

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
WESTERN ZONE BENCH AT PUNE  
ORIGINAL APPLICATION NO. 39/2020

IN THE MATTER OF:

MR. RAM BABAN BORKAR ... APPLICANT

VERSUS

THE CHIEF SECRETARY-GoM & ORS. ... RESPONDENTS

FILE-A  
[VOLUME-\_\_\_]

AFFIDAVIT CUM OBJECTIONS TO THE JOINT COMMITTEE  
REPORT ON BEHALF OF ORIGINAL APPLICANT &  
ANNEXURES

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[ANNEXURE PAGE No. 348 To 415]

NITIN LONKAR  
ADVOCATE FOR APPLICANT  
Cell No. 9560466009  
E-mail: nitinlonkar@gmail.com





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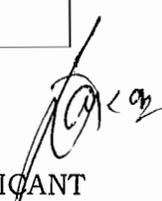
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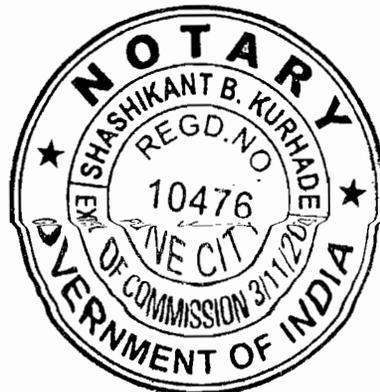
FILE-A

VOLUME-I

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Date: 09.02.2022

  
APPLICANT







BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL,  
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MR. RAM BABAN BORKAR ....APPLICANT

VERSUS

CHIEF SECRETARY-GOM AND ORS. ....RESPONDENTS

AFFIDAVIT CUM OBJECTIONS TO THE JOINT COMMITTEE  
REPORT DATED 24.10.2021 (As per Hon'ble NGT Website) ON  
BEHALF OF ORIGINAL APPLICANT

I, Mr. Ram Borkar S/o Baban Borkar Aged: Adult,  
Occupation: Business, R/o: 6/1, Erandavane, Swatantra Veer  
Savarkar Mitra Mandal, Goodwill House, Near Nisarga Hotel,  
Pune-411004, do hereby solemnly affirm and state on oath as  
follows:

I have read the contents of Joint Committee Reply Dated  
24.10.2021 filed by in reply thereto, I state as under:

1. I state that, I have filed present Original Application No. 39/2020 on 12.07.2020 before this Hon'ble Tribunal under section 14, 15 & 20 of NGT Act, 2010 seeking restoration & restitution of the area damaged on account of illegal construction raised by the PP and further sought the relief of exemplary and deterrent environmental compensation from PP on account of public property, public health.
2. I state that the, this OA was listed for admission on 15.12.2020 before this Hon'ble Tribunal and at the stage of admission this Hon'ble Tribunal constituted the Joint Committee comprising CPCB, MPCB, SEIAA & Collector of





Pune for conducting actual site visit and submission of report on action taken by these department in exercise of their statutory powers within two months.

3. I state that, the service of OA compilation were made through email on 22.02.2021 and affidavit to that effect were filed on 21.09.2021. However, since form 01.03.2021 to till 24.10.2021 Joint Committee did not filed their report for the reasons best known to them.
4. I state that, this OA were listed for hearing on various occasion of 09.07.2021, 04.10.2021, 28.10.2021, 10.12.2021 before this Hon'ble Tribunal and lastly report was filed to this Hon'ble Tribunal on 27.10.2021 after lapse of almost 9 months.

#### 5. IMPORTANT DATES AND EVENTS

I state that, the following dated are events are important to understand the over smartness of the Joint Committee in regularising of illegal construction, as the superiors from SEIAA are granting ex-post facto EC and subordinates are giving them clean chits and MPCB Officer Mr. Y. B. Sontakke himself is issuing CTE & CTO and being part of Joint Committee signing report giving clean chits, which is bias conduct violating principles of natural justice.

Sr.	Event	Date
1.	Revalidation of Plans by PMC	08.09.2016
2.	Plinth Check Certificate by PMC-Bldg-A	19.12.2017
3.	Application for EC before SEIAA	03.05.2018
4.	Plinth Check Certificate by PMC-Bldg-B	26.07.2018
5.	Application for CTE before MPCB	15.02.2019
6.	Grant of ex-post facto EC	02.02.2019
7.	Grant of ex-post facto CTE	01.10.2019



8.	OA filed on	12.07.2020
9.	CTO-I granted by MPCB	20.07.2020
10.	Hon'ble NGT first Order	15.12.2020
11.	Renewal of CTO-I by MPCB	05.04.2021
12.	Joint Committee Visit to site	10.08.2021
13.	Amended CTE by MPCB	20.10.2021
14.	Joint Committee Report submitted to NGT	27.10.2021
15.	Service of Report to Applicant	28.10.2021

**6. OBJECTIONS ON BEHALF OF THIS ORIGINAL APPLICANT TO THE JOINT COMMITTEE REPORT:**

- A) That, the Joint Committee Report is very casual, cursory, unscientific, using misleading language, jugglery in representation and conclusions are different than the actual facts.
- B) That, the Joint Committee have admitted the violations on one hand and misleading on other hands in conclusions of report.
- C) That, the it is admitted position that the TBA of proposed construction were more than 20000 M2 on revalidation dated 08.09.2016 and PP has carried out construction activity in illegal manner without prior Environment Clearance (EC) and Consent to Establish (CTE) from revalidation of sanction on 08.09.2019 to 01.02.2019 till grant of EC 30.09.2019 & further till grant of CTE.
- D) That, it is admitted position of violation as the PP have procured the Plinth Check Certificates dated 17.12.2017 & 26.07.2018 for his substantial construction of three basements and upper floors constructions without prior EC & CTE.



did not visited the site as early as the service of OA compilation.

- R) That, the Joint Committee is failed to give fair conclusion and misleded on account of substantial construction from 08.09.2016 till 01.02.2019 by revalidating the PMC building sanction without prior EC.
- S) That, the Joint Committee is failed to give fair conclusion and misleded on substantial construction from 08.09.2016 till 30.09.2019 by revalidating the PMC building sanction without prior Consent to Establish.
- T) That, the Joint Committee is failed to give fair conclusion and misleded on false, baseless and misleading application dated 05.03.2018 for obtaining EC and same was considered by SEAC-III & SEIA without application of mind.
- U) That, the Joint Committee is failed to give fair conclusion and misleded on suppressed the Defense installation of air force station in the vicinity of less than 500 Mts. From project site.
- V) That, the Joint Committee is failed to give fair conclusion and misleded on the quantity of building construction material and PP not using eco-friendly building material for construction.
- W) That, the Joint Committee is failed to give fair conclusion and misleded on valid permission for land use change from competent authority. i.e. Non-agricultural permission from Collector of Pune.
- X) That, the Joint Committee is failed to give fair conclusion and misleded on item No. 13 of 67<sup>th</sup> & 71<sup>st</sup> SEAC-III meeting



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- D) That, it is admitted position of violation as the PP have procured the Plinth Check Certificates dated 17.12.2017 & 26.07.2018 for his substantial construction of three basements and upper floors constructions without prior EC & CTE.



- E) That, the Joint Committee have admitted the illegal construction to the tune of 14957 M<sup>2</sup> carried out by PP on the date 05.03.2018 for Application of EC and said illegal construction is well prior to EC & CTE.
- F) That, EIA Notification, 2006 and Hon'ble Supreme Court Judgments passed in Common Cause v. Union of India (2017) 7 SCC 499, Goel Ganga Developers v. Union of India, (2018) 18 SCC 257, *Keystone Realtors Private Limited v. Anil V. Tharthare and Ors.*, (2020) 2 SCC 66 and *Alembic Pharmaceuticals v. Rohit Prajapati* (2020) SC Online 347 does not permits grant of post facto construction and illegal construction prior to EC.
- G) That, the Joint Committee is failed to compute the environmental compensation on account of damage caused due to illegal construction for this period from 08.09.2016 to 01.10.2019 and also failed to take action against PP.
- H) That, the Joint Committee in similar cases like Appeal No. 32/2020 (WZ), Appeal No. 34/2020(WZ), OA No. 56/2020 (WZ) have computed & imposed the environmental compensation on PP. However, in this case Joint Committee have shown their incompetence, blindness and incapability to impose the environmental damage on PP.
- I) That, the Joint Committee is protecting their superiors, who have committed illegality by granting ex-post facto EC & CTE and just to cover-up the corruption.
- J) That, the Joint Committee Report is prepared from absolutely false & misleading letter dated 20.10.2021, wherein PMC states that the, "Non-FSI=Not shown on plan" for all sanctions dated 08.09.2016, 21.12.2016, 31.03.2017,



31.07.2017, 13.12.2018, 12.03.2020 & 11.06.2021. Then how PMC have sanctioned the plans and as there is no disclosure of Non-FSI area then PMC is at financial loss for the premiums that is to be paid by PP on account of Non-FSI Area. Therefore, PMC have filed absolutely baseless letter.

- K) That, it is mandatory to disclose the building material in Form-1 & 1A required for construction of building. However, Joint Committee is failed to disclose such quantity of building material.
- L) That, the PMC letter dated 21.10.2021 does not disclose any land use change from residential to commercial use. PP has carried out commercial mall on residential land.
- M) That, the Joint Committee have intentionally neglected to bring on record the damage to ground water due to extraction of ground water from bore wells, dewatering form three basements, and depletion/damage to ground water level due to these basements.
- N) That, the Joint Committee is failed to bring on record the tanker water supply and conveniently ignored the ground water extraction.
- O) That, the construction carried out as per PMC sanction means not clean chit to the violations under environment enactments, but these Joint Committee Officers have intentionally used this misleading language in the report.
- P) That, the reports for soil test are bogus & afterthought and no report is attached with EC application.
- Q) That, as usual Joint Committee is not able to make any comments on air pollution as the construction is at the completed stage and this is the reason that Joint Committee



did not visited the site as early as the service of OA compilation.

- R) That, the Joint Committee is failed to give fair conclusion and misleded on account of substantial construction from 08.09.2016 till 01.02.2019 by revalidating the PMC building sanction without prior EC.
- S) That, the Joint Committee is failed to give fair conclusion and misleded on substantial construction from 08.09.2016 till 30.09.2019 by revalidating the PMC building sanction without prior Consent to Establish.
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- U) That, the Joint Committee is failed to give fair conclusion and misleded on suppressed the Defense installation of air force station in the vicinity of less than 500 Mts. From project site.
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- X) That, the Joint Committee is failed to give fair conclusion and misleded on item No. 13 of 67<sup>th</sup> & 71<sup>st</sup> SEAC-III meeting



and in 153<sup>rd</sup> SEIAA Meeting, that work has been initiated without prior EC.

- Y) That, the Joint Committee is failed to give fair conclusion and misleded on plinth check certificate dated 19.12.2017 & 26.07.2018 obtained by PP well prior to grant of EC and there is violation of EC dated 02.02.2019 and Consent 01.10.2019.
- Z) That, the Joint Committee is failed to give fair conclusion and misleded on account of grant of EC for: FSI: 13811.59 m<sup>2</sup>, Non FSI: 13620.63 m<sup>2</sup> & Total BUA: 27432.22 m<sup>2</sup>. (IOD no.CC/2818/18, Approval Date-13.12.2018), but has changed project scope by increasing its total BUA potential with help of revised sanctions 12.03.2020.
- AA) That, the Joint Committee is failed to give fair conclusion and misleded on account of EC dated 02.02.2019 is granted for Total BUA: 27432.22 M<sup>2</sup>, whereas Consent to Establish dated 01.10.2019 is granted for 25449.49 Sq. Mtrs
- BB) That, the Joint Committee is failed to give fair conclusion and misleded on account of permission not obtained to draw ground water and construction of basement if any shall be obtained from the competent Authority prior to construction/operation of the project, but PP have constructed three basements.
- CC) That, the Joint Committee is failed to give fair conclusion and misleded on account of no permission for basement is granted in EC dated 02.02.2019.
- DD) That, the Joint Committee have misleded on account of extracting ground water from two bore wells without



permission from competent authority and also there is no ground water test for contamination.

- EE) That, the Joint Committee is failed to give fair conclusion and misleded on account of preservation of the top layer of fertile soil required for gardening and there is no soil test.
- FF) That, the Joint Committee is failed to give fair conclusion and misleded on account of arrangement for storm water and waste water separation and it getting mixed and relied on false and baseless letter of PMC dated 21.10.2021.
- GG) That, the Joint Committee is failed to give fair conclusion and misleded on account of arrangement for air pollution causing from dust generated from construction.
- HH) That, the Joint Committee is failed to give fair conclusion and misleded on account of possession given to the purchasers and not obtained Consent to Operate from MPCB and ex-post facto CTO is obtained.
- II) That, the Joint Committee has given causal, cursory & unscientific remarks on account of installed STP, OWC, Solar System, rain water harvesting at site and no detailed of OWC, RWH, Solar System is provided.
- JJ) That, the Joint Committee is failed to give fair conclusion and misleded on account of development of RG Area and tree plantation as per norms, development of Green Belt as per Norms and relied on false and baseless letter of PMC dated 21.10.2021.
- KK) That, the Joint Committee is failed to give fair conclusion and misleded on account of change(s) in the scope of the project vide PMC revised sanction 13.02.2020, but the



project have not obtained required a fresh appraisal by this Department.

- LL) That, the Joint Committee have given the name of **erroneousness** to the **illegality** to obtaining CTE only for 25449.49 M<sup>2</sup> against the EC for 27432.22 M<sup>2</sup>. And amended CTE dated 20.10.2021 is granted after completion of construction.
- MM) That, this Report is prepared by PP and just signed by Joint Committee Members.
- NN) That, the Officer from MPCB Mr. Y. B. Sontakke have granted CTE dated 20.07.2020, CTO-I dated 05.04.2021 and amended CTE dated 20.10.2021 and regularised the illegal project and thereafter being Joint Committee Member have filed such false and baseless report to overcome their own illegality. This is totally bias conduct violating principles of natural justice, wherein these executives are illegally allowed to correct their own illegality and defaults.
- OO) That, the Officer from MPCB Mr. Y. B. Sontakke & SEIAA Member Mr. Pankaj Joshi needs be restrained from interference in this matter. As Mr. Y. B. Sontakke is well known for filing false report before this Tribunal as seen from the reports filed in OA No. 28/2019 (WZ) and OA No. 74/2019 (WZ) and Mr. Pankaj Joshi is an private architect appointed in SEIAA just for three years and he is not acting in responsible manner and anyhow, any adverse Order against public authority like SEIAA due to the intentional misconduct of such private person will be bad and public at large will lose their belief from public authority.



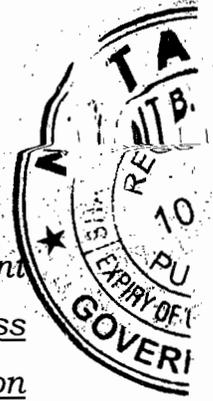
- PP) That, the partner Mr. Sankla of these Project Proponent is very notorious and there other OA No. 28/2019(WZ) on the basis of almost same case of granting ex-post facto EC and Appeal No. 48/2019(WZ) for procuring illegal EC for construction in blue flood line of Mula River are pending before this Hon'ble Tribunal and these illegal activities can show their deep unholy nexus with the corrupt officers from PMC, SEIAA & MPCB.
- QQ) That, the one more Partner Mr. Mulik is the politician having influence on the PMC, SEIAA & MPCB and procurement of such ex-post facto permissions is nothing misuse of powers & discretions by legislature and executive.
- RR) That, present case is also a serious violation. However, the report of Joint Committee shows clear cut non-application of mind on account of colourful papers received form PP at the cost of Mother Nature.
- SS) That, the Joint Committee have acted against the principles laid down in this Hon'ble Supreme Court of India, this Hon'ble Tribunal and Environment Enactments enforced by Government for grating Environment Clearance & Consents in ex-post facto manners.
- TT) That, the Joint Committee has intentionally ignored to impose the penalty of Rs. 5 Crores for not obtaining prior permissions and also failed to imposed the exemplary damages of minimum 10% of project cost to have deterrent effect on PP as held by Hon'ble Supreme Court in Goel Ganga Case.
- UU) That, the Hon'ble Supreme Court in Goel Ganga Case has settled the dispute on issue of "Built-up Area (BUA) i.e.



total construction (Covered) Area which includes FSI, Non-FSI & other utility areas”. However, PP is misleading on account of total BUA by misrepresenting the total BUA as FSI.

VV) That, the Hon’ble Supreme Court in *Sterlite Industries (I) Ltd. Vs Union of India & Ors. Etc*, 2013 (4) SCC 575, have Observed that;

*“(D) Environmental Law-- Damage to Environment by pollution -- Quantum of Compensation -- Running of Copper Smelter Plant -- Damage caused by pollution through emission and discharge of effluents -- Constitution Bench of Supreme Court in M.C. Mehta and Another vs. Union of India and others, (1987) 1 SCC 395, observed that quantum of compensation must be co-related to magnitude and capacity of the enterprises, because such compensation must have a deterrent effect and larger and more prosperous the enterprises, the greater must be the amount of compensation -- As per NERI Reports of 1998, 1999, 2003 and 2005, appellants plant did pollute the environment through emission and discharge of effluents which did not conform to standards laid down by TNPCB under Air Act and Water Act -- For these deficiencies, TNCPB also did not renew its consent for some period, yet, appellant continued to operate its plants without such renewal -- Thus, appellant company is liable to pay compensation by paying damages -- Considering the magnitude, capacity and prosperity of appellant-company, a compensation of Rs. 100 crores for having polluted the environment in the*



*vicinity of the plant and having operated the plant without renewal for a fairly long period -- No less amount would have the desired deterrent effect on appellant -- That amount initially to remain in five years Fix Deposit and interest thereon to be utilized for improving environment in the vicinity of the plant, as directed”.*

*“39. ... .”The enterprise must be held to be under an obligation to provide that the hazardous or inherently dangerous activity in which it is engaged must be conducted with the highest standards of safety and if any harm results on account of such activity, the enterprise must be absolutely liable to compensate for such harm and it should be no answer to the enterprise to say that it had taken all reasonable care and that the harm occurred without any negligence on its part.”*

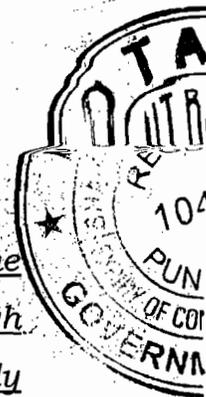
*The Constitution Bench in the aforesaid case, further observed that the quantum of compensation must be correlated to the magnitude and capacity of the enterprise because such compensation must have a deterrent effect and the larger and more prosperous the enterprise, the greater must be the amount of compensation payable by it. ....*

*“PBDIT for the financial year 2010-11 was Rs. 1,043 Crore, 40% higher than the PBDIT of Rs. 744 Crore for the financial year 2009-10. This was primarily due to higher LME prices and lower unit costs at Copper India and with the improved by-product realization.”*



Considering the magnitude, capacity and prosperity of the appellant-company, we are of the view that the appellant-company should be held liable for a compensation of Rs. 100 crores for having polluted the environment in the vicinity of its plant and for having operated the plant without a renewal of the consents by the TNPCB for a fairly long period and according to us, any less amount, would not have the desired deterrent effect on the appellant-company. The aforesaid amount will be deposited with the Collector of Thoothukudi District, who will invest it in a Fixed Deposit with a Nationalized Bank for a period of five years. The interest therefrom will be spent for improving the environment, including water and soil, of the vicinity of the plant after consultation with TNPCB and approval of the Secretary, Environment, Government of Tamil Nadu.”

