



HARYANA STATE POLLUTION CONTROL BOARD

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Order

Whereas, the Central Pollution Control Board (CPCB), in compliance of the directions issued by the Hon'ble National Green Tribunal on 03.08.2018 in Original Application No. 593 of 2017 Paryavaran Suraksha Samiti & Another Vs. Union of India, prepared 'Modalities/Methodology for Assessing, imposing and utilization of Environmental Compensation'. The CPCB submitted the report to Hon'ble National Green Tribunal and the same was accepted by the Hon'ble National Green Tribunal on 25.08.2019 and the Hon'ble NGT directed to act upon as interim measure

Whereas, in the 63rd conference of Chairmen and Member Secretaries of PCB's/PCC's held on 18.03.2019, it was decided that SPCB's/PCC's may frame their guidelines on Environmental Compensation (EC) as per the report submitted by CPCB with regard to modalities/methodology for assessing, imposing and utilization of Environmental Compensation. The CPCB circulated the report of discussion and decisions taken in above meeting to all SPCB's/PCC's.

Whereas, the Haryana State Pollution Control Board, after consideration of the report of CPCB, decided to adopt the Modalities/Methodology for Assessing and Utilization of EC and issued orders vide no. HSPCB/PLG/2019/6043-50 dated 29.04.2019.;

Whereas, the Haryana State Pollution Control Board, in compliance of order of Hon'ble National Green Tribunal passed on 10.07.2019 in Original Application No. 1038 of 2019, partially modified the order dated 29.04.2019 with regard to computation of Environmental Compensation vide order HSPCB/PLG/2019/734-765 dated 20.12.2019 and made some amendments.

Whereas, the Haryana State Pollution Control Board received several representation from various industrial units and other affected projects to reconsider the policy of levying Environmental Compensation. The Technical Advisory Committee (TAC) of the Board, in its meeting held on 22.11.2021, examined the representations and recommended that the existing policy and procedure for assessing the Environmental Compensation needs to be revised.

Whereas, after considering of relevant facts and the minutes dated 22.11.2021 of the TAC, it has been decided to revise the Modalities/Methodology for Imposing and Utilization of Environmental Compensation issued by the Board vide HSPCB/PLG/2019/734-765 dated 20.12.2019 and HSPCB/PLG/2019/6043-50 dated 29.04.2019.

Therefore, in supercession of the orders issued vide no.HSPCB/PLG/2019/734-765 dated 20.12.2019 and HSPCB/PLG/2019/6043-50 dated 29.04.2019, the procedure for examining, assessing and imposing the Environmental Compensation on Industrial Units or Other Authorities, found violating the provisions of the various Acts & Rules, who caused damaged the environment of the State of Haryana, is hereby revised as enclosed here with at Annexure-A with immediate effect

Dated Panchkula, the
22nd December, 2021

P.Raghavendra Rao, IAS (Retd.)
Chairman

Endst. No. HSPCB/PLG/2021/ 2343-2350

Dated: 22-12-2021

A copy of the above is forwarded to the following for information please:-

1. The Chief Secretary to Govt. Haryana, Chandigarh
2. The Additional chief Secretary to Govt. Haryana, Town & Country Planning Department, Chandigarh.
3. The Additional chief Secretary to Govt. Haryana, Irrigation Department, Chandigarh.
4. The Additional chief Secretary to Govt. Haryana, Dept. of Environment & Climate Change Chandigarh.
5. The Principal Secretary to Govt. Haryana, Public Health Engineering Department, Chandigarh.
6. The Principal Secretary to Govt. Haryana, Urban Local Bodies Department, Chandigarh.
7. The Chairman Central Pollution Control Board, East Arjun Nagar, New Delhi
8. The Principal Secretary to Govt. Haryana, Industries & Commerce Department, Chandigarh

Sr. Environmental Engineer(PLG)
For Chairman

Endst. No. HSPCB/PLG/2021/ 2351-79

Dated: 22-12-2021

A copy of the above is forwarded to the following for information and further necessary action:-

1. All Branch Incharges in Head Office.
2. All Regional Officer, in the field.
3. Branch Incharge-IT Cell for uploading the order on the website of the Board.

Sr. Environmental Engineer (PLG)
For Chairman

Endst. No. HSPCB/PLG/2021/ 2380-81

Dated: 22-12-2021

A copy of the above is forwarded to the following for information of the officers please:-PS to Chairman.

