

BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPLE BENCH, NEW DELHI  
O.A. No. 164/2018

**IN THE MATTER OF:**

**ASHWANI KUMAR DUBEY**

**APPLICANT**

**VS.**

**UNION OF INDIA & ORS.**

**RESPONDENTS**

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*Ajit Kumar Vidyarthi*

**Dr. AJIT KUMAR VIDYARTHI**  
**SCIENTIST -E**  
**CENTRAL POLLUTION CONTROL BOARD**  
**PARIVESH BHAWAN, EAST ARJUN NAGAR,**  
**DELHI-110032**

**DATE: 26.09.2019**  
**PLACE: DELHI**

**National Green Tribunal Principal Bench, New Delhi,  
Original Application No. 164 of 2018**

*The matter of:* Ashwani Kumar Dubey Vs. Union of India & Ors.

**Joint Committee Report on Assessment of Environmental Compensation to be  
recovered from M/s Grasim Industries Limited, Renukut (Uttar Pradesh)**

Hon'ble NGT vide its order dated 19.07.2019 in the matter of O.A. No. 164 of 2018 (Ashwani Kumar Dubey Vs. Union of India & Ors.) directed at Point No 11 for constitution of Joint Committee comprising representative of the MoEF&CC, CPCB and the IIT, Kanpur for assessment of environmental compensation to be imposed on M/s Grasim Industries Limited, Renukut (Uttar Pradesh). Considering the inability of IIT Kanpur in joining the said committee, Hon'ble NGT has reconstituted the committee vide its order dated 20.08.2019 and replaced IIT Kanpur by IIT BHU.

Hon'ble NGT order has clearly mentioned about illegal storage and disposal of mercury bearing brine sludge and the muck contaminated with chlorinated chemicals in the factory premises and its impact on surrounding environment including discharge of Mercury. Point No. 8 of Hon'ble NGT order dated 19.07.2019 states

*"It is, thus, clear that activity of discharge of Mercury in the environment by the applicant has been found and storage of hazardous waste is illegally continuing for which the applicant is liable to be dealt with as per law."*

Hon'ble NGT in its order dated 19.07.2019, Point No. 11 States that

*".....we are of the view that the applicant must forthwith shift the hazardous waste in accordance with the Rules and for the illegal storage as well as damage to the environment on account of contamination, the applicant is liable to pay environmental compensation and be dealt with as per rules. Such compensation may be assessed by a joint Committee....."*

*Rath*

In compliance to the above-mentioned directives of Hon'ble NGT, the following members are nominated for the Joint Committee by the concerned organisations/institute.

- Shri Sudheer Chintalapati, Joint Director, MoEF&CC, Delhi
- Shri Rajendra D Patil, Scientist D, CPCB, Lucknow
- Shri M K Mondal, Professor, IIT BHU, Varanasi

The joint committee conducted visit of M/s Grasim Industries Limited, Renukut on 02.09.2019. The SLFs sites wherein the mercury bearing brine sludge and the muck contaminated with chlorinated chemicals was disposed was also visited.

01. The joint committee discussed about the methodology to calculate Environmental Compensation in the said matter. The following is brought into notice by the representative from CPCB.

- a. The Hon'ble National Green Tribunal. Principal Bench, New Delhi, vide orders dated 12.04.2019 in the matter of O.A. No. 804/2017 (Earlier O.A. No. 36/2012) with M.A. No. 1302/2018 in Interlocutory Application No. 63 in W.P. (C) No. 657/1995; Rajiv Narayan & Anr Versus Union of India & Ors. with The Research Foundation for Science, Technology and Natural Resource Policy Versus Union of India & Ors. passed the following orders:

*".....9. CPCB may determine the scale of compensation to be recovered for violation of the Rules within one month from today and furnish a report to this Tribunal by e-mail at ngt.filing@gmail.com....."*

- b. In compliance with above orders of the Hon'ble Tribunal, "Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016", has been prepared by CPCB and submitted to Hon'ble NGT on 10.05.2019.



- c. The copy of the document is available on CPCB website and also given at Annexure.
- d. CPCB, in several cases adopted the methodology prescribed in the above-mentioned document for calculation of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and submitted reports to Hon'ble NGT. Based on which the Hon'ble NGT imposed the cost of compensation suggested by CPCB.
02. Considering the above, the joint committee is in view to assess the amount of Environmental Compensation to be recovered from M/s Grasim Industries Limited, Renukut (Uttar Pradesh), in the matter of mercury bearing brine sludge and the muck contaminated with chlorinated chemicals lying in the SLF inside the factory using the methodology prescribed by CPCB in the document submitted to Hon'ble NGT "Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016".
03. The committee also visited the said SLF sites in the factory premises. The mercury bearing brine sludge and the muck contaminated with chlorinated chemicals is kept in the SLFs and these SLFs are capped in long back.
04. The industry is yet to started shifting of Hazardous waste lying in the SLF in compliance to the Hon'ble NGT directives.
05. The provisions of leachate collection and its treatment was not installed in the SLFs provided by the industry.
06. CPCB has published guideline 'Criteria for Hazardous Waste Landfills (HAZWAMS/17/ 2000-01)' for planning construction and management of Hazardous Waste Landfills.
- In the document, Point No 5 is related to Planning and Design Criteria. And under sub head 5.1 (b) the leachate collection treatment facility is considered as Essential Components of Hazardous Waste Landfills.

- In addition, criteria for
    - Estimation of Leachate Quantity is given at 5.7
    - Leachate Drainage, Collection and Removal is given at 5.9; and
    - Leachate Management is given at 5.10
  - Thus, leachate collection and its treatment & management is considered as one of the essential requirements for Hazardous Waste Landfills.
  - Hence, in absence of provisions for collection, treatment and disposal of leachate generated in the SLF, only partial treatment has been provided to the Hazardous waste disposed in the SLF. There is every possibility that the leachate generated was percolated into the surrounding environment and cause the adverse effect by contamination.
07. For assessment of the impact of hazardous disposed in the SLF, the details such as total waste disposed in SLF, design details of SLFs, liners used in SLF, details of capping done by the unit was asked to submit. However, the unit has not provided any relevant data to the committee. And hence, the data collected during previous CPCB inspection is considered for calculating the environmental compensation.
08. Even the data provided during previous CPCB inspection during October 2018 was incomplete.
- The unit was commissioned in 1964 as M/s Kanoria Chemicals for manufacturing of Caustic soda & other by products, which was taken over by M/s ABCIL and then by M/s Grasim industries limited. The installed production capacity of Caustic Soda manufacturing was enhanced from 145 TPD to 255 TPD in 2005 and further expanded to 365 TPD in 2007.
  - The unit has provided year wise generation of Mercury brine sludge during 1986 – 2012. The details of mercury bearing waste generated during 1964 – 1986 was not provided by the unit.



- Around 19,184.55 MT mercury bearing brine sludge was generated during 1986 - 2012. Out of that 632.04 MT was sent to TSDF for disposal during 26.08.2010 - 24.03.2012 and remaining 18,552.51 MT is dumped in the SLFs.
- The unit has not provided any details regarding year wise generation of chemically contaminated muck. In one of the E-mail communications during 2012, the unit informed that around 33,257 MT muck was earth capped.
- The unit has not provided any details regarding design of SLF, liners used for SLF, pretreatment (if any) given to the hazardous waste before disposal into the SLF and methodology used for capping of SLFs.
- Hence, as only limited information is available for assessment, the hazardous waste quantity disposed in earth capped SLFs (i.e. 18,552.51 MT mercury brine sludge and 33,257 MT chemically contaminated muck, total 51,809.51 MT) is considered for calculating interim environmental compensation.
- However, the unit should be asked to submit the following information for calculation of additional environmental compensation
  - Year wise quantity of mercury brine sludge generated during 1964-1986.
  - Year wise quantity of chemically contaminated muck generated since 1964.
  - Details of disposal methods adopted for hazardous waste generated during 1964-2012.

09. The guideline prepared and submitted to Hon'ble NGT by CPCB on 'Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016' is referred for calculation of interim compensation.