41. Before we part with this case, we would like to put on record our appreciation for the writ petitioners before the High Court and the intervener before this Court for having taken up the cause of the environment both before the High Court and this Court and for having assisted this Court on all dates of hearing with utmost sincerity and hard work. In *Indian Council for Environmental Action and Others v. Union of India and Others* [(1996) 3 SCC 211], this Court observed that voluntary bodies deserve encouragement wherever their actions are found to be in furtherance of public interest. Very few would venture to litigate for the cause of



environment, particularly against the mighty and the resourceful, but the writ petitioners before the High Court and the intervener before this Court not only ventured but also put in their best for the cause of the general public.”

7. That, the Joint Committee is failed to consider their own research on computation of Environmental damages issued by SEIAA Maharashtra Vide dated 30.01.2019
8. That, the Joint Committee is failed to consider the notification dated 24.09.2020 issued by Ministry of Jal Shakti for ground water extraction, dewatering and illegal construction of basements.
9. **DAMAGE TO ENVIRONMENT AND ECOLOGY:**
  - a. As PP has made attempt to get regularisation of illegal construction carried out by revalidating PMC sanction on 08.09.2016 till 30.09.2019 prior to the procurement of ex-post facto EC dated 02.02.2019 and ex-post facto Consent Dated 01.10.2019.
  - b. PP has obtained the plinth check certificates on 19.12.2017 and 26.07.2018 which are well prior to grant of EC & Consents.
  - c. PP has constructed illegal basements and extracting ground water without any permission from competent authority, occupancy without consent to operate, non-preservation of soil, non-development of green belt as per CPCB norms, non-installation of STP, OWC, rainwater harvesting, solar energy systems, non-plantation of trees, no soil test, no



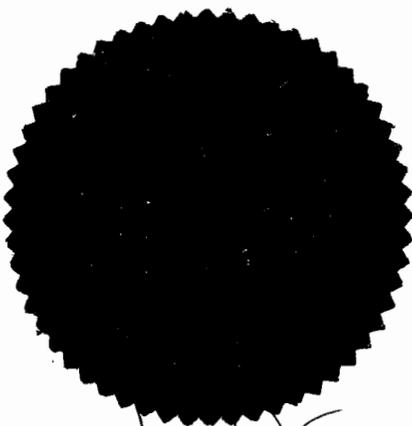
ground water test, change in scope of project by procuring revised sanction dated 13.12.2020 from PMC.

- d. These illegal act of PP have not only damaged environment and ecology, but also increased corrupt practices in the government administration casing damage to public at large.
  - e. Therefore, considering above impacts on environment, ecology, social infrastructures and natural resources, PP may kindly be imposed with compensation of Rs. 100 Crores to have exemplary and deterrent effect as held by Hon'ble Supreme Court in Sterlite Industry Case in 2013.
- 10.** Therefore, Joint Committee has considered the matter in bias manner to protect their superiors from the DoE, SEIAA, MPCB & PMC for their illegal regularisation of project and filed false, baseless, misleading, casual, cursory, unscientific report and same needs to be set aside and fresh investigation needs to be directed by sending the matter to MoEF & CPCB for fresh consideration,
- 11. IT IS THEREFORE PRAYED THAT;**
- a. Hon'ble NGT may kindly refer this matter to MOEF & CPCB for fresh report.
  - b. Hon'ble NGT may kindly direct PMC to submit the sanctions plans from 2011 to till date with clear & legible copies.
  - c. Hon'ble NGT may kindly grant prayers in Original Application.
  - d. Any other prayers in the interest of environmental justice.

Whatever stated above is true and correct to the best of my knowledge, belief and information, hence, to verify the same I have signed hereunder at Pune.

Place: Pune  
Date: 09.02.2022

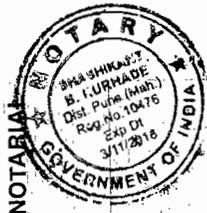
AFFIANT  
(MR. RAM BABAN BORKAR)



BEFORE ME

Shashikant B. Kurhade  
Notary Govt. of India

Noted and Registered  
at Sr. No. 61/2022  
Date:- 09 FEB 2022



NOTARIAL



NOTARIAL



NOTARIAL

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

348

SEIAA-2018/CR-150/SEIAA  
Environment Department  
Room No. 217, 2<sup>nd</sup> Floor,  
Mantralaya,  
Mumbai- 400032.  
Date: 30.01.2019

To  
The Chairman, SEAC-1  
The Chairman, SEAC-2  
The Chairman, SEAC-3

Sub : Consideration of proposals involving violation of EIA notification,  
2006 amended till date.

Dear Sir,

In pursuance of the notification dt. 14.03.2017 and O.M. dt. 15.03.2018 & 16.03.2018 issued by Ministry of Environment and Forest (MoEFCC) on procedure to be adopted for dealing with the EC violation cases, the development of a protocol for Assessment for Environmental Damage and Estimation of Remediation Costs for Building Construction Projects was under consideration.

Accordingly committee was constituted for evaluation process to evolve uniform guidelines to deal with the cases of violations under the chairmanship of chairman, SEIAA as below-

1. Shri. Ajay Deshpande, (Ex. Exprt Member, NGT)
2. Shri Mukund Athavale, Member, SEIAA
3. Dr.B.N.Patil (Director, Env.), M.S., SEAC-II
4. Shri. Abhay Pimparkar (Sci-I), M.S., SEAC-I
5. Shri Joy Thakur, SCI-II, M.S., SEAC-III
6. Shri Raghunath Mahabal, Advocate

Above committee has submitted its report to Environment Department. Further, after due consultation with stakeholders and NABET accredited consultants in a round table workshop held at Pune on 21<sup>st</sup> December, 2018, it is decided to follow the provisions of MoEF&CC notification dated 14.03.2017 and refer the report submitted by committee for Assessment of Environmental Damage And Estimation of Remediation Costs For Building Construction Projects initiated without obtaining mandatory Environmental clearance. Copy of the same is enclosed herewith for kind perusal.

In this regard, I have been directed to inform you to start appraising the proposals under violation as per the provisions of MoEFCC notification dtd.14.03.2017 and O.M. dtd. 15.03.2018 & 16.03.2018 and refer the report of committee on Assessment for Environmental Damage and Estimation of Remediation Costs.

Thanking you.



(D.S.Bhalerao)

Scientist -2, Environment  
Govt. of Maharashtra

D.A.: as above

Copy to 1. Chairman, SEIAA.  
2. P.S., Environment and M.S., SEIAA.

True copy  


An Approach for Assessment for Environmental Damage And Estimation of Remediation Costs For Building Construction Projects initiated without obtaining mandatory Environmental clearance (Violation Cases)

1. Ministry of Environment and Forest (MoEFCC) has issued a notification on procedure to be adopted for dealing with the EC violation cases on 14.3.2017<sup>1</sup> and also, give 6-month amnesty window for such proponents who have violated the EC regulations. These violations are primarily related to initiating the project work or carrying out the project activities without obtaining the mandatory EC. Special EAC was also notified to deal with violations cases at the central level. Subsequently, on 8.3.2018<sup>2</sup>, MoEFCC issued another notification which delegated the powers to deal with such 'violation cases' to the concerned SEIAA and further provided an additional amnesty window of one month for such project proponents to apply for grant of EC.
  
2. The notification dated 14.3.2017 stipulated the procedure for consideration of such cases where construction of projects was carried out without obtaining EC, treating such cases as violation cases. The important provisions for considerations of such proposal in the said notification are as under;
  - (2) *In case the projects or activities requiring prior environmental clearance under Environment Impact Assessment Notification, 2006 from the concerned Regulatory Authority are brought for environmental clearance after starting the construction work, or have undertaken expansion, modernization, and change in product-mix without prior environmental clearance, these projects shall be treated as cases of violations and in such cases, even Category B projects which are granted environmental clearance by the State Environment Impact Assessment Authority constituted under sub-section (3) Section 3 of the Environment (Protection) Act, 1986 shall be appraised for grant of environmental clearance only by the Expert Appraisal Committee and environmental clearance will be granted at the Central level. (3) In cases of violation, action will be taken against the project proponent by the respective State or State Pollution Control Board under the provisions of section 19 of the*

<sup>1</sup> MoEF notification SO 804 (E) Dated 14.3.2017

<sup>2</sup> MoEFCC notification SO 1030 (E) dated 8.3.2018

*Environment (Protection) Act, 1986 and further, no consent to operate or occupancy certificate will be issued till the project is granted the environmental clearance. (4) The cases of violation will be appraised by respective sector Expert Appraisal Committees constituted under subsection (3) of Section 3 of the Environment (Protection) Act, 1986 with a view to assess that the project has been constructed at a site which under prevailing laws is permissible and expansion has been done which can be run sustainably under compliance of environmental norms with adequate environmental safeguards; and in case, where the finding of the Expert Appraisal Committee is negative, closure of the project will be recommended along with other actions under the law. (5) In case, where the findings of the Expert Appraisal Committee at a point at sub-para (4) above are affirmative, the projects under this category will be prescribed the appropriate Terms of Reference for undertaking Environment Impact Assessment and preparation of Environment Management Plan. Further, the Expert Appraisal Committee will prescribe a specific Terms of Reference for the project an assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter in the environment impact assessment report by the accredited consultants. The collection and analysis of data for assessment of ecological damage, preparation of remediation plan and natural and community resource augmentation plan shall be done by an environmental laboratory duly notified under Environment (Protection) Act, 1986, or an environmental laboratory accredited by National Accreditation Board for Testing and Calibration Laboratories, or a laboratory of a Council of Scientific and Industrial Research institution working in the field of environment. (6) The Expert Appraisal Committee shall stipulate the implementation of Environmental Management Plan, comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefit derived due to violation as a condition of environmental clearance.*

*(7) The project proponent will be required to submit a bank guarantee equivalent to the amount of remediation plan and Natural and Community Resource Augmentation Plan with the State Pollution Control Board and the quantification will be recommended by Expert Appraisal*

Committee and finalized by Regulatory Authority and the bank guarantee shall be deposited prior to the grant of environmental clearance and will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

Subsequently, vide notification dated 8.3.2018, such powers have also been delegated to concerned SEIAA.

3. Maharashtra Scenario: In Maharashtra, there are about 104 cases which have been submitted for grant of EC under this 'violation' notification. As per the information given by DoE, there are 91 cases related to building construction projects and 14 cases related to industry. However, this number is likely to increase substantially, as during evaluation of new EC cases, the SEAC generally finds non-compliance in the appraisal process.
4. Department of Environment (DoE) and SEIAA Maharashtra wanted to streamline the process of evaluation of the 'environmental damage assessment' for such violation cases to bring reasonable consistency and uniformity in approach and assessment while dealing with such cases. The assessment of environmental damage is no doubt a very specialised study and the parameters, approach, weightages, techniques are likely to vary significantly from project to project and also, from area to area. Still however, it would be necessary and prudent to develop some broad structure and framework for such environmental damage assessment which can be used by concerned SEAC for consistent and uniform methodology. The SEACs can obviously incorporate any new specific aspect of evaluation, based on project type, damages anticipated and sensitivity of project area by making special reference to such compelling factors to incorporate additional evaluation aspects. This report is outcome of such requirement of DoE and SEIAA Maharashtra.
5. The present approach paper deals only with Building construction project. However, the broad principles can be adopted with suitable modifications for the industrial projects. The subject of environmental damage

assessment and also, restitution and restoration of environment is a very complex and multidisciplinary subject and the present approach paper is based on desktop studies to prepare some basic framework for assessment of the proposal received in order to ensure a broader consistency in appraisal for various SEAC. The framework is generic in nature and obviously, open for further updating with gain of knowledge and experience while dealing with subject, based on field level data and information.

6. Assessment of environmental damages and preparation of remediation plan are highly specialised subject and very much case specific. The methods and techniques to assess the damage would vary from project to project and also, has significant correlation with project site. Considering this, the scope of this approach paper has been limited to preparation of broad guidelines and framework to assess the damage, rather than detailing actual procedure and methodology. Considering the types of projects, the environmental damage assessment methodology can be conveniently grouped in three types of activities/process namely; a. building and construction activities b. infrastructure and mining and c. industries. The broader contours of environmental damage assessment of these three sectors would vary significantly in its content, scope of investigation and analytical processes to assess the damages. Considering the present scope of this report, the report only deals with damage assessment aspects of violation cases. In fact, most of the literature on environmental damage assessment is related to unauthorised effluent discharges, ecological damages, chemical accidents, ground water contamination, hazardous waste disposal etc. Though, there is also a serious and urgent need of developing India specific protocols for such environmental damage assessment as a part of enforcement strategy and interventions, the report does not deal with these aspects and the scope strictly remains limited to damage assessment for violation cases as per MoEFCC notification dated 14.3.2018, with main focus on Building and construction projects as per the requirement of DoE and SEIAA.

7. Legal background: The "Polluter Pays" principle as interpreted by Supreme Court<sup>3,4</sup> means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental of the damaged environment is part of the process of "Sustainable Development" and as such polluter is liable to pay the cost to the individual sufferers as well as the cost of the reversing the damaged ecology. The precautionary principle and the polluter pays principle have been accepted as part of the law of the land. It is thus settled by Supreme Court that one who pollutes the environmental must pay to reverse the damage caused by his acts. In *Vellore Citizens' Welfare Forum v. Union of India and Ors.*: AIR1996SC2715, the precautionary principles and polluter pays principle were held to be part of the environmental law of the country. It was held that the polluter pays principle means that the absolute liability for harm to the environment extends not only to compensate the victims of pollution but also the cost of restoring the environmental degradation. Remediation of the damaged environment is part of the process of sustainable development.
  
8. The use of liability assessment following instances of physical damage or pollution of environmental resources has long been a feature of national legislations. The restitution and restoration aspects have been part of Water (P&CP) Act, 1974, but unfortunately no specific guidelines or protocol have been established so far. There are also not much of established success stories of restitution which can provide some guidance. The National Green Tribunal Act, 2010 specifically provides provisions for restitution, restoration and compensation in case of environmental damages or incidences of environmental degradation, on strict liability basis. However, no technical guidelines or procedures are available for such environmental damage assessment or restoration or compensation etc except one prepared for CPCB for liability assessment

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<sup>3</sup> Enviro-Legal Action vs. Union of India 1996 (2) JT 196

<sup>4</sup> (1997)1SCC388B . W.P.(C) No996: M.C. Mehta Vs Kamal Nath and ors.

for HW disposal.<sup>5</sup> Still however, there are no published case studies regarding application of these guidelines.

9. For example, the US Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) has provided for the clean-up of hazardous waste sites since 1980 and requires resource damage assessment for this and similar instances of environmental injury. In Europe, the Environmental Liability Directive (ELD 2004/35/EC) now applies a common approach to assessment which aims to prevent and remedy environmental damage by holding those responsible liable for remediation. However, while there are prescribed procedures for remediation, there remain the difficulty of how to achieve an equivalent level of habitat quality to that, which existed before an incident and how to account for interim losses, including losses to social wellbeing.
10. Damage as defined by the ELD presupposes that liability can be identified. Where this is possible, the ELD allows for three types of remediation:
  - a. Primary remediation to restore a damaged resource or impaired service to its baseline condition;
  - b. Complementary remediation when a site cannot be fully restored using primary remediation and which involves intervention or improvements to habitat at another site which is physically or geographically linked in terms of species/ habitats or human interactions;
  - c. Compensatory remediation in cases where there are interim losses before ecological functions can be fully restored or replaced.
11. Liability to the government for clean-up costs and natural resource damages under CERCLA is generally joint and several, unless the defendant can show that the harm is divisible or another reasonable basis for apportionment. However, in the present case, as there is only single project, there is no occasion to consider proportioning the liability. The entire liability (absolute) on the complementary basis stands against the

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<sup>5</sup> Guidelines on Implementing Liabilities for Environmental Damages due to Handling & Disposal of Hazardous Waste and Penalty, published by CPCB 2016.

project proponent, as the remediation and restoration of construction site is not envisaged.