1. PS to Chairman
2. PA to Member Secretary

Sr. Environmental Engineer(PLG)
For Chairman

**METHODOLOGY FOR
ASSESSMENT
ENVIRONMENTAL
COMPENSATION**



***HARYANA STATE POLLUTION CONTROL BOARD
C-11, SECTOR-6, PANCHKULA***

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Background of Environment Compensation

The Hon'ble National Green Tribunal (NGT), Principal Bench in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors. directed Central Pollution Control Board (CPCB) that:

"The CPCB may take penal action for failure, if any, against those accountable for setting up and maintaining STPs, CETPs and ETPs. CPCB may also assess and recover compensation for damage to the environment and said fund may be kept in a separate account and utilized in terms of an action plan for protection of the environment. Such action plan may be prepared by the CPCB within three months"

On the directions of Hon'ble NGT dated 03.08.2018 in the matter of OA No. 593/2017 (WP (CIVIL) No. 375/2012, Paryavaran Suraksha Samiti & Anr. Vs. Union of India & Ors, CPCB has prepared Methodology for Assessing Environmental Compensation. The Methodology prepared by CPCB has been accepted by Honble NGT vide orders dated 28.08.2019 in same case.

The Central Pollution Control Board vide letter dated 10.04.2019 circulated record notes of discussion and decision taken in 63rd conference of Chairman and Member Secretary of PCBs/Committees held on 18.03.2019, wherein it has been decided that SPCBs/PCCs may frame their guidelines on Environmental Compensation (EC) based on CPCB's report.

Accordingly, HSPCB vide order no. HSPCB/PLG/2019/6043-50 dated 29.04.2019 has adopted the modalities/methodology for assessing, imposing and utilization of environmental compensation from the polluting units in the State of Haryana. The Environment compensation assessment committee constituted at head office level vide order Endst. No. HSPCB/2019/6094-6119 dated 06.05.2019 for examination and finalization of environment compensation report submitted by the Regional Officers.

Hon'ble NGT in its order dated 19.11.2019 in the matter of OA No 1038/2019 held that in absence of exact date of violation environment compensation should be imposed for last 5 years. Hon'ble NGT has also given the reference of orders of Hon'ble Supreme Court of India in matter of Indian Council for Enviro Legal Action & Ors. Vs. Union of India & Ors., (1996) 3 SCC 212 Para 16 and in matter of Vellore Citizens Welfare Forum Vs. Union of India & Ors. (1996) 5 SCC 647 Para 12-18 –holding that "Polluter Pay" principle is accepted principle and part of environmental law of the country, even without specific statute.

Thereafter, HSPCB vide order Endst. No. HSPCB/PLG/2019/734-765 dated 20.12.2019 partially modified this office order dated 29.04.2019 regarding date of computation of environment compensation.

Hon'ble NGT vide orders dated 12.03.2019 in OA No. 710 of 2017 held that SPCBs are also authorized to recover compensation from polluters or laying down their own scale which should be not less than that fixed by CPCB.

In supersession of earlier orders of board, the revised procedure for examining and assessing the environmental compensation submitted by regional officer of HSPCB, ECAC and branch in charges is as follows:-

Area of applicability

The Cases for levying environmental compensation are as under:-

- a. Units discharging the environmental pollutants in excess of the standards prescribed under EP Rules, 1986 and as prescribed in the consent granted to such units under Water Act, 1974/Air Act, 1981.
- b. Non-compliance of the any directions issued by the State Board under the provisions of Water Act, 1974, Air Act, 1981 and EP Act, 1986.
- c. Non-adherence to the action plans submitted by unit to the Board for making compliances.
- d. Failure to install Online Continuous Emission/ Effluent Monitoring system, intentional avoidance of data submission or data manipulation by tampering OCEMS
- e. Accidental discharges lasting for short durations resulting into damage to the environment.
- f. Intentional discharges of effluent and/or emissions to the environment including bypassing the pollution control devices on land, water and air, which results damages to the environment.
- g. Injection of treated/partially treated/ untreated effluent to ground water.
- h. Discharge of untreated/partial treated Sewage by STP and/or CETP
- i. Failure of preventing the pollutants being discharged in water bodies.
- j. Operating without obtaining prior consent to operate under the Water (Prevention and Control of Pollution) Act, 1974 and/or Air (Prevention and Control of Pollution Act, 1981.
- k. Operating without installation pollution control devices of water and/or emission.
- l. Failure to implement responsibilities assigned /stipulated for CBWTF and Health care facilities covered under provisions of Bio Medical Waste Management Rules 2016 (as amended).
- m. Failure to implement responsibilities assigned /stipulated for industrial sectors/units/CHWDF under provisions of Hazardous Waste Management Rules 2016 (as amended).