- Categorizations of violations: B2
- The damages are likely to be directly related to the quantum of wastes.
- The quantity of hazardous waste disposed in SLFs is 51,809.51 MT. *Rohit*

- Hence, quantity based environmental compensation calculation in Rupees is,

$$\text{Environmental Compensation (EC)} = Q \times \text{ERF} \times R$$

Where,

- Q is noticed or observed quantity (in tonne) of hazardous or other wastes which have not been managed in compliance with various provisions of the Acts/Rules/Guidelines/conditions of the authorization /directions issued by CPCB/SPCB/PCC/ MoEF&CC
- ERF = Environmental Risk Factor which is a number  
In this case, as neither leachate collection and treatment are given nor details regarding design of SLF, liner used in SLF, chemicals used for stabilization of hazardous waste before disposal in SLF was given by the unit, it is fall under violation category of '*When treatment has not been imparted , as required, but only partial treatment has been given.*'  
And Hence, ERF = 1.0
- R= Environmental Compensation factor, which may be taken as Rs.30,000.
- Thus, calculated interim Environmental Compensation (EC) is Rs. 155,42,85,300/- i.e. One Hundred Fifty-Five Crore Forty-Two Lac Eighty-Five Thousand Three Hundred.

#### RECOMMENDATIONS OF THE JOINT COMMITTEE:

- The compensation was assessed using guideline prepared by CPCB and submitted to Hon'ble NGT on "Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016".
- The compensation was assessed based on available limited information, as the detailed information (as indicated in the report) was not provided by the unit.

And the unit may be directed to provide details as indicated at Sr. No. 08 in the report for further assessment of compensation.

- o Environmental Compensation (EC) of Rs. 155,42,85,300/- (i.e. One Hundred Fifty-Five Crore Forty-Two Lac Eighty-Five Thousand Three Hundred) may be imposed on the unit.

Joint Committee Members	Signature
Shri Sudheer Chintalapati, Joint Director MoEF&CC, Delhi	 19.9.19 (डा. सुधीर चिन्तालपति) (Dr. SUDHEER CHINTALAPATI) वैज्ञानिक 'डी' / Scientist 'D' पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय Min. of Environment, Forest and Climate Change भारत सरकार, नई दिल्ली Govt. of India, New Delhi
Shri Rajendra D Patil, Scientist D Regional Directorate, CPCB, Lucknow	 19.09.2019
Shri M K Mondal, Professor IIT BHU, Varanasi	 19.9.2019

MoEF&amp;CC

CPCB

IIT BHU

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BEFORE THE NATIONAL GREEN TRIBUNAL,  
PRINCIPAL BENCH, NEW DELHI  
ORIGINAL APPLICATION NO. 804/2017  
(Earlier O.A No. 36/2012)

IN THE MATTER OF:-

RAJIV NARAYAN & ANR.

VS.

APPLICANT

UOI & ORS.

RESPONDENTS

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BHARAT K. SHARMA  
SCIENTIST-E  
CENTRAL POLLUTION CONTROL BOARD,  
PARIVESH BHAWAN, EAST ARJUN NAGAR,  
DELHI-110032.

DATE: 10.05.2019  
PLACE: DELHI

**Compliance Report in the matter of OA No. 804 of 2017 (Earlier OA No.36/2012) titled Rajiv Narayan & Anr. Vs Union of India & Ors. in compliance of Hon'ble National Green Tribunal Order dated 12.04.2019**

(1) The Hon'ble National Green Tribunal. Principal Bench, New Delhi, vide orders dated 12.04.2019 in the matter of O.A. No. 804/2017 (Earlier O.A. No. 36/2012) with M.A. No. 1302/2018 in Interlocutory Application No. 63 in W.P. (C) No. 657/1995; Rajiv Narayan & Anr Versus Union of India & Ors. with The Research Foundation for Science, Technology And Natural Resource Policy Versus Union of India & Ors. passed the following orders:

*"... 9. CPCB may determine the scale of compensation to be recovered for violation of the Rules within one month from today and furnish a report to this Tribunal by e-mail at [nqt.filing@gmail.com](mailto:nqt.filing@gmail.com)..."*

(2) In compliance with above orders of the Hon'ble Tribunal, "Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016", has been prepared by CPCB and is given at Annexure **A**.

(3) The above document given at Annexure **A** is submitted herewith to the Hon'ble Tribunal in compliance of aforesaid order of the Hon'ble Tribunal, as at paras 1 above, for passing appropriate orders.

**Determination of Environmental  
Compensation to be recovered for  
violation of Hazardous and Other Wastes  
(Management and Transboundary  
Movement) Rules, 2016**

May 2019



**Central Pollution Control Board**  
(Ministry of Environment, Forest & Climate Change, Government of India)  
**Parivesh Bhawan, East Arjun Nagar,  
Shahdara, Delhi – 110032**

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**Determination of Environmental Compensation to be recovered for violation of  
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

**1. Background**

Hazardous wastes are wastes which by reason of characteristics such as physical, chemical, biological, reactive, toxic, flammable, explosive or corrosive, causes danger or is likely to cause danger to health or environment, whether alone or in contact with other wastes or substances. Such wastes are generated from most of the industries engaged in manufacturing process and require to be managed without having impact on human health and environment.

The Govt. of India has notified Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended thereof, (herein after called as HOWM Rules, 2016) for the safe and environmentally sound management of hazardous wastes. The Rules lay down provisions for storage, packaging, transportation, recycling, utilization, pre-processing, co-processing, treatment, import, export, offering for sale, transfer or disposal, etc. of the hazardous and other wastes ("other wastes" has been defined under the said Rules).

In the matter of Original Application No. 804/2017 (Earlier O.A. No. 36/2012) With M.A. No. 1302/2018 in Interlocutory Application No. 63 in W. P. (C) No. 657/199; Rajiv Narayan & Anr Versus Union of India & Ors. With The Research Foundation for Science, Technology And Natural Resource Policy Versus Union of India & Ors., the Hon'ble National Green Tribunal, Principal Bench, New Delhi directed CPCB, vide orders dated 12/4/2019, to determine within one month the scale of compensation to be recovered for violation of the Rules. These guidelines have been prepared in compliance of the same and include methodology for calculating financial penalty and compensation for various violations of provisions of the HOWM Rules, 2016, in cases of the facilities requiring authorisation under the said Rules, 2016.

**2. Salient features of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 pertaining to occupiers**

The occupier of any factory or premises as defined under Rule 3(1)(21) of the Rules, *means a person who has, control over the affairs of the factory or the premises and includes in relation to any hazardous and other wastes, the person in possession of the hazardous or other waste.*"

The salient features of the HOWM Rules, 2016, applicable to the occupiers are as follow:

**Determination of Environmental Compensation to be recovered for violation of  
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

**A. Responsibilities of the occupier**

Responsibility for safe and environmentally sound management of hazardous and other wastes remains with occupier as per Rule 4 of the HOWM Rules, 2016.

The Rule also stipulates waste management hierarchy that an occupier is required to follow i.e. prevention, minimization, reuse, recycling, recovery, utilisation including co-processing as preferential steps over disposal of hazardous and other waste. Sending/ selling/ transportation/ recycling/ disposing of the hazardous wastes shall be in accordance with the provisions laid down under the Rules. Further, occupier shall take all the steps while managing hazardous and other wastes to contain contaminants and prevent accidents and limit their consequences on human beings and the environment and provide persons working in the site with appropriate training, equipment and the information necessary to ensure their safety.

**B. Requirement of authorization**

Handling, generation, storage, packaging, transportation, use, treatment, processing, recycling, recovery, pre-processing, co-processing, utilisation, offering for sale, transfer or disposal of the hazardous and other wastes are to be carried out by every occupier (requiring Consent to Establish or Consent to Operate under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981) after obtaining authorization from the concerned SPCB/PCC. Further, the SPCBs/PCCs are required to grant the same after such enquiry as it considers necessary, and on being satisfied that the applicant possesses appropriate facilities as stipulated under Rule 6.

**C. Storage of hazardous or other wastes**

Hazardous and other wastes are not to be stored for more than ninety days in the premises and a record of such wastes should be maintained and made available for the inspection. SPCBs/PCCs can extend the said period of ninety days in cases of small generators (up to 10 Tonnes/Annum), actual users and disposal facility operators, occupiers not having access to any common treatment, storage, disposal facility in the concerned State, etc., which have also been laid down under Rule 8 of the HOWM Rules, 2018.

**D. Utilisation of hazardous or other wastes**

Procedures for utilisation of hazardous and other wastes as a resource or after pre-processing either for co-processing or for any other use have been laid down under Rule 9 of the HOWM Rules, 2016, and the same are to be carried

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

out only after obtaining authorization from the concerned SPCB/PCC on the basis of standard operating procedures or guidelines provided by CPCB.

**E. Import and Export (Transboundary Movement) of hazardous and other wastes**

Import of hazardous and other wastes from any country is permitted only for recycling/reuse/recovery and utilisation including co-processing and list of wastes which are prohibited for import to the country has also been stipulated. Ministry of Environment, Forest and Climate Change (MoEF&CC) has been stipulated as the nodal Ministry to deal with the transboundary movement of the hazardous and other wastes.