12. A number of US courts have applied the "Gore factors," so named because they were part of a 1980 proposed amendment to CERCLA sponsored by then-Senator (now Vice President) Albert Gore (which was not ultimately enacted):
  - a. the ability of the parties to show that their contribution to a discharge, release or disposal of a hazardous waste can be distinguished;
  - b. the amount of the amount of hazardous waste involved; - the degree of toxicity of the hazardous waste involved;
  - c. the degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste;
  - d. the degree of care exercised by the parties with respect to the hazardous waste; and
  - e. the degree of party cooperation with government officials.
13. Federal courts have also applied the following other equitable factors:
  - a. the relative fault of the parties in causing the release of the hazardous materials;
  - b. the knowledge and/or acquiescence of the parties in the contaminating activities;
  - c. the benefits received by the parties from the contaminating activities;
  - d. the relative clean-up costs incurred as a result of the released hazardous wastes;
  - e. the financial resources of the parties involved;
  - f. contracts between the parties bearing on the subject;
  - g. circumstances and conditions of property conveyance in cases involving successive owners; and
  - h. any traditional equitable defences as mitigating factors.
14. **Role of Consultants:** The PP and industries generally take advise of the NABET approved consultants for preparation of EIA report and also, for

completing EC procedure. These consultants are 'accredited' consultants duly recognised by NABET after careful evaluation of their capabilities and understanding of environmental law and regulations besides technical competence. In other words, these consultants have been given special recognition and also, the MoEFCC notification has especially mandated that all the EIAs and EC procedures needs to be done only through NABET approved consultants, carving out a niche business for these consultants. Such a recognition and special business opportunity will obviously entail with 'responsibility' cast upon these consultants to advise the project proponents on compliance, identify the non-compliance and also, bring it to notice of project proponents/regulators at the first instance while advising the project proponents to ensure timely compliance. It is therefore necessary that the role of such consultants, if they are associated with the project proponents during the occurrence of such violation or immediately thereafter, needs to be critically examined in order to ensure that these consultants perform their duty to ensure compliance in a more effective way. The proposed damage and liability assessment exercise needs to cover these aspects which will ensure that the non-compliances in future are brought to the notice of project proponents and regulator in time, for timely enforcement and compliance actions.

15. Considering the above discussions, it is proposed that in this phase of report, methodologies for damage assessment and liability evaluation are proposed for building and construction projects, with following considerations;
  - a. These methodologies are for the projects (construction and industries) which are in 'permissible' in the area where project is located and are included in 'regulated' activity as per EC regulations and associated notifications. The methodology cannot be and should not be applied for the projects in non-conforming zone.
  - b. These methodologies are evolved only to consider limited violation in terms for initiating the project activities without EC. They cannot and should not be applied in case of any case pollution or degradation incident for which separate methodologies need to be developed and adopted.

16. Damage Assessment and Remediation cost:

The notification of 14.3 2017 describes the rationale for assessment of environmental damage costs and remediation costs as under;

*"6. The Expert Appraisal Committee shall stipulate the implementation of Environmental Management Plan, comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefit derived due to violation as a condition of environmental clearance.*

*7. The project proponent will be required to submit a bank guarantee equivalent to the amount of remediation plan and Natural and Community Resource Augmentation Plan with the State Pollution Control Board and the quantification will be recommended by Expert Appraisal Committee and finalized by Regulatory Authority and the bank guarantee shall be deposited prior to the grant of environmental clearance and will be released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority. "*

16. Three aspects emerge from the above as under;

- a. The project proponent needs to develop remediation action plan commensurate with the environmental damage assessed and also, the economic benefit derived due to violation of EC.
- b. The PP also needs to develop natural and community Resource Augmentation plan (NCRAP) along with the cost. This is not linked with the environmental damage or economic benefits accrued from violation.
- c. Both the remediation and NCRAP needs to be implemented by PP independently which needs to be verified by regulatory authority. There is no time limit or verification methodology defined for such implementation. Still however, the time limit can always be

considered by authority as a part of EMP while approving the EMP and EC.

17. The literature and references available on environmental damages are mainly related to environmental degradation resulting from waste disposal or degradation of forest. The important aspects in the design of remediation program can be as under;
- a. Damage assessment and significance;
    - i. Definition of the status of the resource prior to the incident causing damage; (Baseline)
    - ii. Assessment of the scale of damage; (Services and beneficial use of site)
    - iii. Impact assessment; (modeling) and;
    - iv. Determining whether damage is 'significant'. (Significance threshold and integrity of site)
  - b. Primary restoration options,
    - i. With an aim to restore the damaged resource and, if possible, return the resource to baseline (pre-incident) conditions
    - ii. Setting restoration targets;
    - iii. Identifying primary restoration options;
    - iv. Selecting primary restoration options; and
    - v. Estimating interim losses
  - c. Compensatory restoration options.
    - i. Setting the objectives for compensatory restoration options;
    - ii. Monetary compensation and/or resource compensation;
    - iii. Identifying the compensatory options; and
    - iv. Selecting the compensatory options.
18. Generally, the remediation and restoration need to be designed based on either of the three following approaches in order to design, select and determine the scale of the compensatory restitution and restoration options
- a. **Service-to-service approach:** Accept a one-to-one trade-off between the services that are lost due to damage and the services that are created through compensatory restoration. Reasonable to make this

assumption if the replacement resources are of the same type, quality and of comparable value.

- b. **Value-to-value approach:** Used for scaling of Class II and II options, i.e. when the assumption of a one-to-one match between lost services and compensatory services is not necessarily valid. The approach estimates the economic value of interim losses and the economic value of the services generated by the compensatory restoration option.
- c. **Value-to-cost approach:** Within this approach, restoration is scaled by equating the cost of the restoration plan to the value (in monetary terms) of losses due to the injury. This approach is only suitable when damage is relatively minor.

The remediation plan also needs to be proactive on futuristic issues and need to consider following;

- should be the result of an evaluation process based on, but not limited to the following :
  - The cost to carry out the option;
  - Time it will take for the restoration to be effective;
  - Extent to which each option is expected to return the damaged resource to its baseline;
- Likelihood of success of each option;
- The extent to which each option will prevent future damage (flowing from the initial incident), and avoid collateral damage as a result of implementing the option;
- The extent to which each option generates benefits for the damaged and/or other natural resources beyond returning the damaged resource to its baseline; and
- The effect of each alternative on public health and safety

19. The total environmental damage needs to be assessed based on the environmental restoration cost required considering the above-mentioned project related attributes and as per the settled legal principles, such assessment need to be based on 'absolute' liability principle.

The notification refers to covering mainly three aspects in overall damage assessment studies prior to consideration of such violation cases, namely;

- **Opportunity cost:** benefits accrued due to early implementation of project without obtaining the mandatory EC and shall also include Cost for deterrence (penalty) for violation of EC regulation which needs to consider factors like project proponents track record, factors contributing to environmental damage etc.
  - **Environmental damage cost** to be assessed based on the available data
  - **Cost of remediation and restoration.**
20. While working on these themes, it would be necessary to keep in mind that the entire exercise is being under the provisions of the EC regulation 2006, as amended and the Environmental protection Act. It is also necessary to note that there are hardly any scientific studies to assess the environmental damages in holistic manner and also, there are very few cases where environmental restoration and restitution has fully been achieved. However, they are related to remediated of contaminated sites and/or contaminated ground water. There are several cases where the SC, HCs and NGT have ordered remediation and restoration, but there are hardly any studies where both restitution/restoration and damage assessment has been carried out simultaneously. It would therefore be necessary to adopt an approach which may be advoc in nature but based on scientific approach. There could be uncertainty in damage assessment but as already held by judicial pronouncements, the uncertainly in environmental damage and restoration on a positive side, towards preserving environment (precautionary principle) is acceptable, while demonstrating the good efforts in assessing the same.
21. **Economic Benefit Assessment:** One of the important aspects of this notification is inclusion of concept of economic benefits accrued due to violation of EC regulations. Traditionally, this concept has always been integrated in effective enforcement of standards and regulations all over the world because any violation or relaxation in environmental regulations, would result into economic advantage, rather in many cases, environmental norms are violated to derive economic advantages and benefits. In order to ensure that the compliance is encouraged, it would

be in the best interest to develop some tools to incorporate financial disadvantage for the non-compliance.

22. Violators obtain an economic benefit from violating the law by delaying compliance, avoiding compliance or achieving an illegal competitive advantage. In delaying compliance, the violators eventually comply, but they use the money that should have been spent on compliance. The violators then use that money for profit-making investments. In a very simple sense, the violators "gain" the interest on the amount of money that should have been invested in pollution prevention and control measures. When an offender avoids compliance, it essentially does not incur the costs that would have been necessary to come into compliance. The third type of economic benefit is derived from an illegal competitive advantage. It is necessary to have reliable methods to calculate any significant economic benefit of non-compliance. The existence of a well-defined and substantiated methodology strengthens the enforcement agency's position in case of eventual appeal of the assessment.

Though there are several references available for such assessment particularly by USEPA and also, several state environmental agencies besides OECD, One of the good case studies is prepared by OECD and is available at <http://www.oecd.org/env/outreach/46959936.pdf>.<sup>6</sup> The study illustrates a key principle that in order to deter future non-compliance, a fine should at a minimum eliminate any financial gain or benefit the operator has obtained as a result of his non-compliance. The "benefit component" of a fine corresponds to the delayed or avoided compliance costs or the illegal competitive advantage and puts the violator in a less favourable situation compared to those who comply with the requirements in a timely manner. The additional penalty amount, or the "gravity component", should reflect the seriousness of the offence and the operator's behaviour. USEPA has also elaborate case studies on such efforts and has also developed the penalty and financial models that can be used to analyze the financial aspects of enforcement actions. <https://www.epa.gov/enforcement/penalty-and-financial-models>. BEN (5.8.0) - Calculates a violator's economic benefit of noncompliance from delaying or avoiding pollution control expenditures. The model requires the date the violation occurred, the date of compliance, the costs of

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<sup>6</sup> REMOVING ECONOMIC BENEFITS OF ENVIRONMENTAL VIOLATIONS IN AZERBAIJAN: Case Study Report, By OECD

compliance and the year the costs were estimated, and the date the penalty will be paid. Still however, no much work has been done in Indian context on this principle of effective environmental governance, particularly enforcement.

All such economic benefit assessment needs to be carefully designed in case of construction projects as scope and extent of construction in such building cases are rather governed by local municipal rules particularly for built up area, FSI, requirement of open area, parking etc. In many cases, the municipal laws are amended and some modifications are made in available permissible limits for the above criteria. The general trend in building industry is to initiate the construction in anticipation of such amendments and modification. And therefore, in order to assess the economic benefits, it is proposed to consider the applicable laws on the date of violation, rather than while assessment of the damages and benefits accrued. The allowable built up, FSI, open space etc only shall be considered and any violation of these ground should also be assessed as economic benefits. Based on the actual data, three scenarios can be envisaged for violation of EC regulations by Building construction Industry;

- A. The construction work is fully/partly completed without EC and the flats/commercial area is already sold to third parties.
  - B. The construction work is started and some amount has been received from third party, but now the work is stopped.
  - C. The construction work is started but no amount has been received from any third party.
23. One such approach adopted by Indiana government <sup>7</sup> elaborately discuss the matrix of calculations for the penalties for environmental violations. Though, presently, this approach paper does not deal with penalties, but the process and structured approach adopted therein, can suitably be adopted in the present study.

**Violators Track record:** As referred in above references, the violators track record and also, action subsequent to noticing the violations play an important role in formulation of environmental restoration and

<sup>7</sup> INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT NONRULE POLICY DOCUMENT,  
[https://www.in.gov/idem/ctap/files/nrpd\\_enf-002.pdf](https://www.in.gov/idem/ctap/files/nrpd_enf-002.pdf)

restitution program. Hon'ble Supreme Court in CIVIL APPEAL NO. 10854 OF 2016 decided on 10<sup>th</sup> August 2018 has elaborately considered such aspects and it is necessary to adopt the same approach while dealing with the EC violators.<sup>8</sup>

24. **Proposed Framework:** Considering the discussions above, following broad approach and framework is suggested to derive the environmental damage cost which needs to be considered while appraising the remediation plan and the costs associated with such proposed remediation costs. Moreover, such cost needs to be appropriately accounted for the opportunity costs which *inter alia* should include the factors related to environmental track record of the project proponents. The proposed framework is suggestive in nature and is an attempt to develop a framework for such assessment in future, based on scientific evidence. Moreover, this framework is essentially for cases of violation of EC regulations in terms on obtaining the EC by construction projects and is not aimed to be used as enforcement tool in case of violation of EC conditions and/or incidences of pollution of environmental degradation. Still however, the SEAC can expand the scope of such assessment and costing with reference to any specific incidence on case to case basis, particularly where construction is carried out at industrial sites and/or there are complaints of pollution due to construction which will further strengthen such appraisal process. It is necessary to collect some specific information from the project proponents to assess such cost of remediation and also, opportunity cost. Therefore, a set of information is proposed to be called from PP as under. Some of the information could be repetitive but it would be worth to have all such relevant information at a place to understand the process.

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<sup>8</sup> [https://www.sci.gov.in/supremecourt/2016/37233/37233\\_2016\\_Judgement\\_10-Aug-2018.pdf](https://www.sci.gov.in/supremecourt/2016/37233/37233_2016_Judgement_10-Aug-2018.pdf)

**25. Information Required:****A. Project details;**

1	Name and address of Project	
2	Name of Directors	
3	Total construction completed (built-up area as per EC notification):	
4	Total construction proposed, built-up area as per EC notification	
5	Whether the project has any EC; if yes, give details including approved built up area	
6	Total cost of the project and total cost of the project already executed? Also, give total cost of the project constructed without EC.	
7	Date of commencement of project	
8	Date of violation of EC regulation (please justify with documentary evidence)	
9	Date of first submission of information of such violation to the SEIAA or SEAC, if self-notified, along with stoppage of construction work	
	1. No. of days of violation (9-8)	
10	Name and address of Environmental consultant, with date of engagement of such consultant	
11	Any other case of EC violation is reported or pending or decided earlier for projects where any of	

	the directors are involved? If yes, give details	
12	Any court case related to EC violation pending or decided against any of the directors including High Court, NGT and sessions court?	

B. What can be the attributes for environmental damages: The PP and consultant needs to describe the details of each attributes in qualitative and quantitative manner; for example;

1. Air pollution: construction dust, noise, demolition dust
2. Water: incremental sewage increase, extra water pumped from foundations
3. Soil: excess foundation excavation, excess ground foot print
4. Noise: extra time required for construction,
5. Loss of vegetation: additional trees cut ( type, age and number of trees with its significance)
6. Transport and material handling

C. Description of activities contributing to the environmental damage and degradation;

A.	<b>Demolition, site preparation</b>	
1	Whether any demolition work was carried out prior to EC? If yes what is date of commencement of demolition and also date of completion of demolition?	
2	Whether such demolition or site had some asbestos, industrial waste or contaminated soil or hazardous waste etc and if yes, how these types of waste have been segregated and disposed?	
3	If the project is located on any industrial site, whether any due diligence or environmental	

	status of site was assessed? If yes, give details	
4	State the quantity of demolition waste disposed from the site, including quantity and disposal location along with location map and photographs	
5	Any air quality (including noise) monitoring done during demolition work? If yes, results	
6	Whether building plan and layout approved and permission from local authorities is taken to commence the work prior to demolition work	
7		
<b>B.</b>	<b>Construction stage</b>	
1	Date of commencement of construction and completion of construction, if any	
2	Whether the construction carried out is strictly as per the sanction plan given by concerned local authority? If yes, please provide such certification	
3	In the additional construction, how much construction material including, sand, bricks, cement etc was required to be transported? No. of trucks and its average haulage?	
4	How many labours were engaged in construction, average per day?	
5	Whether, the additional construction work, over and above valid EC, if so available, has any additional ground foot print? If yes please state, ground foot print in sqm as per EC approved	

	layout and current proposed layout?	
6	Whether the expansion was carried out simultaneously with EC approved work? If not give details of time frame? If yes, please give incremental additional time required for construction of additional area	
7	Is there any change in foundation design, i.e. depth of foundation, basement etc. that were done due to additional area?  If yes, what is the additional soil quantity excavated for such incremental foundation depth? Where it is disposed?	
8	What is the quantity of top soil removed and how it is managed?	
9	Also, if water is encountered at such foundation depth, what is the volume of water pumped for such additional depth of excavation?	
10	How much additional water was required for curing and construction purpose? Source of water?	
11	Rain Water harvesting details	
12	Solar light, water heating details	
13	Use of fly ash bricks ensured? Details thereof	
14	Whether any noise or air pollution control measures taken, if so what are they?	
15	Whether any air quality and noise level monitoring done	

	during construction stage, if yes attach results	
16	Whether any third-party rights are created on the construction without EC?	
17	Whether any of the construction without EC has already been occupied?  If yes, number of families given such occupation.  Also give total commercial area being used presently. Also state type of commercial activity i.e. offices, shops, hotels, restaurants etc.	
18	How many flats sold which are in the area of EC violation and total sale value of such flats	
19	How much commercial area sold which is in area of EC violation and total sale value of such commercial area.	
<b>C</b>	<b>Commissioning of project</b>	
1	Date of when the project was made operational either by giving possession of residential or commercial areas of the project?	
2	How many families are staying in project?	
3	What is total water supply to project, source and quality	
4	Total sewage generation m <sup>3</sup> /day	
5	STP details,	
6	Treated wastewater disposal	
7	Any DG sets, are they complying the norms	



26. The notification provides for *"The Expert Appraisal Committee shall stipulate the implementation of Environmental Management Plan, comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefit derived due to violation as a condition of environmental clearance."* It can be seen from the provision that EMP is required to have two components i.e. 1. Remediation plan and 2. Natural and community resource augmentation plan. They are required to be corresponding to the ecological damage assessed and economical profit derived due to the violation.

Considering the broad conspectus and the need to evaluate the ecological assessment which will vary from project to project, site to site and also, will be subject of very detailed relative assessment. In absence of standard protocol and guidelines, it is proposed to adopt an advoc approach only for construction projects within the parameters specified by the notification. It is proposed to have broadly two components i.e. environmental damages and secondly economic benefits derived. The economic benefits derived can suitably take into account the construction stage besides the role and environmental performance record of the project proponent.

And therefore, the EMP and natural resource augmentation plan shall not only cover the ecological damages but also, the track record of project proponents and the economic benefits derived. As regards the ecological damages, a protocol which is rather based on basic environmental impacts like soil disposal, noise, air pollution, water pollution etc has been prepared by Gujarat SEAC, which is further modified to incorporate additional factors. The protocol format presented below is required to be prepared and certified by approved environmental consultants who are required to submit an undertaking certifying correctness of the data presented.

