

## Introduction

Every thermal power plant, after they are set up or commissioned, as per EIA Notification 2006, Water Act, Environment Protection Act 1986 and other regulations, have to adhere to certain “Periodic Monitoring & Compliance requirements”. These compliance requirements/standards ensure that the surrounding environment does not get polluted while promoting harmonious development. Further, as part of Environmental Impact Assessment (EIA), Thermal Power Plants (TPP) have to take responsibility in submitting various documents, and get required permissions before undertaking any physical activities in project site. Additionally, the project proponent (PP) may propose their own proactive goals, depending on local environmental issues.

The Government of India has also put in place certain monitoring and compliance procedures to ensure that they adhere to the prescribed standards. This work is distributed among various Government Departments and Ministries. These procedures are placed right from project conceptualization and continue over its lifetime. This booklet seeks to inform citizens on the various monitoring and compliance procedures present for thermal power plants.

These procedures are in the form of certain mandatory documents that need to be submitted by the project proponent, before and after establishing the industry. These are submitted to various government ministries and departments. These documents play a vital role in monitoring the activities, compliance of promises made by the project proponent and aligning it with the conditions given by Ministries and departments.

## Tools for Monitoring and Compliance:

The following documents become an integral part of EIA decision making process:

- i. Duly filled-in Form 1 and/or Form 1A format, along with Pre-Feasibility Report (PFR) —Ministry of Environment, Forest and Climate change (MoEF& CC)/State Environment Impact Assessment Authority (SEIAA) (web hosted)
- ii. Standard Terms of Reference (TOR) on sector specific (web hosted)
- iii. TOR issued by MOEF&CC/SEAC with standard TOR, and if required additional TOR, for project to project specific basis as decided by EAC (web hosted)
- iv. Draft Environmental Impact Assessment (EIA) submitted to Authority; Executive Summary of the draft EIA report in local language & in English— MoEF& CC/SEIAA– Web-hosted
- v. Final EIA reports, incorporating action plans to the views, demands & concerns expressed in Public Hearing meeting & Public Consultation based written inputs —MoEF& CC/SEIAA
- vi. Environment Management Plan (EMP)/Environmental Monitoring Programme part of EIA Report— MoEF& CC/SEIAA
- vii. Environmental clearance (EC), with Specific conditions and General conditions —MoEF& CC/SEIAA(Web-hosted)
- viii. Consent to establish (CTE), with Specific conditions, General conditions and Additional conditions from State Pollution Control Board (SPCB)(available under Right to Information (RTI) only).
- ix. Consent to operate (CTO), with Special conditions, General conditions and Additional conditions –SPCB (available under RTI only)
- x. Hazardous Waste Authorization – SPCB (available under RTI only)
- xi. Six monthly compliance reports against all the Special & General conditions, stipulated in EC—Regional office of MoEF& CC (available under RTI only)
- xii. Annual declaration of Fly Ash report to Central Electricity Authority (CEA) with copies to MOEF&CC and SPCB (available under RTI only)

xii. Water Consumption Statement

xiii. Monthly Water Cess report in prescribed format for consumption of water (four grades, as applicable) - SPCB (available under RTI only)

xiv. Annual Environmental Statement – SPCB (available under RTI only)

xv. Hazardous Waste declaration, as prescribed by Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016

xvi. Renewal of Consent by SPCB.

**Form 1 & Pre-Feasibility Report —MoEF& CC/SEIAA-** These documents are submitted at “Stage 1—screening of the EIA Process”. This can be considered as a proposal for a project submitted to MoEF& CC or SEIAA.

- An application form is submitted for getting environmental clearance
- Form 1 determines whether the project or activity attracts Category A or Category B level clearance and whether the public hearing is needed based on the categorization
- The Pre-Feasibility Report (PFR) is an executive summary or extract of “Detailed Project Report – which decides the Techno-Economic viability of the project”. PFR is either prepared by the Project Proponent (PP) or the Accredited Environmental Impact Assessment Organization (AEO) for submission along with Form-1.

**Issue TOR – MOEF&CC / SEIAA-**The Standard “Terms of Reference (TOR)” are notified for sector specific projects and based on Form 1 & PFR submission, State Expert Appraisal Committee (SEAC)/Expert Appraisal committee (EAC) decides adequacy of standard TOR or whether it need additional TOR and then such TORs are issued by MOEF&CC or SEIAA to prepare the EIA report for decision-making process.

