semi-urban localities/municipal wards/*panchayat areas* etc.
6. The areas so identified for intensive action and local containment will primarily focus on **the following strategic areas of intervention:**

A. Containment

- i. Focus will be on **containment** as a **major approach** to flatten the current curve of the epidemic.
- ii. **Night curfew:** Movement of individuals shall be strictly prohibited during night hours, except for essential activities. Local administration shall decide the duration of the night curfew hours and issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as under Section 144 of CrPC, and ensure strict compliance.
- iii. The spread of the infection has to be controlled through **restricting the intermingling amongst people**, the only known host for the COVID-19 virus.
- iv. Social/ political / sports / entertainment / academic / cultural / religious / festival-related and other **gathering and congregations shall be prohibited.**
- v. **Marriages (attended by up to 50 persons) and funerals/ last rites (attended by up to 20 persons) may be allowed.**
- vi. All shopping complexes, cinema halls, restaurants & bars, sports complexes, gym, spas, swimming pool and religious places should remain closed.
- vii. **Essential services and activities** such as **healthcare services, police, fire, banks, electricity, water and sanitation, regulated movement of public transport** including all **incidental services and activities** needed for a smooth functioning of these activities **shall continue.** Such services shall continue in both **public and private sector.**
- viii. **Public transport** (railways, metros, buses, cabs) **to operate at a maximum capacity of 50%.**
- ix. There shall be **no restrictions on inter-state and intra-state movement including transportation of essential goods.**
- x. All **offices**, both government and private, to function with a **maximum staff strength of 50%.**
- xi. **All industrial and scientific establishments**, both government and private may be **allowed** subject to the **workforce following physical distancing norms.** They shall also be tested through RAT (in case of individuals identified with flu like symptoms) from time to time.
- xii. The SOPs already issued by MoHFW, including training manuals for surveillance teams and supervisors are available on the website & must be followed.
- xiii. **However, these are indicative activities, and States/ UTs should make a careful analysis of the local situation, areas to be covered, and probability of transmission and then take a decision.**

.....contd/-

Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
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**Budupula
Subhakar**

- xiv. The restrictions as above shall continue for a period of 14 days.
- xv. **Before declaring a containment area, make a public announcement, outlining the rationale for the same and the kind of restrictions that will be in place (a leaflet in local language may be distributed highlighting the gravity of the situation and restrictions to be followed)**
- xvi. **Community volunteers, civil society organizations, ex- servicemen, and members of the local NYK/NSS centers etc. should be involved for sustainable management of containment activities, translating the aforementioned leaflets and for encouraging people in the community for sustained behavior change as well as vaccination.**

B. Testing and Surveillance

Districts will continue with the strategy of 'Test-Track-Treat-Vaccinate' and implementation of Covid Appropriate Behavior across the district as the ongoing strategy for the management of COVID-19.

- i. Ensure **adequate testing and door to door case search** in the area through adequate number of teams formed for such purpose.
- ii. Plan for **testing of all clinically resembling cases** of Influenza like illness (ILI) & SARI through RAT. All symptomatic individuals turning out to be negative for SARS-CoV-2 infection with RAT need to be **retested through RT PCR**.
- iii. Ensuring **compliance of COVID Appropriate Behaviour** aggressively both through creation of awareness through involvement of the community based organizations and through stringent regulatory framework.

C. Clinical Management

- i. Analysis to be undertaken with respect to **requirement of health infrastructure** so as to **manage the present and projected cases (next one month)** and necessary action initiated to ensure sufficient oxygen-supported beds, ICU beds, ventilators, ambulances including creation of makeshift hospitals, as needed. Sufficient quarantine facilities shall also be re-activated.
- ii. Leverage **government, private health facilities** including hospital facilities available with **central ministries, railway coaches, temporary field hospitals etc.**
- iii. Ensure that people satisfying protocol for home isolation only are allowed under **home isolation**. Create a **mechanism for their regular monitoring** through Call Centres along with **regular visit of surveillance teams** to such houses.
- iv. Provision of a **customized kit** for all patients under home isolation, including **detailed dos and don'ts** to be followed by them.
- v. Specific **monitoring** shall be done for **high risk cases** and their timely shifting to the health facility. Similarly, **elderly and co-morbid contacts** of positive cases shall be **shifted to quarantine centres** and monitored.

.....contd/-

- vi. Appoint **senior district officials as In-charge** for all Covid dedicated hospitals and create a **mechanism for seamless shifting** of patients (including home isolation cases) as per their symptom to the relevant facilities.
- vii. Ensure availability of **sufficient ambulances** for such purpose.
- viii. Coordinate **availability of oxygen, other related logistics, drugs** etc. in collaboration with state officials and ensure their rational use.
- ix. **Oxygen therapy** for the admitted cases shall follow the **guidelines issued by Ministry of Health** on the **rational use** of oxygen
- x. Use of **investigative drugs** (Remdesivir / Tocilizumab etc.) shall also **strictly follow the clinical management protocol/advisories issued by Ministry of Health**.
- xi. **Facility wise cases and deaths** shall be analyzed on **daily basis** by the **Incident Commander/District Collector/Municipal Commissioner**. **Death-audit** shall be undertaken for **all deaths** in the hospitals and in the community to provide supportive supervision to field staff/hospitals.

D. Vaccination

100% vaccination for the **eligible age-groups** shall be undertaken duly **creating additional vaccination centres** and **optimal capacity utilization** of existing Centres.

E. Community Engagement

- i. Ensure **adequate advance information to community**, also highlighting the need for stringent containment actions so as to win their involvement and support.
- ii. Provide enough time for people movement for essential requirements etc. before announcing the large scale containment
- iii. Take necessary actions to **avoid misinformation & panic** in the community.
- iv. **Involve local level NGOs/CBOs/CSOs, Opinion Makers and subject experts** to create a positive environment and for sustained dialogue with the community.
- v. **Create wide publicity on early warning signals** and self-reporting so as to identify cases early and to prevent avoidable deaths among home isolation patients.
- vi. Give **wide publicity on the mechanism** whereby people can get themselves tested, details of available health facilities, requisitioning an ambulance etc (community based organizations should be encouraged to create WhatsApp groups for quick dissemination of information so that the individuals in need of prevention and/or care services do not suffer delay).
- vii. Ensure that **details of hospital beds and their vacancy status** is made **available on-line** and also released to media on a daily basis.
- viii. Details on **availability of oxygen, drugs, vaccine and vaccination centres**; including the guidelines related with use of Remdesivir/Tocilizumab etc. be also widely publicized so as to create confidence in the community.

.....contd/-

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- ix. Community should be oriented about the feasibility of managing mild COVID-19 cases at home with appropriate monitoring of vital parameters such as temperature and oxygen saturation with the help of pulse oxymeter.
- x. **Need for COVID Appropriate Behaviour** including **regulatory framework for enforcement** should be **widely publicized**.
- xi. **Build confidence** in community duly highlighting the nature of disease, the fact **that early identification** helps in early recovery and more than 98% people recover to **remove fear as well as stigma** related with Covid-19. Involvement of civil society organizations to hold such orientations go a long way in this regard.

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001
Dated 29th April, 2021

ORDER

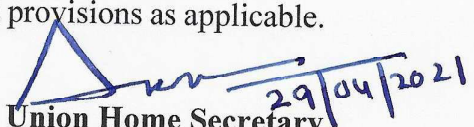
Whereas, an Order of even number dated 23.03.2021 was issued for effective control of COVID-19 in the country, for a period upto 30.04.2021;

And whereas, considering the unprecedented surge in COVID-19 cases across the country, Ministry of Health & Family Welfare (MoHFW) vide DO No. Z.28015/85/2021-DM Cell dated 25th April 2021, has issued an advisory to all States and Union Territories (UTs), for implementing intensive, local and focused containment framework, in specific districts/ cities/ areas, identified based on a prescribed criterion;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, National Disaster Management Authority (NDMA) has directed the undersigned to issue an order, for ensuring compliance on the focused containment measures, as mentioned in the aforesaid MoHFW letter dated 25.04.2021, for containment of COVID-19 in the country;

Now, therefore, in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act 2005, the undersigned, hereby directs the State/ Union Territory Governments and State/ Union Territory Authorities to consider the containment measures for COVID-19, as conveyed vide aforesaid MoHFW advisory dated 25.04.2021, as per **Annexure-I**, for immediate implementation in their State/ UT, based on the assessment of the situation, until 31.05.2021. States/ UTs, will take the necessary containment measures, under the relevant provisions of the Disaster Management Act 2005. It is further directed that:

- (i) The National Directives for COVID-19 Management, as specified in **Annexure-II**, shall continue to be strictly followed throughout the country.
- (ii) All the District Magistrates shall strictly enforce the containment measures taken by States/ UTs and the National Directives.
- (iii) Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Section 188 of the IPC, and other legal provisions as applicable.


Union Home Secretary

and, Chairman, National Executive Committee (NEC)

To:

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories
(As per list attached)

Copy to:

- i. All Members of the National Executive Committee
- ii. Member Secretary, National Disaster Management Authority

**Budupula
Subhakar**

Containment framework, as mentioned in Ministry of Health & Family Welfare
(MoHFW), DO no. Z.28015/85/2021-DM Cell dated 25th April 2021

Annexure – A

Implementation Framework for community containment/large containment areas

Understanding the virus transmission dynamics:

The virus transmits through the human host. It is imperative to understand that in order to contain the transmission of the virus, the strategies involve not just containing the virus but also the human host.

Broadly, the strategies are:

1. **Individual actions** such as wearing of masks, maintaining a distance of 6 feet from others, sanitizing one's hands frequently and not attending any mass gathering; and
2. **Public Health measures** to contain the virus by:
 - **quarantining** and testing individuals suspected to be positive including contacts of SARS-CoV-2 positive persons, SARI cases, persons with flu like symptoms etc. and ensuring that they are not mobile and thus able to spread the infection
 - **isolating** all those who are positive, tracing their contacts, quarantining and testing them.
 - where there are clusters of cases, simply quarantining individuals or families will not help. In that case, **containment zones** with clear boundaries and stringent controls will be required to ensure that the infection does not spread outside. This is in line with the containment strategy followed worldwide and also already enumerated in SOPs of the Ministry of Health. This would mean a large geographical area like a city or district or well defined parts thereof, where cases are high and spiraling up, gets contained physically, However, regulated movement of public transport would be permitted.
3. **Evidence Based Decision:** The decision on where and when to go for large Containment Zone (CZ) has to be evidence based and done at the State/UT level after proper analysis of the situation, such as; the population affected, the geographical spread, the hospital infrastructure, manpower, the ease of enforcing boundaries etc.
4. However, in order to facilitate objective, transparent, and epidemiologically sound decision making, the following broad-based framework is provided to aid States UTs in selection of districts/areas:

S. No.	Parameter	Thresholds
1	Test positivity	Test positivity of 10% or more in the last one week
OR		
2	Bed occupancy	Bed occupancy of more than 60% on either oxygen supported or ICU beds

.....contd/-

5. The areas requiring **Intensive action and local containment** connotes specific and well defined geographical units such as cities/town/part of the towns/district headquarters/semi-urban localities/municipal wards/*panchayat areas* etc.
6. The areas so identified for intensive action and local containment will primarily focus on **the following strategic areas of intervention:**

A. Containment

- i. Focus will be on **containment** as a **major approach** to flatten the current curve of the epidemic.
- ii. **Night curfew:** Movement of individuals shall be strictly prohibited during night hours, except for essential activities. Local administration shall decide the duration of the night curfew hours and issue orders, in the entire area of their jurisdiction, under appropriate provisions of law, such as under Section 144 of CrPC, and ensure strict compliance.
- iii. The spread of the infection has to be controlled through **restricting the intermingling amongst people**, the only known host for the COVID-19 virus.
- iv. Social/ political / sports / entertainment / academic / cultural / religious / festival-related and other **gathering and congregations shall be prohibited.**
- v. **Marriages (attended by up to 50 persons) and funerals/ last rites (attended by up to 20 persons) may be allowed.**
- vi. All shopping complexes, cinema halls, restaurants & bars, sports complexes, gym, spas, swimming pool and religious places should remain closed.
- vii. **Essential services and activities** such as **healthcare services, police, fire, banks, electricity, water and sanitation, regulated movement of public transport** including all **incidental services and activities** needed for a smooth functioning of these activities **shall continue.** Such services shall continue in both **public and private sector.**
- viii. **Public transport** (railways, metros, buses, cabs) **to operate at a maximum capacity of 50%.**
- ix. There shall be no restrictions on inter-state and intra-state movement **including transportation of essential goods.**
- x. All **offices**, both government and private, to function with a **maximum staff strength of 50%.**
- xi. **All industrial and scientific establishments**, both government and private may be **allowed** subject to the **workforce following physical distancing norms.** They shall also be tested through RAT (in case of individuals identified with flu like symptoms) from time to time.
- xii. The SOPs already issued by MoHFW, including training manuals for surveillance teams and supervisors are available on the website & must be followed.
- xiii. **However, these are indicative activities, and States/ UTs should make a careful analysis of the local situation, areas to be covered, and probability of transmission and then take a decision.**

- xiv. The restrictions as above shall continue for a period of 14 days.
- xv. **Before declaring a containment area, make a public announcement, outlining the rationale for the same and the kind of restrictions that will be in place (a leaflet in local language may be distributed highlighting the gravity of the situation and restrictions to be followed)**
- xvi. **Community volunteers, civil society organizations, ex- servicemen, and members of the local NYK/NSS centers etc. should be involved for sustainable management of containment activities, translating the aforementioned leaflets and for encouraging people in the community for sustained behavior change as well as vaccination.**

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Districts will continue with the strategy of 'Test-Track-Treat-Vaccinate' and **implementation of Covid Appropriate Behavior across the district as the ongoing strategy for the management of COVID-19.**

- i. **Ensure adequate testing and door to door case search in the area through adequate number of teams formed for such purpose.**
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**Budupula
Subhakar**

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- xi. **Build confidence** in community duly highlighting the nature of disease, the fact **that early identification** helps in early recovery and more than 98% people recover to **remove fear as well as stigma** related with Covid-19. Involvement of civil society organizations to hold such orientations go a long way in this regard.

NATIONAL DIRECTIVES FOR COVID-19 MANAGEMENT

1. **Face coverings:** Wearing of face cover is compulsory in public places; in workplaces; and during transport.
2. **Social distancing:** Individuals must maintain a minimum distance of 6 feet (2 gaz ki doori) in public places.

Shops will ensure physical distancing among customers.

3. **Spitting in public places** will be punishable with fine, as may be prescribed by the State/ UT local authority in accordance with its laws, rules or regulations.

Additional directives for Work Places

4. **Work from home (WfH):** As far as possible the practice of WfH should be followed.
5. **Staggering of work/ business hours** will be followed in offices, work places, shops, markets and industrial & commercial establishments.
6. **Screening & hygiene:** Provision for thermal scanning, hand wash or sanitizer will be made at all entry points and of hand wash or sanitizer at exit points and common areas.
7. **Frequent sanitization** of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., will be ensured, including between shifts.
8. **Social distancing:** All persons in charge of work places will ensure adequate distance between workers and other staff.

अजय भल्ला, भा.प्र.से.
AJAY BHALLA, IAS



गृह सचिव
Home Secretary
भारत सरकार
Government of India
नॉर्थ ब्लॉक/North Block
नई दिल्ली/New Delhi

No. 40-3/2020-DM-I(A)

27th May, 2021

Dear Chief Secretary,

Kindly refer to Ministry of Home Affairs (MHA) Order of even number issued today, vide which MHA Order dated 29.04.2021, issued to ensure compliance to the containment measures for COVID-19, as conveyed by Ministry of Health & Family Welfare (MoHFW) D.O. letter dated 25.04.2021, has been extended upto 30th June, 2021.

2. The strict implementation of containment and other measures has led to a declining trend in the number of new and active cases, across States & UTs, barring some areas in the Southern and North-Eastern regions.

3. I would like to highlight that in spite of the declining trend, the number of active cases presently is still very high. It is, therefore, important that containment measures may continue to be implemented strictly. Any relaxation by States/UTs, may be considered at an appropriate time, in a graded manner, after assessing the local situation, requirements and resources.

4. I would, therefore, urge you to continue compliance to the containment measures, as has been advised by MoHFW in their letter dated 25.04.2021, so as to fully overcome the pandemic. In this regard, necessary directions may be issued to district authorities in your State/UT, for taking all necessary measures. I would also advise that Orders/guidelines, issued by the respective State Governments/UT Administrations/district authorities, for implementing containment measures, should be widely disseminated to the public and to the field functionaries, for their effective implementation.

With regards,

Yours sincerely,


(Ajay Bhalla)

Chief Secretaries of all States

No. 40-3/2020-DM-I(A)
Government of India
Ministry of Home Affairs

North Block, New Delhi-110001

Dated 29th June, 2021

ORDER

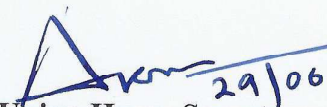
Whereas, an Order of even number dated 29th April 2021, was issued to ensure compliance to the containment measures for COVID-19, as conveyed vide Ministry of Health & Family Welfare (MoHFW) DO No. Z.28015/85/2021-DM Cell dated 25th April 2021, which was further extended for a period upto 30.06.2021 vide an Order of even number dated 27.05.2021;

And whereas, considering the need for containment of COVID-19 cases across the country, MoHFW vide DO No. Z.28015/85/2021-DM Cell dated 28th June 2021, has issued an advisory to all States and Union Territories (UTs), for implementing targeted and prompt actions for bringing the pandemic under control;

Whereas, in exercise of the powers under section 6(2)(i) of the Disaster Management Act, 2005, National Disaster Management Authority (NDMA) has directed the undersigned to issue an order, for containment of COVID-19 in the country;

Now therefore, in exercise of the powers, conferred under Section 10(2)(l) of the Disaster Management Act 2005, the undersigned, hereby directs the State/ Union Territory Governments and State/ Union Territory Authorities to consider implementation of targeted and prompt actions for COVID-19 management, as conveyed vide aforesaid MoHFW advisory dated 28.06.2021, as per **Annexure-I**, until 31.07.2021. States/ UTs, will take the necessary measures, under the relevant provisions of the Disaster Management Act 2005. It is further directed that:

- (i) The National Directives for COVID-19 Management, as specified in **Annexure II**, shall continue to be strictly followed throughout the country.
- (ii) All the District Magistrates shall strictly enforce the above measures. For the enforcement of social distancing, State/ UT Governments may, as far as possible, use the provisions of Section 144 of the Criminal Procedure Code (CrPC) of 1973.
- (iii) Any person violating these measures will be liable to be proceeded against as per the provisions of Section 51 to 60 of the Disaster Management Act, 2005, besides legal action under Section 188 of the IPC, and other legal provisions as applicable.


29/06/2021
Union Home Secretary

and, Chairman, National Executive Committee (NEC)

To:

1. The Secretaries of Ministries/ Departments of Government of India
2. The Chief Secretaries/Administrators of States/Union Territories

(As per list attached)

**Budupula
Subhakar**

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राजेश भूषण, आईएएस
सचिव

RAJESH BHUSHAN, IAS
SECRETARY



सत्यमेव जयते

भारत सरकार
स्वास्थ्य एवं परिवार कल्याण विभाग
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Government of India
Department of Health and Family Welfare
Ministry of Health and Family Welfare
D.O No. Z.28015/85/2021-DM Cell
28th June 2021

This is in reference to my earlier DO letter of even number dated 25th April, 2021 wherein Ministry of Health and Family Welfare had shared with all States/UTs an implementation framework for intensive action and local containment in specific and well defined geographic units, to break and suppress the chain of transmission of SARS COV-2. This was also later reiterated by the Ministry of Home Affairs and orders regarding the same were issued under the DM Act 205 vide letter no. 40-3/2020-DM-I(A) dated 29th April 2021.

2. With a rise in COVID 19 trajectory across the country in April and May 2021, many States and UTs have undertaken restrictions and containment measures as per the aforesaid implementation framework. As a result, the trajectory of COVID 19 pandemic in the country is presently showing a steady decline.

3. In view of the declining number of cases being reported many States have initiated the implementation of relaxation measures. In this context it is critical that the lifting of restrictions/providing relaxations be carefully calibrated with continued focus on containment efforts to curb the spread of infection.

4. In order to bring uniformity in implementing graded restriction/relaxation measures for COVID 19, the need for following the framework earlier shared with the States for either imposition of restrictions or allowing relaxations based on the burden of disease and strain on healthcare infrastructure still remain important. Prompt and targeted actions need to be implemented by the States as detailed below:

A. Guiding Principles

- Monitoring of cases with districts as administrative units be done on a regular basis. Necessary action for containment and health infrastructure upgradation be done, by further micro analysis based on clusters of cases at the district level
- Case positivity calculated based on total positive cases vis-a-vis samples tested during the week is one of the prime indicators of the spread of infection in a district. Higher case positivity would imply the need for stringent containment and restrictions so as to control the spread of infection
- Similarly, each district needs to analyze bed occupancy (oxygen and ICU beds) vis-a-vis the available health infrastructure to ensure that it doesn't get overwhelmed and seamless patient admission and follow up can be done. Higher bed occupancy is an indicator that the district needs to undertake specific measures to upgrade the available beds while focusing on containment activities equally vigorously. It is important to emphasize that a lead time is required to upgrade health infrastructure (a month or more) and hence districts need to plan such upgrades after having duly analyzed the case trajectory on a regular basis

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- In view of the above, for prioritizing districts which need intensive follow up, States may continue to utilize the classification of risk profile of districts as already communicated by Ministry of Health and Family Welfare on 25th April 2021. Accordingly:
 - i) States/UTs may identify districts which require highest level of restrictions
 - ii) Remaining districts may be allowed higher degree of relaxations based on **lower weekly case positivity or a relatively low Bed occupancy (Oxygen and ICU beds) rates.**
 - iii) District with **high weekly case positivity or a high Bed occupancy (Oxygen and ICU beds) as detailed above**, would need intensive monitoring and hence State may consider appointing a senior officer from State headquarter as the Nodal Officer for these districts.
 - iv) **District Nodal Officer** will work in coordination with District Collector /Municipal Commissioner to identify cluster of new cases and ensure implementation of required containment activities including intensive action in areas reporting higher cases
 - v) Restrictions once imposed will remain in force for a minimum period of 14 days
 - vi) In remaining areas of the district not under containment action, clearly defined relaxations/restrictions may be provided.