- n. Failure to implement responsibilities assigned /stipulated for industrial sectors/units/CHWDF under provisions of Solid Waste Management Rules 2016 (as amended)
- o. Failure to implement other Waste Management Rules.
- p. All violations of Graded Response Action Plan (GRAP) in Haryana NCR area.
- q. Any other violation of Environmental act/rule/policy not covered above. In such cases concerned regional officer shall forward the case to ECAC mentioning all details of violation and grounds on which EC is recommended to be levied.

Formula of Calculation of Environmental Compensation

The assessment of environment compensation shall be carried out as per methodology and guidelines prepared by CPCB and accepted by Hon'ble NGT for cases specifically mentioned below:-

1. Environment Compensation to be levied for various violation by Industrial Units.
2. Environmental Compensation to be levied for all violations of Graded Response Action Plan (GRAP) in NCR.
3. Environmental Compensation to be levied for failure of preventing the pollutants being discharged in water bodies.
4. Environment Compensation for Discharge of Untreated/Partially Treated Sewage by Concerned Individual/Authority
5. Environment Compensation to be levied on Concerned Individual/Authority for Improper Solid Waste Management
6. Environmental Compensation to be levied for various violations of Healthcare facilities (HCFs).
7. Environmental Compensation to be levied for various violations for Common Biomedical Waste Treatment Facility (CBWTF).
8. Environmental compensation to be levied for various violation of HOWM Rules, 2016.

Note :-

- i. The Number of days for which violation took place shall be counted as suggested in methodology and guidelines prepared by CPCB for calculation of EC. The duration of violation in terms of number of days may be different for various violations, In such case, the amount will be calculated individually for different violations and added. Further in case, Honble NGT, Honble High court, Honble Apex court or any

other legal forum, issue orders regarding the number of days then same shall be taken into account for calculation of EC.

- ii. In case of results of sample found beyond the prescribed limits, the number of days shall be counted from the date of non compliance observed to the date of implementation of closure order or date of compliance verified. The analysis report submitted with compliance shall be from laboratory of Board or laboratory recognized by the Board.
- iii. In absence of exact date of violation environment compensation should be imposed for last 5 years.
- iv. In specific cases, where the Board is of the view that the damages caused to the environment are of such magnitude that it may require enormous efforts/money to restore the environment or reconstruct/repair property, a detailed study may be ordered to be carried out by ECAC through one or more expert agencies/institutions to assess such damages and work out the cost of restoration and environment compensation to be levied on polluters. The expenditure incurred on such study (studies) shall be borne by the polluters.

Procedure to impose Environmental Compensation

1. Concerned RO will issue the Show cause notice of 15 days to the unit mentioning the ground on which EC is proposed to be imposed and tentative amount of EC to be levied.
2. After expiry of period of SCN, concerned RO will carry out assessment of EC after examining the reply submitted by unit (in case received). Accordingly concerned RO will submit the detailed report to head office within 07 days.
3. The environment assessment report recommended by RO will be checked by Branch/Cell Incharge and submitted to ECAC alongwith details of violations and grounds on which EC is being recommended on the industrial sector/non industrial sector / units within a period 07 days.
4. The Environmental Compensation assessment Committee (ECAC) will examine and finalize amount of EC to be imposed, within 15 days' time from receipt of the details from the concerned branch.
5. The amount finalized by ECAC will be processed by concerned branch in head office and to place before competent authority for final orders of imposition of EC on defaulting units. The competent authority for issuing direction for levy and deposition of EC will be the same as prescribed for issuing direction under section 33-A of Water Act, 1974, section 31-A of Air Act, 1981 and section 5 of EP Act, 1986.

Action to be taken in case failure to deposit Environmental Compensation

- a. EC imposed will need to be deposited by Project Proponent at concerned Regional Offices within a period of 30 days from issue of directions. In case of failure to deposit EC amount within 30 days, concerned RO will follow up with defaulting unit and issue show cause notice intimating the further course of action proposed to taken.
- b. The cases of new/renewal of CTO, suspension of closure order of the defaulting unit shall not be entertained until and unless the EC is deposited.
- c. Legal actions against the defaulter in accordance with law shall also be initiated against the unit by concerned RO.
- d. In case PP fails to deposit EC after expiry of six months, the concerned RO shall request to concern Deputy Commissioner to recover the EC amount in accordance with law of Haryana Land Revenue Act or any other Act for the time being in force.