**Draft EIA Report-**The PP is then required to prepare the EIA report engaging an accredited EIA consulting organization. Initially, a draft EIA report is the requirement, which should adhere to the following:

- The standard & additional TOR issued (Scoping of the EIA) by MOEF&CC/SEIAA is the minimum syllabus coverage, but PP and AEO can go beyond the terms of reference to suit the site conditions
- A baseline condition of the project site should be monitored covering a radius of 10 Kms (Buffer Zone) to address Air Quality, Water Quality, Soil Quality, Noise Quality, Ecology & Biodiversity and Socio-Economic conditions, etc (there are 12 Environmental Quality parameters)
- The PP and AEO then examines baseline condition and how it will get altered once the proposed project is in operation (Impact Assessment)
- Annexure-III of the EIA Notification 2006 provides the required Chapters and contents thereof for such EIA report preparation
- Annexure III requires that the baseline conditions and Detailed Project Report contents should be integrated to make the EIA report to address issues related to Environment protection, with any additional required mitigation costs, alternate site & process if need be. At this stage, it is known as “Draft EIA Report”
- Project proponent & accredited EIA organisation are required to prepare additionally an “Executive Summary” of the same in vernacular & English language for better comprehension of the draft EIA content & intent.
- The draft EIA report and Executive Summary are then submitted to the Authority in required number of copies for display in designated locations 30 days in advance for Public to prepare themselves for participation/discussion during “Public Hearing” announcement.

The draft EIA report is submitted at “Stage 3 - Public Consultation of the EIA process” to the MoEF& CC and SEIAA.



**Note:**

- **Executive Summary should not suppress any information.**
- **There is no provision in the EIA notification for scrutiny of Draft EIA report by EAC/SEAC at this stage before putting up to Public Consultation process.**
- **Draft EIA report is not subjected to any technical scrutiny**

**Public Hearing/Consultation** - The concerned State Pollution Control Board facilitates in conducting the “Public Hearing/Consultation” meeting in a pre-determined venue & date by 30/60 days prior newspaper announcement.

- The views, concerns, demands on the project expressed by the community around the project are given a fair hearing, video graphed and minutes are made. Other communities located elsewhere can participate by giving views in writing (Public Consultation).
- Minutes of the meeting are made based on Public hearing and Public Consultation (Written Communication) process and are communicated to the PP.
- The PP has to develop an action plan & furnish a response which will be consolidated for incorporating in the draft EIA report further for necessary modification.

**Final EIA Report** - The draft EIA report modified as above is then submitted to EAC/SEAC for taking the decision to clear or reject the project. If cleared, then an “Environmental Clearance” is issued by MOEF&CC/SEIAA to the PP with copies to the concerned SPCB and other applicable agencies.

- There should not be any change in the baseline data or additional data in the final EIA report, specialised study report, etc to reflect major

deviation in the content of draft EIA report placed for public review.

- The changes must reflect the change in mitigation cost or measures, policy commitment etc, as a response to “Action plan & Response Plan” consolidated during Public Hearing/Consultation meeting.
- It may also contain a “Supplementary Report” addressing concerns expressed during the public consultation, retaining draft EIR report intact.

**Note:**

**Public needed to compare the contents of draft EIA report and final EIA report. EAC/SEAC violations are noticed because of**

- **Changes in the permitted baseline data**
- **Inclusion of additional specialized study information which is not integral part of draft EIA report.**

**Only changes in the mitigation budget or commitment to the views, demands & concerns raised by public to be incorporated.**

***Environment Management Plan*** - The EMP forms part of the EIA Report and comprises of two Chapters – 6 and 10.

- Chapter 6 of the EIA report includes technical aspects of monitoring the effectiveness of mitigation measures, such as measurement methodologies, frequency, location, data analysis, reporting schedules, emergency procedures, and detailed budget & procurement schedules.
- Chapter 10 of the EIA report includes description of the administrative aspects of ensuring that mitigation measures are implemented and their effectiveness monitored, after approval of the EIA
- Environmental Management Plan (EMP) mentioned should be complied by the PP. The plan includes compensation for the damages done to the environment and the society.

- The status of compliance and monitorings should be submitted in the form of a report once every six months.

**Note:**

- **The “Environmental Monitoring Plan” addressed in all EIAs are short term focused and reflect “Compliance, Parameters & Frequency” stipulated by SPCBs in Consent-to-Operate conditions.**
- **There is no plan or format to address long-term critical issues such as Soil & Groundwater contamination parameters over several time periods.**

**Environmental Clearance**-EC is given in “Stage 4 - Appraisal by MOEF & CC or SEIAA”. The EC Letter will be issued for approving the development activities.

- Prior EC is necessary for expansion or modernization or change of product mix in existing projects
- The EC contains specific and general environmental safeguards and conditions
- EC is valid for five years for all other projects and stated in the letter. However, mining projects having Mining Lease Agreement, EC is valid for a maximum of thirty years.

On receipt of EC, Project Proponent is permitted to commence the project activities, including implementation of all the stipulated environmental mitigation measures.

**Note:**

- **Environment Management Plan (EMP) i.e. Chapters 6 and 10 are not properly addressed in the EC.**
- **A quality EIA is primarily judged by how well “Environmental Management Plans” with detailed break-up of mitigation measures have been evolved, with capital budget & recurring expenditure allocations.**
- **EMP driven activities and budget can be tracked only when the same is brought out clearly in the “Environmental Clearance” and the same linked to CTE/CTO conditions laid down by respective SPCBs.**

***Consent to Establish*** -It is mandatory to obtain CTE, under the Water Act 1974 and Air Act 1981, from respective State Pollution Control Board before the commencement of the construction activities on the site.