B. Monitoring mechanism

- State government may consider monitoring the status of classification parameters on a weekly basis and ensure their wide publicity so as to inform community at large and obtain their support in management of Covid-19 while restrictions are imposed or relaxations are allowed.
- While positivity rates and bed occupancy rates are vital criteria that need to be monitored for selection of high focus districts requiring intensive public health action, States/UTs shall also regularly monitor districts with higher numbers of active cases per million population as it is an important indicator to predict need for upgrading health infrastructure and logistics so as to manage the cases.

C. Continued focus on 5-fold strategy for effective management of COVID-19

- COVID-19 is an ongoing challenge and hence it is important that States continue working on five pillars of COVID-19 Management i.e. **“Test-Track-Treat-Vaccinate and adherence to COVID Appropriate Behavior”**.
- Early identification of cases is important for curbing the spread, and for this **adequate testing is crucial**. RT-PCR machines and sufficient kits to ensure required level of testing should accordingly be maintained (both RT-PCR and RAT) in all districts.

- **Tracking and tracing** through active case search by special teams and contact tracing and screening should be undertaken proactively.
 - In addition to **following Clinical Management Protocol**, States should focus on **upgradation of health infrastructure, timely commissioning of PSA Plants in hospitals, adequate planning for availability of medical oxygen, availability of logistics, maintaining buffer stock of drugs** and taking up necessary action for **creation /redesigning of appropriate COVID dedicated healthcare infrastructure**, especially in peri-urban, rural, and tribal areas.
 - There is need for **upskilling/reskilling of human resources** on latest Clinical Management Protocol.
 - Furthermore, **effective planning for vaccination focusing on prompt coverage of priority groups and hubs of economic activity should be prioritized.**
 - COVID-19 management can succeed only through a whole of government & whole of society approach. Community engagement is critical & **adherence to Covid appropriate behavior** is crucial to guard against any surge in infection. This involves diligent use of masks/face covers, following physical distancing (2 gaj ki doori) and practicing respiratory & hand hygiene.
5. This normative advisory will aid the States/UTs to clearly define their policies and streamline their approaches for implementing graded restrictions/calibrated relaxation for management of Covid-19.
6. States/UTs can also plan additional public health measures as deemed necessary, based on their local context and situational analysis at the field level.
7. I am sure under your able leadership; we will be able to keep the momentum going and build on the progress made so far to bring the pandemic situation under control. Ministry of Health & Family Welfare will continue to provide requisite support to the States/UTs in this ongoing and collective effort

Yours sincerely

(Rajesh Bhushan)

Additional Chief Secretary/Principal Secretary/Secretary (Health) of all States/UTs

Copy to : Chief Secretary/Administrator of all States and UTs

(Rajesh Bhushan)

✓ Copy for information to : Cabinet Secretary, Cabinet Secretariat, New Delhi
Home Secretary, Ministry of Home Affairs, New Delhi

(Rajesh Bhushan)

Budupula
Subhakar

Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
1de53f05de314d924bb1f3b7c9e21dd19b61435d
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NATIONAL DIRECTIVES FOR COVID-19 MANAGEMENT

1. **Face coverings:** Wearing of face cover is compulsory in public places; in workplaces; and during transport.
2. **Social distancing:** Individuals must maintain a minimum distance of 6 feet (2 gaz ki doori) in public places.

Shops will ensure physical distancing among customers.

3. **Spitting in public places** will be punishable with fine, as may be prescribed by the State/ UT local authority in accordance with its laws, rules or regulations.

Additional directives for Work Places

4. **Work from home (WfH):** As far as possible the practice of WfH should be followed.
5. **Staggering of work/ business hours** will be followed in offices, work places, shops, markets and industrial & commercial establishments.
6. **Screening & hygiene:** Provision for thermal scanning, hand wash or sanitizer will be made at all entry points and of hand wash or sanitizer at exit points and common areas.
7. **Frequent sanitization** of entire workplace, common facilities and all points which come into human contact e.g. door handles etc., will be ensured, including between shifts.
8. **Social distancing:** All persons in charge of work places will ensure adequate distance between workers and other staff.



PRESS INFORMATION BUREAU
(Research Unit)
Ministry of Information and Broadcasting
Government of India



COMBATING THE THIRD SURGE OF COVID-19

Active monitoring by the Government helps contain spread

February 08, 2022

Ever since COVID-19 started spreading in the world and in India, the Government of India has been swift in taking actions to contain it, and protecting its citizens. Since the first surge, the government has taken prompt action to ensure the safety of Indian citizens. The Indian government has been one step ahead when it comes to dealing with COVID and has been taking proactive measures to contain the damage which has wreaked havoc across the globe. After the second surge, just when we thought that the worst was over, early November 2021, the COVID Omicron variant (B.1.1.529) sprung up in certain parts of the world and started spreading in all countries. However, with the experience of successfully tackling the first two waves, the Government started preparing itself well in time as the Omicron started spreading and the **WHO announced it as a Variant of Concern (VoC) on 26 November, 2021.**

Prompt Response by the Government

The Government of India had sprung into action well in time, as on **25 November, 2021 and 27 November, 2021**, the Union Health Secretary wrote to all the States/UTs advising them regarding criticality of scrupulous implementation and rigorous monitoring of the three-pronged surveillance strategy of screening and testing international travellers & their contacts, routine sentinel surveillance and surge surveillance, and timely sending of RT-PCR positive samples to designated INSACOG Genome Sequencing Laboratories (IGSLs), along with enhanced testing and monitoring of COVID-19 hotspots.¹

¹ <https://pib.gov.in/PressReleasePage.aspx?PRID=1775895>

Constant Review & Monitoring

26 November, 2021: India had 10,549 new Covid-19 cases, with active cases being less than One per cent of total cases. Nevertheless, the government actively started preparing to tackle any resurgence in cases and was determined to ensure that the damage was kept under control.²

27 November, 2021: Prime Minister Shri Narendra Modi chaired a high-level meeting to review the emerging situation of Omicron and India's preparedness in terms of public health measures.

28 November, 2021: A meeting was chaired by the Union Home Secretary where the overall global situation in wake of Omicron virus was comprehensively reviewed. Various preventive measures in place and those to be further strengthened were discussed. The review and updation of SOPs on testing & surveillance of incoming international passengers, especially for those countries identified 'at risk' category was also discussed. The strengthening and intensification of genomic surveillance for variants through the INSACOG network was agreed upon with a focus on sampling and whole genome sequencing of international passengers especially from those countries where Omicron variant had been detected.³

30 November, 2021:

- The Union Health Secretary chaired a virtual meeting with States/UTs to review COVID-19 public health response measures and preparedness amid reports of Omicron variant of COVID19 across various countries. In the meeting, the states were specially advised to take serious steps in order to prevent the spread of Omicron. The central government advised the states to undertake effective surveillance of international passengers; those coming from "at risk" countries were to be tested upon arrival, and wait at the airport till their report was available. States were further asked to strengthen their testing infrastructure and undertake contract tracing of positive individuals. States also were advised to ensure the preparedness of their health infrastructure, including the availability of ICU, O2 beds, ventilators, etc. The State Surveillance Officer was made in charge of daily monitoring to track and contain the

² <https://pib.gov.in/PressReleasePage.aspx?PRID=1775199>

³ <https://pib.gov.in/PressReleasePage.aspx?PRID=1775895>

spread of transmission of any VoCs in the country.⁴

- The Ministry of Health and Family Welfare issued revised [guidelines](#) for international travellers arriving in India. All international travellers were required to:
 - Submit complete and factual information in self-declaration form on the online Air Suvidha portal before the scheduled travel, including last 14 days travel details.
 - Upload a negative COVID-19 RT-PCR report. The test should have been conducted within 72 hrs prior to undertaking the journey.
 - Submit a declaration with respect to the authenticity of the report and will be liable for criminal prosecution, if found otherwise.
 - Give an undertaking on the portal or otherwise to the Ministry of Civil Aviation, Government of India, through concerned airlines before they are allowed to undertake the journey that they would abide by the decision of the appropriate government authority to undergo home/institutional quarantine/ self-health monitoring, as warranted.
 - Undertake testing on arrival, should preferably pre-book the test online on Air Suvidha Portal, to facilitate timely testing.⁵

02 December, 2021: The Union Health Ministry [reviewed](#) the status and progress under “Har Ghar Dastak” with States/UTs. The ‘Har Ghar Dastak’ nation-wide COVID-19 vaccination campaign has resulted in an increase of 1st dose coverage by 11.6 per cent since introduction of the campaign. While the 2nd dose coverage increased by 28.9 per cent in the same period (as on 2 January, 2021).⁶

08 December, 2021: The Central Government [reviewed](#) the Public Health response to Covid-19 in the light of emergence of OMICRON and the progress of vaccination with States/UT, wherein states were advised to enhance testing, surveillance and prompt dispatch of samples to INSACOG labs for genome sequencing. The five-fold strategy of Test-Track-Treat-Vaccinate-adherence to COVID Appropriate Behaviour (CAB) was highlighted as the mainstay of public health response strategy for effective and timely control and management of COVID19 and its variants by Union Health Secretary as he reviewed the public health preparedness to the Omicron variant of COVID-19. Active Covid-19 cases in India were at

⁴ <https://pib.gov.in/PressReleasePage.aspx?PRID=1776404>

⁵ <https://www.mohfw.gov.in/pdf/GuidelinesforInternationalarrivalsdated30thNovember2021.pdf>

⁶ <https://pib.gov.in/PressReleasePage.aspx?PRID=1786925>

93,733 on 8 December, 2021 and India's Covid-19 vaccination coverage exceeded 130 crore.⁷

21 December 2021: The Government of India also significantly increased the testing capacity for Covid-19 related tests. As on 14 December 2021, more than 3,000 operational laboratories were conducting COVID tests and reporting to Indian Council of Medical Research (ICMR) on RT-PCR, TruNat, CBNAAT and Other Molecular Nucleic Acid Tests for Covid-19.⁸

23 December, 2021: The Central Government reviewed the Covid-19 status and preparedness in States/UTs, in view of the Omicron variant. States were advised to be vigilant and monitor case positivity, doubling rate, clusters of new cases across districts. The 5-fold strategy for tackling the Omicron threat was re-emphasised. The five points of focus were **Containment, Testing and Surveillance, Clinical Management, COVID safe behaviour, and Vaccination**. States were asked to implement night curfews in containment zones, ensure contact tracing of COVID positive people, increase bed capacity, ensure logistics like ambulances and enforce mechanism for seamless shifting of patients, among others.⁹

In the subsequent days, not letting its guard down, the Government of India kept monitoring the situation on a regular basis with the states and all the requisite support as provided to the States/UTs to combat the third surge. The Union Health Secretary held meetings with States/UTs on [27 & 28 December, 2021](#), and [07 January, 2022](#).

During the month of January 2022, the Union Minister of Health and Family Welfare virtually interacted with the state health ministers, to review public health preparedness for Covid-19. The Minister held more such meetings during the month, i.e. on [02 January](#), [10 January](#), [25 January](#), [28 January](#), and [29 January](#).

Containment

The relentless effort of the Government of India along with that of the States/UTs resulted in containing the spread of COVID to a great extent. Against claims that in the third surge,

While it was anticipated that COVID cases in India could go much higher, the number of

⁷ <https://pib.gov.in/PressReleasePage.aspx?PRID=1779568>

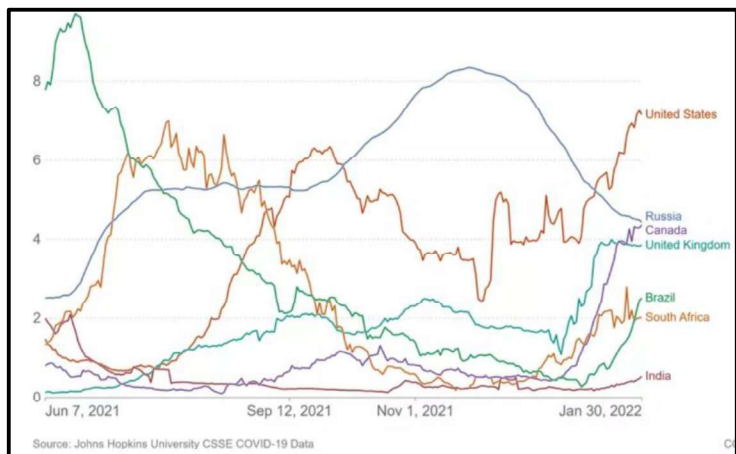
⁸ <https://pib.gov.in/PressReleasePage.aspx?PRID=1783810>

⁹ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1784559>

cases in India started declining after a peak of 3.47 lakh cases (as reported on 21 January, 2022).¹⁰ On 07 February, 2022, the country reported 83,876 cases with a recovery rate at 96.19 per cent, and a daily positivity rate of 7.25 per cent.¹¹

Comparatively, USA, a country with the biggest health infrastructure in the world, on the other hand, reported upwards of 7.68 lakh cases on 21 January, 2022.¹² The death rate in the country has also been on a rise, with upwards of 3,200 announced on 04 February, 2022.¹³ The USA reported nearly 2.89 lakh cases on 04 February, 2022.¹⁴

Daily new confirmed Covid-19 deaths per million
(John Hopkins University CSSE Covid-19 data)



Vaccination

- The Government of India pushed on increased vaccination to achieve the goal of full vaccination of the eligible beneficiaries. As on 03 Feb, 2022, India's cumulative COVID-19 vaccination was nearly 169.63 crore. On 30 January, 2022 India successfully managed to fully vaccinate over 75 percent of its adult population.
- Vaccination of age-group 15-18 years started from 3 January, 2022 and Precaution dose for HCWs, FLWs and co-morbid 60+ groups from 10 January, 2022.
- As on 07 February, 2022, more than 4.94 crore people between 15-18 years of age have been vaccinated with the first dose, and more than 58.41 lakh people have been

¹⁰ <https://pib.gov.in/PressReleasePage.aspx?PRID=1791353>

¹¹ <https://pib.gov.in/PressReleasePage.aspx?PRID=1796015>

¹² https://covid.cdc.gov/covid-data-tracker/#trends_dailycases

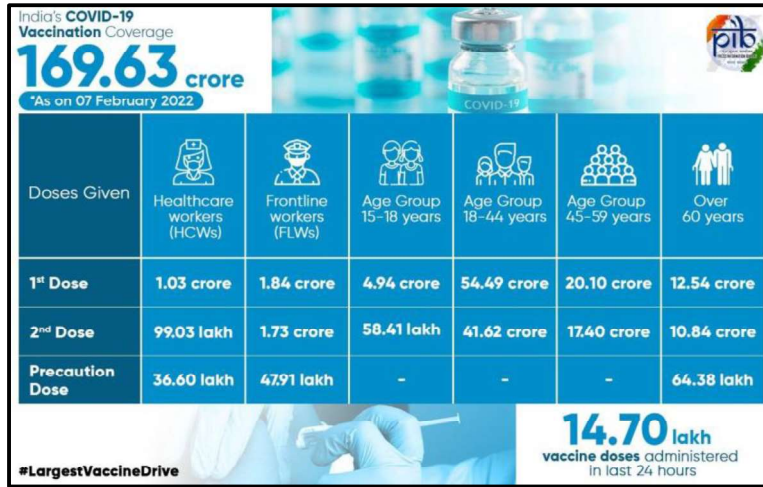
¹³ https://covid.cdc.gov/covid-data-tracker/#trends_dailydeaths

¹⁴ https://covid.cdc.gov/covid-data-tracker/#trends_dailycases

¹⁵ <https://ourworldindata.org/covid-deaths>

vaccinated with the 2nd dose.¹⁶

- Over 1.48 crore people, including healthcare workers, frontline workers and people



above 60 years of age have been administered with the precaution dose of Covid-19.¹⁷

- States have been advised to establish separate dedicated Covid Vaccination Centres for 15-18 years age group; Separate Vaccination team and separate queues for 15-18 age group to be maintained at all other CVCs.

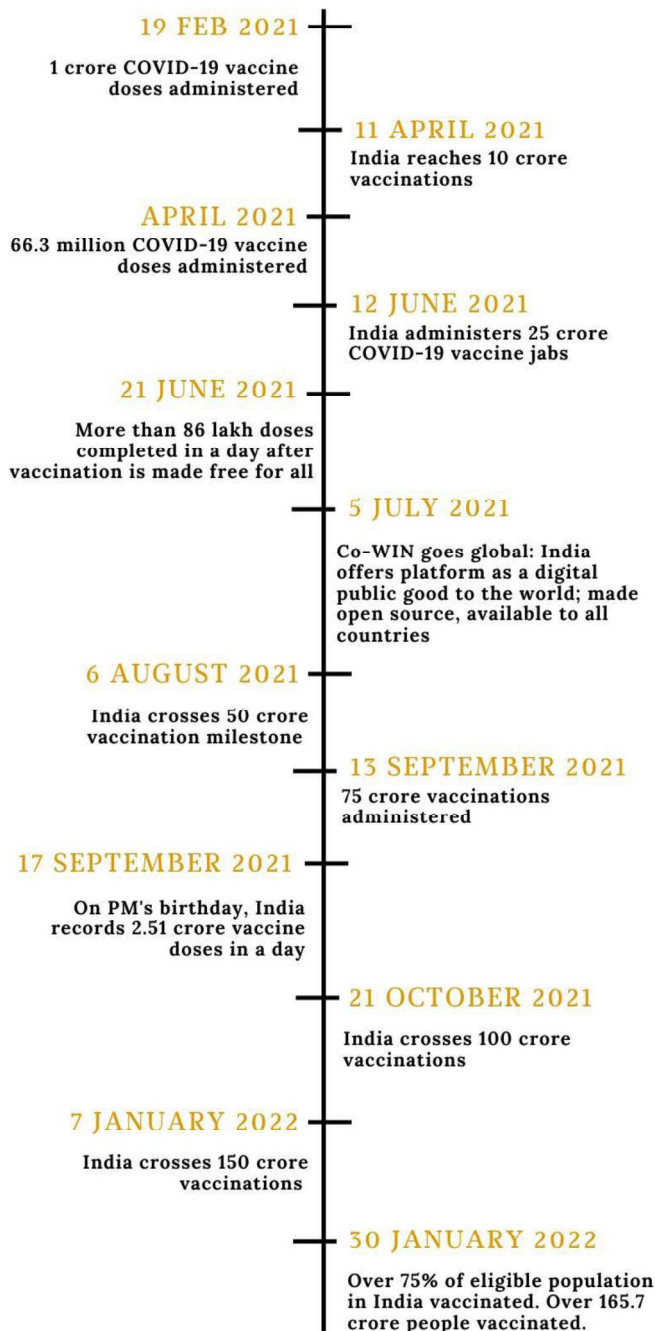
¹⁶ https://twitter.com/PIB_India/status/1490556892925804545?s=20&t=fbBELXCflz5WdV88Hltm2w

¹⁷ https://twitter.com/PIB_India/status/1490556892925804545?s=20&t=fbBELXCflz5WdV88Hltm2w

Infrastructure

Medical Oxygen Production¹⁸

MILESTONES IN COVERAGE



VACCINATION IN INDIA



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600103, serialNumber=
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Budupula
Subhakar

As per records of Petroleum and Explosives Safety Organisation (PESO), based on the daily report submitted by the manufacturers, the daily production capacity of Liquid Oxygen is 8778 MT/Day. The Government had sanctioned 1563 Pressure Swing Adsorption (PSA) oxygen generation plants of which 1524 have been commissioned. These include 1225 PSA plants which have been installed and commissioned under PM CARES Fund in every district of the country. Additionally, 283 PSA Plants are established by PSUs of the Ministry of Petroleum & Natural Gas, Ministry of Power, Ministry of Coal, Ministry of Railways and 54 PSA plants received under Foreign grants.¹⁹

Apart from boosting the availability of Medical Oxygen in the country, as on 03 February, 2022, a total of 3737 PSA plants have been installed in the country from various sources with a total commissioned oxygen capacity of 4504 MT. Moreover, 1,14,000 Oxygen Concentrators have been provided to States under PM CARES (1 lakh) and ECRP-II (14,000).

Financial Assistance to Combat COVID Pandemic²⁰

The Government of India has been supporting States in their endeavor to manage COVID-19 since the beginning of pandemic. Requisite support is provided to States/UTs to enhance preparedness and response capacities against COVID-19 and other public health emergencies.

In terms of financial assistance, support has been provided to States under ECRP packages in FY 2020-21 and 2021-22. To see State/UT wise funds released towards the ECRP during F.Y. 2020-21 and 2021-22 [click here](#).²¹

Co-WIN Update²¹

a) Registration on Co-WIN –Instead of the earlier limit of four members, now six members can be registered using one mobile number on Co-WIN.

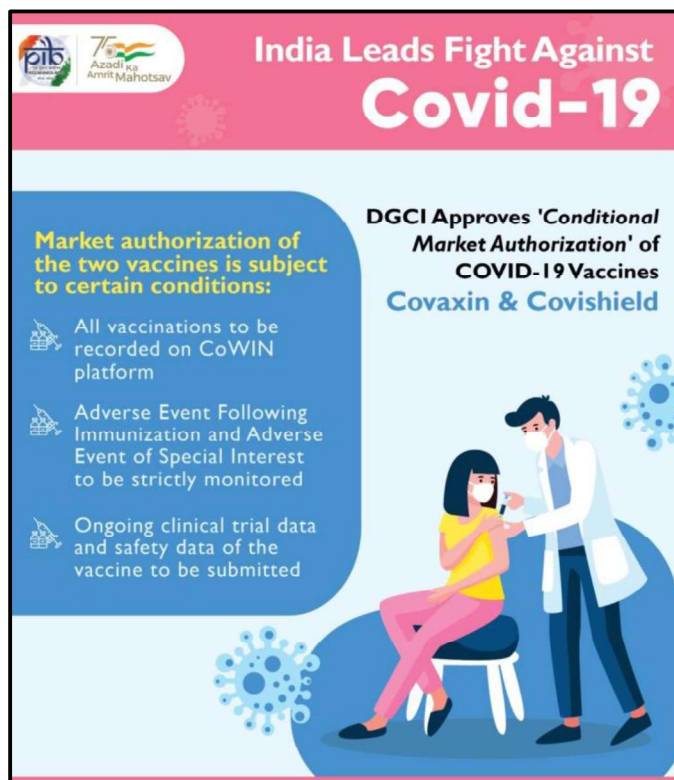
b) Revoke Vaccination Status- A new utility feature has been introduced under raise an issue in Co-WIN account through which the beneficiary can revoke its current vaccination status to new vaccination status, like from fully vaccinated to partially vaccinated and from partially vaccinated to unvaccinated status.