Procedures for import and export of hazardous and other wastes have been prescribed such as making an application to MoEF&CC, furnishing information to custom department, etc. It also lays down conditions where Import/Export shall be deemed illegal and the role of Customs authority and SPCB/PCC in such cases. Rule 11 to Rule 14 of the HOWM Rules, 2016, lays down provisions with regard to the said import and export.

**F. Treatment, storage and disposal facility for hazardous waste**

State government, occupier, operator of facility or any association of occupiers are individually or jointly or severally be responsible for identification of sites for establishment of facility for treatment, storage and disposal of hazardous and other wastes in the State.

Operator of common facility or occupier of captive facility is required to set up the same as per technical guidelines issued by CPCB and obtain approval for design and layout from the SPCB/PCC. Occupier/Operator of facility is also responsible for maintaining records, safe and environmentally sound operation of facility and its closure and post-closure phases as per CPCB guidelines. SPCB/PCC is required to monitor setting up and operation of the common facility, regularly. Such provisions have been stipulated under Rule 16 of the HOWM Rules, 2016.

**G. Packaging, Labelling and Transportation of hazardous waste**

Procedures for packaging have been prescribed for safe handling, packaging, storage and transportation of hazardous wastes under Rule 17 of the HOWM Rules, 2016. Procedures for transportation of hazardous wastes such as in accordance with Motor Vehicles Act, 1988; providing relevant information regarding hazardous nature of wastes, emergency measures, labelling, obtaining no objection certificate from SPCB/PCC in case of transportation

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

for final disposal to other State, transportation by sender or receiver, etc. have been laid down under Rule 18 of the HOWM Rules, 2016.

**H. Manifest System (Movement Document) for movement of hazardous waste**

The Rule 19 lays down provisions of Manifest System (Movement Document) in various colour-coded manifest (07 colour codes) prescribed as Form 10 which travels with hazardous waste from the point of generation, through transportation, to the final recycling, utilization or disposal facility, as the case may be, as well as intimation of the same to the sender, transporter, receiver and the concerned SPCB/PCC at various stages such as at the time of handing over the waste to transporter and transporter to the receiver.

**I. Records and returns**

Occupier/Operator is required to maintain date wise records of handling and management of hazardous wastes and send annual returns to SPCB/PCC by 30<sup>th</sup> June of every financial year about hazardous wastes generation, storage, recycling, utilisation, disposal, etc. Based on which SPCBs/PCCs are required to prepare annual inventory of the waste generated, recycled, utilized, disposed, etc. for the respective State/UT and submit the same to CPCB by 30<sup>th</sup> September of every financial year. CPCB is required to prepare consolidated report on management of hazardous wastes and submit the same to the Ministry of Environment, Forest and Climate Change before 30<sup>th</sup> December once in every year. The SPCBs/PCCs shall prepare an annual inventory of the waste generated, recycled, recovered, utilised including co-processed; re-exported, disposed, etc. and submit by 30<sup>th</sup> day of September every year along with the inventory of hazardous waste generators, actual users, and common and captive disposal facilities to CPCB every two years. CPCB shall prepare the consolidated review report on management of hazardous and other wastes and forward it to the Ministry of Environment, Forest and Climate Change along with its recommendations before 30<sup>th</sup> day of December once in every year. Provisions in these regards have been stipulated under Rule 20 of the HOWM Rules, 2016.

**J. Liability of occupier, importer or exporter and operator of a disposal facility and Financial Penalty**

The occupier, importer or exporter and operator of the disposal facility is liable for all damages caused to the environment or third party due to improper handling and management of hazardous and other wastes. Further, occupier and operator of a disposal facility are also liable to pay financial penalty levied

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

by SPCBs/PCC for violation of provisions under these Rules with prior approval of CPCB, as laid down under Rule 23.

**K. Accident reporting**

Occupier/Operator of facility is required to immediately intimate the SPCB/PCC through telephone/ e-mail/ about the accident and subsequently send a report as stipulated under Rule 22 of the HOWM Rules, 2016.

**3. Provisions about financial penalty and liability for damages caused to the environment under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

Rule 23 of the HOWM Rules, 2016, lays down provisions with regard to liability for damages caused to the environment or third party including financial penalty for violation of provisions of the Rules and the same is reproduced as below:

*“23. Liability of occupier, importer or exporter and operator of a disposal facility.-*

*(1) The occupier, importer or exporter and operator of the disposal facility shall be liable for all damages caused to the environment or third party due to improper handling and management of the hazardous and other waste.*

*(2) The occupier and the operator of the disposal facility shall be liable to pay financial penalties as levied for any violation of the provisions under these rules by the State Pollution Control Board with the prior approval of the Central Pollution Control Board.”*

CPCB has issued “Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty” for implementing the aforesaid provisions of Rule 23. The guidelines include description of liabilities, approach for valuation of the same, methodology for levying financial penalty, role of SPCB/PCC and other stakeholders etc. SPCBs/PCCs are required to follow procedures laid down under these guidelines while enforcing the aforesaid provisions of Rule 23. Copy of the said guidelines is given at **Annexure I** and is also available at CPCB website [http://cpcb.nic.in/uploads/hwmd/Guidelines\\_Environmental\\_Damages\\_Costs\\_200116.pdf](http://cpcb.nic.in/uploads/hwmd/Guidelines_Environmental_Damages_Costs_200116.pdf)

#### **4. Categorization of violations and financial penalty & environmental compensation thereof**

For the purpose of imposing financial penalty and environmental compensation, various violations of HOWM Rules, 2016, can be broadly classified into the following two categories:

##### **A. Category A: Only procedural violations of HOWM Rules, 2016, which has not caused damage to environment or third party**

Certain violations of HOWM Rules, 2016, are procedural violations in nature and do not cause any damage to environmental or third party.

For instance, an authorised occupier has collected, stored, packaged, transported and handed over all his hazardous or other wastes generated to authorised recyclers/utilizers in environmentally safe manner but has not sent annual return within the stipulated time period to SPCB/PCC (as required under Rule 20(2) of the HOWM Rules, 2016) or has not given prior intimation to SPCB of the States of transit in case of inter-state movement (as required under Rule 18(5) of the HOWM Rules, 2016), etc. In such cases, though there have been violations of provisions of the Rules which are procedural requirements in nature but has not caused damaged to the environment. However, financial penalty would be applicable in such cases for violations of each and every relevant provision of the HOWM Rules, 2016, as outlined under section 5 of this document.

##### **B. Category B: violations causing environmental damage including procedural violations**

These are violations of the HOWM Rules, 2016, causing environmental damages including procedural violations of the Rules. The same may further be classified into two categories as below:

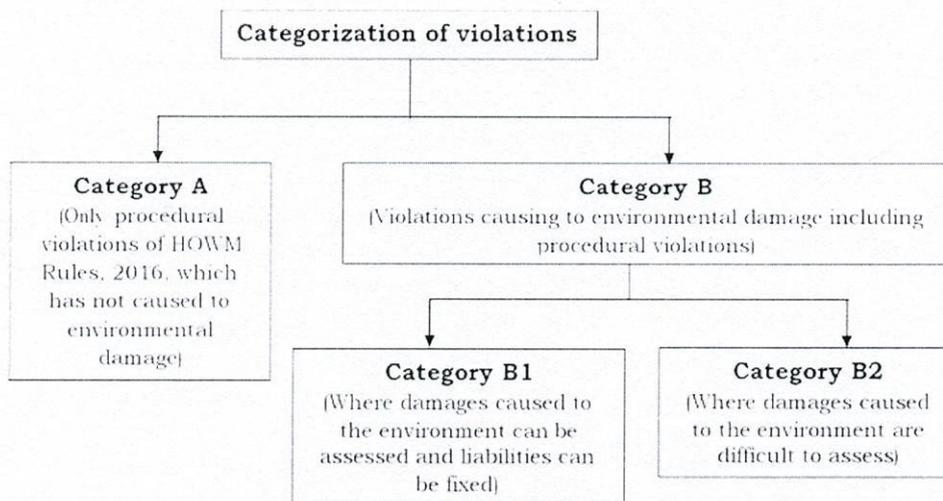
- (i) **Category B1:** Cases where mismanagement of hazardous or other waste has resulted or resulting into environmental damage and such damages liability including assessment of remediation required can be assessed in terms of cost also by applying provisions laid down under CPCB's "Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty".