**Format of Assessment of Environmental Damages**

Attributes	Scope of saving on account of environmental measures	EMP cost	
		Recurring cost, per day (Rs.)	Non-recurring cost (Rs.)
Air Pollution	Water requirement for sprinkling (KL/day): Cost of 1 KL water (Rs.):		
Water Pollution	A. Cost of water requirement: a). Construction phase: b). Operation phase:  B. Cost of sewage treatment, reuse & disposal: a). Construction phase: b). Operation phase:  C. Quantity of water pumped out during excavation and a lumpsum cost of Rs. 50 per cum for such unauthorized water extraction and disposal  D. cost of construction & maintenance of recharge well:		
Soil environment	In case of demolition has carried out, the cost of demolition waste management plan needs to be discussed and finalized as non-recurring cost.		
	In case there is some hazardous waste like asbestos or the site is located on industrial area where hazardous chemical or waste was handled, the cost based on due diligence of the project site, as given by consultants. (the report must include soil analysis, water analysis, MPCB consent copies, manifest of HW if any). This requires critical examination from SPCB.		
	Cost of preservation of top soil & excavated earth to be considered. [Area (m <sup>2</sup> )xdepth (m)x sp. Gravity (kg/m <sup>3</sup> )x cost per ton (Rs.)]		

<b>Noise and Vibration</b>	For damage due to noise pollution & vibration, the cost of barricades around the project site should be considered. [perimeter (m) x height of the barricade(m) x cost of the sheet)		
<b>Green Belt</b>	In case of any tree cutting without EC cost of Rs. 10000/- per tree apart from any statutory action for such tree cutting if any.  Cost of planting & maintaining trees (Number of trees as per the by-laws)  Cost of compensatory tree plantation (5 trees for each tree cut)		
<b>RH/OHS</b>	Cost of workers benefit to be considered in view of Building and Other Construction Workers' Welfare Cess Act, 1996		
	A. cost of health checkup of workers: B. cost of safety measures including PPEs:		
<b>Total</b>			

27. The economic benefits derived can be either on both costs saved on not taking appropriate environmental protection measures and also, the benefits derived by going ahead with project to gain commercial gains. This aspect has also been considered by Gujarat SEAC, by apportioning only 10% amount of profit which is considered to be 20% construction costs including the land value. All the standard literature including regulatory guidelines referred above incorporate such commercial economic benefits accrued from early going ahead by starting and commissioning project without obtaining EC. It is therefore necessary to incorporate such consideration in assessing the economic benefits which can be deterrent factor in future cases. At the same time, it is necessary that there should be a consideration for such cases where the project

proponent has applied for EC but for some reason or other the EC is not considered and granted without assigning any reason beyond a reasonable time frame. It is proposed to incorporate following scenarios for such economic benefit assessment;

- The construction (residential/commercial) under violation, where the construction is stopped after some time:
- The construction (residential/commercial) under violation and where the full construction area is occupied by the third party:
- The construction area (residential/commercial) under violation where the partial construction is occupied by the third party

Economic benefit derived can be broadly considered as 10% of Ready reckoner cost<sup>9</sup> of the construction under violation if it is already occupied (fully or partially) or reasonably in advance stage of completion<sup>10</sup> (more than 50%). In case, the construction is still not in advance stage of completion (less than 50%) and no occupation is given, then the benefits can be taken as 5% of ready reckoner cost for the construction in violation. The notification does not refer to any proportioning of the economic benefits and hence, deemed profit is taken for arriving at economic benefits in the present approach. This aspect could be seriously challenged by the proponents, however, in the absence of any leverage given in notification, such approach seems to be reasonable and consistent considering the spirit of notification. These figures are taken at random basis considering bare minimum 10% profit on the ready reckoner rate and does not truly reflect the economic benefits accrued due to sale. However, such amount can be taken up as starting point which can further evolve in future. However, it is imperative and necessary to ensure that these additional costs are required to be borne by Project proponent and cannot be and shall not be passed on to the consumers. In fact, the customers are entitled to seek any other legal remedy for any compensation etc as per prevailing laws.

<sup>9</sup> The ready reckoner cost is taken as most rational and documented cost available. Other cost that were also considered, were construction cost, sale price etc., but assessing those cost could itself be a complicated and arbitrary process and can lead to inconsistency which can be avoided by taking ready reckoner cost for such consideration. This ready reckoner cost is to be calculated using relevant ready reckoner rate for the year of appraisal of violation by SEIAA and total built area of construction under violation.

<sup>10</sup> The stage of construction needs to be certified by concerned local body (municipal corporation and councils etc.) along with undertaking by the PP.

28. In addition to above environmental damage costs, it is necessary to incorporate certain consideration for the environmental track record of the project proponent as a part of economic benefits accrued by the proponents and it is proposed that for each of earlier or similar other EC violation in other projects being developed by project proponents and/or any one of its directors shall be accounted for Rs. 10,00,000/- (Rs. Ten lakhs) in the community action plan. This consideration directly stems from Gore's correction referred earlier. This will surely bring the frequent and habitual defaulters on a common platform which is a significant step for future compliance enforcement. The regular defaulters will find such a criteria as a 'reputation risk' which itself will trigger the compliance in future. The final amount towards remediation, and natural and community resource augmentation action plan can be summation of these three aspects or the amount equivalent to the CER amount as per the MOEF&CC's office Memorandum No: F NO 22-65/2017-IA-III dated 01/05/2018, whichever is higher.

**29. Calculation of Cost of remediation plan and natural & community resource augmentation plan**

Sr	Description	Details	Amount
1.	Total of recurring cost	Cost arrived from above table per day X number of days in violation	
2	Non-recurring cost	Cost as arrived from above table	
3.	Economic benefits accrued due to violation	10% of ready reckoner cost of the construction under violation if it is already occupied (fully or partially) or in reasonably advance stage of construction (more than 50%).	
		5% of ready reckoner cost of the construction under violation, if no occupation is given in violation construction and the construction under violation is still not in advance stage of construction (less than 50%) and	
		Incremental cost of Rs. 10 lakhs for each EC violation by PP or its directors observed at any other projects in last 3 years	
4	Cost of remediation plan and natural & community resource augmentation plan	Sum of 1, 2 and 3 above or amount equivalent to the CER amount as per the MOEF&CC's office Memorandum No: F NO 22-65/2017-IA-III dated 01/05/2018, whichever is higher.	

30. It is manifest from the language of the notification that the spirit of notification is twofold; firstly, there needs to a deterrent action against EC violation and secondly, there needs to be sufficient environmental restoration and restitution of the presumed environmental damages which generally occur in the surrounding due to construction projects. In the present case, most of the construction projects are located in urban areas of Mumbai and Pune and hence, in order to ensure that the local community really gets benefitted by such planned environmental restoration program, it is proposed that majority of such environmental restoration/restitution shall be carried out within 5 km of the project location. However, this aspect will be deliberated further.
31. Another important aspect of the notification is that the PP needs to give a bank guarantee of equivalent amount and such bank guarantee will be returned on verification of implementation of such EMP by regional office of Ministry, and further recommended by SEAC and only thereafter, SEIAA can take a decision on return of BG. The notification contemplates inclusion of such action plan as part of EMP. However, it is required to note that the proposed remediation and community restoration program will have to be carried out ex-situ i.e. not at construction site and therefore, the project proponent will not have mechanism to carry out such complementary remedial actions in the areas which are not under his control. One of the options is conducting such activities similar to CSR. Be that as it may, it is an admitted fact that there is a significant gap in such verification of compliance through environmental regulatory authority and therefore it would be difficult for SEAC and SEIAA to take a decision in this regard.
32. In order to simplify the entire process, it is proposed that the proposed EMP cost can be attributed to overall environmental development works in a fixed appropriate percentage which will avoid ambiguity and inconsistency. Though such a scheme of restoration may not be ideal scenario for any environmental restoration program, but as in the present case, we are strictly dealing with ex-situ restoration or rather environmental improvement program, such a practice can be most appropriate and effective. However, such practice cannot be adopted for

any future on-site restoration/restitution and is not a substitute 'pay and pollute' formulae for well established legal principle of 'polluter pays'.

33. The actual cost of remediation proposed at site can be given separately, duly certified by the environmental consultant which can be considered by SEAC and SEIAA before considering the amount which can be reduced from the cost arrived at above. However, such remediation is not expected to cover mandatory requirements of compliance or EMP, and needs to cover only exclusive efforts of environmental damage remediation.
34. Based on discussions with DoE, following areas have been identified for resource allocation through such EMP cost, which are subject to final decision, for both activities and allocation, by SEIAA and Govt of Maharashtra;

Sr. No	Description of Activity	% allocation	Implementing agency	Remarks
1	Afforestation (can include plantation, garden development)	25	Social forestry and Local body	The afforestation can be either through social forestry or the Local body. Preferably within 50 km from project site
2	Water conservation program (Jalyukt shivar, etc)	25		Preferably within 50 km radius of project site
3	Urban environment and sanitation (can include swatccha Bharat, playground development, urban ground-water recharge schemes etc)	20	Local body	
4	Sewerage lines and STP, solid waste management,	20	Local body	

5	Urban pollution initiatives	air/noise control	10	Local body	
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35. **Implementation strategy:** DoE on recommendation of 5EIAA can lay down the implementation strategy and protocol to ensure timely execution of project which is the essence of such restoration program. The project proponent will be required to deposit such apportionated funds of the proposed EMP with concerned authorities and the confirmation of deposit of such funds will be the compliance of such EMP efforts at the project proponents end. Still however, he needs to get engaged with concerned departments to ensure that the amount is effectively spent in time bound manner. A committee under Secretary, DoE can take a review at least once in two months of the progress of such works. The concerned authorities can be asked to maintain separate account for the funds received under this scheme. The outer limit for execution of the projects could be maximum 2 years, and if any amount still remains unspent then the same will be reverted back to DoE by concerned department which can conduct specific state level programs form such funds.

अधिसूचित प्रयोगशाला या राष्ट्रीय जांच और अशांजन प्रत्यायन बोर्ड द्वारा प्रत्यायित प्रयोगशाला या वैज्ञानिक और औद्योगिक अनुसंधान परिषद् की पर्यावरण के क्षेत्र में कार्य कर रही प्रयोगशाला द्वारा किया जाएगा।";

(घ) उपपैरा (6) के स्थान पर निम्नलिखित उपपैरा रखा जाएगा, अर्थात्:-

"(6) विशेषज्ञ मूल्यांकन समिति, यथास्थिति, राज्य या संघ राज्यक्षेत्र विशेषज्ञ मूल्यांकन समिति पर्यावरणीय प्रबंधन योजना, सुधारकारी योजना और प्राकृतिक तथा सामुदायिक संसाधन आवर्धन योजना से मिलकर बनने वाली पर्यावरणीय प्रबंधन योजना को उपदर्शित करेगी, जो कि मूल्यांकन किए गए पर्यावरणीय नुकसान और पर्यावरणीय अनापत्ति की शर्त के उल्लंघन के कारण उदभूत आर्थिक फायदे की तत्स्थानी होगी।";

(ङ) उपपैरा (7) के स्थान पर निम्नलिखित उपपैरा रखा जाएगा, अर्थात्:-

"(7) परियोजना प्रस्तावक से सुधारकारी योजना और प्राकृतिक तथा सामुदायिक संसाधन आवर्धन योजना की रकम के समतुल्य बैंक प्रत्याभूति को राज्य प्रदूषण नियंत्रण बोर्ड के पास प्रस्तुत करने की अपेक्षा होगी और राज्य या संघ राज्यक्षेत्र विशेषज्ञ मूल्यांकन समिति द्वारा या प्रवर्ग 'क' परियोजना के लिए मात्रा की सिफारिश विशेषज्ञ मूल्यांकन समिति द्वारा की जाएगी और इसको विनियामक प्राधिकरण द्वारा अंतिम रूप दिया जाएगा तथा बैंक प्रत्याभूति को पर्यावरणीय अनापत्ति अनुदत्त करने से पूर्व जमा किया जाएगा और उसे मंत्रालय के प्रादेशिक कार्यालय, विशेषज्ञ मूल्यांकन समिति, यथास्थिति, राज्य या संघ राज्यक्षेत्र विशेषज्ञ मूल्यांकन समिति तथा विनियामक प्राधिकरण के अनुमोदन के पश्चात् सुधारकारी योजना और प्राकृतिक तथा सामुदायिक संसाधन आवर्धन योजना के सफलतापूर्वक कार्यान्वयन के पश्चात् निर्मुक्त किया जाएगा।";

[फा. सं. जेड-11013/22/2017-आईए-II(एम)]

ज्ञानेश भारती, संयुक्त सचिव

टिप्पण: मूल अधिसूचना का.आ. 804(अ), तारीख 14 मार्च, 2017 द्वारा प्रकाशित की गई थी।

## MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

### NOTIFICATION

New Delhi, the 8<sup>th</sup> March, 2018

**S.O. 1030(E).** —Whereas, the Ministry of Environment, Forest and Climate Change *vide* notification number S.O.804(E), dated the 14<sup>th</sup> March, 2017 (hereinafter referred to as the said notification) has notified the process for appraisal of projects for grant of Terms of Reference and Environmental Clearance, which have started the work on site, expanded the production beyond the limit of environmental clearance or changed the product mix without obtaining prior environmental clearance as mandated under the Environment Impact Assessment Notification, 2006 [S.O.1533 (E), dated the 14<sup>th</sup> September, 2006];

And whereas, the Ministry of Environment, Forest and Climate Change (hereinafter referred to as the Ministry) in the said notification *inter alia*, directed *vide* sub-paragraph (2) of paragraph 13, that in case the projects or activities requiring prior environmental clearance under Environment Impact Assessment Notification, 2006 from the concerned Regulatory Authority, are brought for environmental clearance after starting the construction work, or have undertaken expansion, modernization, and change in product-mix without prior environmental clearance, these projects shall be treated as cases of violations and in such cases, even Category B projects which are granted environmental clearance by the State Environment Impact Assessment Authority constituted under sub-section (3) section 3 of the Environment (Protection) Act, 1986 shall be appraised for grant of environmental clearance only by the Expert Appraisal Committee and environmental clearance will be granted at the Central level;

And whereas, the Ministry has received a number of proposals relating to all sectors covered under category A and category B, for consideration in pursuance of the said notification;

And whereas, the Ministry is in receipt of representations from the public representatives and Industrial Associations, requesting delegation of powers to the respective States to deal with the violation cases for operational reasons and expediting the proposals;

And whereas, the National Green Tribunal, Principal Bench at New Delhi *vide* their order dated the 27<sup>th</sup> November, 2017 in similar matters in OA No.570/2016 titled M/s Anjli Infra Housing LLP Vs Union of India & others, OA No.576/2016 in the matter of M/s Ankur Khusal Construction LLP Vs Union of India & others and OA No.579/2016 in the matter of Anjli Infra Housing LLP Vs Union of India & others, has passed directions for consideration of the projects at the State level and pass appropriate orders in regard to grant/refusal of the environmental clearance in accordance with law;

And whereas, in view of the above, the Central Government finds it necessary to amend the said notification number S.O.804(E), dated the 14<sup>th</sup> March, 2017 by dispensing with the requirement of notice referred to in clause (a) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 regarding inviting objections and suggestions from persons likely to be affected thereby, in public interest;

Now, therefore, in exercise of the powers conferred by sub-section (1), sub-clause (a) of clause (i) and clause (v) of sub-section (2) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986), read with sub-rule (4) of rule 5 of the Environment (Protection) Rules, 1986, the Central Government hereby makes the following amendments in the said notification by dispensing with the requirement of notice referred to in clause (a) of sub-rule (3) of rule 5 of the said rules, in public interest, namely:-

In the said notification, in paragraph 13, -

- (a) for sub-paragraph (2), the following sub-paragraph shall be substituted, namely:-

“(2) In case the projects or activities requiring prior environmental clearance under the Environment Impact Assessment Notification, 2006 from the concerned regulatory authority are brought for environmental clearance after starting the construction work, or have undertaken expansion, modernisation, and change in product-mix without prior environmental clearance, these projects shall be treated as cases of violations and the projects or activities covered under category A of the Schedule to the Environment Impact Assessment Notification, 2006, including expansion and modernisation of existing projects or activities and change in product mix, shall be appraised for grant of environmental clearance by the Expert Appraisal Committee in the Ministry and the environmental clearance shall be granted at Central level, and for category B projects, the appraisal and approval thereof shall vest with the State or Union territory level Expert Appraisal Committees and State or Union territory Environment Impact Assessment Authorities in different States and Union territories, constituted under sub-section (3) of section 3 of the Environment (Protection) Act, 1986.”;

- (b) for sub-paragraph (4), the following sub-paragraph shall be substituted, namely:-

“(4) The cases of violations will be appraised by the Expert Appraisal Committee at the Central level or State or Union territory level Expert Appraisal Committee constituted under sub-section (3) of section 3 of the Environment (Protection) Act, 1986 with a view to assess that the project has been constructed at a site which under prevailing laws is permissible and expansion has been done which can run sustainably under compliance of environmental norms with adequate environmental safeguards, and in case, where the findings of Expert Appraisal Committee for projects under category A or State or Union territory level Expert Appraisal Committee for projects under category B is negative, closure of the project will be recommended along with other actions under the law.”;

- (c) for sub-paragraph (5), the following sub-paragraph shall be substituted, namely:-

“(5) In case, where the findings of the Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee on point at sub-paragraph (4) above are affirmative, the projects will be granted the appropriate Terms of Reference for undertaking Environment Impact Assessment and preparation of Environment Management Plan and the Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee, will prescribe specific Terms of Reference for the project on assessment of ecological damage, remediation plan and natural and community resource augmentation plan and it shall be prepared as an independent chapter in the environment impact assessment report by the accredited consultants, and the collection and analysis of data for assessment of ecological damage, preparation of remediation plan and natural and community resource augmentation plan shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by the National Accreditation Board

for Testing and Calibration Laboratories, or a laboratory of the Council of Scientific and Industrial Research institution working in the field of environment.”;

(d) for sub-paragraph (6), the following sub-paragraph shall be substituted, namely:-

“(6) The Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee, as the case may be, shall stipulate the implementation of Environmental Management Plan, comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefit derived due to violation as a condition of environmental clearance.”;

(e) for sub-paragraph (7), the following sub-paragraph shall be substituted, namely:-

“(7) The project proponent will be required to submit a bank guarantee equivalent to the amount of remediation plan and Natural and Community Resource Augmentation Plan with the State Pollution Control Board and the quantification will be recommended by the Expert Appraisal Committee for category A projects or by the State or Union territory level Expert Appraisal Committee for category B projects, as the case may be, and finalised by the concerned Regulatory Authority, and the bank guarantee shall be deposited prior to the grant of environmental clearance and released after successful implementation of the remediation plan and Natural and Community Resource Augmentation Plan, and after recommendation by regional office of the Ministry, Expert Appraisal Committee or State or Union territory level Expert Appraisal Committee and approval of the Regulatory Authority.”.