- Consent is given to the PP to commence construction of the plant
- The CTE is given by concerned SPCB or committee and contains prescribed standards and conditions that need to be adhered by the TPP
- An application in a prescribed format should be submitted by the PP to the respective SPCB along with required documents and scrutiny fees
- Physical inspection of the site should be undertaken by the respective SPCB for the assessment of the environmental management system proposed so as to meet the prescribed mandatory requirement.

On receipt of above, Project Proponent is permitted to commence the project activities, including implementation of all stipulated environmental mitigation measures.

**Note:**

- **Proponent is required to comply with all the Consent-to-Establish conditions as specified by SPCBs**
- **If minor deviations are encountered these should be justified & necessary additional mitigation measures incorporated by furnishing various information in the prescribed Consent application format.**

***Consent to Operate***-The Project Proponent is required to obtain CTO from respective SPCB, as per the Water Act 1974 and Air Act 1981.

- CTO is given on completion of various project activities, including implementation of all the stipulated environmental mitigation measures, and prior to the commencement of the production activities
- It is given for a particular period and needs to be renewed regularly.

**Note:**

- **Currently there is a gap between conditions laid down in Environmental Clearance, Consent-to-Establish (CTE), Consent-to-Operate (CTO or now CC & A) for regulatory compliance purpose, indicating lack of convergence.**
- **Environmental Clearance has stipulations: General Conditions and Specific conditions. CTE/CTO have stipulations: General conditions, special conditions and additional conditions. However how these should converge for better “Environmental Protection”.**

***Now the Project Proponent is commercially operating the plant. There will be parallel system for monitoring, catering to MOEFCC compliance and SPCB compliance requirements***

## MOEFCC Compliance requirements

- Six monthly compliance reports, against all Special & General conditions, stipulated in Environmental Clearance
- Annual declaration of Fly ash report to CEA with copies to MOEFCC and SPCB

## SPCB Compliance requirements

- Monthly Water cess report in prescribed format for consumption of water
- Annual Environmental statement
- Hazardous Waste declaration, as prescribed by Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016
- Renewal of Consent by SPCB

**Six Monthly Report** -It is a compliance report submitted on half-yearly basis to fulfill stipulated prior environmental clearance terms and conditions to MoEF&CC or SEIAA.

- This report is based on the compliance with EMP mentioned in the 10<sup>th</sup> chapter of the EIA report

- Status of compliance and monitoring should be submitted on 1<sup>st</sup>June and 1<sup>st</sup>December of each calendar year.

**Fly Ash Utilization** –Every TPP is required to submit a fly ash utilisation report based on a notification issued by MoEF& CC in the year 1999 (amended in 2003 2009 and 2016) and monitored by CEA.

- The utilisation of fly ash generated from the thermal power plants is monitored.
- The target level for utilization stipulated for new thermal power plants or extensions and all development related activities is as follows:

Utilisation Levels for existing Power plants	Target Date from the date of notification (2009)
50% of fly ash generation	year 1
70% of fly ash generation	year 2
90% of fly ash generation	year 3
100% of fly ash generation	year 5

**Water Consumption Limit** –Every TPP is required to report the amount of water it consumes under the Environment Protection Rules 2015. The Rule fixes the limitation on the quantity of water consumed by industries.

- All plants with Once Through Cooling (OTC) shall install Cooling Tower (CT) and achieve specific water consumption upto maximum of 3.5m<sup>3</sup>/MWh
- All existing CT-based plants reduce specific water consumption upto maximum of 3.5m<sup>3</sup>/MWh
- New plants to be installed after 1<sup>st</sup>January 2017 shall have to meet specific water consumption upto maximum of 2.5 m<sup>3</sup>/MWh and achieve “zero wastewater discharged”;

**Water Cess** -Water cess charges are taxes levied on water consumption. The charges are governed by the Water (Prevention and Control of Pollution) Cess Act, 1977.

- The charges will be collected by the respective SPCB
- Water cess is levied on polluting industries that have to consume water for domestic, cooling, and process purposes in four grades
- It exempts all industries consuming water less than ten kilolitres per day from the levy of cess
- The latest Charges as on 2016 are as follows :

Type	Sub-section (2) - section 3	Sub-section 2(A) - section 3
Cooling	5 paise per kilolitre	10 paise per kilolitre
Domestic	2 paise per kilolitre	3 paise per kilolitre
Process, wastewater is biodegradable	10 paise per kilolitre	20 paise per kilolitre
Process, wastewater is non-biodegradable.	15 paise per kilolitre	30 paise per kilolitre

**Environmental Statement** -This is mandated under Environmental Protection Rules 1986. An Environmental Statement report for the financial year ending the 31<sup>st</sup> March on or before the 30<sup>th</sup> September of the same year should be submitted to the concerned State Pollution Control Board.