For example, disposal of hazardous or other waste on land or surface/ground water by an occupier, operator, transporter, importer, exporter, etc. as the case may be, has been identified by SPCB/PCC and damages to the environment and remediation work as well as cost thereof can also be assessed by SPCB/PCC in accordance with the said

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

guidelines. In such cases, liability of the responsible party (occupier, operator, transporter, importer, exporter, etc., as the case may be) can be fixed in terms of various required activities and amount of money required in such activities (i.e. taking up immediate Emergency Response Plan Measures such as containment of hazardous or other waste; assessment of contamination and required remediation work, and; execution of selected remediation plan) in accordance with provisions laid down under the said CPCB's "Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty". The responsible party (occupier, operator, transporter, importer, exporter, etc., as the case may be) is required to pay bank guarantee to SPCB/PCC and compensation liability (loss of property, loss of crop, loss of life, treatment cost towards human health impacts, etc.) as suggested in the guidelines. Copy of the said guidelines is given at **Annexure I**.

Besides, financial penalty would also be imposed as given under section 5 of this document



**Figure 1: Categorization of violations**

- (ii) **Category B2:** Cases where mismanagement of hazardous or other waste may have caused environmental damage and such damages & remediation required including cost thereof are difficult to assess.

For example, an authorised occupier, operator, transporter, importer, exporter, etc., as the case may be, of hazardous or other wastes has illegally disposed hazardous or other waste on place which is unidentifiable or even if identified, damages to the environment and

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

remediation work as well as cost thereof is difficult to be assessed by SPCB/PCC. Such difficulty may arise due to very small quantity of wastes involved in such acts, wastes disposed along with municipal solid waste, wastes may have been washed off with runoff water, etc. In such cases, it may be difficult to assess damages caused to the environment and liability of the responsible party (occupier, operator, transporter, importer, exporter, etc., as the case may be) as well as cost thereof.

Under such circumstances, methodology for imposing financial penalty and environmental compensation are given under section 5 of this document.

**5. Methodology for Assessing Financial Penalty and Environmental Compensation**

**A. Financial Penalty**

In accordance with provisions under Rule 23(2) of HOWM Rules, 2016 and section 15 of the Environment (Protection) Act, 1986, CPCB guidelines on "Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty" (given at **Annexure I**) stipulate that financial penalty to be levied by the concerned SPCB/PCC for any violation may be limited to maximum of one lakh rupees per provision violated so as to ensure that levying of financial penalty remain within the brief of the Environment (Protection) Act, 1986, since the said Rules have been notified under the Environment (Protection) Act, 1986. However, non-compliance may attract violation of one or several provisions of the said Rules and thus the total financial penalty amount may be arrived by adding up number of provisions violated. Further, additional fine up to Rupees five thousand rupees for every day may also be imposed in case of failure continues by the responsible party beyond period by which remedial/corrective measures would have been implemented as suggested by the SPCB/PCC.

Therefore, financial penalty requires to be imposed and collected from the violators as maximum of Rs. 1 lakh for violation of each provision stipulated under HOWM Rules, 2016 (in addition to the environmental compensation which has been discussed in section B below). List of various violations vis-à-vis provisions of HOWM Rules, 2016 is given at **Appendix A** for ready reference.

Total numbers of violation will vary on case to case basis. For instance (indicative only), unit found generating any hazardous or other waste

**Determination of Environmental Compensation to be recovered for violation of  
Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

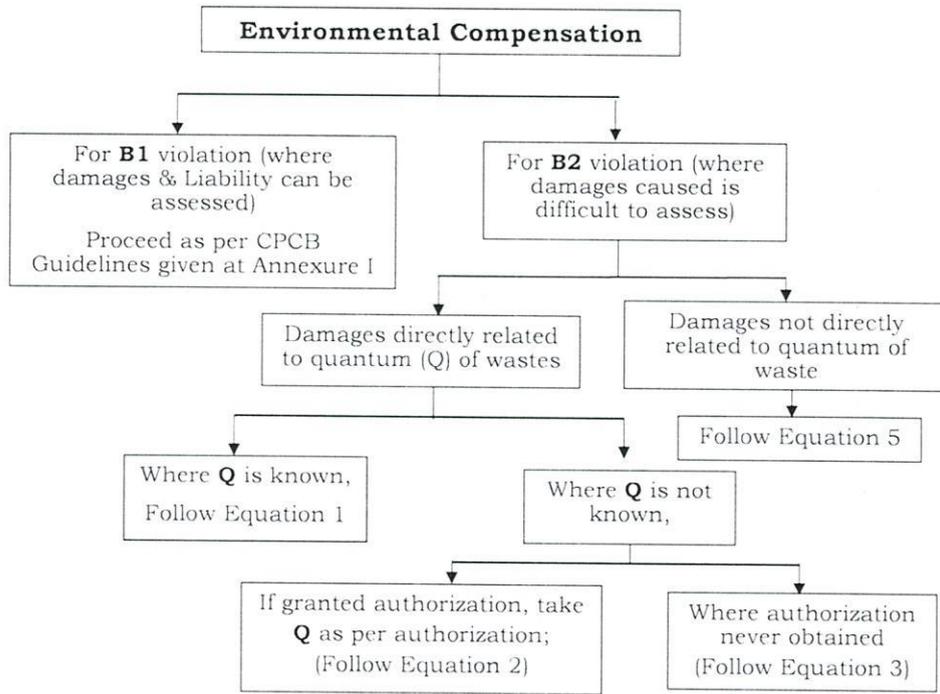
and disposing or handing over their waste to unauthorized person/places without complying any provisions of the HOWM Rules, 2016, may attract violation of 25 numbers of provisions (at S. No. 1, 2, 3, 4, 5(a), 5(b), 6 number of violations at 6(A), 6(D), 8, 31, 32, 33, 34, 39, 40, 41, 42, 49, 47 and 50 of Appendix A). There could be other several scenarios, therefore, total financial penalty amount be derived using the said approach.

**B) Environmental Compensation-**

For category B1 violations, steps as suggested in the above section 4(B)(i) may be followed in accordance with provisions laid down under the said CPCB's "Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty" (given at **Annexure I**). For category B2 violations, environmental compensation as suggested below may be considered.

Quantity of hazardous or other wastes, which may have caused environmental damages, may be proportionate to extent of damages thereof. Environmental compensation may, therefore, be directly correlated with the quantity of hazardous or other waste under reference. It may be difficult to assess extent of damages which may have been caused elsewhere or the damages which have been assimilated by nature. At the same time, sometimes it may not be practically feasible to know quantity of hazardous or other wastes which have been disposed illegally. For instance, a facility, particularly unauthorised unit, is operating for certain years who has never assessed or documented hazardous or other wastes generated by them and has no document to support that the same have been disposed in environmentally sound manner in compliance with the regulations existing since 1989. Further, such facility may have changed their industrial process or raw materials or products, thereby variation in quantity of the wastes generated during such period. Whereas a facility possessing authorization under the Rules is granted the authorisation specifying categories and quantity of the hazardous or other wastes based on declarations made by the unit while making application for the same.

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**



**Figure 2. Approach for calculating environmental compensation in brief**

Under such wide variables, the following quantity based environmental compensation calculation in Rupees may be used and be imposed on violating facility operator:

$$\text{Environmental Compensation (EC)} = Q \times \text{ERF} \times R \quad [\text{.....Equation 1}]$$

Where,

**Q** is noticed<sup>1</sup> or observed<sup>1</sup> quantity (in tonne) of hazardous or other wastes which have not been managed in compliance with various provisions of the Acts/Rules/Guidelines/conditions of the

<sup>1</sup> Noticed or observed quantity is the reported quantity or that has come to the notice of SPCB/PCC/CPCB/MOEF&CC. For instance, an authorised utilizer has authorisation to utilise 100 tonnes of certain hazardous waste/annum from which 200 tonnes of product is derived whose use has been specified in SOP issued by CPCB for industrial use only. He may have produced say 150 tonnes of product but it has come to the notice (through inspection or complain verification) of SPCB/PCC/CPCB that he has sold 10 tonnes of the product in open market and not to any industry. Here, Q would be 5 tones. Similarly, an authorised industrial unit authorised for 100 tonne of per annum generation of waste has not sent such waste to common TSDF or any other authorised facility nor is found stored in his premise. Here Q would be 100 tonne.

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

authorisation/directions issued by CPCB/SPCB/PCC/MoEF&CC (barring procedural violations which have not caused environmental damage)

**ERF** = Environmental Risk Factor which is a number (as given in Table 1 below) denoting the increasing degree of risk to the environment and human health due to the scenarios as given in the Table 1.