[F.No.Z-11013/22/2017-IA-II (M)]

GYANESH BHARTI, Jt. Secy.

**Note:** The principal notification was published vide number S.O.804(E), dated the 14<sup>th</sup> March, 2017.

#### आदेश

नई दिल्ली, 8 मार्च, 2018

**का.आ. 1031(अ).**—केन्द्रीय सरकार ने पर्यावरण (संरक्षण) नियम, 1986 के नियम 5 के उप नियम (3) के खंड (घ) के साथ पठित पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (1), उपधारा (2) के खंड (i) के उपखंड (क) और खंड (v) के अधीन जारी भारत सरकार की, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय में अधिसूचना संख्या का.आ.804(अ) तारीख 14 मार्च, 2017 (जिसे इसमें इसके पश्चात् उक्त अधिसूचना कहा गया है) द्वारा उन परियोजनाओं का जिन्होंने पूर्व पर्यावरण अनापत्ति प्राप्त किए बिना कार्य आरंभ कर दिया है और ऐसे मामलों को उल्लंघन माना गया है, का मूल्यांकन करने के लिए प्रबंध किया है।

और उपर्युक्त अधिसूचना के पैरा 13 के उपपैरा (1) द्वारा निर्देश दिया गया है कि यथास्थिति केन्द्रीय सरकार से अथवा उपर्युक्त अधिनियम के अधीन केन्द्रीय सरकार द्वारा विधिवत रूप से गठित राज्य पर्यावरण समाघात निर्धारण प्राधिकरण से, पूर्व पर्यावरणीय स्वीकृति प्राप्त किए बिना भारत के किसी भी भाग में प्रक्रिया या प्रौद्योगिकी अथवा दोनों में परिवर्तन सहित अतिरिक्त क्षमता के लिए शुरू की गई पर्यावरण समाघात निर्धारण अधिसूचना, 2006 [का.आ.1533(अ) तारीख 14 सितंबर, 2006] के अधीन पूर्व पर्यावरणीय स्वीकृति की अपेक्षा वाली परियोजनाओं अथवा क्रियाकलापों या मौजूदा परियोजनाओं अथवा क्रियाकलापों के विस्तार या आधुनिकीकरण को पर्यावरण संघात निर्धारण अधिसूचना, 2006 के उल्लंघन का मामला माना जाएगा;

और उपर्युक्त अधिसूचना में यह और उपबंध है कि ऊपर उल्लिखित परियोजनाओं और क्रियाकलापों से उपर्युक्त अधिसूचना के पैरा 13 के उपपैरा (2) से (7) में विनिर्दिष्ट प्रक्रिया के अनुसार सख्ती से निपटा जाएगा;

और पर्यावरण (संरक्षण) अधिनियम, 1986 की धारा 3 की उपधारा (3) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए उपर्युक्त अधिसूचना के पैरा 13 के उप पैरा (4) के अनुसरण में सभी क्षेत्रों में उल्लंघन के मामलों का मूल्यांकन करने और केन्द्रीय सरकार को सिफोरिशें करने के लिए विभिन्न क्षेत्रों के विशेषज्ञों से मिलकर बनने वाली भारत सरकार, पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय, संख्यांक का.आ.1805(अ), तारीख 6 जून, 2017 की अधिसूचना द्वारा एक विशेषज्ञ मूल्यांकन समिति (ईएसी) का गठन किया गया था ;

और इस प्रकार गठित की गई विशेषज्ञ मूल्यांकन समिति में, श्री एस.के.श्रीवास्तव, वैज्ञानिक ई को उक्त समिति के सदस्य सचिव के रूप में पर्यावरण, वन और जलवायु परिवर्तन मंत्रालय के प्रतिनिधि रूप में नामनिर्देशित किया गया था।

और प्रशासनिक तथा प्रचालन संबंधी कारणों से, अतिक्रमण मामलों में कार्यवाई करने के लिए गठित की गई विशेषज्ञ मूल्यांकन समिति के सदस्य सचिव के रूप में यथास्थिति श्री एस.के.श्रीवास्तव, वैज्ञानिक ई के साथ वैज्ञानिक ई या वैज्ञानिक एफ या वैज्ञानिक जी का नामांकन प्रतिस्थापित करना समीचीन हुआ है;

और अतः अब, केन्द्रीय सरकार पर्यावरण (संरक्षण) अधिनियम, 1986 (1986 का 29) की धारा 3 की उपधारा (3) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए और उक्त अधिसूचना सं० का.आ.804(अ) तारीख 14 मार्च, 2017 के पैरा 13 के उपपैरा (4) के अनुसरण में भारत के राजपत्र, असाधारण, भाग II, खंड 3, उपखंड (ii), तारीख 6 जून, 2017 में प्रकाशित भारत सरकार की पर्यावरण वन और जलवायु परिवर्तन मंत्रालय संख्या का.आ.1805(अ), तारीख 6 जून, 2017 के आदेश में निम्नलिखित संशोधन करती है, अर्थात्:—

उक्त आदेश की सारणी में, क्रम सं० 11 के सामने, स्तंभ (2) में प्रविष्टियों के स्थान पर, निम्नलिखित प्रविष्टि रखी जाएगी, अर्थात्:—

"वैज्ञानिक ई या वैज्ञानिक एफ या वैज्ञानिक जी, यथास्थिति, पर्यावरण, वन और जलवायु परिवर्तन, मंत्रालय, जोरबाग रोड, नई दिल्ली-3।

[फा.सं.जेड-11013/22/2017-आईए-11(एम)]

ज्ञानेश भारती, संयुक्त सचिव

टिप्पण: मूल आदेश सं. का.आ.1805(अ) तारीख 6 जून, 2017 द्वारा प्रकाशित किया गया था।

### ORDER

New Delhi, the 8<sup>th</sup> March, 2018

**S.O. 1031(E).**—Whereas, by the notification of the Government of India in the Ministry of Environment, Forest and Climate Change number S.O. 804(E), dated the 14<sup>th</sup> March, 2017, issued under sub-section (1), sub-clause (a) of clause (i) and clause (v) of sub-section (2) of section (3) of the Environment (Protection) Act, 1986 (29 of 1986), read with clause (d) of sub-rule (3) of rule 5 of the Environment (Protection) Rules, 1986 (hereinafter referred to as the said notification), the Central Government has established an arrangement to appraise the projects, which have started the work without obtaining prior environmental clearance and such cases have been termed as cases of violation;

And whereas, vide sub-paragraph (1) of paragraph 13 of the said notification, it has been directed that the projects or activities or the expansion or modernisation of existing projects or activities requiring prior environmental clearance under the Environment Impact Assessment Notification, 2006 [S.O.1533(E), dated the 14<sup>th</sup> September, 2006] entailing capacity addition with change in process or technology or both, undertaken in any part of India without obtaining prior environmental clearance from the Central Government or by the State Environment Impact Assessment Authority, as the case may be, duly constituted by the Central Government under the said Act, shall be considered a case of violation of the Environment Impact Assessment Notification, 2006;

And whereas, the said notification further provides that the projects and activities referred above, shall be dealt strictly as per the procedure specified in sub-paragraph (2) to (7) of paragraph 13 of the said notification;

And whereas, in exercise of the power conferred by sub-section (3) of section 3 of the Environment (Protection) Act, 1986 and in pursuance of sub-paragraph (4) of paragraph 13 of the said notification, an Expert Appraisal Committee (EAC) was constituted by notification of the Government of India in the Ministry of Environment, Forest and Climate Change vide number S.O.1805(E), dated the 6<sup>th</sup> June, 2017 comprising members with expertise in different sectors to appraise and make recommendations to the Central Government as cases of violation in all the sectors;

And whereas, in this Expert Appraisal Committee so constituted, Shri S K Srivastava, Scientist E was nominated as representative of the Ministry of Environment, Forest and Climate Change as Member Secretary of the said Committee;

And whereas, due to administrative and operating reasons, it has become expedient to replace the nomination of Shri S. K. Srivastava, Scientist E with the Scientist E or Scientist F or Scientist G, as the case may be, as Member Secretary of the Expert Appraisal Committee constituted to deal with violation cases;

And now, therefore, in exercise of the powers conferred by sub-section (3) of section 3 of the Environment (Protection) Act, 1986 (29 of 1986) and in pursuance of sub-paragraph (4) of paragraph 13 of the said notification number S.O.804(E), dated the 14<sup>th</sup> March, 2017, the Central Government hereby makes the following amendments in the order of the Government of India in the Ministry of Environment, Forest and Climate Change number S.O.1805(E), dated the 6<sup>th</sup> June, 2017, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii), dated the 6<sup>th</sup> June, 2017, namely:-

In the said order, in the Table, against serial number 11, for the entries in column (2), the following entries shall be substituted, namely:-

"Scientist E or Scientist F or Scientist G, as the case may be, Ministry of Environment, Forest and Climate Change, Jorbagh Road, New Delhi-3".

[F. No. Z-11013/22/2017-IA-II (M)]

GYANESH BHARTI, Jt. Secy.

**Note:** The principal order was published vide number S.O.1805(E), dated the 6<sup>th</sup> June, 2017.

**F. No.Z-11013/22/2017-IA.II (M)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(Impact Assessment Division)**

Indira Paryuvaran Bhawan,  
 Jor Bagh Road, New Delhi-110003

Dated: 15<sup>th</sup> March, 2018

**OFFICE MEMORANDUM**

**Sub: Implementation of Notification S.O.1030 (E) dated 8<sup>th</sup> March, 2018 - reg.**

The Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986 mandates the requirement of prior environmental clearance to the projects/activities listed in the schedule to the said Notification. These projects/activities have been categorized under category 'A' or 'B' and require appraisal and approval by the respective regulatory authorities at the Central/State level.

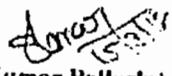
2. The Ministry has issued a Notification number S.O.804(E) dated 14<sup>th</sup> March, 2017 under the Environment (Protection) Act, 1986 to appraise and regularize the projects, already taken up or under implementation without obtaining the prior environmental clearance in terms of the provisions of the EIA Notification, 2006 and thus identified to be in violation of the same. The Notification enables consideration of such proposals at Central level by providing one-time opportunity to submit the request in this regard within 6 months.

3. In order to streamline and expedite consideration of proposals, it has now been decided that the projects/activities covered under category 'B', shall be considered by the SEAC/SEIAAs in the respective States/UTs. The Ministry has issued another Notification number S.O.1030 (E) dated 8<sup>th</sup> March, 2018, amending the Notification dated 14<sup>th</sup> March, 2017 to that extent.

4. In order to operationalize the Notification number S.O.1030 (E) dated 8<sup>th</sup> March, 2018, following directions are being issued for compliance with immediate effect: -

- i. The proposals received up to 13<sup>th</sup> September, 2017 on the Ministry's portal, shall be considered by the EAC or the SEAC/SEIAA in the respective States/UTs, as the case may be, in order of their submission.
- ii. All the proposals of category 'B' projects/activities pertaining to different sectors, received within six months only i.e. up to 13<sup>th</sup> September, 2017 on the Ministry's portal, but yet not considered by the EAC in the Ministry, shall be transferred online to the SEAC/SEIAAs in the respective States/UTs.
- iii. The proposals submitted directly for consideration of EC (in place of ToR), shall also be considered on the same lines, in order of their submission on the Ministry's portal.
- iv. All the projects of category 'B' pertaining to different sectors, although considered by the EAC in the Ministry and accorded ToR, shall be appraised for grant of EC by the SEAC/SEIAAs in the respective States/UTs.

- v. All projects/activities of all sectors, shall be required to adhere to the directions of Hon'ble Madras High Court vide order dated 13<sup>th</sup> October, 2017 while upholding the Ministry's Notification dated 14<sup>th</sup> March, 2017.

  
(Sharath Kumar Pallerla)  
Scientist "F" / Director

To,

1. The Chairman of all the SEAC/SEIAA of States/UTs
2. The Member Secretary of all the SEAC/SEIAA of States/UTs

Copy for information to:

1. PS to Minister for Environment, Forest and Climate Change
2. PS to MoS for Environment, Forest and Climate Change
3. PPS to Secretary (EF&CC)
4. PPS to AS (AKJ)/AS (AKM)
5. PS to JS (GB)/JS (JT)
6. All officers in IA Division
7. Website, MoEF&CC
8. Guard File

F. No.Z-11013/22/2017-IA.II (M)  
Government of India  
 Ministry of Environment, Forest and Climate Change  
 (Impact Assessment Division)

Indira Paryavaran Bhawan,  
 Jor Bagh Road, New Delhi-3

Dated: 16<sup>th</sup> March, 2018

**OFFICE MEMORANDUM**

**Sub: Compliance of the order dated 14<sup>th</sup> March, 2018 of Hon'ble High Court of Judicature at Madras in WMP Nos.3361 and 3362 of 2018, and WMP No.3721 of 2018 in WP No.11189 of 2017 - reg.**

The Ministry has issued a Notification number S.O.804(E) dated 14<sup>th</sup> March, 2017 under the Environment (Protection) Act, 1986 to appraise and regularize the projects, already taken up or under implementation without obtaining the prior environmental clearance in terms of the provisions of the EIA Notification, 2006 and thus identified to be in violation of the same. The Notification enables consideration of such proposals at Central level by providing one-time opportunity to submit the request in this regard within 6 months.

2. Pursuant to the Ministry's Notification number S.O.1030(E) dated 8<sup>th</sup> March, 2018 regarding consideration of proposals by the Expert Appraisal Committee or the SEAC/SEIAA depending upon the categorization of projects/activities (A or B) listed in the schedule to the Environment Impact Assessment Notification, 2006, the Ministry has issued Office Memorandum on 15<sup>th</sup> March, 2018 (copy enclosed) to operationalize the same.

3. Hon'ble High Court of Judicature at Madras vide Order dated 14<sup>th</sup> March, 2018 in WMP Nos.3361 and 3362 of 2018, and WMP No.3721 of 2018 in WP No.11189 of 2017, has directed as under:

*"24. In this view of the matter, considering that sub-clause (i)(d) of Stage III of paragraph 7(i) of parent notification as contained in item No. 8(a) of the Schedule being housing projects, we deem it necessary to clarify that projects and project proponents falling under category alone shall be governed by the 'public consultation' clause in the parent notification.*

*25. With regard to the prayer of MOEF for extension of time for submission of proposals by project proponents, we are of the view that it will serve the ends of justice if time is extended by 30 (thirty) days from the date of delivery of this order in open court."*

4. In view of the above orders of Hon'ble High Court, following directions are being issued for compliance with immediate effect: -

- i. The project proponent, who have not submitted the proposals within six months window i.e. up to 13<sup>th</sup> September, 2017 in pursuance of this Ministry's Notification S.O.804 (E) dated 14<sup>th</sup> March, 2017, are required to submit the proposals within 30 days, to the EAC for category A projects or the SEAC/SEIAA in the respective States/UTs for category B projects.

- ii. (The project proponent, who have submitted the proposals on the Ministry's portal after 13<sup>th</sup> September, 2017, are also required to submit the proposals afresh within 30 days, to the EAC for category A projects or the SEAC/SEIAA in the respective States/UTs for category B projects.
- iii. The projects/activities pertaining to all sectors, shall be considered as per the directions of Hon'ble High of Judicature at Madras vide Order dated 14<sup>th</sup> March, 2018 in WMP Nos.3361 and 3362 of 2018, and WMP No.3721 of 2018 in WP No.11189 of 2017.
- iv. The directions issued vide this Ministry's OM dated 15<sup>th</sup> March, 2018 shall continue to apply.
5. This issues with approval of the competent authority.