Chapter-1

Environment Compensation to be levied for various violation by Industrial Units:-

The environmental compensation for the industries will be calculated as per the following formula:

$$EC=PI \times N \times R \times S \times LF$$

Where,

EC is Environmental Compensation in ₹

PI = Pollution Index of industrial sector

N = Number of days of violation took place

R = A factor in Rupees (₹) for EC

S = Factor for scale of operation

LF = Location factor

Pollution Index (PI)

The range of Pollution Index for Red, Orange and Green is 60 to 100, 41 to 59 and 21 to 40, respectively.

The following values of PI have been suggested in the CPCB report:—

Category	Red	Orange	Green
PI	80	50	30

Number of days (N)

N, number of days for which violation took place is the period between the day of violation observed/due date of direction's compliance and the day of compliance verified by Regional office

Factor in Rupees (R)

The minimum of 100 and maximum of 500 of factor in Rupees (R) mentioned in report of CPCB.

The CPCB has suggested R as 250 for calculation of the Environmental Compensation in cases of violation.

Factor for scale of operation (S)

The following values of PI have been suggested in the CPCB report:—

Category	Small/micro	Medium	Large
S	0.5	1.0	1.5

Location factor (LF)

Value of Location Factor will be based on population of the city/town and location of the industrial activity. For the industrial unit located within municipal boundary or up to 10 Km. distance from the municipal boundary of the city/town, following values of location factors (LF) have been suggested in the CPCB report based on the population of the city/town

S. No.	Population (In million)*	Location Factor
1.	Upto one million	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 at a distance > 10 Km. from the municipal boundary.

LF is presumed as 1 for city/town having population less than 1 million.

In any case, minimum Environmental Compensation shall be ₹ 5000/day.

Chapter-2

Environmental Compensation to be levied for all violations of Graded Response Action Plan (GRAP) in NCR.

The CPCB has suggested the following EC to be levied on all violations of Graded Response Action Plan (GRAP) in Delhi NCR:-

Activity	State Of Air Quality	Environmental Compensation
Industrial Emissions	Severe +/Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh
Vapour Recovery System (VRS) at Outlets of Oil Companies		
i. Not installed	Target Date	Rs 1.0 Crore
ii. Non-functional	Very poor to Severe +	Rs 50.0 Lakh
	Moderate to Poor	Rs 25.0 Lakh
Construction sites (Offending plot more than 20,000 Sq.m.)	Severe +/Emergency	Rs 1.0 Crore
	Severe	Rs 50 Lakh
	Very Poor	Rs 25 Lakh
	Moderate to Poor	Rs 10 Lakh
Solid waste/ garbage dumping in Industrial Estates	Very poor to Severe +	Rs 25.0 Lakh
	Moderate to Poor	Rs 10.0 Lakh
Failure to water sprinkling on unpaved roads		
a) Hot-spots	Very poor to Severe +	Rs 25.0 Lakh
b) Other than Hot-spots	Very poor to Severe +	Rs 10.0 Lakh

Chapter-3

Environmental Compensation to be levied for failure of preventing the pollutants being discharged in water bodies.

Environmental Compensation Formula

The CPCB has suggested that environmental compensation in these cases should be comprised of two components i.e.

1. Cost saved/benefits achieved by the concerned individual/authority by not having proper waste/sewage management system; and
2. Cost to the environment (environmental externality) due to untreated/partially treated waste/sewage because of insufficient capacity of waste/sewage management/treatment facility.

Cost saved/benefits achieved by not having proper waste/sewage management system includes the interest on capital cost of the waste/sewage management facility and daily operation and maintenance (O&M) cost associated with the facility.

Capital Cost Factor may be considered as 10% on loan amount of annual interest rate borrowed by concerned individual/authority for setting-up waste/sewage management facility, for calculation of environment compensation.

Further, O&M cost factor may be considered as 100% of the O&M cost saved, as whole O&M cost is saved by concerned individual/authority for not managing required waste/sewage management system.

Therefore, generalized formula for Environmental Compensation may be described as:

$$\begin{aligned} EC = & \text{Capital Cost Factor} \times \text{Marginal Average Capital Cost for Establishment of Waste or Sewage} \\ & \text{Management or Treatment Facility} \times (\text{Waste or Sewage Management or Treatment Capacity Gap}) \\ & + \text{O\&M Cost Factor} \times \text{Marginal Average O\&M Cost} \times (\text{Waste or Sewage Management or Treatment} \\ & \text{Capacity Gap}) \times \text{No. of Days for which facility was not available} + \text{Environmental Externality} \end{aligned}$$

Cost to the environment due to untreated/partially treated waste/sewage discharge by concerned individual/authority mentioned in the CPCB report is given as under:-

Table No. 3.1: Environmental externality for untreated/partially treated sewage discharge