**Table 1: Environmental Risk factor (ERF)**

S. No.	Violation	ERF	
		For Hazardous Waste	For Other* Waste
1.	When hazardous and other wastes is disposed at unauthorised place or handed over or sold to unauthorised party	1.5	0.3
2.	When treatment has not been imparted , as required, but only partial treatment has been given (by TSDF/Actual user)	1.0	0.2
3.	When product (derived from hazardous or other waste) is not conforming to prescribed specification or is specified for restricted use but sold in open market against (in case of actual user)	1.0	0.2
4.	Wastes found stored beyond the stipulated period (refer Rule 8 of the HOWM Rules, 2008)	0.1	0.05

*\*Applicable to waste generated indigenously only.*

**R**= Environmental Compensation factor, which may be taken as Rs. 30,000.

**Note:**

- (i) For facility engaged in generation/ recycling/ utilizing/ disposing of hazardous or other waste and such wastes have never been handed over to common TSDF/ actual user:

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

**Case I:** *If authorisation has been taken at any point of time, in such cases, Q may be taken as below:*

$$Q = \text{Quantity in terms of tone/per year, as specified in authorisation (one year = 300 days)} \times Y$$

[.....Equation 2]

Where, **Y** is Number of years of operation of the facility and may be considered as given in Table 6 below. In case authorisation is given in quantity/day, then convert in tone/year by multiplying the same with 300 days.

**Case II:** *If authorisation has not been taken at any point of time for all or any given category of hazardous or other waste being generated/utilized*

When above scenario comes to the notice of SPCB/PCC/CPCB, it may be difficult to find Q as records pertaining to quantity of generation/utilization of hazardous or other waste may not be available. In such case, a generalised way of calculating Environmental Compensation (EC) in Rupees may be used as below:

$$EC \text{ (in Rupees)} = T \times S \times C \times ECF \times Y$$

[.....Equation 3]

Where,

**T** = Type of facility factor and may be taken as below from Table 2 below:

**Table 2: Type of facility factor**

Sl. No.	Scale of operation	Factor
1.	(i) Actual user procuring hazardous waste from outside their premises including importing hazardous or other waste from other country	1.5
2.	(i) Actual user engaged in utilizing/ recycling of only other wastes which are generated indigenously, and; (ii) All facility other than at Sl. No. (1) and 2(i) above	1

**S** = Scale of Operation factor of the facility and may be taken from Table 3 as below:

**Table 3: Scale of operation of the facility**

Scale of operation	Scale Factor
Large	1.5
Medium	1
Small or Micro	0.5

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

**ECF** = Environmental Compensation Factor, which is summation of one or more ECF, as applicable, as given in Table 4 below:

**Table 4: Environmental Compensation Factor**

<b>S. No</b>	<b>Type of operations from where waste is generated</b>	<b>ECF</b>
1.	Main Process (when significant quantity of waste generation like spent acid, process sludge, spent solvent, etc.)	45,00,000
2	Pollution control equipment like ETP, APCDs, etc. such as ETP sludge, incineration bottom residues, cyclone residue, etc.	35,00,000
3	Ancillary equipment used for supporting the industrial process such as DG set, etc.	10,00,000
4	Handling of hazardous chemicals and wastes (waste packaging materials like emptied drums/bags/etc. contaminated with hazardous chemicals/wastes) and Cleaning activities like cotton/cloth waste contaminated with oil/grease/grease, hazardous chemical storage tank, etc.	20,00,000
5.	Other operations not listed above	10,00,000

**C** = Category of Facility factor and be taken from Table 5 as given below;

**Table 5: Category of Facility Factor**

<b>Type of Facility</b>	<b>T Factor</b>
Red Category	1
Orange Category	0.2
Green Category	0.05

**Y** = Number of years of operation of the facility and may be considered from Table 6 as below:

**Table 6: Number of days of operation of the facility**

<b>S.No</b>	<b>Years of Operations</b>	<b>Factor to be taken</b>
1.	More than 03 years	5
2.	Equal to less than 03 years	Actual duration of operation in months/12

(ii) In cases where non-compliances have been observed for known period wherein quantity (Q) of hazardous or other waste correlated to such violations is also known – e.g. in-adequate storage facility in cases of authorised facility or failure to comply with any directions of SPCB/PCC/CPCB (say directions issued w.r.t. non-compliance of incinerator emission standards and facility continued to

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

operate). Amount of EC for such cases may be calculated based on Q associated with such violations period and number of days for which violation took place. Such number of days for which violation took place is the period between the day of violation observed/ due date of compliance of directions and the day of compliance verified by CPCB/ SPCB/ PCC.

$$EC = EC \text{ (as derived from Equation 1) } + (\text{Rs. } 5000 \times \text{Nos. of days for which violation took place}] \quad [\text{.....Equation 4}]$$

(iii) Apart from the above cases, there could be following violations or other similar type violations (which are not covered in the various above mentioned scenarios) in hazardous waste TSDF or actual user facility:

- a. The leachate is illegally disposed or send to unauthorised party
- b. Violations in leachate management or the leachate management facility requires upgradation as per direction of CPCB/ SPCB/ MoEF&CC
- c. Waste Water generated during the process is disposed illegally or not as per the consent conditions
- d. Effluent Treatment Plant is not meeting the norms stipulated under EPA, 1986 or CTO issued by SPCB/PCC
- e. Effluent Treatment Plant exist but requires upgradation so as to meet the conditions specified under CTO or CPCB' guidelines/SoP
- f. Treated effluent not managed as per the conditions specified under CTO or CPCB' guidelines/SoP

Under such circumstances, the environment compensation may be calculated as below:

$$\text{Environmental Compensation (EC) = PI} \times \text{N} \times \text{R} \times \text{S} \times \text{LF} \quad \text{.....Equation 5}]$$

Where,

**PI** is Pollution index (based on the CPCB guidelines on Revised Classification of Industrial Sectors under Red, Orange, Green and White Categories) and to be taken from Table 7 below:

**Table 7: Classification of industrial sector**

Category	Pollution Index
Red	80
Orange	50
Green	30

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

**N** is Number of days for which violation took place is the period between the day of violation observed/ due date of compliance of directions and the day of compliance verified by CPCB/ SPCB/ PCC.

**R** is Environmental Compensation factor in Rupees R to be taken as 250

**S** = Scale of Operation of the facility and may be taken from Table 8 below;

**Table 8: Scale of operation**

Scale of operation	Factor
Micro or small	0.5
Medium	1.0
Large	1.5

**LF** could be based on population of the city/town and location of the industrial unit. For the industrial unit located within municipal boundary or up to 10 km distance from the municipal boundary of the city/town, following factors (LF) may be taken from Table 9 below:

**Table 9: Location factor based on population**

S. No.	Population* (million)	Location Factor#
1	Less than 1	1.0
2	1 to < 5	1.25
3	5 to <10	1.5
4	10 and above	2.0

\*population of the city/town as per the latest Census of India

# LF will be 1.0 in case unit is located > 10km from municipal boundary

For critically populated areas/Ecologically sensitive areas, the scope of LF may be examined further.

**C. Deterrent Factor**

**(a) In case of non-timely submission of Environmental Compensation and Financial Penalty**

The Environmental Compensation Charges and Financial Penalty shall be deposited by the violating facility within the stipulated time period specified under directions issued by CPCB/SPCB/PCC. In case, such facility does not submit the same within the stipulated time frame the amount will be exponentially increased. The details of exponential increase are given below:

**Determination of Environmental Compensation to be recovered for violation of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016**

**Table 10: Environmental Compensation Charges and Financial Penalty w.r.t. non-timely submission**

<b>Sl. No.</b>	<b>Amount Deposition time period</b>	<b>Environmental Compensation and Financial Penalty Amount</b>
1.	Within 15 days from the stipulated time period as directed by CPCB/SPCB/PCC	Original amount with interest @ 12% per annum for number of days delayed after the stipulated date of amount deposition
2.	After 15 days but within 03 months after the stipulated time period as directed by CPCB/SPCB/PCC	Two times the original amount with interest @ 12% per annum for number of days delayed after 15 days of the stipulated date of
3.	After 03 months and up to 06 months from the stipulated time period	Four times the original amount with interest @ 12% per annum for number of days delayed after three months of the stipulated date of amount deposition
4.	After 06 month	Closure of unit/facility and court

**(b) In case of repeated violations**

In case the violators found repeatedly non-complying with previous violations or new violations, the amount of Environmental Compensation and Financial Penalty be exponentially increased. The details of exponential increase in such cases are given below:

**Table 11: Environmental Compensation Charges in case of repeated violation**

<b>Sl. No.</b>	<b>Time Period for compliance</b>	<b>Environmental Compensation and Financial Penalty Amount</b>
1.	First time violation	Original amount
2.	Second time violation	Two times the original amount
3.	Third time violation	Four times the original amount
4.	Fourth time violation	Closer of unit and Court case

-----O-----



35

ABCIL/ENV/15-16/4

24<sup>th</sup> July, 2011

The Regional Officer  
UP Pollution Control Board,  
H. N. 162, Uttar Mohal, Near Chandi Hotel  
Robertsganj - 231216  
Sonbhadra (U.P.)