¹⁹ <https://pib.gov.in/PressReleasePage.aspx?PRID=1781722>

²⁰ <https://pib.gov.in/PressReleasePage.aspx?PRID=1780144>

²¹ <https://pib.gov.in/PressReleasePage.aspx?PRID=1780144>

Govt. approves Conditional Market Authorisation of Covaxin & Covishield



1. Firms shall submit data of overseas ongoing clinical trials of the product with due analysis on six monthly basis or as and when available, whichever is earlier.
2. The vaccine shall be supplied for programmatic setting and all vaccinations done within the country to be recorded on CoWIN platform and Adverse Event Following Immunization [AEFI], Adverse Event of Special Interest [AESI] shall continue to be monitored. The firm shall submit the safety data including AEFI and AESI with due analysis on six monthly basis or as and when available, whichever is earlier as per NDCT Rules, 2019.

Resources:

1. <https://pib.gov.in/PressReleasePage.aspx?PRID=1775895>
2. <https://pib.gov.in/PressReleasePage.aspx?PRID=1775199>
3. <https://www.mohfw.gov.in/pdf/GuidelinesforInternationalarrivalsdated30thNovember2021.pdf>
4. <https://pib.gov.in/PressReleasePage.aspx?PRID=1775895>
5. <https://pib.gov.in/PressReleasePage.aspx?PRID=1776404>

6. <https://pib.gov.in/PressReleasePage.aspx?PRID=1777164>
7. <https://pib.gov.in/PressReleasePage.aspx?PRID=1786925>
8. <https://pib.gov.in/PressReleasePage.aspx?PRID=1779661>
9. <https://pib.gov.in/PressReleasePage.aspx?PRID=1779568>
10. <https://indianexpress.com/article/idea-exchange/manindra-agrawal-talks-prediction-third-wave-7715116/>
11. <https://pib.gov.in/PressReleasePage.aspx?PRID=1783810>
12. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1784559>
13. <https://pib.gov.in/PressReleasePage.aspx?PRID=1791353>
14. <https://www.nytimes.com/2022/01/22/us/omicron-cases-us-deaths.html> 15. <https://www.weforum.org/agenda/2022/01/omicron-covid19-death-toll-severity/>
16. <https://pib.gov.in/PressReleasePage.aspx?PRID=1794593>
17. <https://pib.gov.in/PressReleasePage.aspx?PRID=1794593>
18. <https://pib.gov.in/PressReleasePage.aspx?PRID=1777645>
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24. <https://pib.gov.in/PressReleasePage.aspx?PRID=1781722>
25. https://twitter.com/PIB_India/status/1489108699608088585?s=20&t=FZO8g8uCClVlMvYzV8YdrQ

AG/AR



告知函

发件人：ABB 高压电机有限公司

地址：上海闵行开发区天星路 380 号

日期：2022 年 3 月 28 日

关于：合同履行中发生不可抗力的告知函

致：尊敬的客户（下称“贵司”）：

我们很抱歉地通知贵司，因近日上海大范围爆发新冠肺炎疫情，为遏制疫情进一步蔓延扩散，上海市人民政府于 2022 年 3 月 27 日晚 8 点发布通告，宣布自 2022 年 3 月 28 日 5 时起对我司所在浦东及毗邻地区实施为期四天（暂定）的封控管理与核酸筛查，同时，我司所在浦西地区重点区域（闵行区江川路街道）继续实施从 2022 年 3 月 14 日开始的封控管理；并将在 4 月 1 日 3 时起对我司所在浦西地区压茬实施为期四天（暂定）的封控管理与核酸筛查。封控期间对于人员、生产和交通的一系列措施对于我司的经营，以及我司履行上述合同产生了重大影响。

根据适用的法律及我们之间的合同（在此指贵司与我司于本通知前签署生效尚未完成交付的合同），上述事件构成不可抗力事件，并将影响前述合同的履行。我们将评估并进一步通知贵司此次不可抗力事件对合同履行的具体影响，例如可能导致的延误和额外的费用。我们亦正在采取措施避免不可抗力带来的损失进一步扩大，并且在不可抗力事件影响消除之后，及时恢复该合同的正常履行。如有任何情况，请与我司对接联系人进行联系。

顺颂商祺！

ABB 高压电机有限公司

Budupula
Subhakar

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DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
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notification

Date: March 28, 2022

About: Notification letter of force Majeure during the performance of the Contract

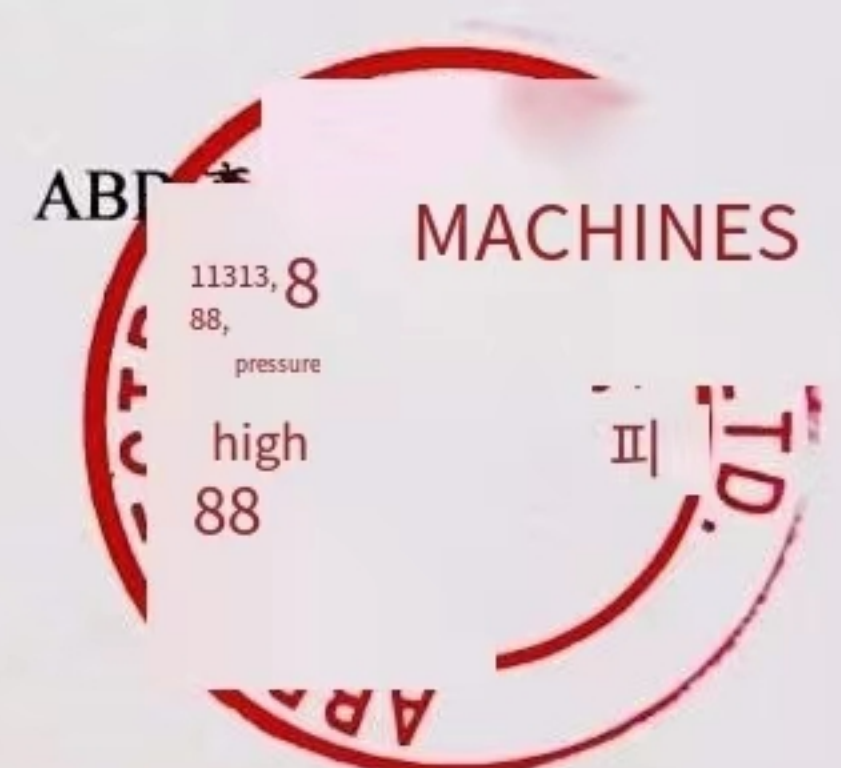
Dear Customers (hereinafter referred to as "your Company") :

We are sorry to inform you that By the worldwide outbreak of COVID recently Shanghai - 19 outbreak, to curb the further spread of the, the Shanghai municipal people's government on March 27, 2022, 8 PM alerts, announced that since 5 March 28, 2022 in pudong to our company and adjacent areas to implement a four-day traffic control management (tentative) and nucleic acid screening, at the same time, our key areas in puxi area (Jiangchuan Road Subdistrict, Minhang District) continue to implement containment management since March 14, 2022; In addition, a four-day (tentative) containment management and nucleic acid screening will be carried out on the stubblework in Puxi area where our company is located from 3 o 'clock on April 1. A series of measures for personnel, production and transportation during the lockdown period had a significant impact on our company's operation and performance of the above contract.

In accordance with applicable laws and the contract between us (in this case, the contract signed by your company and our company before this notice has not been completed), the above events constitute force majeure events and will affect the performance of the said contract. We will assess and further inform you of the specific impact of this force majeure event on the performance of the contract, such as possible delays and additional costs. We are also taking measures to avoid further expansion of losses caused by the force majeure event, and will resume the normal performance of the contract in a timely manner after the impact of the force majeure event is eliminated. If there is any problem, please contact our contact person.

Shun song shang chess!

Pjanyu Sanyas by 07/06/2024
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 Tamilnadu Energy Company Limited, OU=EMPLOYEE, ST=Tamil Nadu, postalCode=600103, serialNumber=600103, email=14e5f305d3144f204b13137e9e21d19b61435d72904e54984b056fa385100, telephoneNumber=+128dcd07d2dd7a78490f3e8abedc5a2f6dd4e56ea303601ea2b7301
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情况说明

Presentation of condition

尊敬的客户：

To Customers:

我司为中铝国际货运代理，承接了上两批复合板的订舱业务，由于近期印度疫情影响，自 2021 年 5 月 14 日 HONGDE 发运之后，暂无从中国天津到印度孟买的船，特此说明！

Our company is the freight agent of Chalieco who arranged the space booking work of the previous 2 lots clad plates, Due to the influence of the recent epidemic in India, There is no ship from Tianjin, China to Mumbai, India since the departure date of vessel Hongde on May 14, 2021. hereby certify!



情况说明

Presentation of condition

尊敬的客户：

To Customers:

我司为 HONGDE 船的船运代理，由于近期印度疫情影响，我司自 2021 年 5 月 14 日 HONGDE 发运之后，暂未安排从中国天津到印度孟买的船，特此说明！

We are the ship agent of vessel HONGDE. Due to the influence of the recent epidemic in India, our company has not arranged a ship from Tianjin, China to Mumbai, India since the departure date of vessel Hongde on May 14, 2021. hereby certify!

LEADER INTERNATIONAL SHIPPING PTE. LTD
2021.08.20
AUTHORISED SIGNATURE

情况说明

Presentation of condition

尊敬的客户：

To Customers:

受中铝国际委托，我司一直在市场上寻找中国天津到印度孟买的船运资源，由于近期印度疫情影响，自 2021 年 5 月 14 日 HONGDE 发运之后，暂无从中国天津到印度孟买的散货船，特此说明！

Entrusted by Chalieco, our company is searching for shipping resources from Tianjin, China to Mumbai on the market, India, Due to the influence of the recent epidemic in India, There is no break bulk ship from Tianjin, China to Mumbai, India since the departure date of vessel Hongde on May 14, 2021. hereby certify!



Government of India
Ministry of Health and Family Welfare

Guidelines for international arrivals

- i. Before boarding, all travellers shall give an undertaking that they would undergo mandatory quarantine for 14 days - 7 days paid institutional quarantine at their own cost, followed by 7 days isolation at home with self-monitoring of health.
- ii. Only for exceptional and compelling reasons such as cases of human distress, pregnancy, death in family, serious illness and parent(s) accompanied by children below 10 years, as assessed by the receiving states, home quarantine may be permitted for 14 days. Use of Aarogya Setu app shall be mandatory in such cases.
- iii. Dos and Don'ts shall be provided along with ticket to the travelers by the agencies concerned.
- iv. All passengers shall be advised to download Arogya Setu app on their mobile devices.
- v. At the time of boarding the flight/ ship, only asymptomatic travelers will be allowed to board after thermal screening.
- vi. Passengers arriving through the land borders will also have to undergo the same protocol as above, and only those who are asymptomatic will be enabled to cross the border into India.
- vii. Self-declaration form in duplicate shall be filled by the person in the flight/ship and a copy of the same will be given to Health and Immigration officials present at the airport/ seaport/ landport. The form may also be made available on Aarogya Setu app.
- viii. Suitable precautionary measures such as environmental sanitation and disinfection shall be ensured at the airports as well as within the flights.
- ix. During boarding and at the airports, all possible measures to ensure social distancing to be ensured.
- x. Suitable announcement about COVID-19 including precautionary measures to be followed shall be made at airports/port and in flights/ships and during transit.
- xi. While on board the flight/ ship, required precautions such as wearing of masks, environmental hygiene, respiratory hygiene, hand hygiene etc. are to be observed by airline/ ship staff, crew and all passengers.
- xii. On arrival, thermal screening would be carried out in respect of all the passengers by the Health officials present at the airport/ seaport/ landport.
- xiii. The passengers found to be symptomatic during screening shall be immediately isolated and taken to medical facility as per health protocol.
- xiv. The remaining passengers shall be taken to suitable institutional quarantine facilities, to be arranged by the respective State/ UT Governments.
- xv. These passengers shall be kept under institutional quarantine for a minimum period of 7 days. They shall be tested as per ICMR protocol available at <https://www.mohfw.gov.in/pdf/Revisedtestingguidelines.pdf>
If they test positive, they shall be assessed clinically.
 - a. If they are assessed as mild cases, they will be allowed home isolation or isolated in the Covid Care Centre (both public & private facilities) as appropriate.

- b. Those having moderate or severe symptoms will be admitted to dedicated COVID Health facilities and managed accordingly.

If found negative, they shall be advised to further isolate themselves at home and self-monitor their health for 7 days.

- xvi. In case, any symptoms develop they shall inform the district surveillance officer or the state/national call center (1075).

NOTE: States can also develop their own protocol with regards to quarantine and isolation as per their assessment.

Standard Operating Procedure (SoP) for sign-on and sign-off of Indian Seafarers at Indian Ports and their movement for the aforesaid purpose

[As per Ministry of Home Affairs (MHA) Order No. 40-3/2020-DM-I (A) dated 21st April, 2020]

Change of crew of ship (seafarers) is an important measure for operation of merchant ships. This SoP has been formulated to streamline the sign-on/sign-off of Indian Seafarer at Indian Ports for merchant shipping vessels. The following guidelines may be followed:

I. For Sign-on

- i. Ship owner/ Recruitment and Placement Service (RPS) agency will identify the Indian seafarers for joining a vessel.
- ii. The seafarers will intimate their travel and contact history for last 28 days to the ship owner /RPS agency by email, as per procedure laid down by Director General of Shipping (DGS).
- iii. The seafarer would be examined by a DGS approved medical examiner, as per the guidelines prescribed for this purpose. At the same time, the seafarer shall also be screened, and his travel and contact history examined for the last 28 days; seafarers found to be asymptomatic for COVID-19 and otherwise suitable may be processed for sign-on.
- iv. The local authority in the area where the seafarer resides will be intimated about his clearance for sign-on and for issue of a transit pass from the place of residence to the place of embarkation on the shipping vessel.
- v. The transit pass for such movement by road, for the seafarer and one driver, may be issued by the Government of the State/Union Territory where the seafarer resides.
- vi. The transit pass (to and fro) will be issued for a fixed route and with specified validity and will have to be adhered to strictly. Such transit pass would be honoured/ allowed by the authorities of the State/ Union Territory along the transit route.
- vii. The social distancing and other hygiene norms, as per standard health protocol, would be followed by the vehicle transporting the seafarer to his destination.
- viii. At the port of embarkation, the seafarer shall be tested for COVID-19; the seafarer would be ready for sign-on only if the COVID-19 test is negative, failing which, action as per guidelines of Ministry of Health and Family Welfare (MoHFW) would be taken.

II. For Sign-off

- i. The master of a vessel, coming from any foreign port, or a coastal vessel from any Indian port, while arriving at its port of call in India, shall ascertain the state of health of each person on board the vessel and submit the Maritime Declaration of Health to the health authorities of the port and to the port authorities. In addition, the information required by the local health authorities of the port, like temperature chart, individual health declaration, etc. shall also be provided by the master as per the directives of the health

Jiangsu Runbang Clad Metal Material Co., Ltd

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邮编: 211803

Add: No. 3, Linhe South Road, Xingdian Street, Pukou District, Nanjing City, Jiangsu Province, 211803, P. R. China

电话TEL: 0086-25-58263888 传真FAX: 0086-25-58264266

Letter of Delayed Delivery

Dated: 30-Oct-21

To

Tata Projects Limited

Project: Flue gas Desulphurization system for Vallur Thermal Power Station (3*500 MW)**Purchase Order:** 20073 dated 29-Aug-20**Description:** SUPPLY OF ABSORBER CLAD PANELS FOR FLUE GAS
DESULPHURISATION VALLUR**Subject:** Delay in Delivery of supplies due to global Pandemic from 2020-22

With reference to the above purchase order, the contractual delivery date was 30-Jun-21. However, due to the surge of COVID-19 cases in **Jiangsu province, China**, where our factory is situated, material production was severely impacted from **01-Nov-20 to 30-Sep-21**. The local government authorities imposed necessary COVID-19 measures, which restricted our operations.

Our activities were further disrupted as several of our employees and surrounding communities were affected. In addition, transportation restrictions significantly hampered the movement of goods, resulting in significant delays which are not in control of us.

We kindly request your support in extending the delivery period till 30-May-22, as the delay is due to circumstances beyond the control of M/s **Jiangsu Runbang Clad Metal Material Co., Ltd.**

Please be assured that we are working diligently to resume operations and deliver the goods to you at the earliest possible date. We sincerely regret the inconvenience caused and appreciate your understanding and cooperation during this challenging time.

We look forward to yc

Yours faithfully,

**Mr Shi Hang/General Manager****M/s Jiangsu Runbang Clad Metal Material Co., Ltd China**



TPL/P&M/NTPC-VALLUR/PROJECTS/5-22/ 72

Date: 20.05.2022

To,
NTPC Tamilnadu Energy Company Ltd,
Vallur Thermal Power Station
Vellivoyal Chavadi, P.O-Ponneri Taluk,
Thiruvallur Dist. Chennai – 600103

Kind Attn: Shri Virendra Prasad.(GM)

Project: Flue Gas Desulphurization (FGD) System Package for VALLUR THERMAL POWER STATION (3x500 MW) Intimation of Force Majeure events under clause no 37 of GCC - reg.

References:

- 1) CS-0011-109(5)-9-FC-COA-3922 dated 07.05.2020
- 2) CS-0011-109(5)-9-SC-COA-3923 dated 07.05.2020

Dear Sir,

This is to bring to your kind notice that there is surge in Covid-19 cases in China due to highly contagious omicron BA.2 variant since mid-March'2022. To contain the spread of virus, Government of China had imposed strict lockdown across major Chinese cities including Shanghai city leading to complete closure of factories, facilities, offices, cargo and ports, which is adversely affecting the project supplies.

This unprecedented surge in COVID-19 cases in China and imposition of strict lockdown is adversely affecting the procurement of material like clad plates, titanium plates, consumables, filler wire, Gypsum, Agitator, Pumps etc. due to restrictions on factory operations, establishment operations, movement of material & manpower and also on port operations.

Further, as you are aware due to reasons geopolitical events (Russia-Ukraine crisis), reduction in production capacity globally, surge in nickel price, increased gap in supply to demand. As a consequence of above-mentioned events, TPL is also facing constraints like delay in deliveries, non-availability of materials/equipment in the market despite considerable measures by exploring various avenues in the global market.

Majority of our supplies including, mechanical, electrical and C&I are badly impacted due to slow down of global market leading to impact on project schedule.

The aforesaid event is continuing and resulting in additional time for procurement of raw material. Kindly note that this event had an impact on the performance of the Contract thereby reducing the rate of progress adversely and is beyond the control of the Contractor (TPL) and unavoidable, further entitling us extension of time as per clause 37.0 of GCC of Contract under "Force Majeure".

On account of aforesaid events, Contractor (TPL) is entitled for suitable Extension of Time for completion of project under stipulations of contract vide GCC clause 40. Accordingly, we will submit the impacted schedule. Request you to take into cognizance of aforesaid event while considering extension of Time for the project.

TATA PROJECTS LIMITED

Registered Office: Mithona Towers – 1, 1-7-80 to 87, Prenderghast Road, Secunderabad, 500 083, Telangana, India
Tel +91 40 6623 8801 Fax +91 40 6617 2535 e-mail tpl@tataprojects.com www.tataprojects.com

**Budupula
Subhakar**

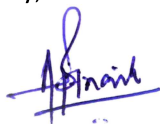
Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
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However, this shall be without prejudice to our rights and remedies available under the provision of Contract.

We look forward to your support and cooperation.

Thanking you and assuring our best service always.

Yours truly,



Anup Kumar Patnaik

For TATA PROJECTS LIMITED:

- ENCL: 1. Media Coverage of Lockdown in China and its impact
 2. Media Coverage on impact on commodities by Russia-Ukraine war



江苏润邦新材料集团有限公司

JIANGSU RUNBANG CLAD METAL MATERIAL CO., LTD

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Add: No.3, Linhe South Road, Xingdian Street, Pukou District,
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电话 TEL: 0086-25-58263888 传真 FAX: 0086-25-58264266

Page 1 of 1

Letter of Delayed Delivery

No. RB-LODD-20230418-01

Date: 18/April/2023

To,

TATA PROJECTS LIMITED

Purchase Order: SBU - PG (POWER GENERATION)/NTPC TAMILNADU ENERGY CO. LTD./100047/24637

Project: FLUE GAS DESULPHURISATION SYSTEM FOR VALLUR THERMAL POWER STATION (3X500MW)

Description: Titanium Clad Plates

Material: ASME SB265 Gr.2+ ASTM A36

Subject : Request for Delivery Extension for the SBU - PG (POWER GENERATION)/NTPC TAMILNADU ENERGY CO. LTD./100047/24637

Dear Sir,

With reference to your above order, the contractual delivery date was September 2022. But due to enormous Covid-19 cases in Nanjing City, China (where our factory is located) from August 2022 to December 2022 the material production has got impacted due to the necessary COVID-19 measures as imposed by local government authority. Our activities were badly affected as a series of people affected by Covid 19 from us as well as on surroundings. All the above ultimately caused us to delay shipping the materials until 05/ December/2022. We request M/s TPL to kindly extend your support for the extension of delivery period for the reasons not attributable to M/s Jiangsu Runbang Clad Metal Material Co.,Ltd and request TPL to consider this as a special reason under Force Majeure for giving Time Extension till 31st January 2023.

We are very sorry to bring the delay of delivery which is beyond our control.

We look forward to your support and cooperation.

Thanking you and assuring our best service always.

Yours very truly,



For Jiangsu Runbang Clad Metal Material Co.,Ltd

Budupula
Subhakar

Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
600103, serialNumber=
1de53f05de314d924bb1f3b7c9e21dd19b61435d
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Shanghai Covid: China announces largest city-wide lockdown

Published
3 days ago
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IMAGE SOURCE, REUTERS

Image caption,

Tests take place behind the barriers of a makeshift Covid centre in Shanghai earlier this week

China has announced its biggest city-wide lockdown since the Covid outbreak began more than two years ago.

The city of Shanghai will be locked down in two stages over nine days while authorities carry out Covid-19 testing.

The important financial hub has battled a new wave of infections for nearly a month, although case numbers are not high by some international standards.

Authorities had so far resisted locking down the city of some 25 million people to avoid destabilising the economy.

But after Shanghai recorded its highest daily number of cases on Saturday since the early days of the pandemic, authorities appear to have changed course.

The lockdown will happen in two stages, with the eastern side of the city under restrictions from Monday until 1 April, and the western side from 1-5 April.

Public transport will be suspended and firms and factories must halt operations or work remotely, authorities said.

<https://www.bbc.com/news/world-asia-china-60893070>

The city government published the instructions on its WeChat account, asking the public "to support, understand and cooperate with the city's epidemic prevention and control work".