Sewage Treatment Capacity Gap (MLD)	Marginal Cost of Environmental Externality (Rs. per MLD/day)	Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)
Up to 200	75	Min. 0.05, Max. 0.10
201-500	85	Min. 0.25, Max. 0.35
501 and above	90	Min. 0.60, Max. 0.80

Table No. 3.2: Environmental externality for improper municipal solid waste management

Municipal Solid Waste Management Capacity Gap (TPD)	Marginal Cost of Environmental Externality (Rs. per ton per day)	Minimum and Maximum value of Environmental Externality recommended by the Committee (Lacs Rs. Per Day)
Up to 200	15	Min. 0.01, Max. 0.05
201-500	30	Min. 0.10, Max. 0.15
501-1000	35	Min. 0.25, Max. 0.35
1001-2000	40	Min. 0.50, Max. 0.60
Above 2000		Max. 0.80

The minimum and maximum cost for capital and O&M component for Environmental Compensation mentioned in the CPCB report are given as under:

Table No. 3.3: Minimum and Maximum EC to be levied for untreated/partially treated sewage discharge

Class of the City/Town	Mega-City	Million-plus City	Class-I City/Town and others
Minimum and Maximum values of EC (Total Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 2000 Max. 20000	Min. 1000 Max. 10000	Min. 100 Max. 1000
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 2 Max. 20	Min. 1 Max. 10	Min. 0.5 Max. 5

Table No. 3.4: Minimum and Maximum EC to be levied for improper municipal solid waste management

Class of the City/Town	Mega-City	Million-plus City	Class-I City/Town and others
Minimum and Maximum values of EC (Capital Cost Component) recommended by the Committee (Lacs Rs.)	Min. 1000 Max. 10000	Min. 500 Max. 5000	Min. 100 Max. 1000
Minimum and Maximum values of EC (O&M Cost Component) recommended by the Committee (Lacs Rs./day)	Min. 1.0 Max. 10.0	Min. 0.5 Max. 5.0	Min. 0.1 Max. 1.0

Chapter-4

Environment Compensation for Discharge of Untreated/Partially Treated Sewage by Concerned Individual/Authority:

Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

**EC= Capital Cost Factor x [Marginal Average Capital Cost for Treatment Facility x (Total Generation-Installed Capacity) + Marginal Average Capital Cost for Conveyance Facility x (Total Generation -Operational Capacity)] + O&M Cost Factor x Marginal Average O&M Cost x (Total Generation- Operational Capacity) x No. of Days for which facility was not available
+ Environmental Externality x No. of Days for which facility was not available**

Alternatively;

EC (Lacs Rs.) = [17.5(Total Sewage Generation – Installed Treatment Capacity) + 55.5(Total Sewage Generation-Operational Capacity)] + 0.2(Sewage Generation-Operational Capacity) x N + Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) x N

Where; N= Number of days from the date of direction of HSPCB till the required capacity systems are provided by the concerned authority

Quantity of *Sewage is in MLD*

Chapter-5

Environment Compensation to be levied on Concerned Individual/Authority for Improper Solid Waste Management:

Environmental Compensation to be levied on concerned ULB may be calculated with the following formula:

$$**EC = Capital Cost Factor \times Marginal Average Cost for Waste Management \times (Per day waste generation - Per day waste disposed as per the Rules) + O\&M Cost Factor \times Marginal Average O\&M Cost \times (Per day waste generation - Per day waste disposed as per the Rules) \times Number of days violation took place + Environmental Externality \times N**$$

Where;

Waste Quantity in tons per day (TPD)

N= Number of days from the date of direction of HSPCB till the required capacity systems are provided by the concerned authority

Simplifying;

$$**EC (Lacs Rs.) = 2.4(Waste Generation - Waste Disposed as per the Rules) + 0.02 (Waste Generation - Waste Disposed as per the Rules) \times N + Marginal Cost of Environmental Externality \times (Waste Generation - Waste Disposed as per the Rules) \times N**$$

Chapter-6

Environmental Compensation to be levied for various violations of Healthcare facilities (HCFs).

Environmental Compensation for HCFs = HR x T x S x R x N

Where;

HR – Health Risk factor

T- Type of Healthcare Facility

S – Size of Health Care Facility

R – Environmental Compensation factor

N – Number of days of Violation

Health Risk (HR)

Health Risk (HR) is a number from 0 to 100 and increasing HR value denotes the increasing degree of health risk due to improper handling of BMW in healthcare facility.