The Environment statement comprises of following contents:

- Part A- General details about the plant
- Part B — Specific Water & raw material consumption
- Part C — Pollution discharged to environment/unit of output (Parameter as specified in the consent issued)



- Part D — Hazardous wastes (Hazardous Waste Management Rules, 2008 and amendments thereof)
- Part E — Solid wastes
- Part F — Characteristics of Hazardous wastes as well as Solid wastes and indicate disposal practice for both categories
- Part G — Impact of pollution abatement measures taken on conservation of natural resources and on cost of production
- Part H— additional measures/improvement proposal for environment protection including pollution abatement, prevention etc
- Part I— any other particulars for improving environment quality

***The timeinterval for Consent Renewal*** -Consent Renewal refers to the renewal of CTO issued by the concerned SPCB, which is linked to “Red”, “Orange” or “Green” category.

- Thermal Power Plants attract “Red” category that need to be renewed every year. However, it is the prerogative of SPCB to decide.
- Consent charges are applicable to each industry depending on the categories
- Red category industries have to get their consent renewed annually
- Orange category industries have to get their consent renewed annually till the Effluent Treatment Plant (ETP) & air pollution control measures are operated satisfactorily. Thereafter consent is renewed once in two years
- Green category industries have to get their consent renewed once in two years

- Application for renewal has to be made sixty days prior to the date of expiry of the consent order to the “District Officer” along with appropriate consent fee
- The District Officer will inspect the industry and submit a report
- Renewal of consent will be granted only after satisfactory compliance of all the conditions imposed in the previous consent order.

***Hazardous Waste declaration, as prescribed by Hazardous Waste (Management, Handling & Transboundary Movement) Rules, 2016:***

- The PP is required to make an application in Form 1 to the SPCB and obtain an authorisation within a period of sixty days.
- SPCB will give authorisation within 120 days after inspection in Form 2. The authorisation must be in line with guidelines of CPCB
- The PP should maintain a record of hazardous and other wastes managed in Form 3 of the rule
- The PP should submit to the SPCB, an annual return containing the details specified in Form 4 on or before the 30th day of June following the financial year to which that return relates.

## Annexure I:

### ENVIRONMENTAL STATEMENT FORM-V

(See rule 14)

Environmental Statement for the financial year ending with 31<sup>st</sup> March

#### PART-A

- i.* Name and address of the owner/ Occupier of the industry Operation or process:
- ii.* Industry category Primary-(STCC Code) Secondary-(STCC Code)
- iii.* Production category –Units
- iv.* Year of establishment
- v.* Date of the last environmental statements submitted.

#### PART -B

Water and Raw Material Consumption:

- i.* Water consumption in m<sup>3</sup>/d
- Process :
- Cooling :

Name of Products	Process water consumption per unit of products	
	During the previous financial year	During the current financial year
1.		
2.		
3.		
4.		
5.		
6.		

Raw material consumption

Name of raw materials*	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year

\* Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries have to name the raw materials used.

### PART-C

**Pollution discharged to environment/unit of output** (Parameter as specified in the consent issued)

Pollutants	Quantity of Pollutants discharged (mass/day)	Concentration of Pollutants discharged (mass/volume)	Percentage of variation from prescribed standards with reasons.
(a) Water			
(b) Air			

### PART-D

**HAZARDOUS WASTES** (as specified under Hazardous Wastes (Management & Handling Rules, 1989).

Hazardous waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
1. From Process		
2. From pollution control facility		

## PART-E

### Solid Waste

Solid Waste	Total Quantity (Kg)	
	During the previous financial year	During the current financial year
1. From Process		
2. From pollution control facility		
3. Quantity recycled or recycled within the unit		

### PART - F

*Please specify the characteristics (in terms of concentration and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.*

### PART-G

*Impact of the pollution control measures taken on conservation of natural resources and consequently on the cost of production.*

### PART - H

*Additional measures/investment proposal for environmental protection including abatement of pollution.*

### PART -I

*MISCELLANEOUS: Any other particulars in respect of environmental protection and abatement of pollution.*

## Annexure II:

### Form for Water Cess Return Filing- FORM I

Return regarding Water consumed during the month of .....

Name and Address of the Consumer		Purpose for which water consumed	Reading at the beginning of the first day of the calendar month under report	Reading at the end of the last day of the calendar month under report	Quantity of water consumed in Kilo litres	If the meter was out of order the monthly average consumption of water for the previous 3 months of working period	Quantity of water qualifying for rebate according to the assessee	Remarks (*)
1	2		3	4	5	6	7	8
1.	Industrial cooling spraying in mine pits or boilers feed		(i) from Municipal water supply mains (ii) from well/tube well (iii) from canal (iv) from river (v) from any other source					
2.	Domestic purpose		(i) from Municipal water supply mains (ii) from well/tube well (iii) from canal (iv) from river (v) from any other source					

3.	Processing whereby water gets polluted and the pollutants are easily bio-degradable	<ul style="list-style-type: none"> <li>(i) from Municipal water supply mains</li> <li>(ii) from well/tube well</li> <li>(iii) from canal</li> <li>(iv) from river</li> <li>(v) from any other source</li> </ul>
4.	Processing whereby water gets polluted and the pollutants are not easily bio-degradable and are toxic.	<ul style="list-style-type: none"> <li>(i) from Municipal water supply mains</li> <li>(ii) from well/tubewell</li> <li>(iii) from canal</li> <li>(iv) from river</li> <li>(v) from any other source</li> </ul>