- **How is China's zero-Covid strategy changing?**
- **Omicron vs Zero-Covid: How long can China hold on?**

Other lockdowns during the pandemic have affected entire Chinese provinces, though people could often still travel within those regions. But Shanghai, due to its high population density, is the largest single city to be locked down to date. It is China's commercial capital and by some calculations the biggest city in the country - but is now one of the worst-hit areas as China fights to contain a resurgence of the virus with Omicron, leading to a spike in new cases. Officials had until now said the eastern Chinese port and financial hub must keep running for the good of the economy. The staggered approach to this lockdown means half the city will remain functioning at a time. Millions of residents in other Chinese cities have been subjected to citywide lockdowns, **often after a relatively small number of Covid cases.**



Analysis
By Robin Brant
Shanghai correspondent

In a city that's been on its knees for two weeks, parts of it reduced to something like a ghost town, the streets are now suddenly busy with panic shoppers. I've been out and seen queues stretching out of shop doors as people stock up before the lockdown starts early on Monday. The subway station at the end of my road, newly opened just a few months ago, will be shut on Monday. Public transport will stop and all residents will be subject to mass city-wide Covid testing. Almost 25 million people will be affected; the eastern side of the city first, then at the end of next week the western side. Wuhan was sealed off at the very outset of this pandemic. Before Christmas it was Xi'an. Now China's commercial and financial capital is being shut. Just a few days ago officials here said Shanghai was too big and too important to lock down. The question now on many residents' lips will be whether nine days is enough.

Challenge to zero-Covid

The recent surge in cases in China, although small compared to some countries, **is a significant challenge to China's "zero-Covid" strategy**, which uses swift lockdowns and aggressive restrictions to contain any outbreak. The policy sets China apart from most other countries which are trying to live with the virus.

But the increased transmissibility and milder nature of the Omicron variant has led to questions over whether the current strategy is sustainable in the long run. Some Shanghai residents have complained about the seemingly endless cycles of testing, suggesting that the cost of zero-Covid had become too high. China's national health commission reported more than 4,500 new domestically

As 'Stealth Omicron' Wreaks Havoc in China, Hong Kong, Zero-COVID Policy Fails the Test



A man gets tested for COVID-19 at a makeshift nucleic acid testing site behind barriers of an area under lockdown amid the COVID-19 pandemic, in Shanghai, China (Image: Reuters)

India has to learn from its past mistakes and from around the world. It would be unwise to try to emulate China's zero-COVID policy with lockdowns and travel restrictions

- LAST UPDATED: MARCH 30, 2022, 14:31 IST

PRIYAL LYNCIA D'ALMEIDA

HARSHIT KUKREJA

Recently China imposed a lockdown in Shenyang city of Liaoning province overnight. A phased lockdown has also been imposed in Shanghai, China's biggest city and a financial hub. This is because of the biggest viral surge in China in the last two years. The number of new COVID-19 cases has nearly doubled in several nations such as the UK, China, the US, and parts of Europe.

<https://www.news18.com/news/opinion/as-stealth-omicron-wreaks-havoc-in-china-how-covid-policy-fails-the-test-4923380.html>

More than a dozen provinces and cities in China have announced lockdowns and travel bans. The situation in Shanghai and provinces like Hebei, Jilin and Guangdong has deteriorated. Many people are caught in survival mode in Shanghai because it is completely closed. Beijing's zero-tolerance policy is also being tested by the emergence of new cases attributed largely to the 'Stealth Omicron', a sub-variant of Omicron. The number of new daily infections in Germany, as per *worldometers*, stood at nearly 2.38 lakh cases on March 29. Similarly, New Zealand is also witnessing a rise in cases.

Omicron, a variant of COVID-19, has been spreading like a wildfire since November 2021, leading to a record number of cases around the world. Though a majority of countries did see less severe infection, China and Hong Kong are seeing the worst of this, with China imposing lockdown measures in multiple provinces. With COVID-19 cases rising in India's neighbouring countries, experts have warned that a fourth wave in India may be a possibility.

The cause of concern is the 'Stealth Omicron', which is a sub-variant of Omicron that had caused the third wave in the country. While Omicron proved to be less deadly than the Delta variant, it was highly infectious compared to its previous counterparts. The BA.2 strain which is commonly called the 'Stealth Omicron' has been implicated as a major factor in rising cases in China, Hong Kong and Europe.

REASONS FOR THE NEW WAVE

Hong Kong has reported the **highest death rate** for COVID-19 globally. This is because of low vaccination rates among the elderly and the overburdened health infrastructure. Adding to this is the "high density population and cramped up spaces, especially in public housing estates," a Hong Kong virologist told *The Guardian*. A huge number of people ending up in hospitals are not vaccinated and elderly. The vaccination rate in Hong Kong is currently 81 per cent for those aged 12 and above. Vaccines administered in Hong Kong

<https://www.news18.com/news/opinion/as-stealth-omicron-wreaks-havoc-in-china-how-covid-policy-fails-the-test-4923380.html>

include Sinovac, a traditional inactivated vaccine manufactured in China, and BioNTech's mRNA vaccine made in Germany. Among those aged 80 and above, the figure declines to nearly 37 per cent.

Similar to Hong Kong, China has also been struggling to control the surge in cases. Its zero-COVID policy and the inefficacy of vaccines seem the most likely reasons. Government officials have been forced to impose lockdowns to tackle the spread of the infection in the country, leading to break in industry supply chains, closing of markets and loss of jobs and income.

China has been using China-developed vaccines. It is believed that Sinovac, Sinopharm-Beijing and Sinopharm-Wuhan are being used for most of the population. These vaccines contain killed viruses against whom the immune system of the body mounts a response. This is in contrast to Covishield used by the majority of the population in India. Covishield is a **viral vector vaccine**, it has genetic material of COVID-19 virus packed into a harmless virus. Although Covishield provides better and longer immunity in comparison to the Chinese vaccines, it loses out to mRNA vaccines, used in the other countries, on some parameters.

Chinese vaccines offer efficacy of less than even 50 per cent against infections as compared to 70-75 per cent provided by Covishield. These numbers are said to be lower with Omicron and the possibility of them being even lower for new variants such as BA.2 is quite real. Both India and China are yet to administer the highly effective mRNA vaccines to their people. These vaccines can even be tweaked at the earliest in response to new variants. Booster doses are picking up momentum with around half of China's population having received them. China has also allowed mixing and matching of vaccines. Both countries are somewhat similar in population composition with India's average population being 10 years younger than China's.

HOW TO PREVENT A FOURTH WAVE

India has to learn from its past mistakes and from around the world. It would be unwise to try to emulate China's zero-COVID policy with lockdowns and travel restrictions. India would not be able to bear the damage to the economy and livelihoods. We should increase our coverage of booster doses which is currently at a dismal 2 per cent to at least 50 per cent by June. This can be done by allowing all adults to get boosters and reducing the nine-month waiting period between second dose and the booster. Next wave predictions for India are being made for June-July, 2022.

The National Technical Advisory Group on Immunisation (NTAGI) has already recommended reducing the gap between two doses of the largely used Covishield vaccine. Several countries are encouraging mixing and matching different types of vaccines. NTAGI's Standing Technical Sub Committee is reviewing the latest data from various Indian studies after the government's initial refusal last year to allow mixing and matching. It is also important that we keep public health measures such as masks, social distancing and restricting large public gatherings in place to prevent sudden breakouts of COVID-19. This is the right time to develop our healthcare capacity for the projected next wave. This is the third year of the COVID-19 pandemic. It is quite shameful that we still have to divert our existing hospitals and healthcare capacity to accommodate the increase in COVID-19 patients when a wave strikes.

We hope an unlikely hope, that the next wave doesn't come. As Stephen King said, "There's no harm in hoping for the best as long as you're prepared for the worst."

China battles worst Covid-19 outbreak in 2 years, goes back to lockdowns as world opens up | Top points

While most countries across the world are opening up, various parts of China are now under partial or full lockdown as a result of a surge in Covid-19 cases.



India Today Web Desk

Beijing

March 14, 2022

UPDATED: March 14, 2022 08:01 IST



A volunteer disinfects the area as it snows during the Covid-19 lockdown in Changchun in northeast China's Jilin province. (Photo: AP)

<https://www.indiatoday.in/coronavirus-outbreak/story/china-worst-covid-19-outbreak-world-lockdowns-world-opens-up-wuhan-1924972-2022-03-14>

As most countries across the world open up and resume 'normal life' with a fall in Covid-19 cases, China is currently seeing its worst outbreak of the virus in two years.

On Sunday, the country reported 3,100 new locally transmitted cases in a single day, which is the highest in two years. Some local authorities have attributed the surge in cases to the Omicron variant.

With the rise in cases, millions of people in different parts of China are now living under lockdown.

Here are the latest Covid-19 updates from China:

SURGE IN CASES

After topping 1,000 new cases for two days in a row, new locally transmitted cases in China surged to more than 3,100, the National Health Commission reported on Sunday. This is the highest in two years.

OMICRON VARIANT

Some local health authorities have attributed the surge in cases in China to the Omicron variant, which is more transmissible but causes less severe symptoms than the original Covid-19 virus, the a South China Morning Post report said.

LOCKDOWNS

To contain the spread of the virus, the Chinese government put the high-tech Shenzhen city under lockdown. The city has a population of over 17 million.

Shenzhen will seal all communities, villages and suspend bus and metro services from Monday to Sunday, it was reported on Sunday.

On Saturday, Jilin city was partially locked down while Yanjim an urban area of 700,000 people, was placed under lockdown on Sunday.

Meanwhile, [Changchun, an industrial base of nine million people](#), was locked down on Friday while a few other cities have been closed down since March 1.

<https://www.indiatoday.in/coronavirus-outbreak/story/china-worst-covid-19-outbreak-world-lockdowns-world-opens-up-wuhan-1924972-2022-03-14>

OTHER CURBS

Apart from total lockdowns, authorities are also imposing local curbs on schools, restaurants, malls and other public places to control the spread of the virus.

In Shanghai, for example, authorities have temporarily shut down schools, businesses, restaurants and malls.

TESTING

As part of its response to the new outbreak, [China has decided to allow the use of rapid antigen tests](#) to diagnose Covid-19 for the first time. This has been done to boost the early discovery of cases.

The city of Shenzhen, meanwhile, will carry out three rounds of citywide Covid-19 tests this week.

ZERO COVID POLICY

Earlier this month, a top Chinese official claimed that China had been one of the best performers in curbing the Covid pandemic and attributed the success to its stringent [zero-case policy of restricting national and international travel](#) with proactive local lockdowns wherever the virus surfaced.

However, with several cities including Shanghai and Beijing now witnessing a surge in cases, the country's Covid control strategy has come under question.

HONG KONG SITUATION

The situation in Hong Kong has also deteriorated further. Officials confirmed 27,647 new Covid-19 cases and 87 deaths in Hong Kong on Sunday.

'WORST SINCE WUHAN'

Reporting on the situation, Hong Kong-based South China Morning Post said China was on the brink of its biggest Covid-19 crisis since Wuhan.

The coronavirus first broke out in Wuhan in December 2019 before it spread to almost all parts of the world, claiming over 6 million lives so far.

Wenzhou City's health management measures for people returning to and returning to Wenzhou from key areas in China

(As of April 17, 2022)

focus logo	area	14 days of centralized isolation and medical observation + 7-day home health observation	7-day centralized isolation medical observation + 7-day daily health monitoring	3-day home health observation + 11-day daily health monitoring	Verification of negative nucleic acid test certificate within 2 days (48 hours) + 14-day daily health monitoring
B	Zhejiang Province Hangzhou	Linping District Sealed and Controlled Area (retrospective from March 7) , Tonglu County closed and controlled area (from March 20th), Lin'an District closed and controlled area (from March 26th), Yuhang District closed and controlled area (from 3rd retrospective from January 28), Xiaoshan District closed and controlled area (from Retroactive from March 29)	Yuhang District (from March 29 retroactively)	Linping District Control Area (retrospective from March 7th) , Tonglu County Control Area (retrospective from March 20th), Lin'an District Control Area (retrospective from March 26), Xiaoshan District Control Area (retrospective from March 29),	Each defensive area: Implement 2+14; In addition to the guard zone: Carry out "two nucleic acid tests (one nucleic acid test within 6 hours of arrival and one nucleic acid test on the third day after arrival at temperature)" test) + 3-day daily health monitoring"
B	Zhejiang Province Wenzhou city	Yueqing closed and controlled area (retrospective from March 30), Pingyang county closed and controlled area (retrospective from April 4)	— —	Yueqing City Control Area (retrospective from March 30), Pingyang County Control Area (retrospective from April 4)	Yueqing City Prevention Area (retrospective from March 30), Pingyang County Prevention Area (retrospective from April 4)
A	Zhejiang Province Jiaxing	The closed area of Nanhu District, the closed area of Xiuzhou District, the sea area Ning City Sealed and Controlled Area, Pinghu City Sealed and Controlled Area, Tongxiang City lockdown area (retrospective from March 28)	Jiaxing Fruit Market in Economic Development Zone, Jiaxing Vegetable Wholesale Market (retroactive from March 28)	Global (retrospective from March 28) Economic Development Zone Sealed and Controlled Zone (retrospective from March 28)	Haining City Prevention Zone, Pinghu City Prevention Zone, Tongxiang City Prevention Zone District, Economic Development Zone Prevention Zone (retrospective from March 28)
B	Zhejiang Province Huzhou	Wuxing District Sealed and Controlled Area (retrospective from March 6)	— —	Wuxing District Control Area (retrospective from March 6)	Wuxing District Prevention Zone (retrospective from March 6)
B	Zhejiang Province Jinhua City	Bailongqiao Town, Wucheng District (retrospective from April 8, those who returned to Wenzhou on April 16 and later)	Global (tracking from April 8th) Retroactive, back on April 16th and beyond Wen staff)	— —	— —
B	Zhejiang Province Ningbo	Haishu District Sealed and Controlled Area, Zhenhai District Sealed and Controlled Area (from Retroactive from March 25), Xiangshan County (retroactive from April 1)	"10 days intensive + 4 days daily": Beilun District, Yinzhou District, Haishu District District (retrospective from April 1) "7 Days Focus + 7 Days Daily": Global (from April 1st trace)	— —	— —
B	Zhejiang Province Shaoxing	Yuecheng District Sealed and Controlled Area, Shangyu District Sealed and Controlled Area (from retroactive from March 30)	Maan Street, Keqiao District (from 4 retroactive from 7th)	Yuecheng District control area, Shangyu District control area (from 3 retroactive from 30th March)	Yuecheng District Prevention Zone, Shangyu District Prevention Zone (retrospective from March 30)
B	Zhejiang Province Yezou	Closed and controlled area of Liandu District (retrospective from March 15)	— —	Liandu District (retrospective from March 31)	— —

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B	Zhejiang Province Quzhou	Kecheng District Sealed and Controlled Area (retrospective from April 12)	— —	Kecheng District Control Area (retrospective from April 12)	Kecheng District Prevention Zone (retrospective from April 12)
B	Beijing	Jiuxianqiao Street, Chaoyang District (retrospective from April 1)	— —	Chaoyang District (retrospective from April 1)	— —
A	Shanghai	Global (retrospective from March 29)	— —	— —	— —
B	Fujian Province Fuzhou	— —	— —	Sugarcane Street, Minhou County (retroactive from March 12), Gaishan Town, Cangshan District (retroactive from March 13)	Cangshan District (backwards from March 13)
A	Fujian Province Quanzhou	Chendai Town, Anhai Town, Jinjiang City (retrospective from March 12)	— —	Jinjiang City, Taiwan Business District, Nan'an City, Anxi County, Yongchun County (retrospective from March 12)	Global (retrospective from March 12)
B	Fujian Province Ningde	Qidu Town, Jinhan Township, Badu Town, Jiaocheng District Zhangwan Town (persons leaving Ningde on April 9 and later)	Global (April 9th and beyond) Kainingde staff)	— —	— —
B	Jiangsu Province Suzhou City	Suzhou Railway Station in Gusu District (retrospective from April 6)	Kunshan City, Taicang City, Suzhou Industrial Park, Changshu City, Gu Suzhou District, Wujiang District, Xiangcheng District, Zhangjiagang City (from April 6 retrospective)	Global (retrospective from April 6th)	— —
B	Jiangsu Province Wuxi	Yunlin Street, Xishan District, Qianqiao Street, Huishan District, Heqi Street, Lihu Street, Xuelang in Binhu District Streets (retrospective from March 24)	— —	Xishan District, Huishan District, Binhu District (from March retroactive from the 24th)	— —
B	Jiangsu Province Xuzhou	Huancheng Street, Gulou District, Cuipingshan Street, Yunlong District Road, Bianfang Town, Jiawang District, Yongan Street, Quanshan District Dao, Heping Street, Suining County Suihe Street (from retroactive from March 22)	Suining County (from March 22nd retroactively)	Gulou District, Economic Development Zone, Jiawang District, Quanshan District, Yunlong District, Suining County (backwards from March 22)	Global (retrospective from March 22)
B	Jiangsu Province Taizhou	Jingjiang City (retrospective from March 18)	— —	— —	Jiangyan District (retrospective from March 25)

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B	Jiangsu Province Suqian	Shuangzhuang Street, Sucheng District (retrospective from March 28)	— —	Sucheng District (retrospective from March 28)	— —
B	Hebei Province Shijiazhuang City	— —	— —	Changjiang Street, Yuhua District (retrospective from February 27)	Yuhua District (retrospective from February 27)
A	Hebei Province Baoding	— —	— —	Zhuozhou (retrospective from March 3rd), Boye County (retrospective from March 18th)	Lianchi District, Qingyuan District (retrospective from March 2)
B	Hebei Province Langfang City	Anci District, Bazhou City, Guangyang District, Langfang opened Development Zone (retrospective from March 2)	— —	Sanhe City, Xianghe County, Yongqing County, Gu'an County, Wen'an County, Dacheng County, Dachang Hui Autonomous County (from retroactive from March 2)	— —
B	Hebei Province Cangzhou	— —	— —	— —	Xinhua District (retrospective from February 23)
A	Hebei Province Handan	Jize County (retrospective from March 22)	— —	— —	— —
B	Liaoning Province Anshan City	— —	— —	Puwozi Village and Xujia Village, Huangshatuo Town, Tai'an County (retroactive from March 30)	Huangshatuo Town, Tai'an County (retrospective from March 30)
B	Liaoning Province Dalian	Taiping Street, Pulandian District (retrospective from March 9)	— —	— —	Pulandian District (retrospective from March 9)
B	Liaoning Province Dandong	Qianyang Town, Donggang City (retrospective from March 2)	— —	— —	Donggang City (backwards from March 2)
A	Jilin Province	— —	— —	Global (backwards from March 2)	— —
B	Jilin Province Changchun City	Global (retrospective from March 6)	— —	— —	— —
B	Jilin Province Jilin City	Global (retrospective from March 6)	— —	— —	— —
B	Heilongjiang Province Harbin City	Wanggang Town, Nangang District (from February 24th), Chengxu Street, Yongzhi Street, Shuangcheng District Xingfu Street, Lequn Manchu Township, Xiangfang District Yangzhen (retroactive from April 8)	— —	Nangang District (retroactive from February 24), Shuangcheng District, Xiangfang District (retroactive from April 8)	— —

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B	Heilongjiang Province Mudanjiang	Aimin District Huanghua Street, Tiebei Street, Sandao Guanzhen, Xiangyang Street, Daqing Street, Xingping Street, Xinhua Street (retrospective from March 28)	— —	— —	Ning'an City, Aimin District (retrospective from March 28)
B	Heilongjiang Province Jiamusi	Tangyuan Town, Tangyuan County, Yuyuan Farm (retroactive from March 19)	— —	Xiangyang District (retroactive from February 26), Tangyuan County (retroactive from March 19)	— —
B	Heilongjiang Province Suihua	— —	— —	— —	Northwoods (backwards from March 20)
B	Anhui Province Lu'an	Chengnan Town, Yu'an District, Xiaohuashan Street, Pingqiao Township, Wangcheng Street, Jin'an District (retrospective from March 27)	— —	Yu'an District, Jin'an District (retrospective from March 27)	— —
A	Anhui Province Huainan City	Fengtai County (retrospective from March 19)	— —	Global (retrospective from March 19)	— —
B	Anhui Province Fuyang City	Xieqiao Town, Yingshang County (retrospective from March 25)	— —	Yingshang County (retrospective from March 25)	— —
B	Jiangxi Province Nanchang	Shigang Town, Xinjian District (retrospective from March 10)	— —	New Districts (backwards from March 10)	— —
B	Jiangxi Province Fuzhou	Nancheng County 635 Jiguan Expressway Yingrui Section South City Service District (backwards from March 27)	— —	Nancheng County (retrospective from March 27)	— —
B	Shandong Province Jinan City	— —	— —	Hanmiao Town, Shanghe County, Diao Town, Zhangqiu District (from March retroactive from the 28th)	— —
B	Shandong Province Weihai	Huanshan Street, Wendeng District (retrospective from March 21)	— —	Wendeng District, Weihai Economic and Technological Development Zone, Weihai Lingang Economic and Technological Development Zone (retrospective from March 21)	— —
B	Shandong Province Linyi City	Mengyin County (retrospective from March 5)	— —	— —	— —
B	Shanxi Province Taiyuan	Xiaodian District (retroactive from March 29), Wangda Township, Qingxu County (retroactive from March 29)	— —	Jinyuan District, Wanbailin District, Yingze District, Jiancao District, Xinghualing District, Qingxu County (retrospective from March 29)	— —
B	Henan Province Zhengzhou City	— —	— —	Digitally signed by Budupula Subhakar DN: C=IN, CN=Budupula Subhakar, O=NTPC Tamilnadu Energy Company Limited, OU= EMPLOYEE, ST=Tamil Nadu, postalCode= 600103, serialNumber= 1de53f05de314d924bb1f3b7c9e21dd19b61435d c72904e54984b056fa385100, telephoneNumber= f1128dcd07d2dd7a7f8490f3e68abedc6ea2f6dbd a6de59ea3b36301ea2b7301 Reason: I am the author of this document Location: Date: 2026.04.13 15:56:11+05'30' Foxit PDF Editor Version: 2026.1.0	Jinshui District, Erqi District, Zhongyuan District, Guancheng Hui District, Huiji District, Zhengdong New District, Economic Development Zone, High-tech Zone (from April