	No arrangement for disposal of BMW with CBWTF (1)	Not Applied for Authorization (2)	Improper Segregation of BMW (3)	No pre-Treatment (4)	On-site storage not provided or not adequate (5)	No ETP Despite requirement (6)	Score for each of Other Violations of BMW Rules, 2016 (7)
Health Risk Score (HR)	30	10	20	10	10	15	5

Note: Score of 5 to be added for each of other violations at column (7), with sum of HR limited to 100

HR is sum of (1) + (2) + (3) + (4) + (5) + (6) + (7) [restricted to 100]

Type of Healthcare Facility (T) is a factor for type of healthcare facility, as given below:

Type of Healthcare Facility	T Factor
Bedded Hospitals	1.0
Bedded Ayush Hospitals	0.5
Non-bedded (veterinary hospital, pathological laboratory, blood bank)	1.0
Non-bedded (clinic, dispensary, and clinical establishment)	0.5
Animal Test Houses	1.0

Size of Health Care Facility (S) is a factor for size of Healthcare Facility (HCFs) based on number of beds of the Healthcare Facility, as given below:

Size of Healthcare Facility (HCFs)	S factor
Non-bedded (clinic, dispensary, and clinical establishment)	0.15
Non-bedded (veterinary institution, pathological laboratory, blood bank)	0.2
1 to 10 bedded HCFs	0.20

Size of Healthcare Facility (HCFs)	S factor
10 to 50 bedded HCFs	0.30
50 to 100 bedded HCFs	0.50
100 to 500 bedded HCFs	1.00
500 and more bedded HCFs	1.50
Animal Test House	1.00

Number of days of Violation (N) Number of days for which violation took place is the period between the day of violation observed/due date of implementation as per BMW Rules, 2016/due date of compliance of directions and the day of compliance verified by HSPCB.

Environmental Compensation factor (R) is a factor in Rupees, taken as 250 Further, in any case minimum Environmental Compensation in respect to Healthcare Facility shall not be less than Rs.1200/- per day.

2.1 Deterrent Factor for Healthcare Facilities

Incremental effect on Environmental compensation charges are given below:

Scenario	Applicable ECC
Up to 15 days from target date	Original ECC
Between 15 to 30 days beyond target date	Two times
Fails to comply in 2 nd inspections including new violations if any	Two times
Between 30 to 45 days beyond target date	Four times
Fails to comply in 3 rd inspections including new violations if any	Four times
Beyond 60 days from target date	Closure of HCF
Fails to comply in 4 th consecutive inspection	Closure of HCF

Chapter-7

Environmental Compensation to be levied for various violations for Common Biomedical Waste Treatment Facility (CBWTF).

Environmental Compensation for CBWTFs =
 $PI \times S \times R \times N$ Environmental Compensation

Where;

PI– Pollution Index

S – Size of Operation

R – Environmental

Compensation factor N –

Number of days of Violation

Pollution Index (PI) is a number from 0 to 100 and increasing value of PI denotes the increasing degree of pollution hazard from CBWTF.

Cases	Incinerator emissions not complying with standards notified under BMWM Rules, 2016 (1)	Treated wastewater not complying with standards notified under BMWM Rules, 2016 (2)	Not complying with standards of autoclave/ microwave notified under BMWM Rules, 2016 (3)	Biomedical waste not collected and Disposed off within 48 hours (4)	Each of Other violations to BMWM Rules, 2016/CPCB Guidelines (5)
PI	20	15	15	10	10

Note: Score of 10 can be added at column (5) for each of other violations, provided sum of PI is limited to 100

$$PI = (1) + (2) + (3) + (4) \text{ [Restricted to 100]}$$

Size of Operation (S) Scale of operation for CBWTFs will be taken from following Table;

Authorized Treatment Capacity (Based on Incinerator size)	Scale Factor
Up to 100 Kg/hour	0.25
100 to 250 Kg/hour	0.50
250 to 500 Kg/hour	1.00
> 500 Kg/hour	1.50

Environmental Compensation factor (R) is a factor in Rupees, which is taken as 250

Number of days of Violation (N) Number of days for which violation took place is the period between the day of violation observed/due date of implementation as per BMWM Rules, 2016/due date of compliance of directions and the day of compliance

verified by CPCB/SPCB/PCC.

Further, in any case minimum Environmental Compensation in respect to Common Biomedical Waste Treatment Facility shall not be less than Rs. 3,000/- per day.

For Healthcare facilities having their own treatment and disposal facility, the environmental compensation shall be calculated as in the case of CBWTFs.