(\* for claiming rebate under Col. 7 the assessee shall indicate in this column the analytical and other reports annexed to this return in support of this claim

Signature of the consumer

Name

Address



### Annexure III:

**Fly Ash Notification** S.O. 763 (E) Dated 14<sup>th</sup> September 1999, amendment dated 27.08.2003, Dated .....and ..... - **Statutory Compliance**

**Report for the period .....**

Sl. No.	Item	Reply
1	Name of the thermal Power station	
2	Full Address including PIN code	
3	E mail address	
4	Name of the Nodal officer (not below the rank of DGM/Dy.CE/or equivalent) dealing with ash management and contents of this report and his designation	
5	Telephone No	
6	Fax No.	
7	Capacity of the Thermal Power station (MW)	
8	Details of Number of units and capacity of each unit	
9	Coal/Lignite Consumption in 2013-2014 (Million tonnes)	

<b>A. Ash Generation (in tonnes).</b>		
10	Bottom Ash	
11	Fly Ash	
	<b>Total A (10 and 11):</b>	
<b>B. Ash Unutilised (in tonnes)</b>		
12	Ash Pond disposal	
13	Ash yard	
14	Ash Dump	
	<b>Total B (12 to 14):</b>	

<b>Ash Utilization (in tonnes)</b>						
	Purpose for which ash is utilized	Target (as per action plan)	Actual			
			From ESP Dry Ash	From Pond Ash	From Bottom Ash	Total
15	Ash pond dyke raising					
16*	Cement industry					
17	Land fill					
18	Own Brick Unit					

19*	Outside Brick units other than brick kilns					
20*	Brick Kilns					
21	Own ash based products (other than bricks)					
22	Outside ash based products					
23*	Road and Flyover Embankments					
24*	Back filling of mines and Mixing Ash with OB					
25	Agriculture					
26	Ready mix concrete					
27	Asbestos					
28*	Exports					
29	Others					
	(i) Bottom Ash Cover					
	(ii) Cenosphere					
	(iii) Agriculture					

	<b>Total C</b> <b>(15 to 29)</b>					
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**D. Reason for variation from the target.**

**E. Remedial Measures taken.**

**F. Quantity in ash pond.**

30	Estimated quantity of Pond Ash in active ash pond (Pond in use) as on 31.03. 2014 (Million tonnes)	
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**G. Ash Pond Details.**

31	Total area earmarked for ponds (ha)	Forest Area	Non forest Area	Total
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32	Ash ponds already filled up and reclaimed (ha)	
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33	Ash ponds already filled up but yet to be reclaimed (ha)	
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34	Ash ponds in use (ha) (Active ash ponds)	
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35	Area earmarked for ash ponds but ash ponds yet to be constructed (ha)		
<b>H. Dry fly ash collection facilities.</b>			
36	Whether Mechanical handling facility for dry fly ash collection is available	Yes/ No	
37	If yes, for how many units		
<b>I. Dry fly ash storage.</b>			
38	Daily Ash Generation (TPD)	Capacity of storage as on 31.03.2016 (tonnes)	Capacity proposed if any in 2016-17 (tonnes)
<b>J. Capital Expenditure. (Rs. Lakh)</b>			
	Item	Expenditure in 2015-16 (Rs. Lakh)	Budgetary provision in 2016-17 (Rs. Lakh)
39	Mechanical dry fly ash collection facility		
40	Dry fly ash storage		
<b>K. Dispute Settlement Committee.</b>			

41	No. of meetings held in 2015-16	If no meetings were held, reason for the same

**L. Provision regarding supply to the brick kilns**

42	Whether the Thermal Power Station is maintaining month wise records of ash issued	Yes/ No
43	If yes, how many <u>brick kilns</u> have been supplied with fly ash	

**M. Mode of Transport for ash (Strikeout whichever not applicable)**

44	Dry Ash	<ul style="list-style-type: none"> <li>• Open truck</li> <li>• Truck covered with tarpaulin</li> <li>• Trailer</li> <li>• Trailer covered with tarpaulin</li> <li>• Closed container</li> <li>• Special container truck</li> </ul>
45	Wet Ash	<ul style="list-style-type: none"> <li>• Open truck</li> <li>• Truck covered with tarpaulin</li> <li>• Trailer</li> <li>• Trailer covered with tarpaulin</li> <li>• Closed container</li> <li>• Special container truck</li> </ul>

<b>N. Promotional Measures</b>				
		No. of meetings/ workshops/ exhibition held during 2015-16	Amount spent in 2015-16 (Rs. Lakh)	Outlay for 2016-17 (Rs. Lakh)
46	Exhibitions			
47	Seminars (KissanMela)			
48	Workshops			
49	Advertisement in Newspapers			
50	Advertisement in TV			
51	Advertisement in Radio			
52	Others (please specify)  Trilingual Brochure on use of Ash in Agriculture			
	<b>Total N (46 to 52)</b>			