*Sharath*  
16/3/18

(Sharath Kumar Pallerla)  
Scientist F/Director

To,

1. The Chairman of all the SEAC/SEIAA of States/UTs
2. The Member Secretary of all the SEAC/SEIAA of States/UTs

Copy for information to:

1. PS to Minister for Environment, Forest and Climate Change
2. PS to MoS for Environment, Forest and Climate Change
3. PPS to Secretary (EF&CC)
4. PPS to AS (AKJ)/AS (AKM)
5. PS to JS (GB)/JS (JT)
6. All officers in IA Division
7. Website, MoEF&CC
8. Guard File

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*Sharath*  
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ANNEXURE-A-02**MINISTRY OF JAL SHAKTI****(Department Of Water Resources, River Development And Ganga Rejuvenation)****(CENTRAL GROUND WATER AUTHORITY)****NOTIFICATION**

New Delhi, the 24th September, 2020

**S.O. 3289(E).**—WHEREAS, on the directions of Hon'ble Supreme Court vide its order dated the 10th December, 1996 passed in Civil writ Petition No 4677 of 1985, MC Mehta Vs Union of India, the Central Government constituted the Central Ground Water Authority (hereafter referred to as the 'Authority') vide notification number S.O. 38 (E), dated the 14th January, 1997 to exercise powers under Section 5 of the Environment (Protection) Act, 1986 (29 of 1986) for the purposes of regulation and control of Ground Water management and development and to exercise certain powers and perform certain functions relating thereto;

AND WHEREAS, the Authority has been regulating ground water development and management by way of issuing 'No Objection Certificates' for ground water extraction to industries or infrastructure projects or Mining Projects etc., and framed guidelines in this connection from time to time in twenty two States and two Union territories, where ground water development is not being regulated by the State Government Union Territory administration concerned;

AND WHEREAS, some of the State Governments or, Union territories enacted legislations and issued regulatory directions or orders for regulating ground water development and management;

AND WHEREAS, the Hon'ble National Green Tribunal, New Delhi vide order dated the 15th April 2015 in OA Nos. 204/205/206 of 2014 has issued directions to the Authority to ensure that any person operating tube-well, or any means to extract ground water shall obtain permission from the Authority and shall operate the same subject to the law in force, even if such unit is existing unit or the unit is yet to be established;

AND WHEREAS, the said Hon'ble Tribunal vide its order dated the 09th July, 2015 in OA Nos. 34 and 37 of 2014 directed all industrial units which are members of the Common Effluent Treatment Plants (CETPs) to approach the Authority through State Pollution Control Board for obtaining 'No Objection Certificate' in accordance with the law;

AND WHEREAS, the aforesaid Hon'ble Tribunal vide order dated the 13th July, 2017 in OA No 200- of 2014 directed that every industry should be directed to pay for extraction of such water, that too, subject to the conditions stated in the order permitting such extraction;

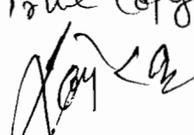
AND WHEREAS, the said Hon'ble Tribunal vide its order dated the 28th August, 2018 in O.A. Nos. 176 of 2015 and 59 of 2012 respectively directed the Ministry of Water Resources, River Development and Ganga Rejuvenation to forthwith review the existing mechanism so as to ensure effective steps for conserving the groundwater resources;

AND WHEREAS, in pursuance of the directions of the Hon'ble National Green Tribunal and powers conferred by sub-section (3) of section 3 and section 5 of the Environment (Protection) Act, 1986 the Authority, with a view to protect the ground water resources had circulated the draft guidelines for grant of 'No Objection Certificate' on the 11th October, 2017 inviting comments and suggestions from all the stakeholders;

AND WHEREAS, all objections and suggestions received in response to the said draft guideline have been duly considered by the Central Government, the Authority notified the guidelines to regulate groundwater over-exploitation and to conserve the groundwater resources in the country vide notification number S.O. 6140 (E), dated the 12th December, 2018;

AND WHEREAS, the aforesaid Hon'ble Tribunal vide order dated the 03rd January 2019 in the OA No. 176 of 2015 directed that the above mentioned notification dated the 12th December, 2018 may not be given effect to as it is unsustainable if tested on 'Precautionary Principle, Sustainable development as well as Inter-generational Equity Principles' and if implemented, will result in fast depletion of groundwater and damage to water bodies and will be destructive of the fundamental right to life under Article 21 of the Constitution of India;

AND WHEREAS, the said Hon'ble Tribunal vide order dated the 11th September, 2019 constituted a committee to deliberate on steps for preventing depletion of groundwater, robust monitoring mechanism

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against unauthorised extractions and fulfillment of 'No Objection Certificate' conditions, environment compensation etc and to submit a report;

AND WHEREAS, the aforesaid committee submitted the report along-with draft guidelines to regulate groundwater extraction and groundwater conservation in Hon'ble Tribunal on the 16<sup>th</sup> March, 2020;

AND WHEREAS, the above said Hon'ble Tribunal vide order dated the 20<sup>th</sup> July, 2020 directed to comply with certain points for sustainable groundwater management while issuing 'No Objection Certificates' to commercial establishments by the Authority;

Now therefore, in pursuance of the directions of Hon'ble National Green Tribunal and the powers conferred by sub-section (3) of Section 3 read with Section 5 of the Environment (Protection) Act, 1986 (29 of 1986), the Department of Water Resources, River Development & Ganga Rejuvenation, hereby notifies the guidelines to regulate and control groundwater extraction in the country in supersession to this Ministry notification vide S.O. 6140 (E), dated the 12<sup>th</sup> December, 2018 as per the Schedule below:

### **SCHEDULE**

#### **Guidelines to regulate and control ground water extraction in India**

**(with immediate effect)**

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[F. No. CGWA-21/4/2020-CGWA]

ASHISH KUMAR, Director

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- Annexure IX: Glossary of technical terms used
- Annexure X: Annual water audits by the industries

Guidelines to regulate and control groundwater extraction in India**Preamble and Background:**

On the directions of Hon'ble Supreme Court vide its order dated 10th December, 1996 passed in Civil writ Petition No 4677 of 1985, MC Mehta Vs Union of India, the Central Government had constituted the Central Ground Water Board as Authority vide notification number S.O. 38 (E), dated the 14<sup>th</sup> January, 1997 to exercise powers under sub section (3) of section 3 of the Environment (Protection) act, 1986 (29 of 1986) for the purposes of regulation and control of Ground Water Management and Development and to exercise certain powers and perform certain functions as per the said Act.

The Authority has been regulating ground water development and management by way of issuing 'No Objection Certificates' for ground water extraction to industries or infrastructure projects or Mining Projects etc., and framed guidelines in this connection from time to time applicable in twenty two States and two Union territories, where ground water development is not being regulated by the State Government and Union territory administration concerned.

To have sustainable management of water resources in the country groundwater abstraction guidelines have been prepared to regulate groundwater extraction and conserve the scarce groundwater resources in the country.

These guidelines will come into force with immediate effect from the date of Gazette Notification and will supersede all earlier guidelines issued by the Central Ground Water Authority (CGWA).

These guidelines will have pan India applicability. Ground water abstraction in States/ Uts (which are not regulating ground water abstraction) shall continue to be regulated by Central Ground Water Authority.

Further, wherever States/ Uts have come out with their own groundwater abstraction guidelines, which are inconsistent with the CGWA guidelines, the provisions of CGWA guidelines will prevail. However, in case the guidelines followed by such States/ Uts contain some more stringent provisions than CGWA guidelines, such provisions may also be given effect to by the States/ Uts Authorities in addition to those contained in the CGWA guidelines. States may be at liberty to suggest additional conditions/ criteria based on the local hydro-geological situations which shall be reviewed by CGWA/Ministry of Jal Shakti, Government of India before acceptance.

All new/existing industries, industries seeking expansion, infrastructure projects and mining projects abstracting ground water, unless specifically exempted under Para 1.0 below, will be required to seek No Objection Certificate from Central Ground Water Authority or, the concerned State/ UT Ground Water

Authority as the case may be. The entire process of grant of No Objection Certificate shall be online through a web based application system.

Water management plans shall be prepared by all the State Ground Water Authorities/ Organizations for all Over-exploited, Critical and Semi-critical assessment units starting with Over-exploited units. Water management plans shall be reviewed and updated periodically. Water management plans, data on water availability and scarcity and policy framed in this regard shall be placed on the websites of Central Ground Water Authority/ State Ground Water Authority.

### 1.0 Exemptions from seeking No Objection Certificate:

Following categories of consumers shall be exempted from seeking No Objection Certificate for ground water extraction:

- (i) Individual domestic consumers in both rural and urban areas for drinking water and domestic uses.
- (ii) Rural drinking water supply schemes.
- (iii) Armed Forces Establishments and Central Armed Police Forces establishments in both rural and urban areas.
- (iv) Agricultural activities.
- (v) Micro and small Enterprises drawing ground water less than 10 cum/day.

### 1.1 Registration of Drilling Rigs

State / Ut Governments shall be responsible for registering drilling rigs operating within their jurisdiction and for maintaining the database of wells drilled by them. Appropriate link shall be provided in CGWA portal for making the data available to CGWA.

### 2.0 Drinking & Domestic use for Residential apartments/ Group Housing Societies/ Government water supply agencies in urban areas

For grant of No Objection Certificate for ground water extraction, the project proponent has to furnish the details as per the guidelines issued by the CGWA in proper format as available in CGWA website. No Objection Certificate for new /existing wells shall be granted only in such cases where the local Government water supply agency is unable to supply requisite amount of water in the area.

No Objection Certificate shall be granted subject to the following specific conditions:

- i) Installation of Sewage Treatment Plants shall be mandatory for all residential apartments/ Group Housing Societies where ground water requirement is more than 20 m<sup>3</sup>/day. The water from Sewage Treatment Plants shall be utilized for toilet flushing, car washing, gardening etc.
- ii) The No Objection Certificate shall be valid for a period of five years from the date of issue or till such time local Government water supply is provided to the project area, whichever is earlier. In case the project proponent receives water supply from the concerned local Government Water Supply Agency during the validity of the No Objection Certificate, intimation regarding availability of public water supply shall be sent by the project proponent to CGWA and No Objection Certificate will be cancelled by the Authority. In other cases, the project proponent will apply for renewal of No Objection Certificate, ninety days before the expiry of No Objection Certificate.
- iii) Proponents shall be liable to pay ground water abstraction charges for the quantum of ground water proposed to be extracted, as per rates mentioned in Table 5.1.

### Documents to be submitted with the application

- a) Details of water requirement computed as per National Building Code, 2016 (**Annexure I**), taking into account recycling/ reuse of treated water for flushing etc.
- b) Affidavit on non-judicial stamp paper of Rs. 10/- by the applicant, confirming non/ inadequate availability of public water supply in case of users requiring ground water up to 10 m<sup>3</sup>/ day for drinking/ domestic use.
- c) Certificate of non-availability of water from local government water supply agency in cases requiring ground water in excess of 10 m<sup>3</sup>/ day for drinking/ domestic use. Government water supply agencies

applying for No Objection Certificate shall submit copy of government approval of the scheme/project proposed to be implemented.

- d) Ground water quality data of existing bore well/ tube well/ dug well from any National Accreditation Board for Testing and Calibration Laboratories (NABL) accredited laboratory or Govt. approved laboratory (in case of existing projects applying for no objection certificate)
- e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.

### 3.0 Agriculture Sector

Agriculture sector is the backbone of the Indian economy. As per Minor Irrigation Census 2013-14, 87.86% of wells are owned by marginal, small and semi-medium farmers having land holding up to 4 hectares (ha). Around 9.18 % of wells are owned by medium farmers having land holding 4 – 10 ha and 2.96% of the wells are owned by big farmers having land holding more than 10 ha.

Considering the number of ground water abstraction structures, regulation of ground water in agriculture sector through a 'command and control' strategy will prove to be an arduous task. Therefore, a participatory approach for sustainable ground water management would be more productive.

States/Uts are advised to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce over-dependence on groundwater.

Agriculture sector shall be exempted from obtaining No Objection Certificate for ground water extraction.

### 4.0 Commercial Use

No new major industries shall be granted No Objection Certificate in over-exploited assessment areas except as per the policy guidelines.

Availability of ground water resources shall be given due regard while considering applications for grant of No Objection Certificate for commercial use.

Commercial entities extracting ground water shall be required to submit online annual water audit report including an audit of water use as mentioned in the relevant sections. CGWA/ State Ground Water Authority (SGWA) shall publish all such audit reports online.

CGWA/ SGWAs shall engage independent agencies to verify the compliance of No Objection Certificate conditions periodically.

#### 4.1 Industrial Use

In Over-exploited assessment units, No Objection Certificate shall not be granted for ground water abstraction to any new industry except those falling in the category of Micro, Small and Medium Enterprises (MSME). However, No Objection Certificate for drinking/ domestic use for work force, green belt use by these new industries shall be permitted. Expansion of existing industries involving increase in quantum of ground water abstraction in over-exploited assessment units shall not be permitted. No Objection Certificate shall not be granted to new packaged water industries in Overexploited areas, even if they belong to MSME category.

No Objection Certificate for ground water extraction by industries shall be granted subject to the following specific conditions:

- i) No Objection Certificate shall be granted only in such cases where local government water supply agencies are not able to supply the desired quantity of water.
- ii) All industries shall be required to adopt latest water efficient technologies so as to reduce dependence on ground water resources.
- iii) All industries abstracting ground water in excess of 100 m<sup>3</sup>/d shall be required to undertake annual water audit through Confederation of Indian Industries (CII)/ Federation Indian Chamber of Commerce and Industry (FICCI)/ National Productivity Council (NPC) certified auditors and submit audit reports within three months of completion of the same to CGWA. All such industries shall be

required to reduce their ground water use by at least 20% over the next three years through appropriate means.

- iv) Construction of observation well(s) (piezometer)(s) within the premises and installation of appropriate water level monitoring mechanism as mentioned in Section 15 shall be mandatory for industries drawing/ proposing to draw more than 10 m<sup>3</sup>/day of ground water and. Monitoring of water level shall be done by the project proponent. The piezometer (observation well) shall be constructed at a minimum distance of 15 m from the bore well/production well. Depth and aquifer zone tapped in the piezometer shall be the same as that of the pumping well/ wells. Detailed guidelines for design and construction of piezometers are given in **Annexure II**. Monthly water level data shall be submitted to the CGWA through the web portal.
- v) The proponent shall be required to adopt roof top rain water harvesting/ recharge in the project premises. Industries which are likely to pollute ground water (chemical, pharmaceutical, dyes, pigments, paints, textiles, tannery, pesticides/ insecticides, fertilizers, slaughter house, explosives etc.) shall store the harvested rain water in surface storage tanks for use in the industry.
- vi) Injection of treated/ untreated waste water into aquifer system is strictly prohibited.
- vii) Industries which are likely to cause ground water pollution e.g. Tanning, Slaughter Houses, Dye, Chemical/ Petrochemical, Coal washeries, other hazardous units etc. (as per CPCB list) need to undertake necessary well head protection measures to ensure prevention of ground water pollution (**Annexure III**).
- viii) All industries drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 5.2 A and 5.3 A.
- ix) All existing industries drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as applicable as per Tables 5.2 B and 5.3 B.

#### **Documents to be submitted with the application**

- (a) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water supply from local government agencies in cases where ground water requirement is up to 10 m<sup>3</sup>/day.
- (b) Certificate regarding non/ partial availability of fresh water/ treated waste water supply from the local government water supply agency in cases where requirement of ground water is more than 10 m<sup>3</sup>/day.
- (c) Ground water quality data of existing bore well/ tube well/ dug well from any NABL accredited laboratory or Govt. approved laboratory (in case of existing projects applying for No Objection Certificate)
- (d) Water quality data of bore well/ tube well/ dug well in respect of existing industries from NABL accredited laboratories/Government approved laboratories.
- (e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.
- (f) **Impact Assessment report:** All projects extracting/proposing to extract ground water in excess of 100 m<sup>3</sup>/day in Over-exploited, Critical and Semi-critical areas shall have to mandatorily submit impact assessment report of existing/ proposed ground water withdrawal on the ground water regime and also socio-economic impacts report prepared by accredited consultants. Pro-forma for the report is given in **Annexure IV**.

#### **4.2 Mining Projects**

All existing as well as new mining projects will be required to obtain No Objection Certificate for ground water abstraction. Since mining projects are location specific, there will be no ban on grant of No Objection Certificate for abstraction of ground water for such projects in over-exploited assessment units.

No Objection Certificate for mining projects shall be granted subject to the following specific conditions:

- i) It shall be mandatory for all the mining industries to ensure that water available from de-watering operations is properly treated and should be gainfully utilized for supply for irrigation, dust

suppression, mining process, recharge in downstream and for maintaining e-flows in the river system.

- ii) Construction of observation well(s) (piezometers) along the periphery in the premises, for monthly ground water level monitoring, shall be mandatory for mines drawing/ proposing to draw more than 10 m<sup>3</sup>/day of ground water. Depth and aquifer zone tapped in the piezometer shall be commensurate with that of pumping well/ wells.
- iii) In addition, the proponent shall monitor ground water levels by establishing observation wells (piezometers) in the core and buffer zones as specified in the No Objection Certificate.
- iv) In case of coal and other base metal mining the project proponent shall use the advance dewatering technology (by construction of series of dewatering abstraction structures) to avoid contamination of surface water.
- v) In addition to this, all mining units shall also monitor the water quality of mine seepage and mine discharge through NABL accredited/ Govt. approved laboratories and the same shall be submitted at the time of self compliance.
- vi) All mining projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Tables 5.4 A.
- vii) All mining projects drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 5.4 B.

#### Documents to be submitted with the application

- (a) Mining plan approved by the concerned Govt. agency/ department.
- (b) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.
- (c) Comprehensive report prepared by accredited consultant on ground water conditions in both core and buffer zones of the mine, depth wise and year wise mine seepage calculations, impact assessment of mining and dewatering on ground water regime and its socio-economic impact, details of recycling, reuse and recharge, reduction of pumping with use of technology for mining and water management to minimize and mitigate the adverse impact on ground water, based on local conditions. Format for report is given in **Annexure V**.

#### 4.3 Infrastructure projects:

Since infrastructure projects are location specific, grant of No Objection Certificate to such projects located in over-exploited assessment units shall not be banned. New infrastructure projects/ residential buildings may require dewatering during construction activity and/ or use ground water for construction. In both cases, applicants shall seek No Objection Certificate from CGWA before commencement of work. However, in over-exploited assessment units, use of ground water for construction activity shall be permitted only if no treated sewage water is available within 10 km radius of the site. New as well as existing Infrastructure projects shall also be required to seek No Objection Certificate for abstraction of ground water.

No 'No Objection Certificate' shall be granted for extraction of groundwater for Water Parks, Theme Parks and Amusement Parks in over-exploited assessment units.

Indicative list of Infrastructure projects is given in Annexure VI.

The No Objection Certificate for ground water abstraction will be granted subject to the following specific conditions:

- i) In case of infrastructure projects that require dewatering, proponent shall be required to carry out regular monitoring of dewatering discharge rate (using a digital water flow meter) and submit the data through the web portal to CGWA/SGWA as applicable. Monitoring records and results should be retained by the proponent for two years, for inspection or reporting as required by CGWA/SGWA.

- ii) Installation of Sewage Treatment Plants (STP) shall be mandatory for new projects, where ground water requirement is more than 20 m<sup>3</sup>/day. The water from STP shall be utilized for toilet flushing, car washing, gardening etc.
- iii) For infrastructure dewatering/ construction activity, No Objection Certificate shall be valid for specific period as per the detailed proposal submitted by the project proponent.
- iv) All infrastructure projects drawing ground water in safe, semi-critical and critical assessment units shall be required to pay ground water abstraction charges as applicable as per Table 5.3 A.
- v) All infrastructure projects (new/ existing) drawing ground water in over-exploited assessment units shall be liable to pay ground water restoration charges as per Table 5.3 B.

#### Documents to be submitted with the application

- (a) In cases where dewatering is involved, submission of impact assessment report prepared by an accredited consultant on the ground water situation in the area giving detailed plan of pumping, proposed usage of pumped water and comprehensive impact assessment of the same on the ground water regime shall be mandatory. The report should highlight environmental risks and proposed management strategies to overcome any significant environmental issues such as ground water level decline, land subsidence etc.
- (b) An affidavit on non judicial stamp paper of Rs. 10/- regarding non availability of water from any other source in case water is required for construction in safe and semi critical areas.
- (c) Certificate from a government agency regarding non availability of treated sewage water for construction within 10 km radius of the site in critical and over-exploited areas.
- (d) Certificate of non-availability of water from local government water supply agency in respect of all categories of assessments units for commercial use.
- (e) Proposal for rain water harvesting/ recharge within the premises as per Model Building Bye Laws issued by Ministry of Housing & Urban Affairs.
- (f) Details of water requirement computed as per National Building Code, 2016 (**Annexure I**), taking into account recycling/ reuse of treated water for flushing etc. (in case of completed infrastructure projects for commercial use).
- (g) Completion certificate from the concerned agency for infrastructure projects requiring water for commercial use.