Subject: Information regarding Brine Sludge Generated During Mercury Cell Operation

Dear Sir,

As per our discussion we would like to inform that we have capped SRF related to storage of brine sludge generated from mercury cell technology caustic soda plant as per CPCB guideline in year 2010 - 11. After that all brine sludge generated till plant stoppage in April 2011 and sludge generated during equipment cleaning and dismantling (Total 632 MT) have been sent to TSDF, Kanpur (Ramky) as per enclosed Annexure -A. At present no brine sludge inventory available with us generated during operation of mercury cell technology of caustic soda plant.

Yours faithfully,  
for Aditya Birla Chemicals (India) Limited,

(R.K. Maheshwari)  
Sr. V.P. (Tech.)

Encl: As above.

Cc: The Member Secretary  
Uttar Pradesh Pollution Control Board,  
TC-12/V, Vibhuti Khand,  
Gomti Nagar, Lucknow -226 010

Received  
B. Mishra  
25/07/11

Page - 01 of 07

ADITYA BIRLA CHEMICALS INDIA LIMITED  
Renukoot Chemical Division

MERCURY CONTAINING BRINE SLUDGE SENT TO TSDF - RAMKY, KANPUR

Year	Date	Qty. (MT)
2010-11	26.08.10	16.57
	24.09.10	19.34
	21.10.10	16.28
	23.11.10	22.38
	29.12.10	21.09
	27.01.11	19.94
	17.02.11	24.50
	26.02.11	26.86
	05.03.11	19.71
	12.03.11	19.39
	12.03.11	7.90
	26.03.11	19.05
	30.04.11	18.35
	14.05.11	18.34
2011-12	25.06.11	21.37
	06.07.11	21.67
	09.07.11	18.04
	16.07.11	20.78
	04.08.11	22.61
	26.08.11	19.68
	09.09.11	15.92
	30.09.11	17.29
	14.10.11	20.78
	04.11.11	22.05
	19.11.11	18.8
	22.11.11	19.03
	16.12.11	21.05
	28.01.12	23.83
	04.02.12	19.04
	25.02.12	21.24
	17.03.12	21.54
24.03.12	17.62	
	Total	632.04

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Production Data

Product Name - Caustic Soda Lye		Year	Company	Unit	Mercury	Brine Sludge
1986-87	KCIL Jul to Jun	MT		23,659	432.08	
1987-88	KCIL Jul to Jun	MT		26,982	502.09	
1988-89	KCIL - Jul to Mar (9 Months)	MT		<del>22,673</del>	459.76	
1989-90		MT		30,681	556.78	
1990-91		MT		32,016	602.59	
1991-92		MT		37,621	773.76	
1992-93		MT		41,005	842.98	
1993-94		MT		47,652	902.00	
1994-95		MT		51,430	1,112.20	
1995-96		MT		50,599	1,000.54	
1996-97		MT		50,282	999.98	
1997-98	KCIL - Apr to Mar	MT		50,076	988.12	
1998-99	KCIL - Apr to Mar	MT		46,334	950.43	
1999-2000	KCIL - Apr to Mar	MT		48,120	1087.74	
2000-01	KCIL - Apr to Mar	MT		44,213	994.79	
2001-02	KCIL - Apr to Mar	MT		47,635	905.06	
2002-03	KCIL - Apr to Mar	MT		47,570	903.86	
2003-04	KCIL - Apr to Mar	MT		47,957	911.20	
2004-05	KCIL - Apr to Mar	MT		47,166	896.17	
2005-06	KCIL - Apr to Mar	MT		48,051	912.97	
2006-07	KCIL - Apr to Mar	MT		44,234	840.45	
2007-08	KCIL - Apr to Mar	MT		42,817	813.52	
2008-09	KCIL - Apr to Mar	MT		24,024	456.46	
2009-10	KCIL - Apr to Mar	MT		4,106	78.02	
2010-11	KCIL - Apr to Mar	MT		11,483	218.00	
2011-12	KCIL Apr to 23rd May	MT		228	43.00	
	Total MT			753,979	19184.55	
	Total M3				13,415	
	SLF Capped Volume M3			20,197		

to p 30-31

BRINE SLUDGE DISPOSAL AREA.

A		Volume of the Brine Sludge Site	
	Old Storage Pit		
	Approx Length	Meter	
	Approx Width	63	
	Approx Height	40	
	Total Volume:	5.5	
		13860	M <sup>3</sup>
New Brine Sludge Storage Area.			
	Pit-01	Pit-02	
	Approx Length	45 M	95 M
	Approx Width	30 M	30 M
	Approx Height	5.5 M	5.5 M
	Total Volume:	7425 M <sup>3</sup>	15675 M <sup>3</sup>
	Total Volume of Brine storage Pits:		36960 M <sup>3</sup>
B			
	Brine Sludge disposed off:		
	Density of Brine Sludge:		1.43
	Quantity of disposal of Brine Sludge(2003-2008):		4830.761
	Volume of disposed off Brine Sludge:		3378.155 M <sup>3</sup>
	Avg. Volume of disposed off Brine Sludge for one year:		675.63 M <sup>3</sup>
	Total area available		33582 M <sup>3</sup>
	Average life period of disposal Pit		49.6
			Years

Note: Further Secured land fill area is also available all around the pit.

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**Subject: Re: Salient information-update**

From: "Ajit Kaushik" <ajit.kaushik@adityabirla.com> Sun 14 Oct 12 6:28p

To: <rsingh1962@rediffmail.com>

Cc: <avinash.rai@adityabirla.com>

[Less](#) | [Show full Headers](#)

1 attachment

[image001.jpg](#) 0.39 KB [Download](#)

Dear Sir

As discussed, please find the details as following:

1. Quantity of earth capped Muck: 33257 MT
2. Quantity of earth capped Mercury Brine Sludge: 4959 MT
3. Quantity of Mercury brine sludge sent to TSDF Ramky (Start Date 26.08.10; End Date 24.03.12): 632 MT

Hope the above is in line with our discussion.

With regards

A S Kaushik

Lang-05 of 07



ABCIL/JPI/ENV/11-12/152

22 September 2011

The Chief Engineer, Circle 9  
U.P. Pollution Control Board  
PICUP Building  
Gomti Nagar  
LUCKNOW

Sub: Phasing out of Mercury Cells

Dear Sir,

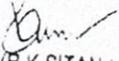
In reference to our earlier letter no. ABCIL/LKO/39/125 dated 3<sup>rd</sup> September 2011 we would like to confirm that we have completely stopped production of Caustic Soda by Mercury Cells with immediate effect.

Further, in view of your guidelines under CREP we are going to replace our 145 MT Mercury Cell Plant by Membrane Cell Technology keeping total capacity same.

This is for your kind information and record.

Thanking you

Yours faithfully  
For Aditya Birla Chemicals (India) Limited

  
(R.K. SITANI)  
Joint President

Cc to: Member Secretary  
U.P. Pollution Control Board  
PICUP Bhawan, 3<sup>rd</sup> Floor, B-Block  
Vibhuti Khand, Gomti Nagar  
LUCKNOW

Zonal Officer  
Central Pollution Control Board  
PICUP Bhawan, Ground Floor  
Gomti Nagar  
LUCKNOW

The Regional Officer  
U.P. Pollution Control Board  
Uttar Mahal, Near Chandl Hotel  
ROBERTSGANJ, Sonbhadra

**ADITYA BIRLA CHEMICALS (INDIA) LIMITED**  
Formerly Bihar Caustic & Chemicals Limited)

**RENUKOOT CHEMICAL DIVISION**

P.O. Renukoot 231 217, Dist.: Sonbhadra (U.P.) INDIA  
PH. 05446-252044/55/75 FAX: 05446-252088. E-mail: abcil.renukoot@adityabirla.com  
Road Office, GABHANA ROAD, DELHA, 822 124, DIST. RAJAMALLI, CHHATTISGARH, INDIA

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**BRINE SLUDGE SENT TO RAMKY, KANPUR**

Year	Date	Qty (MT)	
2010-11	26 08 10	16 57	95 6E
	24 09 10	19 34	
	21 10 10	16 28	
	23 11 10	22 38	
	29 12 10	21 09	
	27 01 11	19 34	
	17 02 11	24 50	
	26 02 11	26 86	
	05 03 11	19 71	
	12 03 11	19 39	
2011-12	12 05 11	7 90	233 07
	26 05 11	19 05	
	31 04 11	18 35	
	14 06 11	18 34	
	15 06 11	21 31	
	05 07 11	21 67	
	09 07 11	18 04	
	13 07 11	20 78	
	04 08 11	22 61	
	26 08 11	19 68	
2011-12	09 09 11	15 92	338 63
	30 09 11	17 29	
	14 10 11	20 78	
	03 11 11	22 65	
	17 11 11	19 53	
	18 12 11	21 05	
	28 01 12	23 83	338 63
	14 02 12	19 04	
	Total	571 64	571 64

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**Revised Order**

Item No.03&amp; 04

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

Original Application No.164/2018  
(Earlier O.A.No.276/2013)  
(I.A. No. 155/2019,I.A. No. 337/2019 &  
I.A. No. 384/2019)  
WITH  
Execution ApplicationNo. 22/2018  
IN  
O. A. No. 276/2013

Ashwani Kumar Dubey

Applicant(s)

Versus

Union of India &amp;Ors.