3.1 Deterrent Factor for Common Biomedical Waste Treatment Facilities

Incremental effect on Environmental compensation charges are given below:

Scenario	Applicable ECC
Up to 30 days from target date	Original ECC
Between 30 to 60 days beyond target date	Two times
Fails to comply in 2 nd inspection including new violations if any	Two times
Between 60 to 90 days beyond target date	Four times
Beyond 90 days	Closure of CBWTF
Fails to comply in 3 rd consecutive inspection	Closure of CBWTF

Chapter-8

Environmental compensation to be levied for various violation of HOWM Rules, 2016.

1. Categorization of violations and financial penalty & environmental compensation thereof various violations of HOWM Rules, 2016

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
- B. Category B: violations causing environmental damage including procedural violations
 - 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".
 - 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.

2. Methodology for Assessing Financial Penalty and Environmental Compensation.

- A. Financial Penalty
- B. Environmental Compensation

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

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

Where,

Q is noticed¹ or observed¹ 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 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:

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

Q= Quantity in terms of tone/per year, as specified in authorisation(one year =300 days) x **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:

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

[.....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

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

S. No	Type of operations from where waste is generated	ECF
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

Type of Facility	T Factor
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

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

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 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 (as derived from Equation 1) + (Rs. 5000 x Nos. of days for which violation took place]

[.....Equation 4]

- (i) 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:
- The leachate is illegally disposed or send to unauthorised party
 - Violations in leachate management or the leachate management facility requires upgradation as per direction of CPCB/ SPCB/ MoEF&CC
 - Waste Water generated during the process is disposed illegally or not as per the consent conditions
 - Effluent Treatment Plant is not meeting the norms stipulated under EPA, 1986 or CTO issued by SPCB/PCC
 - 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:

$$\text{Environmental Compensation (EC)} = \text{PI} \times \text{N} \times \text{R} \times \text{S} \times \text{LF}$$

.....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

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

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

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

SI. No.	Amount Deposition time period	Environmental Compensation and Financial Penalty Amount
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

(a) 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

Sl. No.	Time Period for compliance	Environmental Compensation and Financial Penalty Amount
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

Performa for recommendation for environmental compensation by Regional Officer.

1.	Name & address of the unit																	
2.	Name and designation of the officer(s) inspected the unit																	
3.	Product(s) and bio-products																	
4.	Manufacturing process																	
5.	Status of CTE																	
6.	Status of CTO																	
7.	Date of inspection of the unit																	
8.	Date of commissioning																	
9.	Detail of violation observed during inspection:	<ul style="list-style-type: none"> a. Operational / not operational b. Established and Operating without CTE/CTO of the Board. c. ETP not installed/ not adequate d. APCM not installed/ not adequate e. Reverse pumping/by-passing the effluent/air emissions f. Others 																
10.	Category of the unit	<ul style="list-style-type: none"> i. Red / Orange / Green ii. Large / Medium / Small Scale 																
11.	Complaint / Court case, if any.																	
12.	Detail of sampling and analysis of effluent/air emission exceeding the norms.	<table border="1"> <thead> <tr> <th>Type of sample</th> <th>A/R no. & date</th> <th>Parameter</th> <th>Results</th> </tr> </thead> <tbody> <tr> <td>Effluent</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Air emissions</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Noise</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Type of sample	A/R no. & date	Parameter	Results	Effluent				Air emissions				Noise			
Type of sample	A/R no. & date	Parameter	Results															
Effluent																		
Air emissions																		
Noise																		
13.	Reasons for not collection of samples, if not collected.																	
14.	Detail of Show Cause Notice for EC issued with date.																	
15.	Reply of Show Cause Notice, if any received.																	
16.	No. and date of closure order issued by the Board																	
17.	Compliance of closure order if applicable.																	

18.	Present status of compliance made by the unit, if any after issue of show cause notice.	
19.	<p>Cases for levying environmental compensation:-</p> <p>a) Units discharging the environmental pollutants in excess of the standards prescribed under EP Rules, 1986 and as prescribed in the consent granted to such units under Water Act, 1974/Air Act, 1981.</p> <p>b) Not complying with the directions issued, such as direction for closure due to non-installation of OCEMS, non-adherence to the action plans submitted etc.</p> <p>c) Intentional avoidance of data submission or data manipulation by tempering the Online Continuous Emission/ Effluent Monitoring system.</p> <p>d) Accidental discharges lasting for short durations resulting into damage to the environment.</p> <p>e) Intentional discharges to the environment including bypassing the pollution control devices -- land, water and air resulting into acute injury or damages to the environment.</p> <p>f) Injection of treated/partially treated/ untreated effluent to ground water.</p> <p>g) All violations of Graded Response Action Plan (GRAP)</p>	

	in Delhi NCR area. h) Failure of preventing the pollutants being discharged in water bodies and failure to implement Waste Management Rules.	
20.	Date of last inspection and sampling i.e. prior present inspection (Water and/or Air and/or other pollution)	
21.	Justification of imposing environmental compensation for last five year	
22.	Final reasoned recommendations in respect of EC and documents attached to be verified.	