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focus logo	area	14 days of centralized isolation and medical observation + 7-day home health observation	7-day centralized isolation medical observation + 7-day daily health monitoring	3-day home health observation + 11-day daily health monitoring	Verification of negative nucleic acid test certificate within 2 days (48 hours) + 14-day daily health monitoring
					retroactive from the 9th)
B	Henan Province Zhoukou	Chengguan Town, Taikang County (retrospective from March 15)	— —	Taikang County (retrospective from March 15)	— —
B	Henan Province Luohe	Shabei Street, Yancheng District (retrospective from April 7)	— —	— —	Yancheng District (retrospective from April 7)
B	Henan Province Shangqiu	Yongcheng Yanji Street (retrospective from March 30)	— —	Yongcheng (retrospective from March 30)	— —
B	Hubei Province Suizhou	— —	— —	Zengdu District, Xihe Town, High-tech Zone (retrospective from March 23)	— —
A	Guangdong Province Guangzhou City	Tangjing Street, Renhe Town, Huangshi Street, Baiyun District Dao (backwards from April 1)	Baiyun District (from April 1st retroactively)	Global (backwards from April 1)	
B	Guangdong Province Maoming City	Shuidong Street, Poxin Town, Dianbai District, High-tech Zone Qijing Town (retrospective from March 16)	— —	Maonan District, Maonan Development Zone, Daming House, Gaoshan Town Zhang Fukumura (retrospective from March 16)	Maonan District, Dianbai District, High-tech District (retrospective from March 16)
B	Guangdong Province Shanwei	— —	— —	— —	Lufeng City, Red Bay Economic Development Zone (retrospective from March 24)
B	Guangxi Province Fangchenggang	— —	Dongxing City (from April 6th retroactively)	— —	Global (retrospective from April 6th)
B	Sichuan Province Chengdu	— —	— —	Yulin Street, Hongpailou Street, Wuhou District, Jinjiang District Shuyuan Street, Hejiangting Street, Chunxi Road Street, Mengzhuiwan Street, Chenghua District, Chung, Wenjiang District Quan Street, Caoshi Street, Qingyang District, Supo Street Dao (retroactive from March 29)	Wuhou District, Jinjiang District, Chenghua District, Qingyang District (from March retroactive from the 29th)
A	Hainan Sanya	— —	— —	Haitang District (retroactive from February 24), Jiyang District (retroactive from March 26)	Global (retrospective from February 24th)

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B	Hainan Haikou	— —	— —	Xiuying Street, Haixiu Street, Xiuying District, Qiongsan District Fengxiang Street (retrospective from March 27)	Xiuying District, Qiongsan District (retrospective from March 27)
B	Shaanxi Province Xi'an	Fengdong New Town, Xixian New District (retrospective from April 7)	— —	Global (retrospective from April 7th)	— — — —
B	Shaanxi Province Ankang	— —	— —	Ziyang County (retrospective from March 24)	— —
B	Gansu province Tianshui	— —	— —	Qinzhou District (retrospective from March 17)	Global (retrospective from March 17th)
B	Qinghai Province Xining	— —	— —	Chengzhong District, Chengxi District, and Chengbei District (retrospective from April 7)	Chengdong District (retrospective from April 7)
B	Xinjiang Bayinguo Leng Mongolia Autonomous Region State	— —	— —	Heshuo County Chuanshuo Mine (retrospective from March 22)	Heshuo County (backwards from March 22)
B	Xinjiang Changji Hui ethnic autonomous prefecture	— —	— —	Oasis Road Sub-district, Changji City (retrospective from March 27)	Changji City (retrospective from March 27)

Note: 1. Those who have returned from outside the city must undergo a nucleic acid test within 6 hours after arriving in temperature. They are not allowed to go to public places before the nucleic acid results are issued. 2. Implement "14+7" health management measures for those who have an intersection with the announced positive case activity trajectories. When the medium and high-risk areas are reduced to low-risk areas, those who are still in the state of health management, when the health management measures at the stage they are in are completed, and the nucleic acid test is negative, the whole process of health management measures can be lifted.

3. Persons who take planes, trains, and trains passing through local airports, railway (moving) stations and other transportation stations in a short time can be regarded as "passing through", and corresponding control measures are not implemented according to the area where the transportation station is located. People from Shandong Province who came to and returned to Wenzhou immediately implemented a nucleic acid test after arriving in Wenzhou.

4. The control calibers for the adjustment of the enclosed and controlled areas, control areas, and prevention areas in Zhejiang Province are as follows. For the enclosed control areas and control areas: (1) If the original enclosed control area is adjusted to a control area, "14+7" is adjusted to "7" Day centralized isolation observation + 7 days daily monitoring". (2) If the original control area and the control area are adjusted to the prevention area, "14+7" is adjusted to "7-day centralized isolation observation + 7-day daily monitoring". If the follow-up prevention zone is lifted, the original "7+7" will be released after the 7-day centralized quarantine and observation, and the control and control will be released after a negative nucleic acid test is carried out for the current 7-day daily health monitoring.

(3) If the closed control area and the control area are directly cancelled, it will be adjusted to a 7-day concentration. For the prevention area: if the original prevention area is reduced to a low-risk area, "3+11"

Since the start of control, the control will be released after 3 negative nucleic acid results; after the "2+14" has been downgraded, the control will be released after one nucleic acid negative.

5. "14 concentrated + 7 home" will be carried out in close contact with the staff of the positive case and the train; on March 28, D3141, D3205 and the positive case will carry out "7 concentrated + 7 daily"; Passengers on trains that stop in Shanghai will implement "4 concentrated + 3 daily", and if there are people living together in Wenzhou, they will implement 4-day home health monitoring (hard isolation), and the frequency of nucleic acid testing will be the 1st, 2nd, 3rd and 4th. Once a day, a single check is taken. The retrospective time of management and control is calculated from the date of arrival in temperature. Those who have been in temperature for more than 7 days will have a nucleic acid test with those living together.

6. Those coming from Shanghai who have been in the quarantine point for 10 days can go to home health observation after double-collection and double-check negative, which is equivalent to "14 concentrated + 7 at home" instead of "10 concentrated + 11 at home".

7. Those who came and returned to Wenzhou from Jinhua, Zhejiang before April 16 will follow the original policy: 7+7: Wucheng District and Economic Development Zone (retrospective from April 8); 3+11: Global (from April 8) retrospectively).

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Subject : Update on power shortage

Dear Sir,

Greatwall Mixer is aware of the current China power shortage, which includes various raw material supplier used in Greatwall's products. The Greatwall's Supply Chain team is proactively working with our component suppliers to maintain access to these components and minimize the impact of shortages and allocations to our customers. The information below summarizes the current situation and actions we are taking:

Background

Raw material and consumer goods manufacturing demand declined during the COVID lockdowns. Yet, a subsequent sharp recovery created a demand / supply imbalance in the component supply chain. Although these foundries and other sub-suppliers are moving to increase capacity, our suppliers are suggesting these investments will take significant time and component availability may be impacted into mid-2022.

What components are affected?

The initial component shortages were primarily related to Metal material, motor, bearing, and Gearbox but other commodities such as rubber line material becoming increasingly constrained. Many components are on “allocation” and/or have extended lead times up to 30 weeks or more. The impact affects many industries, as virtually all agitator assemblies utilize these inputs.

How is Greatwall Mixers addressing these challenges?

Greatwall has been engaged with our manufacturing partners and component suppliers to work collaboratively on short- and long-term solutions, just as we successfully did during the COVID-19 pandemic. We are constantly reviewing critical shortages and the impact on our ability to serve our customers. To date, we have successfully mitigated the impacts of the supply shortages. However, as the situation continues and more components and material supplies are absorbed by short-term demand, we anticipate additional challenges. We have been and will continue to be very proactive in our approach to address and communicate the challenges.

What actions can customers take to assist?

Greatwall's Supply Chain team relies heavily on accurate forecasts to schedule the manufacturing and delivery of our assemblies. As component lead times extend further and the availability of other materials used in the manufacture of electronics becomes further constrained, it will become increasingly difficult to satisfy the ongoing orders . While we endeavor to fulfill all orders, those scheduled at current lead times can be managed more effectively, increasing our ability to ensure fulfillment. A customer's ability to re-schedule and/or accept partial deliveries will also assist in our planning process. We are making sincere effort to mitigate it and ensure that the supply schedules are impacted to the minimum possible extent. At the same time we request our customers to please appreciate the constraints being faced by us and accept some delay in supply due to the prevailing force majeure condition..

We will continue to monitor this rapidly evolving situation and adjust our efforts as market conditions change.

We appreciate your business and offer our sincere thanks for the opportunity to serve you.

For ZHEJIANG GREATWALL MIXERS CO.,LTD.

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ZHEJIANG GREATWALL MIXERS CO., LTD.

Barbara Hu

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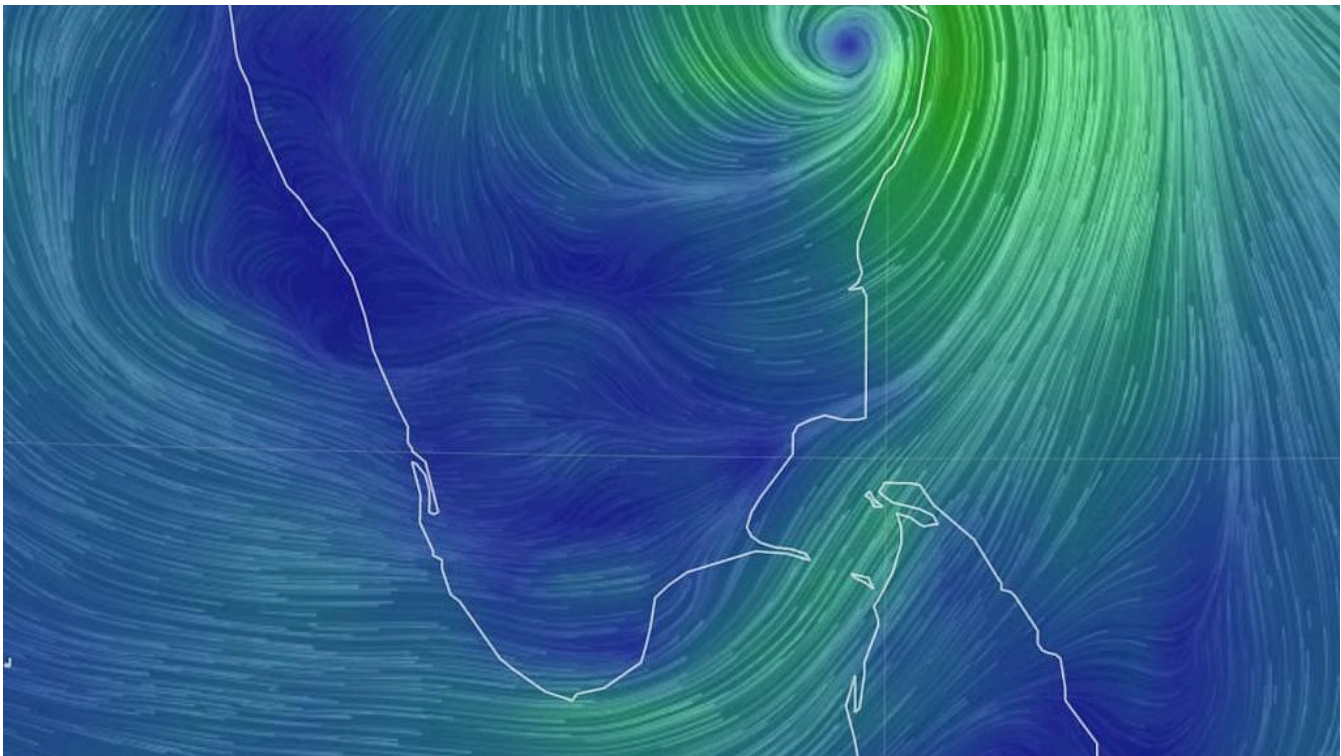
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Climate Change

Cyclone Nivar: Chennai shut as rains cause flooding in several parts

Around 0.1 million people, including 28,161 children, were evacuated to 1,694 relief camps across Tamil Nadu from low-lying areas



Shivani Chaturvedi

Published on: 26 Nov 2020, 1:07 pm

The whole of Chennai remained in a shutdown mode as [Cyclone Nivar made a late-night landfall near Puducherry](#) November 25, 2020. Ferocious wind and incessant rain cut through the city, causing flooding in several parts and in the outskirts. Many areas suffered power cuts as well.

Around 0.1 million people, including 28,161 children, were evacuated to 1,694 relief camps across Tamil Nadu from low-lying areas.

Those displaced also included the ones afflicted by poverty.

“These people are more exposed to danger and have greater difficulty in rebuilding their lives and bouncing back once affected by these natural disasters, which have become more frequent because of climate change,” said K Palanivelu, director, Centre for Climate Change and Adaptation Research, Anna University.

The cyclone moved at 85 kilometre per hour, which meant fishing operations were completely suspended in the state. It served as a reminder of 2015 floods and 2016 Vardah cyclone that disrupted life for days.

Water was released from Chembarambakkam lake, the city’s largest drinking water reservoir, on November 25 (Wednesday): It was the delay in release of water that led to the floods in Chennai in 2015.

About 5,000 cusecs of water was discharged from the reservoir by Wednesday evening.

“Storm water drains are not maintained properly. If we improve infrastructure, we can avoid damages. Many parts of Chennai such as Velachery and Mudichur have flooded. The magnitude of the cyclone is not much this time, rain is not that heavy, so proper maintenance of infrastructure could have avoided the damage,” a source said.

The actual quantum of damages would be known only in a day or two, the source added.

The very severe Cyclone Gaja had similarly caused much distress to Tamil Nadu farmers in November 2018, from which they have still not been able to come out easily.

Experts feared agriculture may also be impacted in the short term in Tamil Nadu, Karnataka, Andhra Pradesh, Telangana and some parts of Kerala due to the

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Cyclone Mandous effect: Five killed, 350 trees uprooted in Tamil Nadu

TNN / team toi / Updated: Dec 11, 2022, 07:08 IST

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Cyclone Mandous, which made landfall near Mamallapuram on Friday night with heavy downpour and howling gusty winds, uprooted many trees, damaged property and killed five people before it began its journey inland.

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Chennai mayor R Priya during an inspection of cyclone damage in the city on Saturday

CHENNAI: Cyclone Mandous, which made landfall near Mamallapuram on Friday night with heavy downpour and howling gusty winds, uprooted many trees, damaged property and killed five people before it began its journey inland.

The cyclone left Chennai bruised, if not battered. It uprooted around 350 trees in the city and its suburbs, washed

away small roads close to the coast and tossed around 150 trawlers moored at Kasimedu harbour.



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It also swept in sea water close to the Marina Loop Road, forcing fishermen to move their stalls inland.

Five people were electrocuted in three separate incidents reported in Sriperumbudur, Madipakkam and Thoraipakkam.

Chief minister M K Stalin, accompanied by ministers and mayor R Priya, visited several affected pockets and reviewed relief measures and distributed aid. Several hundred workers of the Greater Chennai Corporation, led by commissioner Gagandeep Singh Bedi, and scores of police personnel including city commissioner of police Shankar Jiwal, stayed up and alert all night and slogged to remove fallen trees and clear clogged roads.

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After reaching the coast, the cyclone made a slow entry, started landfall at 10.30pm and completed landfall after three hours. On Saturday, IMD said the cyclone has completely moved inland and has weakened into a well-marked low pressure over north interior TN.

In the meantime, conditions have become 'favourable' for the next system to develop in the Bay of Bengal by December 13, said weather bloggers.

Five people including two guest workers from Bihar were electrocuted in three separate incidents in Madipakkam, Sriperumbudur and Thoraipakkam on Friday night and early on Saturday.

In the first incident, Lakshmi, 42, and her nephew Rajendran, 25, who were staying in a thatched roof house on 7th Main Road at Ram Nagar, Madipakkam, decided to seek shelter in a nearby garage. "Around 9 pm, they went there and decided to go back for some valuables. A few metres from home, Lakshmi stepped on a live wire and was electrocuted. Rajendran who tried to help her also died," said a police officer.

A case was registered under CrPC Section 174 (unnatural death) and a probe is on. Residents said power could have been disconnected, but electricity minister V Senthil Balaji said the respective engineers were allowed to take a call depending on the situation. The minister visited the spot and consoled the bereaved family. Tangedco executive engineer for Guindy division said power was cut around 10 pm and restored after 30 minutes as the wind speed became low. "That is when the electrocution took place as a tree had collapsed on overhead lines and one of them snapped."

At Pillaipakkam near Sriperumbudur, Sudhan Kumar, 25, and Niranjan Kumar, 23, who were cousins from Bihar were walking home when they touched a snapped low hanging live wire and were electrocuted.

In third incident, Vijayakumar was on night duty at an IT firm in Thoraipakkam when a glass piece broke off from a window and pierced his stomach. By the time help arrived, he was dead.



End of Article

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Tamil Nadu

Chennai floods: 4,000 cusecs water released from Chembarambakkam lake

The total storage of six reservoirs in Chennai city stands at 11.759 tmcft out of 13.222 tmcft, as of 6 pm on December 5.


[Twitter/Tamil Nadu Weatherman](#)

Written by: TNM Staff

Published on: 06 Dec 2023, 9:16 am



Around 4,000 cusecs of water has been released from Chembarambakkam water reservoir (one of the largest water reservoirs) in Chennai, on Tuesday, December 5. The water outflow has now been stopped, as the inflow has reduced. For the first time since 2015, the lake reached 23.45 ft, close to its maximum capacity of 24 ft.

Chennai received heavy rains due to cyclonic storm Michaung, which left a devastating impact on the city. The city is still reeling from the floods, with several areas still under water and suffering from power outages.

Reports state that the inflow into Chembarambakkam lake, as of December 5 evening, was 3,937 cusecs. Water is being discharged from five reservoirs in Chennai city. While the inflow at Redhills lake is 6,916 cusecs, the outflow is 5,689 cusecs; in Cholavaram reservoir, both inflow and outflow is 3,562 cusecs; in Poondi, 17,605 cusecs of water is being released against an inflow of 11,050; in Veeranam, both is 87 cusecs; and in Kannankottai Thervoy Kandigai, the inflow and outflow is 590 cusecs.

According to a The News Indian Express report, the total storage of six reservoirs in Chennai city stands at 11.759 tmcft out of 13.222 tmcft, as of 6 pm on December 5. The storage in Redhills reservoir is 3.016/3.300 tmcft; Cholavaram reservoir is 1.81/1.081 tmcft; Chembarambakkam is 3.349/3.645; Poondi is 2.823/3.231; Veeranam is 0.990/1.465; and Kannankottai Thervoy Kandigai has reached the maximum capacity of 0.500 tmcft.

TPL/P&M/NTECL-VALLUR/PROJECTS/03-23/81

Date: 01.03.2023

To,
NTPC Tamilnadu Energy Company Ltd,
Vallur Thermal Power Station
Vellivoyal Chavadi, P.O-Ponneri Taluk,
Thiruvallur Dist. Chennai – 600103

Kind Attention: Shri. Virendra Prasad (GM -Projects. NTECL Vallur)

Project : Flue Gas Desulphurization (FGD) System Package for VALLUR THERMAL POWER STATION (3x500 MW).

Sub - Delay in short circuit test of Transformers – reg

Ref : 1) CS-0011-109(5)-9-FC-COA-3922 dated 07.05.2020
2) CS-0011-109(5)-9-SC-COA-3923 dated 07.05.2020

Dear Sir,

This is in reference to our FGD project and delay in execution of short circuit test of Transformers, we would like to inform you that, we have given Manufacturing and Supplies of Transformers order of various capacity to our sub vendors, M/s KEL & M/s Sudhir Power Ltd.

At present these Transformer were manufactured and sent to CPRI Bangalore for the Type Test. Unfortunately, CPRI Bangalore had informed that, they are unable to take up short circuit testing transformers up to last week of March'23 due to some unavoidable, unforeseen and emergency works at their facility.

While TPL is putting best efforts to ensure completion of type test through other CPRI facility, but unable to get any confirmation on test schedule from other facility. Owing to the above unforeseen event, time impact on project schedule is to the tune of 3 months, which NTECL need to take cognizance of the same and suitably consider under stipulated conditions of contract while providing Time Extension.

In this context, please find the attached communications received from CPRI Bangalore.

We look forward to your support and cooperation.

Thanking you and assuring our best service always.

Yours very truly,
For TATA PROJECTS LIMITED


Anup Kumar Patnaik
GM & Project Manager

Enclosed: 1. Communication from CPRI- Bangalore- Sudhir Power Limited.
2. Communication from CPRI- Bangalore – Kirloskar Electric Co. Limited

Anup Patnaik

Subject: FW: CPRI TEST- TATA Talcher & Vallur -

From: Akshay kumar <akshayaholla@sudhirpower.com>

Sent: 15 February 2023 11:18

To: Jayachandra Y <jayachandray@tataprojects.com>; Sekhar Babu G <sekharbabug@tataprojects.com>

Cc: V S Hari Narayana Alapati <harinarayanaa@tataprojects.com>; Anup Patnaik <anupp@tataprojects.com>; Srinivas Kumar V <vsukumar@tataprojects.com>; 'Gagandip Singh' <gagandip@sudhirpower.com>; 'Pooja Ahuja' <pooja@sudhirpower.com>; 'Atul Khanna' <atulkhanna@sudhirpower.com>; Mahesh Reddy Motaru <maheshreddym@tataprojects.com>; Anup Patnaik <anupp@tataprojects.com>

Subject: CPRI TEST- TATA Talcher & Vallur - M/s. Sudhir Power

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Dear Sir,

We wish to inform you that we have manufactured 2nos transformers 1600KVA & 2500kva and have sent them for short circuit test testing at CPRI Bangalore.

They have been at CPRI Bangalore for past 4 weeks however CPRI hasn't been able to conduct the tests due to some internal problems.

They estimate that the tests will be done by 3rd week March
A letter from CPRI is also enclosed for your information

We will keep you posted on the developments & give a call incase of getting an earlier date

This is for your information please

Thanks & Regards,
Akshay Kumar Holla
Sudhir Power Ltd.