#### 5.0 Ground water abstraction/ restoration charges

All residential apartments/ group housing societies/ Government water supply agencies in urban areas shall be required to pay ground water abstraction charges.

All industries/mining/ infrastructure projects drawing ground water in safe, semi-critical and critical assessment units will have to pay ground water abstraction charges based on quantum of ground water extraction and category of assessment unit as per details given in this guideline.

All existing mining/ infrastructure projects and existing industries including MSME drawing ground water in over-exploited assessment units will have to pay ground water restoration charges based on quantum of ground water extraction. Further, new MSME, new infrastructure and new Mining projects in over exploited areas shall also be required to pay ground water restoration charges.

Existing industries, infrastructure units and mining projects which have installed/constructed artificial recharge structures in compliance of the conditions prescribed in the groundwater guidelines prevailing at the time of grant of No Objection Certificate or its renewal shall be eligible for a rebate of 50% (fifty percent) in the ground water abstraction charges/ground water restoration charges, subject to their satisfactory performance and verification.

The revenue generated from the proposed water abstraction/ restoration charges shall be kept in a separate fund for implementation of site specific suitable demand/ supply side interventions.

**5.1 Rates of Ground water abstraction /restoration charges****I. Drinking and domestic use for residential apartments/ group housing societies/ Government water supply agencies in Urban areas**

All residential apartments/ Group Housing Societies requiring water only for drinking/domestic use requiring No Objection Certificate would pay ground water abstraction charges as per rates given below in Table 5.1.

**Table 5.1 Ground Water Abstraction charges for Drinking & Domestic use.**

Quantum of Groundwater withdrawal (m <sup>3</sup> /month)	Rate of ground water abstraction charges (Rs. per m <sup>3</sup> )
0-25	No charge
26-50	1.00
>50	2.00

Government water supply agencies and Government infrastructure projects shall pay Ground water abstraction Charges @ Rs. 0.50 per m<sup>3</sup>.

**II. Packaged Drinking Water units**

Rates of ground water abstraction charges for packaged drinking water units in safe, semi-critical and critical assessment units are given in Table 5.2 A and those for ground water restoration charges in over-exploited assessment units are given in Table 5.2 B.

**Table 5.2 A: Rates of ground water abstraction charges for packaged drinking water units (Rs per m<sup>3</sup>)**

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal				
		Up to 50m <sup>3</sup> /day	51 to <200 m <sup>3</sup> /day	200 to <1000 m <sup>3</sup> /day	1000 to <5000 m <sup>3</sup> /day	5000 m <sup>3</sup> /day and above
1.	Safe	1.00	3.00	5.00	8.00	10.00
2.	Semi-critical	2.00	5.00	10.00	15.00	20.00
3.	Critical	4.00	10.00	20.00	40.00	60.00

**Table 5.2 B: Rates of ground water restoration charges for packaged drinking water units (Rs per m<sup>3</sup>)**

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal				
		Up to 50 m <sup>3</sup> /day	51 to <200 m <sup>3</sup> /day	200 to <1000 m <sup>3</sup> /day	1000 to <5000 m <sup>3</sup> /day	5000 m <sup>3</sup> /day and above
1.	Over-exploited (existing industries only)	8.00	20.00	40.00	80.00	120.00

### III. Other Industries & infrastructure projects

Rates of ground water abstraction charges for other industries and infrastructure projects in safe, semi-critical and critical assessment units are given in Table 5.3 A and those for ground water restoration charges in over-exploited assessment units are given in Table 5.3 B.

**Table 5.3 A: Rates of Ground Water abstraction charges for other industries & infrastructure projects (Rs per m<sup>3</sup>)**

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m <sup>3</sup> /day	200 to <1000 m <sup>3</sup> /day	1000 to <5000 m <sup>3</sup> /day	5000 m <sup>3</sup> /day and above
1.	Safe	1.00	2.00	3.00	5.00
2.	Semi-critical	2.00	3.00	5.00	8.00
3.	Critical	4.00	6.00	8.00	10.00

**Table 5.3 B: Rates of ground water restoration charges for other industries & infrastructure projects (Rs per m<sup>3</sup>)**

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m <sup>3</sup> /day	200 to <1000 m <sup>3</sup> /day	1000 to <5000 m <sup>3</sup> /day	5000 m <sup>3</sup> /day and above
1.	Over-exploited (existing industries / new Industries as per the present Guidelines)	6.00	10.00	16.00	20.00

### IV. Mining projects

Rates of ground water abstraction charges for mining, which are drawing ground water in safe, semi-critical and critical assessment units are given in Table 5.4 A and those for ground water restoration charges in case of projects drawing ground water in over-exploited assessment units are given in Table 5.4 B.

**Table 5.4 A: Rates of ground water abstraction charges for mining (Rs. per m<sup>3</sup>)**

S.No.	Category of area ↓ Ground water use →	Quantum of ground water withdrawal			
		< 200 m <sup>3</sup> /day	200 to <1000 m <sup>3</sup> /day	1000 to <5000 m <sup>3</sup> /day	5000 m <sup>3</sup> /day and above
1.	Safe	1.00	2.00	2.50	3.00
2.	Semi-critical	2.00	2.50	3.00	4.00
3.	Critical	3.00	4.00	5.00	6.00

**Table 5.4 B: Rates of ground water restoration charges for mining (Rs. per m<sup>3</sup>)**

S.No.	Category of area ↓  Ground water use →	Quantum of ground water withdrawal			
		< 200 m <sup>3</sup> /day	200 to <1000 m <sup>3</sup> /day	1000 to <5000 m <sup>3</sup> /day	5000 m <sup>3</sup> /day and above
1.	Over-exploited	4.00	5.00	6.00	7.00

### 6.0 Bulk Water Supply

All private tankers abstracting ground water and use it for supply as bulk water suppliers will now mandatorily seek No Objection Certificate for ground water abstraction. The bulk water suppliers through tankers drawing ground water in safe, semi-critical and critical assessment units shall pay groundwater abstraction charges as per the **Table-6.1 A**. The bulk water suppliers drawing ground water in over-exploited assessment units shall pay the groundwater restoration charges as per the **Table-6.1 B**. All tankers will have to install GPS based system for their monitoring of movement/area of operation.

Modalities for issue of No Objection Certificate for bulk/tanker water supplies shall be worked out in consultation with States/Uts and suitable guidelines in this regard will be framed and issued separately for the same.

**Table-6.1A: Groundwater abstraction charges for Bulk/Tanker water supplies**

Category	Rate per m <sup>3</sup> (in Rs.)
Safe	10
Semi Critical	20
Critical	25

**Table-6.1B: Groundwater abstraction charges for Bulk/Tanker water supplies**

Category	Rate per m <sup>3</sup> (in Rs.)
Over Exploited	35

### 7.0 Abstraction of Saline ground water

Abstraction of saline ground water in areas having either saline ground water at all depths or pockets of saline ground water in an otherwise fresh water area for use by industries/ dewatering by infrastructure/ mining projects including those located in over-exploited areas would be encouraged. Such industries shall be exempted from paying ground water abstraction charges.

The list of such assessment units having saline ground water at all depths as per the latest assessment of dynamic ground water resources will be made available by the CGWA in their website. However, due care shall be taken in respect of disposal of effluents by the units so as to protect the water bodies and the aquifers from pollution.

Detailed guidelines in this regard shall be prepared and issued separately.

### 8.0 Protection of Wetland Areas

The wet land areas in the country are very crucial as they are direct reflection of the presence of ground water in such areas. The protection of the wetland areas is being separately handled by the Wetland Authorities. Since ground water is very crucial for the survival of the wetland area, any excessive ground water development within the zone of wetland area would affect the volume of water in that wetland.

Projects falling within 500 m. from the periphery of demarcated wetland areas shall mandatorily submit a detailed proposal indicating that any ground water abstraction by the project proponent does not affect the protected wetland areas. Furthermore, before seeking permission from CGWA, the projects shall take consent/approval from the appropriate Wetland Authorities to establish their projects in the area.

#### 9.0 General compliance conditions in No Objection Certificate

- i. Installation of digital water flow meter (conforming to BIS/ IS standards) having telemetry system in the abstraction structure(s) shall be mandatory for all users seeking No Objection Certificate and intimation regarding their installation shall be communicated to the CGWA within 30 days of grant of No Objection Certificate through the web-portal.
- ii. Proponents shall mandatorily get water flow meter calibrated on from an authorized agency once in a year.
- iii. Proponents shall install roof top rain water harvesting & recharge systems in the project area.
- iv. Proponents shall pay Ground Water Abstraction/ Restoration Charges based on quantum of ground water extraction as applicable as per the rates given in Section 6.
- v. Construction of purpose-built observation wells (piezometers) for ground water level monitoring shall be mandatory as per Section 15. Water level data shall be made available to CGWA through web portal. Detailed guidelines for construction of piezometers are given in **Annexure-II**.
- vi. Proponents shall monitor quality of ground water from the abstraction structure(s) once in a year. Water samples from bore wells/ tube wells / dug wells shall be collected during April/May every year and analysed in NABL accredited laboratories for basic parameters (cations and anions), heavy metals, pesticides/ organic compounds etc. Water quality data shall be made available to CGWA through the web portal.
- vii. If the existing well becomes defunct due to mechanical failure within the validity period of No Objection Certificate, the user can construct a replacement well under intimation to CGWA on web portal. The defunct well shall be properly sealed (**Refer Annexure VII**). The user will be required to submit documentary proof in this regard. However, if the existing abstraction structures fails to yield water and he proponent desires to drill another tubewell in the same premises, prior permission of the Authority shall be required. If the replacement well is to be drilled in some different place, the proponent shall obtain fresh No Objection Certificate.
- viii. Wherever feasible, requirement of water for greenbelt (horticulture) shall be met from recycled / treated waste water.
- ix. In case of change of ownership, new owner of the industry will have to apply for incorporation of necessary changes in the No Objection Certificate with documentary proof within 60 days of taking over possession of the premises.

#### 10.0 Monitoring of compliance of No Objection Certificate Conditions

To monitor the compliance of No Objection Certificate conditions, Central Ground Water Authority and State/ UT Ground Water Authorities shall take the following steps:

- a. Suitable MIS will be developed for compliance monitoring.
- b. District Collectors/Deputy Commissioners (DCs) /District Magistrates (DMs) are authorized to take enforcement measures like sealing of unauthorized ground water abstraction structures, disconnection of electricity, launching of prosecution against those violating the No Objection Certificate conditions and taking action for imposition of Environmental Compensation.
- c. Technical officers of CGWB/ CGWA and State groundwater organizations are authorized to take actions with respect to monitoring and periodic inspections with the approval of competent authority.
- d. In case of violation of any of the No Objection Certificate conditions, the proponents shall be liable to pay the penalties as per **Section 16**.

**11.0 Renewal of No Objection Certificate**

No objection certificate shall be renewed periodically, subject to the compliance of the conditions mentioned therein:

- i. The applicant shall apply for renewal of No Objection Certificate at least ninety days prior to expiry of its validity.
- ii. Application for renewal of No Objection Certificate shall be accompanied by the Compliance Report.
- iii. Before granting renewal, Central Ground Water Authority or State/ Ut Authority shall satisfy itself that the conditions of No Objection Certificate have been complied with.
- iv. In case of change in category of the assessment unit, renewals would be granted with conditions as laid down for new category.
- v. No Objection Certificate will be renewed for the terms specified for various uses as follows:

Category	Use	Term of renewal
Critical, Semi-critical and safe	Infrastructure projects for drinking & domestic use and urban Water Supply Agencies	5 years
	Industries	3 years
	Mines	2 years
Over exploited	All users in 'Over-exploited areas'	2 years

- vi. If the application for renewal is submitted in time and the CGWA/ the respective State/ Ut Authority is unable to process the application in time, No Objection Certificate shall be deemed to be extended till the date of renewal of No Objection Certificate.
- vii. If the proponent fails to apply for renewal within 3 months from the date of expiry of No Objection Certificate, the proponent shall be liable to pay Environmental Compensation for the period starting from the date of expiry of No Objection Certificate till No Objection Certificate is renewed by the competent authority.

**12.0 Extension of No Objection Certificate**

If the proponent is unable to construct the well(s) during the validity period of No Objection Certificate for genuine reasons, the proponent will have to apply for extension of No Objection Certificate. Application for extension should be supported by documents justifying the reasons for delay. Other conditions for grant of extension of No Objection Certificate will be the same as that for fresh No Objection Certificate.

Extension of No Objection Certificate will be granted for a maximum period of two years. No further extension will be granted after the expiry of the extended period. In that case, the applicant will have to apply afresh for grant of No Objection Certificate.

**13.0 Delegation of powers against illegal groundwater withdrawal**

Central Ground Water Authority has appointed the District Magistrate/ District Collector/ Sub Divisional Magistrates of each Revenue District/Sub division as Authorized Officers, who have been delegated the power to seal illegal wells, disconnect electricity supply to the energised well, launch prosecution against offenders etc. including grievance redressal related to ground water in their respective jurisdictions.

In order to further decentralise and strengthen the monitoring and compliance mechanism as per the guidelines, officials of concerned Departments of Revenue and Industries of the States/Uts shall be appointed as Authorised Officers in consultation with the State/Ut Governments.

A copy of the No Objection Certificate issued by the CGWA in the No Objection Certificate Application Portal (NOCAP) will be forwarded to the respective District Magistrate/ District Collector. In case of any violation of the directions of Central Ground Water Authority and non-fulfilment of the conditions laid

down in the No Objection Certificate, the Authorised Officers will file appropriate Petition/Original Application etc under sections 15 to 21 of the Environment (Protection) Act, 1986 in appropriate Courts.

#### 14.0 Ground Water Level Monitoring

All the project proponents (drawing ground water more than 10 cum/d) have to mandatorily construct Piezometers (observation wells) within their premises for monitoring of the ground water levels. Such a mechanism of compliance conditions has been made to ensure that every month the ground water level in the project area can be monitored and observed. In this regard the necessary criteria for monitoring of water levels through piezometers by the project proponents is given in Table 14.1.

S.No.	Quantum of Ground water withdrawal (cum/d)	No. of piezometer required	Monitoring mechanism		
			Manual	DWLR	DWLR with Telemetry
1	<10	0	0	0	0
2	11-50	1	1	0	0
3	51-500	1	0	1	0
4	>500	2	0	1	1

The piezometer shall be suitably located to ensure that zone of aquifer tapped in the piezometer is the same as that of the pumping well.

#### 15.0 Environmental Compensation

Extraction of ground water for commercial use by industries, infrastructure units and mining projects without a valid No Objection Certificate from appropriate authority shall be considered illegal and such entities shall be liable to pay Environmental Compensation for the quantum of ground water so extracted. The norms prescribed by Central Pollution Control Board (CPCB) shall be utilized for calculating the Environmental compensation as mentioned below:

$$EC_{GW} = \text{Ground water consumption per day} \times \text{Environmental Compensation rate (ECR}_{GW}) \times \text{No. of days} \times \text{Deterrence factor}$$

where ground water consumption is in m<sup>3</sup>/day and ECR<sub>GW</sub> in Rs./ cum

#### 15.1 Rates of Environmental Compensation:

Rates of Environmental Compensation (ECR<sub>GW</sub>) for various types of users in different categories of assessment units are given in Table 15.1 to 15.3.

Table 15.1 : ECR<sub>GW</sub> for Packaged Drinking Water units

S.No.	Area Category	Water Consumption (cum/day)			
		<200/	200 to <1000	1000 to <5000	5000 & above
Environmental Compensation Rate (ECR <sub>GW</sub> ) in Rs./m <sup>3</sup>					
	Safe	12	18	24	30
2	Semi critical	24	36	48	60
3	Critical	36	48	66	90
4	Over- exploited	48	72	96	120

Note :-Minimum EC<sub>GW</sub> shall not be less than Rs 1,00,000/-

**Table 15.2: ECR<sub>GW</sub> for Mining/ infrastructure dewatering projects**

S.No.	Area Category	Water Consumption (cum/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR <sub>GW</sub> ) in Rs./m <sup>3</sup>			
1	Safe	15	21	30	40
2	Semi critical	30	45	60	75
3	Critical	45	60	85	115
4	Over- exploited	60	90	120	150

**Note :-**Minimum ECR<sub>GW</sub> shall not be less than Rs 1,00,000/-

**Table 15.3: ECR<sub>GW</sub> for Industrial units**

S.No.	Area Category	Water Consumption (cum/day)			
		<200	200 to <1000	1000 to <5000	5000 & above
		Environmental Compensation Rate (ECR <sub>GW</sub> ) in Rs./m <sup>3</sup>			
1	Safe	20	30	40	50
2	Semi critical	40	60	80	100
3	Critical	60	80	110	150
4	Over- exploited	80	120	160	200

**Note :-**Minimum ECR<sub>GW</sub> shall not be less than Rs 1,00,000/-

### 15.2 Deterrent Factors to compensate losses and environmental damage (for packaged drinking water units, mining, industries and infrastructural dewatering projects)

The following deterrent factors based on the duration of illegal ground water extraction shall be levied to compensate for the losses and environmental damages as detailed in Table 15.4.

**Table 15.4: Deterrent factor based on quantum of ground water withdrawal and number of years of illegal withdrawal**

S.No.	Water Consumption	Deterrence Factor		
		< 2 years	2-5 years	>5 years
1	<1000 KLD	1.00	1.00	1.25
2	1000-5000 KLD	1.00	1.00	1.50
3	>5000 KLD	1.00	1.25	2.00

**Note:** KLD – Kilolitre per day

### 16.0 Provision of Penalty

Penalty shall be imposed on the proponents for non-compliance of No Objection Certificate conditions issued by the appropriate authority. Rates of penalty proposed for non-compliance of various conditions of No Objection Certificate are given in Table 16.1. The rates of the penalty shall be reviewed periodically with the approval of competent authority in Ministry of Jal Shakti.