Respondent(s)

(Report of the Committee in O.A 164/2018 with I.A. No. 155/2019 for direction dispensing the implementation of the Core Committee's Recommendation. I.A. No. 337/2019 for permitting the applicant to continue to transport coal by road&I.A. No. 384/2019 for quashing the recommendation of the Core Committee)

Date of hearing: 19.07.2019

**CORAM:** HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER

For Applicant(s):

For Respondent (s):

Ms. Vidushi Garg, Advocate for R-10,11 & 12  
Mr. AnipSachthey, Sr. Advocate, Ms. Anjali Chaudhary, Ms. Ria Sachthey, Advocates for NCL  
Dr. Ashwani Bhardwaj with Ms. Kavita Rawat, Advocates for R- 33 to 35  
Mr. Pradeep Misra, Mr. DaleepDhyani, Advocates for UPPCB  
Mr. Rajkumar, Advocates for CPCB  
Mr. Sarvjit Pratap Singh, Advocate for R-24&26  
Mr. Ranji Srinivasan, Sr. Advocate, Mr. Syed Shahid Hussain Rizvi, Mr. Zeeshan Rizvi, Ms. Sylona Mohapatra, Advocates for R-20, Hindustan Industries

Mr. Ajitesh Sai, Advocate for Essar MP  
Mr. Gaurav Dudej, Mr. Sudhanshu Goil,  
Advocate for R-25  
Mr. Prag Tripathi, Senior Advocate for Grasim  
Industries

**ORDER**

1. **I. A. No. 155/2019** has been filed by Grasim Industries Limited (earlier Aditya Birla Chemical Industries Limited) for modification (which in substance is by way of review) of the order dated 28.08.2018, *inter alia* directing the said applicant to shift the hazardous waste to the TSDF.
2. According to the applicant, it generated hazardous waste in the course of its activities of manufacturing Castic Soda which was stored in its premises since 2010. The said waste has Mercury bearing brine sludge which has to be disposed of as per Rule 16 of the Hazardous Waste Management Rules, 2016. However, the said waste continues to be stored in the premises of applicant.
3. This Tribunal dealt with the matter of industrial pollution in District Sonebhadra in the State of Uttar Pradesh in the light of allegation of discharge of mercury beyond the prescribed limits, affecting the nervous system and causing disorder and illness to the inhabitants of District Sonebhadra, Uttar Pradesh since the year 2006-2017.
4. To consider the above allegation, this Tribunal, on 25.08.2014, constituted a Core Committee and Sub-Committees to assess the potential impact of pollution and further action.

5. The Core Committee gave its report on 03.04.2018 which was considered and accepted by the order dated 28.08.2018. Directions were issued in terms of the said report. In respect of the applicant, it was *inter-alia* noted:

“(iii) M/s Aditya Birla Chemicals, Renukoot a) Industry shall ensure proper operation of effluent treatment plant so as to ensure the compliance of the effluent discharge standard. The industry shall also ensure that no untreated/partially treated effluent finds its way in to the Nallah leading to the Rihand Reservoir. The channel leading to Rihand Reservoir has to be intercepted, diverted and treated within the industry. The nallah presently passing through the factory should be isolated so that the industry cannot discharge any treated/partially/treated/untreated effluent which is being done now. b) **There is also an urgent need for the preparation of an action plan by the industry to shift the mercury bearing brine sludge and the muck contaminated with chlorinated chemicals from the factory premises to the TSDF in consultation with the UP State Pollution Control Board.** It may be stated here that storage of hazardous mercury bearing brine sludge and the muck contaminated with chlorinated chemicals inside the premises is not permitted by the prevailing Hazardous Waste Management Rules, 2016 and, therefore, to be shifted to a suitable TSDF immediately.”

(highlighting by us)

6. The Tribunal disposed of the application and constituted an Oversight Committee to oversee the compliance of the above recommendations/directions, headed by a former Judge of the Allahabad High Court, with representatives of the CPCB, State PCB and the District Magistrates of Districts Sonbhadra and Singrauli as members.
7. The Committee in its meeting dated 07.06.2019 considered the compliance of the said direction in respect of the applicant unit as follows:

***“Shifting of Mercury bearing brine sludge:***

*M/s Grasim Industries Ltd. is manufacturing Caustic Soda. Admittedly, in the manufacturing of Caustic Soda, Mercury was one of the items which was obtained as a sludge in the process of the manufacturing. On the objection being raised, it is the case of the Company that they have completely changed the process of manufacturing of Caustic Soda, in which no Mercury is coming out as a bye product in the form of sludge since 2012. **However, admittedly a huge stock of the mercury bearing brine sludge/waste which was obtained as a bye product during the course of manufacturing prior to 2012, has been stored in the premises of the Company. Mercury is a hazardous goods.** The Hon'ble NGT in its order dated 28.08.2018 directed the industry to shift the mercury from the factory premises to TSDF immediately. The direction was as follows:*

*“There is also an urgent need for the preparation of an action plan by the industry to shift the mercury bearing brine sludge and the muck contaminated with chlorinated*

chemicals from the factory premises to the TSDF in consultation with the UP State Pollution Control Board. It may be stated that storage of hazardous mercury bearing brine sludge and the muck permitted by the prevailing Hazardous Waste Management Rules, 2016 and, therefore, to be shifted to a suitable TSDF immediately”.

Admittedly, the aforesaid direction has not been complied with. In some of the meetings, the Company requested time to take steps but subsequently its representative stated that they have stored the mercury sludge properly in a place. He further stated that it would be difficult to shift the mercury from the premises to the TSDF. He also stated that TSDF will also store mercury sludge in the same manner in which they have stored.

Today, the representative of the Company stated that they have moved an Application before the Hon'ble NGT for the modification of the order dated 28.08.2018 and the said application is on the board for hearing on 19.07.2019. He requested that the matter may be taken up after 19<sup>th</sup> July, 2019.

**It may be stated that in the meeting dated 23.11.2018 the Company expressed their difficulty in shifting the mercury waste/ sludge from the premises to TSDF. The Committee categorically stated that they have no power to modify the order and the Company can approach the NGT for the modification of the order. It may be mentioned here that in the earlier meetings the R.O. Sonbhadra was directed to get the sample of the Dongianullah and also find out the source of the water.**

It may be mentioned here that the Committee has visited the Dongianullah in district Sonbhadra and has taken out

the sample of the flowing water. The said sample was analysed by the Central Pollution Control Board in their lab in which the mercury was found. In this regard, a report was submitted. In the report, the mercury was .0452 mg. per litre while the standard as per the E/Rules 1986 the permissible limits is .01 mg. per litre.