No.31 | Bommasandra | Industrial Area | Bangalore-560099 | Karnataka | India
Mob.: +91-9311809777 | Office: +91-124-4168000 (30) lines | Fax: +91-124-4168010/ 20
Email: akshayaholla@Sudhirpower.com | Web: www.sudhirpower.com
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(भारत सरकार की सोसाईटी, विद्युत मंत्रालय)

प्रो सर सी. वी. रामन रोड, सदाशिवनगर डाक घर, पो. बा. सं 8066, बेंगलूर - 560 080

CENTRAL POWER RESEARCH INSTITUTE

(A Govt of India Society under Main. of Power)

Prof. Sir C.V. Raman Road, Sadashivanagar P.O., P.B. No. 8066, Bangalore - 560 080, India

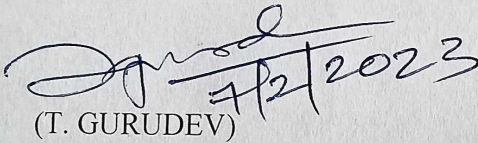
वेबसाईट/website : <http://www.cpri.in>

HIGH POWER LABORATORY

February 07, 2023

To whom so ever it may concern

With reference to Short circuit test on 2500KVA & 1600KVA transformer of M/s. Sudhir Power Ltd., No.31 |Bommasandra | Industrial Area|Bangalore-560099, the test can not be taken up due to unforeseen, emergency issue in the plant due to civil excavation work for the expansion of High Power Lab. The rectification of the issue is underway which may take approximately more than a month. The test shall be taken only after the rectification is over. However, you are requested to contact CPRI, BHOPAL for the test.


(T. GURUDEV)

Joint Director

HPL, CPRI, Bangalore

Phone. No.08022072513

Email: tghpl@cpri.in / hpl1@cpri.in

Anup Patnaik

Subject: FW: CPRI Bangalore-Kirloskar

From: B Jagadeesh <jagadeesh.b@kirloskarelectric.com>
Sent: 15 February 2023 15:09
To: Jayachandra Y <jayachandray@tataprojects.com>
Cc: Sekhar Babu G <sekharbabug@tataprojects.com>
Subject: CPRI Bangalore

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Sir,

FYI

Jagadeesh B

Manager

Sales & Marketing

Kirloskar Electric Co. Ltd.

AC & DC Motors | Generators | Transformers | DG Sets | Engineering

a: Cabin No.18 & 19, 1st Floor, Apeejay Business Centre, The Park, 22 Rajbhavan Road, Somajiguda

Hyderabad, Telangana 500082

m: 8008100028 | o: 040 2331 0497

w: www.kirloskarelectric.com | e: jagadeesh.b@kirloskarelectric.com

CIN: L31100KA1946PLC000415 | Customer Care: 1800 102 8268

From: Arunesh M [mailto:arunesh.m@kirloskarelectric.com]
Sent: 15 February 2023 15:06
To: B Jagadeesh
Cc: Kumar A.M
Subject: FW: Short circuit test charges

FYKI.

THIS WILL GO ON FOR FEW MORE MONTHS BEING MAJOR CIVIL WORK.

With Warm Regards,

M Arunesh

From: Gurudev T [mailto:tghpl@cpri.in]
Sent: 24 January 2023 04:04 PM
To: nandeeshbabu.pm@kirloskarelectric.com
Cc: ssreddy@cpri.in; murthy.m@kirloskarelectric.com; vijayakumar.ms@kirloskarelectric.com; arunesh.m@kirloskarelectric.com
Subject: FW: Short circuit test charges

Dear Sir/Madam,

In continuation to your trailing mail, we inform that short circuit tests on any equipment's cannot be taken up at HPL due to unforeseen emergency issue in the plant on account of ongoing Civil works for the New SC generators in HPL. The rectification of the issue is underway which may takes more than a month time and as soon as the plant is ready for SC test, you would be informed. Inconvenience caused is deeply regretted.

However, please contact CPRI Bhopal for the SC test on transformers till such time.

With Best Regards,

T. Gurudev
Joint Director,
High Power Laboratory
CENTRAL POWER RESEARCH INSTITUTE
P.B.NO.8066, Prof. Sir. C.V.Raman Road
Bangalore-560080
Telephone: 08022072513

From: Gurudev T [<mailto:tghpl@cpri.in>]

Sent: 23 January 2023 17:42

To: 'nandeeshbabu.pm@kirloskarelectric.com' <nandeeshbabu.pm@kirloskarelectric.com>

Cc: 'S Sudhakara Reddy' <ssreddy@cpri.in>; 'murthy.m@kirloskarelectric.com' <murthy.m@kirloskarelectric.com>; 'vijayakumar.ms@kirloskarelectric.com' <vijayakumar.ms@kirloskarelectric.com>; 'arunesh.m@kirloskarelectric.com' <arunesh.m@kirloskarelectric.com>

Subject: FW: Short circuit test charges

Dear Sir/Madam,

In continuation to your trailing mail, we inform that short circuit tests on any equipment's cannot be taken up at HPL due to unforeseen emergency issue in the plant on account of ongoing Civil works for the New SC generators. The rectification of the issue is underway and as soon as the plant is ready for test, you would be informed.

Inconvenience caused is deeply regretted.

However, please contact CPRI Bhopal for the SC test on transfofrmrs.

With Best Regards,

T. Gurudev
Joint Director,
High Power Laboratory
CENTRAL POWER RESEARCH INSTITUTE
P.B.NO.8066, Prof. Sir. C.V.Raman Road
Bangalore-560080
Telephone: 08022072513



TPL/RCM/100047/22-23/1890

Date: 22-03-2023

To,
NTPC Tamil Nadu Energy Company Ltd
Vallur Thermal Power Project,
Vellivoyal Chavadi P.O., Ponneri Taluk.,
Distt. Thiruvallur 600 103

Kind Attn: Mr. Virendra Prasad-GM (FGD)

Project: FGD System Package for Vallur Thermal Power Station (3x500 MW)

Ref : 1) NOA Ref No. CS-0011-109(5)-9-SC-NOA-3923-Dated 06.04.2020

Sub : Site Execution works affected owing to Migrant Workers flee from Tamil Nadu State

Dear Sir,

This has reference to the subject and references cited above, regarding prevailing migrant worker crisis across Tamil Nadu state.

As you are already aware, over the past three weeks, several videos have been shared on social media purportedly showing migrant workers being attacked in Tamil Nadu. Such Viral videos & disinformation have set off a wave of panic among migrant workers in Tamil Nadu and caused flee of migrant workers from the state.

The Tamil Nadu police and state officials as well as fact checkers have pointed out that these videos are either of incidents that did not take place in the state or are unrelated to the false claims being made.

However, influenced by the videos, some migrant workers are returning home out of fear, affecting the site execution activities in parts of Tamil Nadu and also in our FGD project.

As per records in CLIMS, Total Worker's strength was 877 as on 28th FEB'2023 which has got drastically reduced to almost 50% as of now.

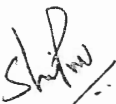
Such reduction of workers severely affected the pace of the progress in many fronts for past three week and still it becomes difficult to restart works in various areas, such as Duct erection, Absorber erection and entire civil works across the site.

We have made our efforts to retain the workers at site so far and also trying to bring back the work force who already left the site to build the strength. However, such unforeseen risks may have an adverse impact on project's schedule, as there is no clarity when TN Govt. could get control over the worker's crisis and bring back the normalcy in the state.

Therefore, while we are now trying to focus on bringing back the worker strength in the interest of the project, we request M/s NTECL to take a note of the situation and consider this in favour during issuance of EOT/Waiver of LD, in case contractual interpretations and its ramifications get pursued.

Thanking you and assuring you of our best attention at all times.

Sincerely Yours
For TATA PROJECTS LIMITED,


Shailesh Prasad
Resident Construction Manager



TATA PROJECTS LIMITED

Registered Office : "Mithona Towers-1" 1-7-80 to 87 Prenderghast Road, Secunderabad - 500 003, Telangana

Phone : +91-40-6623-8801, Fax : 6617 2535

CIN : U45203TG1979PLC057431 e-mail : tpl@tataprojects.com www.tataprojects.com

Budupula
Subhakar

Digitally signed by Budupula Subhakar
DN: C=IN, CN=Budupula Subhakar, O=NTPC
Tamilnadu Energy Company Limited, OU=
EMPLOYEE, ST=Tamil Nadu, postalCode=
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TPL/P&M/NTPC-VALLUR/PROJECTS/01-23/ 79

Date: 20.01.2023

To,
M/s NTPC Limited,
Engineering Office Complex,
A-8A, Sector 24,
NOIDA, Gautam Budhnagar,

Kind Attn: Shri V B Shende, AGM (Contracts)

Sub : Intimation of Fire incident at our Vendor location on 30-12-22

Contract reference:

- 1.CS-0011-109(5)-9-FC-COA-3922 dated 07.05.2020
- 2.CS-0011-109(5)-9-SC-COA-3923 dated 07.05.2020

Package: Mill Circuit Tank Agitators are ordered to M/s MUTschamber, Wehr Germany through our sub vendor M/s Christian Pfeiffer

Dear Sir,

This is to notify that on 30-Dec-22, severe fire accident occurred at our Mill Circuit Tank Agitator Manufacturer M/s MUTschamber, Wehr Germany, who is the sub vendor for critical supplier of the Mill System is M/s Christian Pfeiffer. As you are aware that M/s TPL had placed order for supply of Mill Circuit Tank Agitators on M/s MUTschamber, Wehr Germany thru M/s Christian Pfeiffer. It is informed that, Fire accident has impacted severe damage to office, production and testing shop. In this context, please find the attached communication received from M/s MUTschamber, Wehr Germany.

It is also to inform you that, the Project supplies of Mill Circuit Tank Agitators have been damaged in the accident. The extent of damage, its financial implications, procurement timelines for reordering/reproduction etc. will be assessed and notified to NTPC in due course of time for your assistance. While TPL will render its best efforts to normalise the supplies affected due to this incident, this could affect the timelines of project readiness and may be suitably considered under stipulated conditions of contract please.

Also, please find below the link for news furnished in local channel for your ready reference.

<https://www.badische-zeitung.de/grossbrand-zerstoert-firma-tschamber-in-wehr--234122718.html>

We look forward to your support and cooperation.

Thanking you and assuring our best service always.

Yours very truly,

For TATA PROJECTS LIMITED



Anup Kumar Patnaik
GM & Project Manager

CC :

Mr. Virendra Prasad, GM -FGD

Mr. T. Ramamurthy, Sr. Manager -FGD



भारत सरकार

Government of India

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

तापीय परियोजना नवीनीकरण एवं आधुनिकीकरण प्रभाग

Thermal Projects Renovation & Modernisation Division

I.S.O.: 9001: 2015



4th MoU between CEA and JCOAL signed on 16th Dec, 2019

Quarterly Review Report
Renovation & Modernisation of Thermal Power Stations
Quarter: Apr-June., 2022

Budupula
Subhakar

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S.No.	Sect or	Total (No. of units)	CF BC	Claims SO2 compliance	Retir ed	Feasibi lity study not started	Feasibi lity Study started	Feasibi lity Study Comple ted	Tender specifica tion made	NIT issu ed	Bid open ed	Bid Awar ded	FGD install ed
1	Centr al	169	4	0	3	0	5	0	0	8	11	133	5
2	State	221	7	7	2	0	27	49	21	50	35	23	0
3	Privat e	210	39	11	0	2	24	17	7	35	26	34	15
	Total	600	50	18	5	2	56	66	28	93	72	190	20

6.1 Vendor Meet-

TPRM division held a meeting on 26.04.2022 with Vendor's (BHEL, GE, ISGEC, Tata Power, L&T, EPIL, ISGEC) & generating utilities to assess the realistic vendor's capacity and the following bottlenecks/constrained were identified during the discussion -

1. Limited vendors for FGD system equipment and materials

- About 525 (199 GW) out of 596 (209 GW) total number of thermal generating units has to install FGD system to comply with new emission norms.
- Further about 38 (27 GW) units under construction generating are also required to install FGD system.
- There is a limited vendor base for the FGD equipment and materials suppliers, making it difficult to get equipment deliveries on time due to high demand.

2. Change in procurement policy and stringent Pre-Qualification as per GoI guidelines

There is a change in procurement policy in line with the goal of "Aatma- Nirbhar Bharat".

Due to these changes, price offers from prospective domestic suppliers has increased. Ordering cycle has also been badly affected, impacting both, the time and the cost of the project.

3. Pandemic induced factors

- Supply chain disruptions and migration of workforce: Many sub-contractors have gone under distress due to work disruptions during pandemic which badly affects work progress
- Various indigenous and foreign vendors have become stressed

4. Site execution challenges

- FGD orders envisage retrofitting of FGD components in brown field projects. Such jobs have their distinguished difficulties in terms of conceptualization & design challenges. Standardization could not be done as different sites have different requirement, space constraints, geography, orientation etc. Such jobs are more like Renovation & Modernisation kind of jobs & encounter frequent re-engineering issues.
- Lack of availability of drawings in old plants.

5. Proveness criteria in DPR limiting sub-vendors base as well as the goal of Aatma- Nirbhar Bharat

As per vendors, utilities are insisting on proveness criteria of successful operation in FGD applications for items such as agitators and wet ball mills although these items are operating in other applications successfully.

in the country which limits the sub-vendor base.

Utilities are also insisting upon procuring steel from specific vendors such as SAIL and RINL resulting in cost escalation and delay in getting materials as mills have their own production plan and delivery periods.

6. Unexpected and unprecedented rise in commodity prices

The prices of base materials like steel, cement, nickel, aluminum and copper have seen a surge in prices: as a result of which items like tanks, ducts, pipe racks, supporting structures have undergone price escalation.

Estimated Materials required for a typical FGD system for a 2x500 MW TPS

Sl. No.	Major Materials	Materials Requirement (in Metric Tonnes)
i	Cement	25000
ii	Structural Steel	15000
iii	Reinforcement steel	5750-6000
iv	Stainless steel & plates	350-400
v	Aluminum	50-70
vi	Casting and Forgings	200
vii	Casting and Forgings special alloy / Duplex stainless steel	50
viii	Tube & Pipes	600-800
xi	BQ Plates	30
x	C276 clad/sheet for absorber	350-375
xi	Titanium Gr2 for ducting	300-350

7. Import challenges

Critical item like Gypsum Dewatering, Agitators, Borosilicate and Clad Plates (C276 & Titanium) are mostly imported from China. The recent GOI notifications which restricts procurement from neighboring countries has had adverse impact on the procurement cost & timelines since these items have high lead time and limited supplier base.

8. Connectivity of FGD system with power plant

After installation of FGD equipment in the thermal power plant including new chimney, the same needs to be connected with existing thermal power plant. The flue gas of the existing power plant shall be rerouted through FGD system for desulfurization. The time required for connectivity is about 30 to 45 days and unit will be under shut down. Grid may not allow shutting down of more than 3-4 generating units in a month (annually 30 - 48 units) for this purpose otherwise the connectivity process may be planned at the time of annual overhauling of units.

9. Completion Cycle time:

As per the present status of implementation and Vendor's feedback the average time for completion is about 55 months. The overall execution cycle for FGD is on basis of past experience, limited vendor base, contingency (pandemic) and complexities in execution like R&M works. Therefore, time cycle for execution of FGDs may be considered as 43 months for a unit if 12 months delay is considered for Covid-19. Another 30-45 days time is required for successful synchronization of FGD system.

Further, the rubber lining of absorber is envisaged in case of Dadri FGD which normally takes execution period of 4 months more in comparison to other FGDs with absorber lining of Ti clad/ C276 etc. Hence in case of rubber lining of absorber, 4 months extra time may be considered for FGD erection & commissioning.

10. Realistic capacity per annum:

After analyzing the 65 GW capacity (134 units) in hand of Vendor's since the year,2018 for installation of FGD system in thermal power plants and present equipment manufacturing capability, availability of steel, cement, market scenario & connectivity time (as provided below) followings are suggested for smooth implementation:

- Total Vendor's capacity for FGD installation is about 16-20 GW (33 to 39 units) in 1st phase and installation time is about 44 to 48 months. Thereafter 16 - 20 GW (33 to 39 units) every year (2nd/3rd/4th phase).
- It is also suggested that 2nd phase FGD system installation may be initiated 3 years after commissioning of 1st phase which give a time for course of correction seeing the performance in 1st phase (stabilization period is 2-3 years).

Summary of FGD Commissioning Timelines as per Vendors (Capacity in MW)									
Sl. No.		2022		2023		2024		2025	
		No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity
1	FGD Units	12	7570	65	32640	52	24130	5	1130
2	Min. (months)	41		40		29		50	
3	Max.(months)	60		76		79		71	
4	Avg. (months)	50		53		56		60	
	Avg. of 2 years (units)	39	20105						
	Avg. of 3 years (units)	43	21447						
	Avg. of 4 years (units)	34	16367						

Study to assess the compliance of thermal power plants in India to new SO₂ emission norms (2015) and lay out phased plan for FGD implementation



Source: Google Images



Centre for Atmospheric Sciences
Indian Institute of Technology Delhi

Website: <https://cas.iitd.ac.in/>

June 27, 2022

**Budupula
Subhakar**

CONTRIBUTORS

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Data Analysis and Report Preparation	Ms. Lovleen Kaur Arora, Project Scientist, IITD Ms. Sumitra Sharma, Project Scientist, IITD Ms. Isha Singh, Project Scientist, IITD Mr. Shubham, Project Scientist, IITD Mr. Indranil Nandi, Junior Research Fellow, IITD
Data Providers	Central Electricity Authority, Public & Private Developers of TPPs across India and CPCB website

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Executive Summary

Emissions from coal based thermal power plants (TPPs) are known to have adverse impacts on environment and human health. Combustion of coal in these TPPs release sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), and various primary particulate matter (PM) into the air through stacks that can disperse this pollution over large areas. Both during emission and while in the atmosphere, gaseous SO_2 can become oxidized to form sulfate (SO_4) particulate matter. On 7th December 2015, the prevailing norms regarding the air pollution from TPPs were revised and new norms regarding limits of $\text{PM}_{2.5}$, SO_x , NO_x , and mercury emissions from TPPs were introduced. With environmental concerns becoming more pronounced, MoEF&CC notified “Environment (Protection) Amendment Rules, 2015” for thermal power plants. After notification of new emission norms, it has become necessary for several thermal power plants across the country to install Flue gas desulfurization (FGD) units to curtail the emission of SO_2 from the stacks to comply to the above stipulated SO_2 emission limits.

This report presents a study to assess the compliance of thermal power plants across India to the new SO_2 emission norms (2015) and lay out a phased plan for FGD implementation in TPPs across the country. Chapter-2 of this report presents an analysis of the trends in stack emissions and ambient air concentrations of major air pollutants emitted from coal based thermal power plants across India. Chapter-3 of the report presents an analysis of climatology and trends in SO_2 and sulfate (SO_4) aerosol data over the Indian region using satellite observations, emission inventory, and reanalysis datasets. Chapter-4 of the report presents results of dispersion modeling of air pollutants from selected coal based TPPs in India which are in different geographical areas and differ in terms of their age and power producing capacities for understanding and the quantifying the dispersion of SO_2 from these TPPs during different times of the year. Chapter-5 of the report investigates the impact of implementation of flue gas desulfurization (FGD) in selected coal based thermal power plants (TPPs) across the country on the near surface concentrations of two major air pollutants, namely SO_2 and sulfate aerosols, in the surrounding region of these TPPs by conducting chemical transport model simulations using the Weather Research Forecast model coupled with an interactive atmospheric chemistry module. Chapter-6 of the report presents the results from a series of systematically designed WRF-Chem model simulations that are performed to carry out source apportionment of air pollutants for Delhi National Capital Region (NCR). This helps us in understanding the contribution of different emissions sectors along with contributions of local versus remote emission contributions towards the air pollutant levels within Delhi National Capital Region (NCR) for the month of December 2018. Finally, Chapter-7 of the report recommends an action plan for phased implementation of FGD in all coal based TPPs across the country.

A detailed analysis of stack emissions and ambient air quality data from 240 stacks from 67 coal based TPPs across the country are performed in this study. A detailed analysis of SO_2 and sulfate (SO_4) aerosol data over the Indian region has been performed using satellite observations.

emission inventory and reanalysis data sets to identify areas within the country which has highest column burden and surface concentration of SO₂ and sulfate (SO₄) aerosols. A pollutant dispersion model has been used to understand and the quantify the dispersion of SO₂ from four different selected thermal plant plants (TPP) across the country based on their respective capacities and during four different months of the year 2019. Four coal based TPPs considered for the dispersion modeling study include: Mundra UMTTP (Tata Power (CGPL)) and Mundra TPS (Adani Power Ltd), Gujarat, Vindhyachal Thermal Power Plant (Madhya Pradesh), Talcher Thermal Power Plant (Odisha) and Panipat Thermal Power Plant (Haryana). Additional model sensitivity simulations are performed to investigate and understand the sensitivity of dispersion of SO₂ from a selected TPP as a function of different choices of stack height. We further investigated the impact of implementation of flue gas desulfurization (FGD) in coal based thermal power plants (TPPs) across the country on the near surface concentrations of two major air pollutants, namely SO₂ and sulfate aerosols, in the surrounding region of these TPPs by conducting chemical transport model simulations using the Weather Research Forecast model coupled with an atmospheric chemistry module. Our study finds that while implementation of FGD in TPPs can result in significant decreases (up to 55%) in SO₂ concentrations that are mostly confined in the immediate surrounding areas of the TPP and up to a maximum distance of 60-80 km from the location of the TPP and in the direction of maximum dispersal of the air pollutants but, significant decreases (up to 30%) in the surface concentrations of sulfate (SO₄) aerosols can be expected at locations which could be as far as 200 Km from the location of the TPP. A series of systematically designed WRF-Chem model simulations are performed to carry out source apportionment of air pollutants for Delhi National Capital Region (NCR). Here we try understanding the contribution of different emissions sectors along with contributions of local versus remote emission contributions towards the air pollutant levels within Delhi National Capital Region (NCR) for the month of December 2018. Our results suggest that while the maximum contribution to sulfur dioxide (SO₂) surface mass concentration over Delhi NCR for the December month came from the energy sector emissions (~63%), maximum contribution to sulfate (SO₄) aerosol surface mass concentration over Delhi NCR for the same month came from the transportation sector emissions (~33%) followed by the energy sector emissions (26%).