<b>O. Administrative measures taken</b>		
	<b>Administrative Measures</b>	<b>Outcome</b>
53	Meeting with brick manufacturers	
54	Meeting with State/Central Government agencies	
55	Any other measure (please specify)	

Signature of the Head of  
Project of the thermal power  
station

Name:

Designation:

Date:



## Annexure - IV

### CONSENT TO OPERATE (CTE) FORM UNDER AIR ACT 1981 AND WATER ACT1974

#### Application for consent under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended (Central Act 14 of 1981)

(Given below is the format of Tamil Nadu Pollution Control Board application to get consent under Air Act, 1981<sup>1</sup> and Water Act, 1974<sup>2</sup>)

1. [a] Full name of the applicant :  
(Occupier of the unit)
- [b] Designation :
- [c] Office address with pin code :
- [d] Factory address with pin code :
- [e] Phone No. with STD code :
- [f] Fax No. with STD code :
- [g] E. mail ID :
- [h] Web site ID :
2. Full name of the unit :
3. Location of the unit :
  - [a] Survey No/TS No. :

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<sup>1</sup>[http://www.tnpcb.gov.in/pdf/air\\_appln.pdf](http://www.tnpcb.gov.in/pdf/air_appln.pdf)

<sup>2</sup>[http://www.tnpcb.gov.in/pdf/Water\\_appln.pdf](http://www.tnpcb.gov.in/pdf/Water_appln.pdf)

[b] Village/Town :  
 [c] Taluk :  
 [d] District :

4) Local body (Corporation/Municipality/  
 Town Panchayat/Panchayat Union/ Others) :

5) Extent of land (in Hectares) : Owned / Leased

[a] Total :  
 [b] Built up area :  
 [c] Solid waste Storage/Disposal area :  
 [d] Green Belt / Irrigation area :  
 [e] Vacant area {a-(b+c+d)} :

6. Details of raw material used:

Sl. No	Name of the raw material	Quantity	T/m or KL/m or Nos/m	Principal use

7. Details of fuel used:

Sl. No.	Name of fuel	Point of use	Quantity in T/d or KL/d	Calorific Value	Ash content	Sulphur content

8. Details of products manufactured:

Sl. No.	Name of the product	Quantity	T/m or KL/m or Nos/m	End use
	Products			
	Byproducts			
	Intermediate products			

9. Manufacturing process :

10. o. of Employees working per day :

(including contract workers)

11. Date of commissioning :

12. Details of Emission and noise sources:

Source	Control measures	Stack details						Fan/ Blower/ Pump capacity
		Material of construction	Diameter in meters	Height above GL in meters	Exit gas velocity in m/s	Exit gas temperature in oc	Maximum discharge in m <sup>3</sup> /hr	
1. Point source of emission								
2. Fugitive emission								
3. Noise								

13. Total Gross Fixed Assets (GFA) (in lakhs) :

14. Cost of Air Pollution control measures (Rs. in Lakhs) :

15. Details of habitation: (All the habitations located within 1KM radius of the unit)

S.No.	Name of habitation	Distance in Kms	Population

16. [a] Name of the nearby Roadways :

(NH / SH / MDR / ODR)

[b] Distance from the site in Kms. :

17. [a] Land use classification of the site :

[b] Authority which classified the land use :

18. Name and distance of the sensitive area like places of Archaeological importance, National Park, Wild Life, Birds sanctuary, Marine National Park, MangroveForests, reserved forests, marsh lands if any located within 10 KM radius of the unit :

19. Is the unit is located within 1Km from marine coastal area (sea, estuaries, back waters) : **Yes/No**

If Yes please mention the distance from the unit :

20. Name and address of all Directors / Partners :

**Declaration:**

1. I certify that all the information / data supplied are true and I have not suppressed any relevant information. I am aware that furnishing incorrect information / suppression of relevant information attracts the penal action under Chapter VI of the Air (Prevention & Control of Pollution) Act, 1981 as amended.
2. I hereby undertake to make a fresh application for consent in case of change in either of a product/point of discharge or in quantity of emission or of its quality,
3. I hereby undertake to abide by the directions/instructions issued by the Board from time to time.
4. I hereby undertake to apply for consent to operate/renewal of consent along with the required details 30 days prior to the expiry of consent order.

**Signature of the Applicant**

**Name and designation**

**Place:**

**Date:**

**Application for consent under Section 25/26 of the Water (Prevention and Control of Pollution) Act, 1974 as amended (Central Act, 6 of 1974)**

**FORM II**

1. [a] Full name of the applicant :

(Occupier of the unit)

[b] Designation :

[c] Office address with pin code :

[d] Factory address with pin code :

[e] Phone No. with STD code :

[f] Fax No. with STD code :

[g] E. mail ID :

[h] Web site ID :

2. Full name of the unit :

3. Location of the unit :

[a] Survey No. :

[b] Village :

[c] Taluk :

[d] District ;

4) Local body (Corporation/Municipality/

Town panchayat/Panchayat Union/ Others) :

5) Extent of land (in Hectares) : Owned / Leased

[a] Total :