In the survey report of Dongianullah prepared by Shri Rajesh Singh, Scientific Assistant, Senior Engineer, Dr. S.C. Shukla Assistant Scientific Officer and submitted by Shri Radhey Shyam, R.O. Sonbhadra, wherein it is reported that in the column of waste source, discharge in nullah was from M/s Grasim Industries Ltd. Ranukoot. **In this way, the survey report demonstrates that the waste water discharge found from M/s Grasim Industries Ltd. in Dongianullah.**

At the time of the meeting, a query was made from Shri Avinash Rai, representative of the Company, that whether there is any another source from where the mercury may come to Dongianullah. He stated that to his knowledge, there is none but it may be possible that some discharges may be coming from other sources. The Committee is of the view that most probably the discharge of mercury in the Dongianullah may be from Grasim Industries wherein the mercury sludge is stored. The Committee is of the view that on the facts and circumstances the Hon'ble NGT has categorically directed the industry to shift the mercury waste brine sludge from the premises to TSDF, Kanpur and they have not been allowed to store mercury bearing brine sludge has not yet been shifted. The order of the NGT has not been complied with. The company is not able to show that NGT has modified its order and, in the circumstances, the Committee is of the view that the Company has clearly violated the

*order of the Hon'ble NGT. In these circumstances, we propose to levy the penalty/ compensation of rupees one crore which will be subject to the approval by the Hon'ble NGT."*

*(highlighting by us)*

8. It is, thus, clear that activity of discharge of Mercury in the environment by the applicant has been found and storage of hazardous waste is illegally continuing for which the applicant is liable to be dealt with as per law.
9. Prayer in the present application is that recommendation of the Core Committee regarding shifting of the Mercury brine sludge and muck may not be required to be enforced as the said storage is safe and covered by the consent given by the UPPCB.
10. On the other hand, learned counsel for the UPPCB points that under Rule 8 of the Hazardous Waste Management Rules, 2016, there cannot be storage of hazardous waste for more than 90 days and the jurisdiction of the UPPCB to extend it is further 90 days. Thus, the UPPCB has no authority to permit continuing storage of Mercury bearing brine sludge. Consent of UPPCB cannot be set up as an estoppels against the statutory provisions. Thereafter, the hazardous waste is to be shifted to a Treatment Storage and Disposal Facility (TSDF) set up by the State under Rule 16. Transportation has to be in terms of Rule 18 and 19. There is thus no occasion to modify the order of this Tribunal dated 28.08.2018. Moreover, the Committee in

its report dated 07.06.2019 has found that on taking sample of the flowing water outside the unit of the applicant, Mercury was found to be 0.452 mg/l against the standard of 0.1 mg/l. The finding has already been quoted above. The Committee has suggested penalty of Rs. 1 Crore as compensation.

11. In view of above, we are of the view that the applicant must forthwith shift the hazardous waste in accordance with the Rules and for the illegal storage as well as damage to the environment on account of contamination, the applicant is liable to pay environmental compensation and be dealt with as per rules. Such compensation may be assessed by a joint Committee comprising representative of the MoEF&CC, CPCB and the IIT, Kanpur within one month pending such assessment, the applicant may deposit a sum of Rs. 1 Crore towards the interim compensation with the CPCB to be spend for the restoration of the environment. CPCB will be the nodal agency for the purpose. The application as well as the report of the Committee with regard to the applicant stands disposed on in the above terms.
12. **I.A. No. 337/2019** is dismissed as withdrawn.
13. **I.A. No. 384/2019:** The prayer in this application is in substance to review the order of this Tribunal dated 28.08.2018 accepting recommendations of an Expert Committee in its report dated February, 2018 on the subject of emission limit of the particulate matter for boilers.

14. According to the applicant, the said limit according to MoEF&CC is to apply from 2022 but the said matter is pending before the Hon'ble Supreme Court in *W.P No.13029/1985, M.C Mehta v. U.O.I.*
15. In view of the above, the matter is adjourned to avoid parallel proceedings on the issue before the Hon'ble Supreme Court and this Tribunal.

**REPORT OF THE COMMITTEE**

16. The Committee constituted by this Tribunal vide order dated 28.08.2018 has furnished its report dated 28.06.2019 suggesting ban of manufacturing of red bricks by use of clay/soil and by burning of coal with a view to facilitate more disposal of fly ash in brick manufacturing. This aspect may be looked into by the MoEF&CC and CPCB and a report be furnished to this Tribunal before the next date, by email.
17. The other aspects may be monitored by the Committee and its final report be given which may set out recommendations cumulatively at one place in a tabular form giving the status of compliance and the recommendations on or before 31.08.2019. The Chief Secretary of Uttar Pradesh in respect of District Sonbhadra and Chief Secretary of Madhya Pradesh in respect of Singrauli area may suggest further course of alternative oversight mechanism, in view of the fact the Committee is being asked to conclude its proceedings.

### **REPORT OF THE CPCB**

18. We have also perused the report furnished by the CPCB in pursuance of the order dated 21.05.2019 on the subject of compliance of consent conditions. The Tribunal noted that consent conditions requires all internal roads to be made *pucca* to control the emission of particulate matter generated due to coal transportation in the area of Singrauli in Madhya Pradesh.

19. The relevant observations of the Committee are as under:

***“Specific observations related to compliance of consent conditions:***

- i. The industry in non-complying with the regular operations of STP piezometers establishment in periphery of ash pond & remote calibration assess to MPPCB.*
- ii. The industry is partially complying on following conditions:*
  - a. Ground water depletion study not yet carried out.*
  - b. Not yet informed MPPCB regarding the low-lying area filling with ash.*
  - c. Fly ash utilization upto 86.42% by FY 2018-19*
  - d. Flue –gas-desulfurization plant installation in under process.*
  - e. Internal roads of weighbridge to coal handling area & ash pond area are not yet pucca. However, other major lengths of road have been mad pucca.*
  - f. Fugitive dust control system (water mist spray) is inadequate at CHP area.*
  - g. Interlocking of the process with APCDs.”*

20. The Committee observed as follows:

*“By 12 different locations, public roads are being used as haul roads which are passing through various*

*villages due to which the vulnerability of population to dust emission, vehicle pollution & chances of road accident increases. The nearest place from where industry is lifting coal is GajraBahra siding which is 15 kms far from the plant. For this industry is using MPRDC road as haul road this path passes through less habited & forest area. It is also pertinent to mention that having 24X7 vigils over the trucks for their tarpaulin cover & speed is not possible.”*

21. It has further been observed that transportation of coal by road was taking place in violation of the order of Hon'ble Supreme Court of which compensation of Rs. 19,50,000 was liable to be paid.
22. We are informed that the Hon'ble Supreme Court has by an interim order permitted such transportation till further order. In view of the order of the Hon'ble Supreme Court, we defer the matter with regard to transportation only. However, the unit must comply with the requirement of operation of STP, establishment of piezometers and remote calibration as well as other deficiencies forthwith which may be overseen by the CPCB. In this regard the CPCB may assess compensation for the damage in this regard for the last five years and give its report within one month by email at [judicial-ngt@gov.in](mailto:judicial-ngt@gov.in).

List for further consideration on 30.09.2019.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

July 19, 2019  
Original Application No.164/2018and connected matters  
AK



Item No. 02 &amp; 03

Court No. 1

**BEFORE THE NATIONAL GREEN TRIBUNAL  
PRINCIPAL BENCH, NEW DELHI**

I.A. No. 481/2019 &amp; I.A. No. 482/2019

And

A letter from CPCB In  
Original Application No. 164/2018  
(Earlier O.A.No.276/2013)

WITH

Execution Application No. 22/2018 IN O. A. No. 276/2013

Ashwani Kumar Dubey

Applicant(s)

Versus

Union of India &amp; Ors.

Respondent(s)

Date of hearing: 20.08.2019

**CORAM:**

**HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE S.P. WANGDI, JUDICIAL MEMBER  
HON'BLE MR. JUSTICE K. RAMAKRISHNAN, JUDICIAL MEMBER  
HON'BLE DR. NAGIN NANDA, EXPERT MEMBER**

For Applicant(s): Mr. Ashwani Kumar Dubey, Applicant in person

For Respondent (s): Mr. Rajul Shrivastav, Advocate for MPCB  
Ms. Deep Shikha Bharati, Advocate for State of UP  
Mr. Rajkumar, Advocate for CPCB

**ORDER**

The matter has been put up to consider the letter dated 09.08.2019 received from CPCB to the effect that IIT Kanpur is unable to participate in the Committee constituted by the Tribunal.

Order dated 19.07.2019 (paragraph 11) is modified to the effect that IIT Kanpur be read as IIT, BHU, Varanasi.

Letter dated 09.08.2019 of CPCB is disposed of.

**I.A. No. 481/2019 & I.A. No. 482/2019**

The issue of removing flyash, bottom ash, toxic waste, houses and other industrial/ solid waste from the houses, wells, water bodies and fields of the farmers raised in these applications be raised before the Oversight Committee looking into the subject. The Committee may look into the matter and include the same in its report to this Tribunal.

The applications stand disposed of.

Adarsh Kumar Goel, CP

S.P. Wangdi, JM

K. Ramakrishnan, JM

Dr. Nagin Nanda, EM

August 20, 2019  
Original Application No. 164/2018  
(Earlier O.A.No.276/2013)  
(I.A. No. 481/2019 & I.A. No. 482/2019)  
WITH  
Execution Application No. 22/2018 IN O. A. No. 276/2013  
A