Environment Compensation to be levied on Industrial Units

23.	PI - Pollution Index (Red : 80, Orange : 50 and Green : 30)	
24.	N - No of days of violation	From _____ to _____
25.	R - Factor in Rupees	
26.	S - Factor for scale of operation (0.5 for micro or small, 1.0 for medium and 1.5 for large unit)	
27.	LF - Location Factor (as per census)	
28.	EC= PI x N x R x S x LF	
29.	Total Amount calculated	

OR

Environmental Compensation to be levied on all violations of Graded Response Action Plan (GRAP) in NCR.

	Activity	State of Air Quality	Environmental Compensation (Rs.)	Recommended by RO
30.	Industrial Emissions	Severe +/Emergency	Rs. 1.0 Crore	
		Severe	Rs. 50 Lakh	
		Very Poor	Rs. 25 Lakh	
		Moderate to Poor	Rs. 10 Lakh	
31.	Vapour Recovery System (VRS) at Outlets of Oil Companies			
	i. Not Installed	Target Date	Rs. 1.0 Crore	
	ii. Non-Functional	Very poor to Severe+	Rs. 50 Lakh	

		Moderate to Poor	Rs. 25 Lakh	
32.	Construction sites (Offending plot more than 20,000 Sq.m.)	Severe +/Emergency	Rs. 1.0 Crore	
		Severe	Rs. 50 Lakh	
		Very Poor	Rs. 25 Lakh	
		Moderate to Poor	Rs. 10 Lakh	
33.	Solid Waste/garbage dumping in Industrial Estates	Very poor to Severe +	Rs. 25.0 Lakh	
		Moderate to Poor	Rs. 10 Lakh	
34.	Failure to water sprinkling on unpaved roads			
	a) Hot-spots	Very poor to Severe +	Rs. 25.0 Lakh	
	b) Other than Hot-spots	Very poor to Severe +	Rs. 10.0 Lakh	
OR				
35.	Environmental Compensation to be levied in case of failure of preventing the pollutants being discharged in water bodies and failure to implement waste management rules			Recommendation of RO
	<p>EC= Capital Cost Factor x [Marginal Average Capital Cost for Treatment Facility x (Total Generation-Installed Capacity) + Marginal Average Capital Cost for Conveyance Facility x (Total Generation -Operational Capacity)] + O&M Cost Factor x Marginal Average O&M Cost x (Total Generation- Operational Capacity) x No. of Days for which facility was not available + Environmental Externality x No. of Days for which facility was not available</p> <p>Alternatively;</p> <p>EC (Lacs Rs.) = [17.5(Total Sewage Generation – Installed Treatment Capacity) + 55.5 (Total Sewage Generation-Operational Capacity)] + 0.2(Sewage Generation-Operational Capacity) x N + Marginal Cost of Environmental Externality x (Total Sewage Generation-Operational Capacity) x N</p> <p>Where; N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority</p> <p>Quantity of Sewage is in MLD</p>			
OR				
36.	Environment Compensation to be Levied on Concerned Individual/Authority for Improper Solid Waste Management:			Recommendation of RO
	<p>EC = Capital Cost Factor x Marginal Average Cost for Waste Management x (Per day waste generation-Per day waste disposed as per the Rules) + O&M Cost Factor x Marginal Average O&M Cost x (Per day waste generation-Per day waste disposed as per the Rules) x Number of days violation took place + Environmental Externality x N</p>			

	<p>Where; Waste Quantity in tons per day (TPD) N= Number of days from the date of direction of CPCB/SPCB/PCC till the required capacity systems are provided by the concerned authority</p> <p>Simplifying; EC (Lacs Rs.) = 2.4 (Waste Generation - Waste Disposed as per the Rules) + 0.02 (Waste Generation - Waste Disposed as per the Rules) x N + Marginal Cost of Environmental Externality x (Waste Generation - Waste Disposed as per the Rules) x N</p>	

Signature of AEE/Sc.B

Signature of Regional Officer

Documents to be enclosed:.

- i) Copy of show cause notice dated _____.
- ii) Copy of spot inspection report dated_____.
- iii) Copy of reply of show cause notice if any.
- iv) Copy of analysis report(s).
- v) Copy of CA certificate regarding investment.
- vi) Proof of commissioning.
- vii) Copy of last inspection report (i.e. prior to the present inspection)
- viii) Copy of proof of location factor.