[b] Built up area :

[c] Solid waste Storage/Disposal area :

[d] Green Belt / Irrigation area :

[e] Vacant area {a-(b+c+d)} :

6. Details of raw material used:

Sl. No.	Name of the raw material	Quantity	T/m or KL/m or Nos/m	Principal use

7. Details of fuel used:

Sl. No.	Type of fuel	Point of use	Quantity in T/d or KL/d	Calorific Value	Ash content	Sulphur content

8. Details of products manufactured:

Sl. No.	Name of the product	Quantity	T/m or KL/m or Nos/m	End use
	Products Byproducts Intermediate products			

9. Manufacturing process :

10. [a] Source of Water :

[b] Water Consumption (WC) in KLD

(i) WC I (Cooling & Boiler feed) :

(ii) WC II (Domestic) :

(iii) WC III (Process-Easily biodegradable) :

(iv) WC IV (Process- Not Easily biodegradable) :

(v) Total :

11. [a] Details of sewage/effluent generation and disposal:

Outlet No.	Description of Outlet (Indicate sewage or trade effluent)	Maximum daily discharge in KLD	Mode of disposal	Area of land earmarked for disposal
	<b>Sewage</b> <b>Trade effluent</b>			

[b] Sources of Trade Effluent :

12. Details of Sewage/effluent treatment plant:

[a] Individual ETP or CETP :



[b] Structural components

:

Sl. No.	Name of the treatment unit	No. of units	Dimension in metres
	Sewage Trade effluent		

13 a. Details of Non hazardous Solid Wastes.

S. No	Nature of Solid Waste	Quantity T/month	Mode of disposal	Area of land earmarked for storage/disposal

13 b. Details of Hazardous Wastes.

S. No	Category No.	Name of the waste	Quantity T/A	Mode of disposal	Area of land earmarked for storage/disposal

14. Total Gross Fixed Assets (GFA) (Rs. in Lakhs)

:

15 Cost of Water Pollution control measures

(Rs. in Lakhs)

:

16. No. of Employees working per day :  
(including contract workers)

17. Date of commissioning :

18. Details of habitation: (All the habitations located within 1KM radius of the unit)

S.No.	Name	Distance in Kms	Population

---

19. [a] Name of the nearby Roadways

(NH / SH / MDR / ODR)

[b] Distance from the site in Kms. :

20. Details of water bodies like lakes/rivers/canals within a radius of 1 KM and rivers within a radius of 5 KM

[a] Name of the water source :

[b] Distance (in meters) :

21. [a] Land use classification of the site :

[b] Authority which classified the land use :

22. Name and distance of the sensitive area like places of Archaeological importance, National Park, Wild Life, Birds sanctuary, Marine National Park, Mangrove Forests, reserved forests, marsh lands if any located within 10 KM radius of the unit

23. Is the unit is located within 1Km from marine coastal area (sea, estuaries, back waters) : **Yes/No**

If yes please mention the distance from the unit :

24. Name and full address of all the Directors/Partners:

**Declaration:**

1. I certify that all the information / data supplied are true and I have not suppressed any relevant information. I am aware that furnishing incorrect information / suppression of relevant information attracts the penal action under section 42 of Water (P&CP) Act, 1974 as amended
2. I hereby undertake to make a fresh application for consent in case of change of either of a product/point of discharge or of the quantity of discharge or its quality
3. I hereby undertake to abide by the directions/instructions issued by the Board from time to time
4. I hereby undertake to apply for consent to operate/renewal of consent along with the required details 30 days prior to the expiry of consent order.

Signature of the Applicant

Name and designation

**Place and Date:**

## Annexure V:

### FORM 1

Application required for grant/renewal of authorisation for generation or collection or storage or transport or reception or recycling or reuse or recovery or pre-processing or co-processing or utilisation or treatment or disposal of hazardous and other waste

#### Part A: General (to be filled by all)

1. (a) Name and address of the unit and location of facility :

(b) Name of the occupier of the facility or operator of disposal facility with designation, Tel, Fax and e-mail:

(c) Authorisation required for (Please tick mark appropriate activity or activities:

- |                   |                          |
|-------------------|--------------------------|
| 1. Generation     | <input type="checkbox"/> |
| 2. Collection     | <input type="checkbox"/> |
| 3. Storage        | <input type="checkbox"/> |
| 4. Transportation | <input type="checkbox"/> |
| 5. Reception      | <input type="checkbox"/> |
| 6. Reuse          | <input type="checkbox"/> |
| 7. Recycling      | <input type="checkbox"/> |
| 8. Recovery       | <input type="checkbox"/> |

- 9. Pre-processing
- 10. Co-processing
- 11. Utilisation
- 12. Treatment
- 13. Disposal
- 14. Incineration

(d) In case of renewal of authorisation previous authorisation numbers and dates and provide copies of annual returns of last three years including the compliance reports with respect to the conditions of Prior Environmental Clearance, wherever applicable:

2. (a) Nature and quantity of waste handled per annum (in metric tonne or kilo litre)