Finally, an action plan for phased implementation of FGD in all coal based TPPs across the country is presented in this report. There are multiple ways for phased implementation of FGDs in TPPs across the country. We recommend a phased implementation of FGDs in TPPs across the country based on SO₂ surface concentration (in mg/m³) data throughout India obtained from AURA (OMI) satellite observations and MERRA2 reanalysis data during the last five years, that is 2015-2019. Considering the challenges involved in implementing FGDs in all TPPs across the country simultaneously as discussed in this report, it is recommended to adopt a graded action plan for phased implementation of FGDs by giving preference to areas which have highest surface concentration of SO₂ as per our analysis of satellite observations and MERRA2 reanalysis data. We recommend implementation of FGDs in all coal based TPPs across the country in five phases. Phase-1 of FGD implementation should be of 3-year period from July 2022 to July 2025 and it should include FGD implementation in around 40 TPPs across the

country. After Phase-1 of FGD implementation in around 40 TPPs, a study must be conducted to ascertain the performance of these FGDs at least over a period of next one year and confirm the tangible benefits of installation of FGDs in TPPs by considering its impact on extra CO₂ emission, accelerated warming of the regional climate, extra water consumption, limestone mining, transportation of limestone from the mines to the TPPs, and disposal of byproducts like gypsum etc. Phase-2 of FGD implementation should happen in around 49 TPPs should start from July 2026 and completed by July 2029. A four-year time period between start of the Phase-1 and Phase-2 of FGD implementation will also allow us to see the emergence of new FGD technologies which could possibly consume less water, avoid any extra emission of CO₂ into the atmosphere etc. Thereafter Phase-3 of FGD implementation should happen in around 27 TPPs and it can start from July 2029 and completed by July 2031. Phase-4 of FGD implementation should happen in around 21 TPPs and it can start from July 2031 and completed by July 2033. Phase-5 of FGD implementation should happen for the remaining 7 TPPs and it can start from July 2033 and completed in one year by July 2034. The report also provides the list of non-attainment cities across India which will benefit with the implementation of FGD in different phases of the suggested graded action plan.

This report recommends carrying out an immediate follow up investigation to quantify the socio-economic cost and benefits of FGD implementation in coal based thermal power plants across India. While reduction in SO₂ emissions from TPPs by FGD implementation is highly desirable but, it is also equally important to ensure that the benefit of SO₂ emission reduction is not coming at a cost of increased emission of greenhouse gases, extra consumption of valuable water, accelerated global warming, and various other problems associated with it.

CHAPTER 7: ACTION PLAN FOR PHASED IMPLEMENTATION OF FGD AT ALL COAL BASED THERMAL POWER PLANTS ACROSS THE COUNTRY

Background

Ministry of Environment, Forest, and Climate Change (MOEF&CC) has issued notification no. S.O.3305 (E) titled 'Environmental (Protection) Amendment rules, 2015 dated 7.12.2015. The said notification has brought out amendments to Schedule - I of Environment (Protection) Rules, 1986 for the water consumption and emission norms applicable to thermal power stations. As per the amendment, the new emission norms that are applicable to the thermal power plants are listed in Table 7.1

Table 7.1: New (2015) regulation on emissions from TPPs in India

Emission Parameter	TPSs (Units) Installed		
	Before 31.12.03	After 31.12.03 to 31.12.16	From 01.01.17
Particulate Matter (PM)	100 mg/Nm ³	50 mg/Nm ³	30 mg/Nm ³
Sulphur Dioxide (SO ₂)	600 mg/Nm ³ for <500 MW 200 mg/Nm ³ for ≥500 MW	600 mg/Nm ³ for <500 MW 200 mg/Nm ³ for ≥500 MW	100 mg/Nm ³
Nitrogen oxides (NO _x)	600 mg/Nm ³	300 mg/Nm ³	100 mg/Nm ³

After notification of new emission norms, it has become necessary for several thermal power plants across the country to install Flue gas desulfurization (FGD) units to ensure that the emission of SO₂ from the stacks satisfy the above stipulated SO₂ emission limits.

Hence, the Central Electricity Authority (CEA) in consultation with various stakeholders prepared a detailed plan for installation of FGD in various thermal power plants across the country in a phased manner by the end of the year 2024. CEA submitted this FGD installation plan to MoEF&CC in June 2017. However, subsequently, the timeline for installation of FGD in TPPs was squeezed by MoEF&CC to December 2022. In its notification regarding standard technical specification for retrofit of Wet Limestone Based FGD system in a typical TPP, CEA made it mandatory for all supplier/manufacturer of the FGD that to meet any specific level of SO₂ emission as stipulated by the MoEF&CC, the manufacturer must guarantee that the maximum SO₂ emissions level that will be achieved in the treated flue gas after the installation of the FGD in the TPP under full Turbine maximum continuous rating (TCMR) load will always

maintain some margin below the maximum limit specified by the MoEF&CC. The following table 7.1 mentions the maximum SO₂ emission level in the treated flue gas that must be guaranteed by the supplier/manufacturer of the FGD:

Table 7.2: Guaranteed maximum SO₂ level that needs to be maintained after FGD installation

SO ₂ level stipulated by MoEF&CC	Guaranteed SO ₂ level in the treated flue gas under guarantee condition (100% TMCR load)
600 mg/Nm ³	500 mg/Nm ³
200 mg/Nm ³	150 mg/Nm ³
100 mg/Nm ³	70 mg/Nm ³

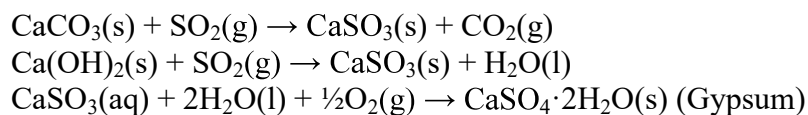
As per the CEA notification published in December 2017, the compliance of emission norms of 100 mg/Nm³ and 200 mg/Nm³, the required SO₂ removal efficiency of the installed FGD system should be in the range of 90- 95%. Similarly, for compliance of emission norms of 600 mg/Nm³, the required SO₂ removal efficiency of the installed FGD system should be in the range of 60-70%.

Flue Gas Desulfurization Technologies

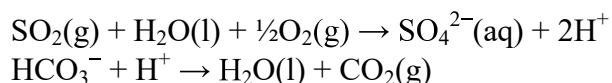
Flue gas desulfurization (FGD) is an effective method of removing sulfur dioxide (SO₂) from thermal power plant emissions through treatment of flue gases by a suitable SO₂ absorber. To curtail SO₂ emission from coal based thermal power plants, FGD units are being installed before the inlet of power plant stack in TPPs across the world. FGD removes SO₂ content from flue gas using various chemical processes. For a typical coal fired TPP, FGD may remove anywhere between 50% to 99.8% of the SO₂ in the flue gases depending upon the age of the TPP, sulfur content in coal burnt in the TPP, and type of chemical absorbers used in the FGD system. Various types of FGD technologies involving different chemical processes are available in the market. Some of the popular FGD technologies include Wet scrubbers (Limestone scrubbing, Seawater scrubbing), Spray dry scrubbers, Sorbent injection, Regenerable processes, etc. Each FGD technology requires some raw materials and leads to certain byproducts. The selection of appropriate FGD technology for a given TPP generally depends on the following major factors: (1) The cost and availability of raw materials or reagents, (2) Utilization and disposal of byproducts, (3) sulfur content in coal burnt and SO₂ content in exhaust gas, (4) Requirement of SO₂ emission reduction based on the emission norms, (5) Size or capacity of the power plant.

The chemical reactions involved in some of the most prevalent FGD technologies are mentioned below:

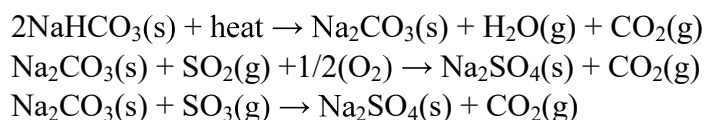
Wet limestone scrubbing FGD technology



Seawater scrubbing FGD technology



Dry Sorbent Injection (DSI) FGD technology



In the FGD market around the world, wet limestone scrubbing is the most prominent and widely used technology because of lower capital and operating expenditure involved in this and it leads to a byproduct which is marketable gypsum.

FGD manufacturing in India

To understand the indigenous FGD manufacturing capacity available within India, various private and public sector companies including international companies operating from India were approached and asked to share information regarding the FGD technologies, source of raw materials used in FGD manufacturing, cost of FGD, and timeframe for manufacturing FGD. Table 7.3 provides a list of some companies which are involved in FGD manufacturing in India. We received responses to our queries from only three FGD manufacturers, namely Bharat Heavy Electricals Limited (BHEL), GE India Pvt. Ltd., and Doosan Lentjes.

Doosan Lentjes:

Doosan Lentjes is offering 3 different FGD technologies with SO₂ removal efficiencies up to 99% and above. The three FGD technologies offered by Doosan Lentjes are Wet Limestone scrubbing FGD technology, Seawater FGD, and Circoclean FGD (a semidry process based on circulation fluidised bed for smaller applications). Low-cost desulphurisation (DSI, limestone direct injection) for plants with limited remaining lifetime is not offered by Doosan Lentjes.

According to Doosan Lentjes, a realistic time-period for implementation of a small size semidry FGD is about 24 months and for wet limestone scrubbing FGD, it is about 30-36 months after receiving the contract. Doosan Lentjes suggested the price of a wet limestone scrubbing FGD system to be around 50-60 US dollars/KW. Circoclean FGD system would cost around 35-42 US dollars/kW, and Sea Water FGD would cost around 25-30 US dollars/kW. Doosan Lentjes are currently executing the contract for installation of FGD in Mejia TPP (DVC). Doosan Lentjes is

acting as a technology provider. According to Doosan Lentjes, they are involved in implementing FGDs in about 200 TPPs across the world.

Table 7.3: List of FGD manufacturers in India

S. No.	FGD Manufacturer	S. No.	FGD Manufacturer
1	Transparent Technologies Private Ltd	15	Ducon Technologies India Pvt Ltd
2	EnviroPol Engineers Private Limited	16	McNally Bharat Engineering Co. Limited
3	K C Cottrell	17	Nalern Technologies Pvt. Ltd.
4	Rohan Engineering Enterprise	18	IDE Technologies India Pvt. Ltd.
5	UK engineering	19	Lockheed Engineering Works
6	RIECO Industries Limited	20	Technithon Technologies Private Limited
7	VS Enviro	21	Mechwell Industries Ltd
8	Whizz Engineering Service Pvt. Ltd.	22	Chanderpur Works Private Limited
9	Wintech Supply	23	Bharat Heavy Electricals Limited (BHEL)
10	Ojas Enterprise	24	GE India Pvt. Ltd
11	Awasthi Industries Ltd.	25	Doosan Lentjes
12	Green Force Engineer Pvt Ltd	26	L&T
13	Clar Aqua Private Limited	29	Thermax
14	Ferrum technologies India Pvt. Ltd.	30	S&P

Bharat Heavy Electricals Limited (BHEL)

Bharat Heavy Electricals Limited (BHEL) effectively contributes to the prevention of air pollution through its Double Contact Flow Scrubber (DCFS) for Wet limestone FGD or Sea Water based FGD, a patented technology of MHPS Japan. The Efficiency of the FGD depends on the project requirement. However, BHEL offers SO₂ reduction efficiency up to ~99%. According to BHEL, the Timeline for manufacturing and implementation of FGD is dependent on variables like Project scope, layout, configuration/sizing of FGD, other Contractual requirements etc., the estimated FGD implementation period may range from 30-42 months. FGD system comprises of various equipment's/ subsystems, including agitators, gypsum dewatering system (vacuum belt filter), Oxidation blowers, slurry recirculation pumps, wet ball mill, mist eliminator, etc. apart from civil & structural works. Adequate domestic manufacturing capacity exists for major FGD components/subsystems; with BHEL being capable of manufacturing most of the FGD equipment's in-house. However, due to factors like customer requirements (incl. DJU requirements) or to ensure cost-competitiveness, some of the equipment's/ subsystems are procured indigenously or through imports. The level of imports may vary on case-to-case basis.

According to BHEL, the Per MW cost of setting up a FGD system varies on case-to-case basis, based on various factors, like project layout, available land, Sulphur content in input fuel, soil conditions and civil works requirement, local labor availability, multiplicity of units (project configuration), etc. However, usually the per MW cost of FGD packages may vary from Rs. 0.50

to Rs.1.20 Crore/MW. The cost of the FGD implementation doesn't depend on the age of the thermal power plant as it is dependent on factors such as project scope, layout, configuration/sizing of FGD, other Contractual requirements etc.

Sufficient domestic manufacturing capacity exists in the nation for catering to current as well as future requirements of FGD implementation in the country. According to BHEL, sometimes factors like customers insistence on criteria/DJUs, availability of raw materials as well as cost differential between local and imported raw materials compel manufacturers to import FGDs or FGD components. As per BHEL, major FGD system suppliers in India are BHEL, L&T, GE, ISGEC, Techno-electric, Thermax, PES, S&P, etc. BHEL has received orders for approximately 32 GW (66 Sets) FGD units for various TPPs across India. All orders received by the BHEL are currently under execution stage.

GE Power India Ltd.

GE Power India Ltd. offers Wet scrubbing FGD based on Limestone & Sea Water, Semi Dry FGD based on lime. GE Power India Ltd. offers 99 % reductions in SO₂ emissions if limestone based wet FGD are being used and 98 % reduction in emissions if Wet scrubbing FGD based on Sea Water or Semi Dry FGD are being used. The realistic time-period required by GE Power India Ltd for FGD manufacturing and implementation in thermal power plant is at least 30 months for one wet scrubbing FGD unit, at-least 24 months for one semi dry FGD unit with phase gap of 2 months for subsequent units. According to GE Power India Ltd., since FGD does not comprise of a single manufactured item instead it is a system comprising of multiple sub-systems which are designed, engineered, and procured from various vendors for installation & commissioning at plant site, it often takes longer than anticipated time-periods (24 to 30 months) for completing the FGD installation in any TPP.

Further, according to GE Power India Ltd., as current commodity market is quite unstable and also due to covid-19 pandemic there are impacts which cannot be ascertained, however a tentative price for Limestone based wet FGD is approximately 65 Lacs / MW (excluding GST) for a minimum 2-unit configuration (Full EPC with civil, chimney, C276 absorber lining) for units up to 500 MW and above and for units 300 MW and below is approximately 110 Lacs per MW (excluding GST) for a minimum 2-unit configuration (Full EPC with civil, chimney, C276 absorber lining). However, according to GE Power India Ltd., the cost will finally depend on the technical specifications desired by the end user or consultant. Besides this, the cost of FGD is not depended on the age of TPPs whereas it is more depended on the flue gas flow, inlet SO₂ and outlet emission requirement, plant layout and civil conditions of the TPP.

Challenges involved in installation of FGDs in all TPPs by December 2022

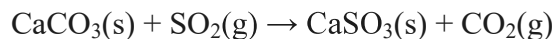
CEA has started planning for implementation of measures to comply with new emission norms issued by the MoEF&CC. More than 90% TPPs in India are suitable for installation of wet limestone based FGD system as it is economical. However, there are several genuine challenges and complex issues experienced by the CEA for the implementation of FGD system in thermal power plants across the country. For example, till the end of the year 2015 no SO₂ norms were

applicable, thus FGD manufacturing capacity was almost nonexistent in the country prior to 2015. FGD technology being new to our country, there are at present limited vendors with limited capacity to supply FGD components. Hence, there are genuine availability constraint for raw materials and components of FGD systems in the country. There has been a sudden surge of demand for FGD implementation in the country as all thermal generating units, about 470 running units of 180 GW capacity, must implement FGD system in one go to meet the timeframe given by the MoEF&CC. Proper planning was not there for development of infrastructure to meet this sudden surge in demand for FGD. Although India has the manufacturing capability of nearly 70% FGD components, it still depends on the imports from other country as manufacturing capacity is insufficient to cater to huge surge in demand in a short period of time. To boost up the indigenous production of FGD systems for meeting such huge demand as per required specifications of the TPP developers, more time (at least another 2-3 years) is required. Remaining 30% of FGD components that are not manufactured in India must be imported from other countries because to create a manufacturing capability of these items in India, it would take at least another 2-3 years. A huge foreign exchange is required for importing technology, equipment, and skilled manpower from other FGD manufacturing countries. As per CEA, placing a single order of worth nearly one lakh thirty thousand crore rupees that is required for installation of FGDs in all TPPs across the country simultaneously without ascertaining the performance of these FGDs in Indian condition may not be a correct decision. As the manufacturers of FGDs will take at least 36 months to implement the FGD in any TPP, all FGD orders are being placed in one go, targeting December 2022 deadline. However, as the timeframe for installation of FGDs instructed by the MoEF&CC is very short, there is insufficient time for fine tuning the specifications of the FGDs according to the requirement and infrastructure conditions prevailing in each individual TPPs. Moreover, due to huge gap in demand and slow supply of FGD equipment, prices of raw materials and FGD components are escalating exorbitantly, and it can also lead to market manipulation by FGD manufacturers. Impact of Covid-19 pandemic on planning, placing of order, supply chain of equipment and installation of FGD is quite severe. All these factors are likely to ultimately lead to increasing cost of electricity in the country.

In addition to the genuine concerns of CEA, we believe that although there is no doubt about the fact that FGD implementation will bring down the SO₂ emissions from the TPPs in a significant way, however, to the best of our knowledge, indeed there are no credible studies available which has quantified the overall life-cycle cost and benefits of FGD implementation in coal based TPPs, especially in the Indian context. Here are some points which demand further study to be undertaken to understand quantify the overall cost and benefits of FGD implementation in coal based thermal power plants.

Based on the most prevalent FGD technologies that are available today, it is clear that CO₂ emissions per unit power generated by coal based thermal power plants are likely to increase with FGD implemented in these thermal power plants. Primary reason for this increase in CO₂ emissions with the implementation of FGD in a coal based thermal power plants is that for every molecule of SO₂ captured by the FGD, a molecule of CO₂ will be released into the atmosphere

for all kinds of FGD technologies. For example, in wet lime FGD technology the following reaction occurs



Other FGD technologies like Dry Sorbent Injection (DSI) FGD technology and the Seawater FGD technology also involve emission of extra CO_2 into the atmosphere in addition to the CO_2 that is anyway going to be emitted due to combustion of coal in the TPPs. Thus, if the sulfur content in coal used in the TPP is about 0.5% then at least an additional 0.5% CO_2 will be emitted into the atmosphere in the process of neutralizing SO_2 by the FGD implemented in the TPP. Although Indian coal has a relatively low sulfur content in the range of 0.3 - 0.8% but, due to continuous growth in power demand and occasional shortages of domestic coal supply in the country, various developers of TPPs in the country are compelled to import coal from foreign countries to keep with the rapidly increasing power demand in India. However, sulfur content in coal imported from several foreign countries can go up to 3.5%. Hence, the quantities of additional CO_2 emitted into the atmosphere due to FGD implementation and usage of coal with high sulfur content cannot be ignored in addition to the CO_2 released by the TPPs from the combustion of coal itself. Moreover, previous studies suggest that the coal consumption in TPPs are likely to increase by at least 1 % due to increases in Auxiliary Power Consumption (APC) depending on the FGD technology implemented in the TPP and thereby result in more greenhouse gas or CO_2 emission into the atmosphere due to increased coal consumption in the TPP. Hence there is an urgent need to quantify the increases in greenhouse gas emissions (especially CO_2) with the implementation of FGD in all coal based thermal power plants in India as India has committed in the UN Climate Change Conference (COP26) held in Glasgow, U.K. in November 2021 to decrease the carbon intensity of its economy by less than 45 per cent as compared to year 2005 levels by the end of the year 2030.

Secondly, although SO_2 and sulfate aerosols which form in the atmosphere from the emissions of SO_2 are air pollutants, but numerous studies have shown that sulfate aerosols are very efficient in blocking the solar radiation from reaching the surface of the earth and hence they have contributed towards partially suppressing or offsetting the adverse impacts of global warming caused by rapid increases in emissions of greenhouse gases such as CO_2 . Since coal based thermal power plants are a major emitters of SO_2 and the implementation of FGD in thermal power plants will bring down the level of sulfate aerosols in the atmosphere, it is likely that the sudden reduction in sulfate aerosols from the atmosphere with FGD implementation in TPPs will accelerate the adverse impacts of global warming and result in faster increases in atmospheric temperature. Consequences of such rapid increases in temperature on the regional climate of India including the Indian monsoon system and extreme weather events such as floods and droughts are unknown and needs to be explored. The accelerated warming is also likely to increase the adverse impacts of heat-stress on human health. This also needs to be quantified.

Thirdly, out of the various technologies available for FGD implementation in thermal power plants in India, Wet limestone scrubbing FGD technology is the most suitable one for

implementation in the Indian context due to easy availability of limestone in India as well as lower operating expenditure involved. However, in addition to requirement of limestone, wet limestone scrubbing FGD technology also requires large supplies of water, and we have a genuine scarcity of fresh drinking water across the country. Hence, a study must be conducted to quantify the cost of additional water required by the TPPs to support the FGD systems, extra emissions of greenhouse gases and other air pollutants such as dust that are likely to happen during the extraction of limestone from the mines, including additional electricity required for limestone mining, emissions from the operation of diesel fueled trucks involved in limestone mining and transporting them to various coal based thermal power plants spread across the country.

Hence it is imperative to carry out a thorough investigation keeping in view of the above points to truly quantify the socio-economic cost and benefits of FGD implementation in coal based thermal power plants across India. Reduction in SO₂ emissions from TPPs by FGD implementation is desirable but, it is also equally important to understand if this benefit of SO₂ emission reduction is coming at a cost of increased emission of greenhouse gases which could potentially lead to accelerated global warming, and various other problems associated with it. It is crucial to understand and quantify the tangible benefits of installation of FGD in TPPs by considering its impact on extra CO₂ emission, accelerated warming of the regional climate, extra water consumption, limestone mining, transportation of limestone from the mines to the TPPs, and disposal of byproducts like gypsum etc.

Action Plan for Phased Implementation of FGD

India is committed to create a clean environment and pollution free air and water. India's commitments and obligations to environmental conservation and protection within the ambit of the targeted goals on environmental sustainability under the Sustainable Development Goals (SDGs) is manifested in several administrative and regulatory measures, including a separate statute on air and water pollution are under implementation since long by the MoEF&CC. The Air (Prevention and Control of Pollution) Act, 1981, was enacted under Art. 253 of the Constitution to implement the decisions taken at the United Nations Conference on Human Environment held at Stockholm in June 1972, in which India participated. Sustainable development, in terms of enhancement of human well- being, is an integral part of India's development philosophy.