(b) Nature and quantity of waste stored at any time (in metric tonne or kilo litre)

3. (a) Year of commissioning and commencement of production:

(b) Whether the industry works:

(i) 01 Shift

(ii) 02 Shifts

(iii) Round the clock

4. Provide copy of the Emergency Response Plan (ERP) which should address procedures for dealing with emergency situations (viz. Spillage or release or fire) as specified in the guidelines of Central Pollution Control Board (CPCB). Such ERP shall comprise the following, but not limited to:

- a. Containing and controlling incidents so as to minimise the effects and to limit danger to the persons, environment and property;

- b. Implementing the measures necessary to protect persons and the environment;
- c. Description of the actions which should be taken to control the conditions at events and to limit their consequences, including a description of the safety equipment and resources available;
- d. Arrangements for training staff in the duties which they are expected to perform;
- e. Arrangements for informing concerned authorities and emergency services; and
- f. Arrangements for providing assistance with off-site mitigatory action

5. Provide undertaking or declaration to comply with all provisions including the scope of submitting bank guarantee in the event of spillage, leakage or fire while handling the hazardous and other waste.

**Part B: To be filled by hazardous waste generators**

1. (a) Products and by-products manufactured (names and product wise quantity per annum):

(b) Process description including process flow sheet indicating inputs and outputs (raw materials, chemicals, products, by-products, wastes, emissions, waste water etc.) Please attach separate sheets:

(c) Characteristics (waste-wise) and Quantity of waste generation per annum:

(d) Mode of management of (c) above:

- i. Capacity and mode of secured storage within the plant;
- ii. Utilisation within the plant (provide details);
- iii. If not utilised within the plant, please provide details of what is done with this waste;
- iv. Arrangement for transportation to actual users/ TSDF;

- (e) Details of the environmental safeguards and environmental facilities provided for safe handling of all the wastes at point (c) above;
2. Hazardous and other wastes generated as per these rules from storage of hazardous chemicals as defined under the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.

**Part C: To be filled by Treatment, storage and disposal facility operators**

1. Provide details of the facility including:
  - a. Location of site with layout map;
  - b. Safe storage of the waste and storage capacity;
  - c. The treatment processes and their capacities;
  - d. Secured landfills;
  - e. Incineration, if any;
  - f. Leachate collection and treatment system;
  - g. Fire fighting systems;
  - h. Environmental management plan including monitoring;  
and
  - i. Arrangement for transportation of waste from generators.
2. Provide details of any other activities undertaken at the Treatment, storage and disposal facility site.
3. Attach a copy of prior Environmental Clearance.

**Part D: To be filled by recyclers or pre-processors or co processors or users of hazardous or other wastes**

1. Nature and quantity of different wastes received per annum from domestic sources or imported or both:
2. Installed capacity as per registration issued by the District Industries Centre or any other authorised Government agency. Provide copy:
3. Provide details of secured storage of wastes including the storage capacity:

4. Process description including process flow sheet indicating equipment details, inputs and outputs (input wastes, chemicals, products, by-products, waste generated, emissions, waste water, etc.). Attach separate sheets:
5. Provide details of end users of products or by-products:
6. Provide details of pollution control systems such as Effluent Treatment Plant, scrubbers, etc. including mode of disposal of waste:
7. Provide details of occupational health and safety measures:
8. Has the facility been set up as per Central Pollution Control Board guidelines? If yes, provide a report on the compliance with the guidelines:
9. Arrangements for transportation of waste to the facility:

**Date.....Signature of the Applicant**

**Place.....Designation**

## **FORM 4**

### **FORM FOR FILING ANNUAL RETURNS**

[To be submitted to State Pollution Control Board by 30<sup>th</sup> day of June of every year for the preceding period April to March]

1. Name and address of facility:
2. Authorisation No. and Date of issue:
3. Name of the authorised person and full address with telephone, fax number and e-mail:
4. Production during the year (product wise), wherever applicable

#### **Part A. To be filled by hazardous waste generators**

1. Total quantity of waste generated category wise
2. Quantity dispatched
  - a. to disposal facility
  - b. to recycler or co-processors or pre-processor
  - c. others



3. Quantity utilised in-house, if any -
4. Quantity in storage at the end of the year -

**Part B. To be filled by Treatment, storage and disposal facility operators**

1. Total quantity received -
2. Quantity in stock at the beginning of the year -
3. Quantity treated -
4. Quantity disposed in landfills as such and after treatment -
5. Quantity incinerated (if applicable) -
6. Quantity processed other than specified above -
7. Quantity in storage at the end of the year -

**Part C. To be filled by recyclers or co-processors or other user**

1. Quantity of waste received during the year -
  - a. domestic source
  - b. imported (if applicable)
2. Quantity in stock at the beginning of the year -
3. Quantity recycled or co-processed or used -
4. Quantity of products dispatched (wherever applicable) -
5. Quantity of waste generated -
6. Quantity of waste disposed -
7. Quantity re-exported (wherever applicable)-
8. Quantity in storage at the end of the year -

Signature of the Occupier or Operator of the disposal facility

Date.....

Place.....