There are multiple ways for phased implementation of FGDs in TPPs across the country. In recent years, medium and small towns and cities have also witnessed an increase in pollution, thus being fast reflected in the non-attainment cities of India. Air pollution has increasingly become a serious concern, predominantly because of its health impacts. The CPCB has identified



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अधिसूचना

नई दिल्ली, 5 सितम्बर, 2022

सा.का.नि. 682(अ).—केन्द्रीय सरकार, पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3, धारा 6 और धारा 25 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पर्यावरण (संरक्षण) नियम, 1986 का और संशोधन करने के लिए निम्नलिखित नियम बनानी है, अर्थात् :-

1. (1) इन नियमों का संक्षिप्त नाम पर्यावरण (संरक्षण) दूसरा संशोधन नियम, 2022 है।

(2) ये राजपत्र में उनके प्रकाशन की तारीख को प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 की अनुसूची 1 के क्रम सं. 25 में, “*(i) सारणी 1” के स्थान पर निम्नलिखित रखा जाएगा, अर्थात् :-

सारणी-1

क्रम सं.	प्रवर्ग	अवस्थान/क्षेत्र	अनुपालन के लिए समय-सीमा (निवृत्त न होने वाली इकाईयां)		अनुपालन से छूट के लिए इकाईयों को निवृत्त करने की अंतिम तारीख	
			SO ₂ उत्सर्जन से मिश्र पैरामीटर	SO ₂ उत्सर्जन	SO ₂ उत्सर्जन से मिश्र पैरामीटर	SO ₂ उत्सर्जन
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	प्रवर्ग क	राष्ट्रीय राजधानी क्षेत्र या 10 लाख से	31 दिसंबर,	31 दिसंबर,	31 दिसंबर,	

		अधिक जनसंख्या वाले शहरों ¹ की दस किलोमीटर की परिधि के भीतर।	2022 तक	2024 तक	2022 तक	31 दिसंबर, 2027 तक
2.	प्रवर्ग ख	गंभीर रूप से प्रदूषित क्षेत्रों ¹ की या गैर-प्राप्ति शहरों ² की दस किलोमीटर के अर्धव्यास के भीतर	31 दिसंबर, 2023 तक	31 दिसंबर, 2025 तक	31 दिसंबर, 2025 तक	
3.	प्रवर्ग ग	प्रवर्ग क और ख में सम्मिलित से भिन्न	31 दिसंबर, 2024 तक	31 दिसंबर, 2026 तक	31 दिसंबर, 2025 तक	

1 भारत की 2011 की जनगणना के अनुसार

2 केन्द्रीय प्रदूषण नियंत्रण बोर्ड द्वारा यथा-परिभाषित।

3. “(ii)” के स्थान पर निम्नलिखित रखा जाएगा, अर्थात्:--

“(ii)(क) सारणी 1 के स्तंभ (6) में यथा-विनिर्दिष्ट तारीख से पूर्व निवृत्त होने के लिए घोषित तापीय विद्युत संयंत्र से, ऐसे संयंत्रों द्वारा केंद्रीय प्रदूषण नियंत्रण बोर्ड और केंद्रीय विद्युत प्राधिकरण को ऐसे संयंत्र द्वारा निवृत्त होने के आधार पर छूट के लिए वचनबंध प्रस्तुत करने की दशा में SO₂ उत्सर्जन से भिन्न पैरामीटर के लिए विनिर्दिष्ट मानकों को पूरा करने की अपेक्षा नहीं होगी:

परंतु ऐसे संयंत्रों पर सारणी 1 के स्तंभ (4) में यथा-विनिर्दिष्ट तारीख से उनके द्वारा वचनबंध में यथा-विनिर्दिष्ट तारीख से आगे जारी रहता है, उनके प्रचालन की दशा में जनित विद्युत की प्रति इकाई पर 0.40 रुपये की दर से पर्यावरण प्रतिकर उदग्रहित किया जाएगा;

(ii)(ख) सारणी 1 के स्तंभ (7) में यथा-विनिर्दिष्ट तारीख से पूर्व निवृत्त होने के लिए घोषित तापीय विद्युत संयंत्र से, ऐसे संयंत्रों द्वारा केंद्रीय प्रदूषण नियंत्रण बोर्ड और केंद्रीय विद्युत प्राधिकरण को ऐसे संयंत्र द्वारा निवृत्त होने के आधार पर छूट के लिए वचनबंध प्रस्तुत करने की दशा में SO₂ उत्सर्जनों से भिन्न विनिर्दिष्ट मानकों को पूरा करने की अपेक्षा नहीं होगी:

परंतु ऐसे संयंत्रों पर सारणी 1 के स्तंभ (5) में यथा-विनिर्दिष्ट तारीख से उनके द्वारा वचनबंध में यथा विनिर्दिष्ट तारीख से आगे जारी रहता है, उनके प्रचालन की दशा में जनित विद्युत की प्रति इकाई पर 0.40 रुपये की दर से पर्यावरण प्रतिकर उदग्रहित किया जाएगा;”

4. “(iii)” के स्थान पर निम्नलिखित रखा जाएगा, अर्थात्:--

“(iii) सारणी 1 के स्तंभ (4) और स्तंभ (5) में यथा-विनिर्दिष्ट तारीख के पश्चात् निवृत्त न होने वाले तापीय विद्युत संयंत्रों पर सारणी-2 में विनिर्दिष्ट दरों के अनुसार, पर्यावरण प्रतिकर उदग्रहित किया जाएगा, अर्थात्:--

सारणी-2

समय-सीमा से आगे अननुपालन प्रचालन	पर्यावरण प्रतिकर (प्रति इकाई जनित विद्युत)
0-180 दिन	0.20
181-365 दिन	0.30
366 दिन और उससे आगे	0.40”

[फा. सं. क्यू-15017/40/2007-सीपीडब्ल्यू]

नरेश पाल गंगवार, अपर सचिव

**Budupula
Subhakar**

टिप्पण : मूल नियम, भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (i) में संख्यांक का.आ. 844(अ), तारीख 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और उनका अंतिम संशोधन अधिसूचना संख्यांक सा.का.नि. 143(अ), तारीख 22 फरवरी, 2022 द्वारा किया गया।

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 5th September, 2022

G.S.R. 682(E).—In exercise of the powers conferred by sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. (1) These rules may be called the Environment (Protection) Second Amendment Rules, 2022.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, in Schedule – I, in serial number 25 for “* (i) Table 1” the following shall be substituted, namely: -

Table-I

Sl. No.	Category	Location/area	Timelines for compliance (Non-retiring units)		Last date for retirement of units for exemption from compliance	
			parameters other than SO ₂ emissions	SO ₂ emissions	parameters other than SO ₂ emissions	SO ₂ emissions
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Category A	With 10 km radius of National Capital Region or cities having million plus population ¹ .	Up to 31 st December 2022	Up to 31 st December 2024	Up to 31 st December 2022	Up to 31 st December 2027
2	Category B	With 10 km radius of Critically Polluted Areas ² or Non-attainment cities ²	Up to 31 st December 2023	Up to 31 st December 2025	Up to 31 st December 2025	
3	Category C	Other than those included in category A and B	Up to 31 st December 2024	Up to 31 st December 2026	Up to 31 st December 2025	

¹ As per 2011 census of India.

² as defined by CPCB.

3. For “* (ii)” the following shall be substituted, namely: -

“(ii) (a) The thermal power plant declared to retire before the date as specified in column (6) of Table-I shall not be required to meet the specified norms for parameters other than SO₂ emissions in case such plants submit an undertaking to CPCB and CEA for exemption on ground of retirement of such plant:

Provided that such plants shall be levied environment compensation from the dates as specified in column (4) of table –I, at the rate of rupees 0.40 per unit electricity generated in case their operation is continued beyond the date as specified in the undertaking;

(ii) (b) The thermal power plant declared to retire before the date as specified in column (7) of Table-I shall not be required to meet the specified norms for SO₂ emissions in case such plants submit an undertaking to CPCB and CEA for exemption on ground of retirement of such plant:

Provided that such plants shall be levied environment compensation from the dates as specified in column (5) of table –I, at the rate of rupees 0.40 per unit electricity generated in case their operation is continued beyond the date as specified in the undertaking;”

4. For “* (iii)” the following shall be substituted, namely: -

“(iii) there shall be levied environment compensation on the non-retiring thermal power plants, after the date as specified in column (4) and (5) of Table-I, as per the rates specified in the Table-II, namely: -

Table-II

Non-Compliant operation beyond the Timeline	Environmental Compensation (Rs. per unit electricity generated)
0-180 days	0.20
181-365 days	0.30
366 days and beyond	0.40”

[F. No. Q-15017/40/2007-CPW]

NARESH PAL GANGWAR, Addl. Secy.

Note : The principle rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i) vide number S.O. 844(E), dated the 19th November, 1986 and lastly amended vide notification G.S.R. 143(E), dated the 22nd February, 2022.



By Email

B-33014/7/2021/IPC-II/TPP/

Date: 23.06.2022

Minutes of the 5th and 6th Meetings of the Task Force for Categorization of Power Plants as per the Notification dated 31.03.2021 of Government of India issued to amend the earlier Notification dated 07.12.2015 regarding emission standards for coal-based power plants

Sir,

Minutes of the 5th and 6th Meetings of the Task Force for Categorization of Power Plants as per Notification dated 31.03.2021 of Government of India regarding emission standards for thermal power plants, held under the chairmanship of Member Secretary, CPCB on 22.03.2022 at 12:30 PM and 03.06.2022 at 03:00 PM through video conferencing, respectively, along with the updated categorization list of 600 power plant units, are enclosed for information and necessary action.

SPCBs/PCCs are requested to ensure compliance of the notification dated 31.03.2021 by thermal power plants in their States/UTs.

This updated categorization list is being uploaded on CPCB website for information of the power plants. CEA is also requested to circulate the above categorization list to concerned power plants.

Yours faithfully,

Log 23/6/2022

[Nazimuddin]

Sc. F & DH-IPC-II

To,

Member Secretaries of SPCBs/PCCs,
(List enclosed)

Joint Secretary (Thermal),
Ministry of Power, Govt. of India

Director (CP Division),
Ministry of Environment, Forest and Climate Change, Govt. of India

Secretary, Central Electricity Authority

Copy to:

Chairman of the Task Force : for information.

Members of the Task Force : for information.

‘परिवेश भवन’ पूर्वी अर्जुन नगर, दिल्ली-110022
Parivesh Bhawan, East Arjun Nagar, Delhi-110022
दूरभाष/Tel : 43102030, 22305792, वेबसाइट/Website : www.cpcb.nic.in

**Budupula
Subhakar**

Minutes of the 5th and 6th Meetings of the Task Force for Categorization of Power Plants as per the Notification dated 31.03.2021 of Government of India issued to amend the earlier Notification dated 07.12.2015 regarding emission standards for coal-based power plants

The fifth and sixth meetings of the Task Force for categorization of power plants as per Notification 31.03.2021 were held under the chairmanship of Member Secretary, CPCB on 22.03.2022 at 12:30 PM and 03.06.2022 at 03:00 PM through video conferencing, respectively. The list of participants is attached.

After the fourth meeting of the Task Force held on 06.12.2021, the categorization list of all **596** units was circulated to all concerned i.e. CEA, SPCBs, and IPPs (through CEA and SPCBs) vide letter dated 13.12.2021. The categorization list of 596 units was also provided to MoEF&CC vide letter dated 17.12.2021 and uploaded on CPCB website.

During the fourth meeting of the Task Force held on 06.12.2021 the Task Force gave an opportunity to those 40 units which disagreed with the categorization to submit documentary proof along with Survey of India map in support of their claim through and duly verified by the concerned SPCB for any consideration. After circulation of the categorization CPCB received responses from i) 18 out of 40 units challenging distance based categorization, ii) fresh claims of 9 other units challenging distance based categorization, and iii) 8 out of 11 units challenging UA based categorization.

After the fourth meeting, CPCB also received a letter dated 15.12.2021 from CEA expressing its opinion to the Task Force for considering only 'cities' with million plus population for categorizing power plants under 'Category A' instead of considering 'UAs'.

Fifth Meeting

The Task Force convened its fifth meeting on 22.03.2022 at 12:30 PM through video conferencing. The requests received from the 27 units (18+9) challenging distance based categorization and 8 units challenging UA based categorization, along with details of 5 other similar units which were also categorized considering nearby UAs, were put up before the Task Force for review. The Task Force was also apprised about the responses of concerned SPCBs (Jharkhand, Odisha, Tamilnadu, Uttar Pradesh and West Bengal) in respect of units pertaining to their States.

Regarding consideration of UAs for categorization of 13 units (8+5), the Task Force members discussed that although this criterion was decided by the Task Force considering the population or distance of UAs, it may attract legal challenges as only '*cities having million plus population*' is specified in the notification. However, the Task Force decided that the decision on this matter will be finalized by the Task Force in the next meeting.

Task Force reviewed the claims of 27 (18+9) units challenging distance based categorization (2 units of Hinduja TPP, Andhra Pradesh, 3 units of GMR Kamlanga TPS, Odisha, 15 units of TANGEDCO TPSs, Tamilnadu, 7 units of Anpara TPS, U.P) and observed that these claims for change in categorization may not be considered as they are not supported by the required supporting documents and SPCBs' recommendations. CEA desired that copies of representation of such power plants received in CPCB may be shared with CEA.

Progress on the categorization of Captive Power Plants (CPPs) was also apprised to the Task Force that D.O. letters dated 01.02.2022 were sent by Member Secretary, CPCB to the Chairpersons of 11 SPCBs having CPPs in their States/UTs, followed by a reminder email dated 04.03.2022. However, 8 SPCBs/PCCs (i.e. Jharkhand, Karnataka, Odisha, Puducherry, Rajasthan, Telangana, Uttarakhand and West Bengal) are yet to submit their categorization report.

Sixth Meeting

The Task Force convened its sixth meeting on 03.06.2022 at 03:00 PM through video conferencing to discuss i) Review of categorization of power plants challenging/getting affected with UA based categorization, ii) Claims of power plants challenging distance based categorization, and iii) Categorization of newly commissioned 4 units which were forwarded by CEA to CPCB vide letter dated 21.01.2022.

As discussed during its fifth meeting, all the members of the Task Force agreed that although the criteria of considering UAs as million plus cities was decided by the Task Force considering the population or distance of UAs, it may attract legal challenges as only '*cities having million plus population*' is specified in the notification. Therefore, it was decided to go by the nomenclature in the notification and change the categorization of 13 (8+5) units of 6 power plants (i. NSPCL Bhilai TPS - 2 units, Chhattisgarh, ii. Tata Jojobera TPS- 2 units, iii. Adhunik TPS - 2 units, Jharkhand, iv. Bandel TPS - 3 units, v. CESC Budge-2 TPS - 3 units, and vi. Dishergarh TPS - 1 unit, West Bengal) which were earlier categorized on the basis of UAs as million plus cities (**Annexure-I: Table A**).

Regarding the claims of 27 (18+9) units challenging distance based categorization the Task Force decided that the claims for change in categorization may not be accepted as these are not supported by the required supporting documents and SPCBs' recommendations (**Annexure-I: Table B**).

Regarding the categorization of 4 newly commissioned units recommended by CEA, CPCB apprised that these 4 units (NTPC Barh TPS Unit-1 (660 MW), NTPC Nabi Nagar Unit-4 (250 MW), RRVUNL Suratgarh TPS Unit-8 (660 MW), and SEPC Tuticorin Stage-IV TPS Unit-1 (525 MW), Tamilnadu) are located at their existing units' sites which were already categorized earlier and categorization approved during 4th meeting of the Task Force. The Task Force accepted the categorization of these 4 units (**Annexure-I: Table C**). The Task Force was also apprised that with these 4 units the Task Force has so far categorized 65 units commissioned after 31.12.2016. The Task Force decided that the categorization of these 65 units may also be informed to MoEF&CC.

Regarding the categorization report of CPPs, it was apprised to the Task Force that after D.O. letters dated 01.02.2022 were sent by Member Secretary, CPCB to the Chairpersons of 11 SPCBs having CPPs in their States/UTs, follow-ups have been made by concerned SPCBs vide reminder emails dated 04.03.2022, 31.03.2022 and 25.05.2022 to expedite the task. However, 5 SPCBs/PCCs (i.e. Jharkhand, Puducherry, Rajasthan, Uttarakhand and West Bengal) are yet to submit their categorization report.

305	Karnataka	Adani Power Ltd.	UDUPI TPP	1	600	C	None	None	
306	Karnataka	Adani Power Ltd.	UDUPI TPP	2	600	C	None	None	
307	M.P	NTPC	VINDHYACHAL STPS	1	210	C	None	None	
308	M.P	NTPC	VINDHYACHAL STPS	2	210	C	None	None	
309	M.P	NTPC	VINDHYACHAL STPS	3	210	C	None	None	
310	M.P	NTPC	VINDHYACHAL STPS	4	210	C	None	None	
311	M.P	NTPC	VINDHYACHAL STPS	5	210	C	None	None	
312	M.P	NTPC	VINDHYACHAL STPS	6	210	C	None	None	
313	M.P	NTPC	VINDHYACHAL STPS	7	500	C	None	None	
314	M.P	NTPC	VINDHYACHAL STPS	8	500	C	None	None	
315	M.P	NTPC	VINDHYACHAL STPS	9	500	C	None	None	
316	M.P	NTPC	VINDHYACHAL STPS	10	500	C	None	None	
317	M.P	NTPC	VINDHYACHAL STPS	11	500	C	None	None	
318	M.P	NTPC	VINDHYACHAL STPS	12	500	C	None	None	
319	M.P	NTPC	VINDHYACHAL STPS	13	500	C	None	None	
320	M.P	NTPC	Gadarwara TPP	1	800	C	None	None	Installed after 31.12.2016
321	M.P	NTPC	Gadarwara TPP	2	800	C	None	None	Installed after 31.12.2016
322	M.P	NTPC	KHARGONE STPP	1	660	C	None	None	Installed after 31.12.2016
323	M.P	NTPC	KHARGONE STPP	2	660	C	None	None	Installed after 31.12.2016
324	M.P	MPPGCL	AMARKANTAK EXT TPS	5	210	C	None	None	
325	M.P	MPPGCL	SANJAY GANDHI TPS	1	210	C	None	None	
326	M.P	MPPGCL	SANJAY GANDHI TPS	2	210	C	None	None	
327	M.P	MPPGCL	SANJAY GANDHI TPS	3	210	C	None	None	
328	M.P	MPPGCL	SANJAY GANDHI TPS	4	210	C	None	None	
329	M.P	MPPGCL	SANJAY GANDHI TPS	5	500	C	None	None	
330	M.P	MPPGCL	SATPURA TPS	6	200	C	None	None	
331	M.P	MPPGCL	SATPURA TPS	7	210	C	None	None	
332	M.P	MPPGCL	SATPURA TPS	8	210	C	None	None	
333	M.P	MPPGCL	SATPURA TPS	9	210	C	None	None	



भारत का राजपत्र The Gazette of India

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CG-अ.-अ.-31122024-259752

असाधारण
EXTRAORDINARY
भाग II-खण्ड 3-उप-खण्ड (1)
PART II-Section 3-Sub-section (1)
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PRINTED AND PUBLISHED BY

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नई दिल्ली, दोसवार, दिसम्बर 30, 2024/वीप 3, 1946
NEW DELHI, MONDAY, DECEMBER 30, 2024/PART III 3, 1946

पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय

अधिसूचना

नई दिल्ली, 30 दिसम्बर, 2024

सा.का.नि. 787(अ). — पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3, 6 और 25 के द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, केंद्रीय सरकार एवम् पर्यावरण (संरक्षण) नियम, 1986 में आगे और संशोधन करने के लिए निम्नलिखित नियम बनाती है, अर्थात्:-

1. (1) इन नियमों को पर्यावरण (संरक्षण) तीसरा संशोधन नियम, 2024 कहा जाएगा।

(2) ये राजपत्र में उनके प्रकाशन की तारीख से प्रवृत्त होंगे।

2. पर्यावरण (संरक्षण) नियम, 1986 में, अनुसूची-1 में क्रम संख्या 25 में "तालिका 1" में, -

(i) क्रम संख्या 1 के सामने, कॉलम (5) की प्रविष्टियों में, "31 दिसंबर, 2024 तक" शब्दों और बांफलों के स्थान पर "31 दिसंबर, 2027 तक" शब्द और बांफले प्रतिस्थापित किए जाएंगे;

(ii) क्रम संख्या 2 के सामने, कॉलम (5) की प्रविष्टियों में, "31 दिसंबर, 2025 तक" शब्दों और बांफलों के स्थान पर "31 दिसंबर, 2028 तक" शब्द और बांफले प्रतिस्थापित किए जाएंगे;

(iii) क्रम संख्या 3 के सामने, कॉलम (5) की प्रविष्टियों में, “31 दिसंबर, 2026 तक” शब्दों और आंकड़ों के स्थान पर “31 दिसंबर, 2029 तक” शब्द और आंकड़े प्रतिस्थापित किए जाएंगे;

(iv) कॉलम (7) की प्रविष्टियों में, “31 दिसंबर, 2027 तक” शब्दों और आंकड़ों के स्थान पर “31 दिसंबर, 2030 तक” शब्द और आंकड़े प्रतिस्थापित किए जाएंगे;

[फा सं. क्यू-15017/40/2007-सीपीडब्ल्यू]

वेद प्रकाश मिश्रा, संयुक्त सचिव

टिप्पणी : मूल नियम भारत के राजपत्र, असाधारण, भाग II, खंड 3, उप-खंड (i) में का.आ. संख्या 844(अ), तारीख 19 नवंबर, 1986 द्वारा प्रकाशित किए गए थे और इन्हें अंतिम बार अधिसूचना सं. का.आ. 3864(अ), तारीख 09 सितंबर, 2024 द्वारा संशोधित किया गया था।

**MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
NOTIFICATION**

New Delhi, the 30th December, 2024

G.S.R. 787(E).— In exercise of the powers conferred by sections 3, 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. (1) These rules may be called the Environment (Protection) Third Amendment Rules, 2024.
- (2) They shall come into force on the date of their publication in the Official Gazette.
2. In the Environment (Protection) Rules, 1986, in Schedule – I, in serial number 25, in Table 1,—
 - (i) against serial number 1, in the entries under column (5), for the words and figures “Up to 31st December, 2024” the words and figures “Up to 31st December, 2027.”, shall be substituted;
 - (ii) against serial number 2, in the entries under column (5), for the words and figures “Up to 31st December, 2025” the words and figures “Up to 31st December, 2028.”, shall be substituted;
 - (iii) against serial number 3, in the entries under column (5), for the words and figures “Up to 31st December, 2026” the words and figures “Up to 31st December, 2029.”, shall be substituted;
 - (iv) in the entries under column (7), for the words and figures “Up to 31st December, 2027” the words and figures “Up to 31st December, 2030.”, shall be substituted.

[F. No. Q-15017/40/2007-CPW]

VED PRAKASH MISHRA, Jt. Secy.

Note.— The principle rules were published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number S.O. 844(E), dated the 19th November, 1986 and last amended vide notification S.O. 3864(E), dated the 9th September, 2024.