**Table 16.1: Penalty provision for non Compliance of No Objection Certificate conditions**

S. No.	Items	Charges in Rs.
1	Non installation/faulty Digital water Flow meter with telemetry system.	200000
2	Non disclosure/ construction of additional groundwater abstraction structures a) Non-functional Structures. b) Defunct/Abandoned Note: Given rates are for unit non-functional/defunct/abandoned structures. This shall be multiplied with total such structures to arrive at consolidated penalty.	200000 100000
3	Reporting of fresh water zones as Brackish / Saline zones in application.	200000
4	Non Installation of Piezometer.	200000
5	Non Installation/faulty DWLR/Telemetry system	100000
6	Non Construction/Inadequate capacity of Recharge / Water conservation structures.	500000
7	Non maintenance of Recharge structures.	200000
8	Injection of treated/untreated water into the aquifer system. Note: In addition to penalty, the proponent shall bear the cost of aquifer remediation as per the provisions of Environment (Protection) Act, 1986.	1000000
9	Non Submission of Water level/Water quality Data.	50000
10	Non-maintenance of log book of daily withdrawal/non submission of Groundwater abstraction data.	50000
11	Non submission of photograph of recharge structure(s).	50000
12	Non Submission of Self Compliance report.	100000
13	Construction of groundwater abstraction structures by un authorized/unregistered Drilling Rigs (per structures).	100000
14	Non registration of water supply tankers.	500000
15	Submission of false information/ undertaking.	100000

Charges shall also be payable for correction/modification in the existing issued No Objection Certificate letter. The details of such charges are given in [Table 16.2](#).

**Table 16.2: Proposed Charges for correction/Modification in the existing issued No Objection Certificate**

S. No.	Items	Charges in Rs.
1	Change in recharge quantum	10000
2	Change in User ID.	5000
3	Change in firm Name	5000
4	Extension of No Objection Certificate	5000
5	Issuance of duplicate No Objection Certificate	5000
6	Issuance of corrigendum to No Objection Certificate	5000
7	Any other items/corrections etc	5000

**17.0 Other important Conditions (Applicable to all):**

- i. Sale of ground water by a person/ agency not having valid no objection certificate from CGWA/State Ground Water Authority is not permitted.
- ii. In infrastructure projects, paved/parking area must be covered with interlocking/perforated tiles or other suitable measures to ensure groundwater infiltration/harvesting.
- iii. In case of Infrastructure projects, the firm/entity shall ensure implementation of dual water supply system in the projects. Compliance of the same shall be submitted through the web portal.
- iv. Non-compliance of conditions mentioned in the No Objection Certificate may be taken as sufficient reason for cancellation of no objection certificate accorded/ non-renewal of No Objection Certificate.
- v. No application shall be entertained without supporting documents as specified in relevant sections.
- vi. Abstraction structure(s) should be located inside the premises of project property.
- vii. Self compliance of conditions laid down in the no objection certificate shall be reported by the users online in the web portal of Central Ground Water Authority/state Ground Water Authority.
- viii. Processing fee prescribed, if any, from time to time shall be charged for various services.

**Note:**

1. Guidelines are subject to modification from time to time.
2. In case of any discrepancy between Hindi and English versions of this document including the annexures, the English version shall prevail.

**Annexure I****Estimation of Water Requirements for drinking and domestic use****(Source: National Building Code 2016, BIS)**

## a) Residential Buildings:

Accommodations	Population
1 Bedroom dwelling unit	4
2 Bedroom dwelling unit	5
3 Bedroom dwelling unit	6
4 Bedroom dwelling unit and above	7

**Notes:**

- 1) The above figures consider a domestic household including support personnel, wherever applicable.
- 2) For plotted development, the population may be arrived at after due consideration of the expected number and type of domestic household units.
- 3) Dwelling unit under EWS category shall have population requirement of 4 and studio apartment shall have population requirement of 2.

As a general rule the following rates per capita per day may be considered for domestic and non-domestic needs:

## a) For communities with populations up to 20,000:

1)	Water supply through stand post:	40 lphd (Min)
2)	Water supply through house service connection	70 to 100 lphd

- b) For communities with: 100 to 135 lphd  
population 20,000 to 100,00 together with  
full flushing system
- c) For communities with population: 150 to 200 lphd  
above 100,000 together with  
full flushing system

**Note**—The value of water supply given as 150 to 200 litre per head per day may be reduced to 135 litre per head per day for houses for Medium Income Group (MIG) and Low Income Groups (LIG) and Economically Weaker Section of Society (EWS), depending upon prevailing conditions and availability of water.

Out of the 150 to 200 litre per head per day, 45 litre per head per day may be taken for flushing requirements and the remaining quantity for other domestic purposes.

**A. Water Requirements for Buildings Other than Residences**

Sl No.	Type of Building	Domestic litres per head/ day	Flushing Litres per head/ day	Total Consumption Litres per head/ day
1.	Factories including canteen where bath rooms are required to be provided	30	15	45
2.	Factories including canteen where no bath rooms are required to be provided	20	10	30
3.	Hospital (excluding laundry and kitchen):			
	a) Number of beds not exceeding 100	230	110	340
	b) Number of beds exceeding 100	300	150	450
	c) Out Patient Department (OPD)	10	5	15
4.	Nurses' homes and medical quarters	90	45	135
5.	Hostels	90	45	135
6.	Hotels (up to 3 star) excluding laundry, kitchen, staff and water bodies	120	60	180
7.	Hotels (4 star and above) excluding laundry, kitchen, staff and water bodies	260	60	320
8.	Offices (including canteen)	25	20	45
9.	Restaurants and food court including water requirement for kitchen:			
	a) Restaurants	55 per seat	15 per seat	70 per seat
	b) Food Court	25 per seat	10 per seat	35 per seat
10.	Clubhouse	25	20	45
11.	Stadiums	4	6	10

12.	Cinemas, concert halls and theatres and multiplex	5 per seat	10 per seat	15 per seat
13.	Schools/Educational institutions: a) Without boarding facilities b) With boarding facilities	25	20	45
		90	45	135
14.	Shopping and retail (mall) a) Staff b) Visitors	25	20	45
		5	10	15
15.	Traffic Terminal stations			
	a) Airports	40	30	70
	b) Railway stations (Junction) with bathing facility	40	30	70
	c) Railway stations (Junction) without bathing facility	30	15	45
	d) Railway stations (Intermediate) with bathing facility	25	20	45
	e) Railway stations (Intermediate) without bathing facility	15	10	25
	f) Interstate bus terminals	25	20	45
	g) Intrastate Bus Terminals/Metro Stations	10	5	15

**Notes:**

1. For calculating water demand for visitors, consumption of 15 litre per head per day may be taken.
2. The water demand includes requirement of patients, attendants, visitors and staff. Additional water demand for kitchen, laundry and clinical water shall be computed as per actual requirements.
3. The number of persons shall be determined by average number of passengers handled by stations, with due considerations given to the staff and vendors who are using these facilities.
4. Consideration should be given for seasonal average peak requirements.
5. The hospitals may be categorized as Category A (25 to 50 beds), Category B(51 to 100 beds), Category C (101 to 300 beds), Category D (301 to 500) and Category E (501 to 750 beds).

**Annexure II****Guidelines for construction of Piezometers and monitoring of Ground Water Levels and Quality**

Piezometer is a borewell/tubewell used only for measuring the water level by lowering a tape/sounder or automatic / digital water level measuring equipment. It is also used to take water sample for water quality testing whenever needed. General guidelines for installation of piezometers are as follows:

- The piezometer is to be installed/constructed at the minimum distance of 50 m from the pumping well through which ground water is being withdrawn. The diameter of the piezometer should be about four inches to six inches.
- The depth of the piezometer should be the same as that of the pumping well from which ground water is being abstracted. If, more than one pumping wells are constructed tapping aquifers at different depths, more than one piezometers shall be required to be constructed tapping different aquifers as in the pumping wells.

- The measurement of water level in piezometer should be taken, only after the pumping from the surrounding tubewells has been stopped for about four to six hours.
- The ground water quality has to be monitored once in a year during pre-monsoon (April/ May) period by industries and mines drawing ground water. Samples of ground water should be analyzed from NABL accredited laboratory.
- A permanent display board should be installed at Piezometer/ Tubewell site for providing the location, piezometer/ tubewell number, depth and zone tapped of piezometer/tubewell for standard referencing and identification.
- Any other site specific requirement regarding safety and access for measurement may be taken care off.

### Annexure III

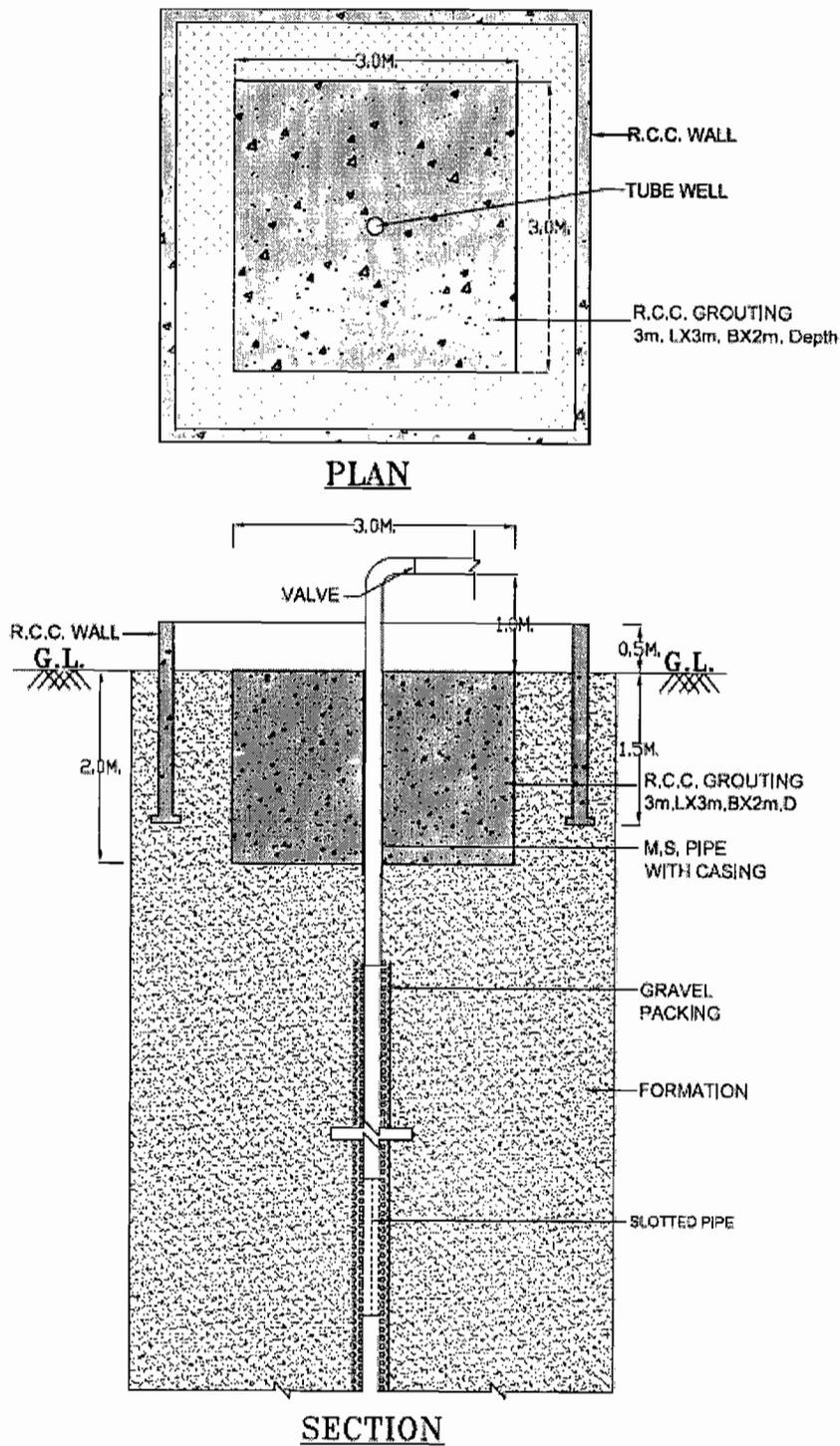
#### **Measures to be adopted to ensure prevention from pollution in the plant premises of polluting industries/ projects**

It has been observed that ground water in and around polluting industries like Tannery, Slaughter Houses, Dye, Chemical, Coalwashery, other hazardous units, etc., is polluted. In order to prevent further deterioration of ground water quality, it is essential to take all necessary measures for well head protection. All industries/ projects falling under this category are hereby directed to follow the under mentioned procedure both for existing and new category.

1. No tube well/ bore well / dug well should be constructed in the vicinity of the processing unit. Tube well/ bore well should be constructed at the place which is hygienically maintained.
2. Only Mild Steel pipe should be used for assembly/ casing and PVC (Poly Vinyl Chloride) or similar pipes should not be used. The tube well/ bore well having PVC or similar pipes should be abandoned and filled back.
3. Around the tube well/ bore well, RCC (Reinforced Concrete Cement) grouting of 3 meters (length) x 3 meters (width) x 2 meters (depth) must be provided. The pipe of the tube well/ bore well must be raised 1 meter above ground level (1 magl). The tube well/ bore well must be surrounded by RCC wall of 0.5 meter height and 1.5 meter depth to prevent any surface contamination to enter the constructed tube well/ bore well. Plan/Sectional diagram is enclosed for reference (Appendix 1 and 2).
3. The tube well/ bore well must be fitted with NRV (Non Return Valve) in order to ensure that the constructed tube well/ bore well is exclusively used for abstraction of ground water only.
4. At no point of time there should be any injection of any water or fluid into the constructed tube well/ bore well/ Piezometer.
5. The industries/ projects under this category should not implement any recharge measures within the plant premises.
6. Any tube well/ bore well located/ constructed in the vicinity of STP (Sewage Treatment Plant) or ETP (Effluent Treatment Plant) should be abandoned and filled back.
7. The piezometer to be constructed for monitoring purpose should follow the same procedure as that for tube well/ bore well for such industries/ projects.

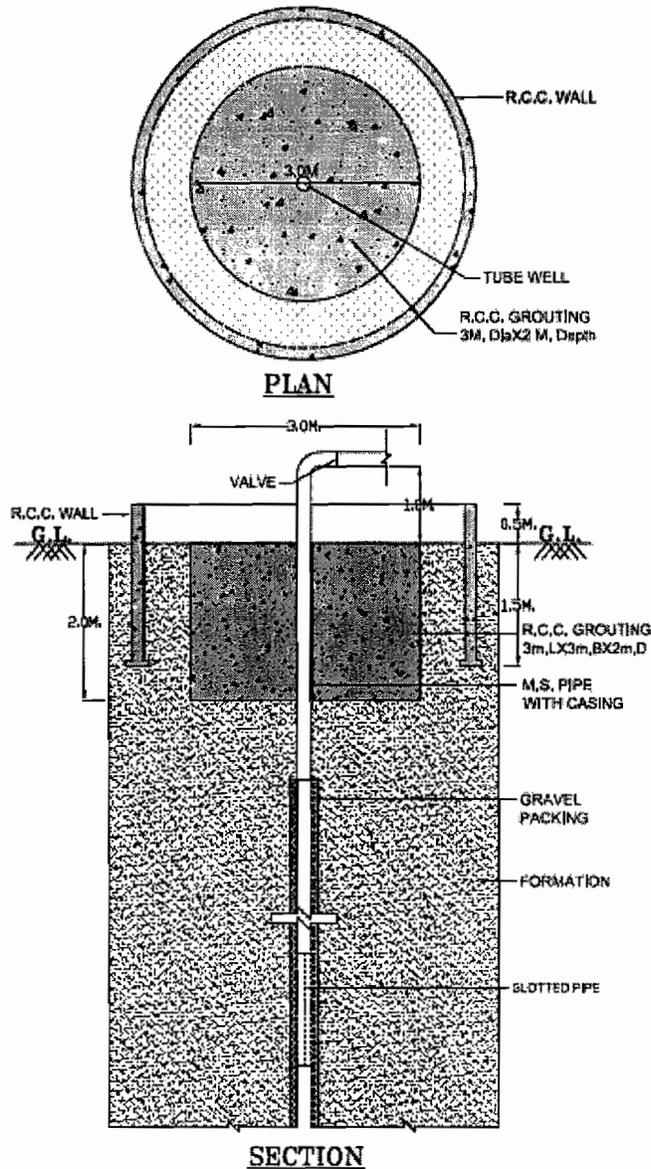
Appendix 1

Plan/ Sectional diagram showing well head protection



SECTION

Plan/ Sectional diagram showing well head protection



## Annexure-IV

**Outline of hydro-geological Report for obtaining No Objection Certificate for industries**

1. Brief about the proposed project giving location details, coordinates, google/ toposheet maps, etc. demarcating the project area.
2. Ground water situation in and around the project area including water level and quality data and maps along with quality issues, if any. In case of mines, ground water conditions in both core and buffer zone should be described.
3. Details of the tubewells/ borewells proposed to be constructed. This includes the drilling depth, diameter, tentative lithological log, details of pump to be lowered, H.P. of pump, tentative discharge of tubewells/ borewells, etc. Locations to be marked on the site plan/ map. Location of proposed piezometers.

4. Details of Geophysical studies carried out in and around the project area. Ground water resources computation of the block in which the project falls.
5. Approved Mine plan in case of mines and detailed dewatering plan in case of mine/ infrastructure dewatering projects.
6. Proposed usage of pumped water in case of mining/ infrastructure dewatering projects.
7. Comprehensive assessment of the impact on the ground water regime in and around the project area highlighting the risks and proposed management strategies proposed to overcome any significant environmental issues.
8. Proposed measures for disposal of waste water by industries drawing saline water.
9. Measures to be adopted for water conservation which include recycling, reuse, treatment, etc. This includes the water balance chart being adopted by the firm along with details of water conservation methods to be adopted.
  - Brief write up along with capacity and flow chart of Sewage Treatment Plants / Effluent Treatment Plants / Combined Effluent Treatment Plants existing/ proposed within the project.
  - Details of water conservation measures to be adopted to reduce/ save the ground water.
  - Total water balance chart showing the usage of water for various processes.
10. Any other details pertaining to the project.

#### Annexure V

#### **Format of the Report on ground water conditions (for mining projects)**

Introduction

Project description

Background

Objectives and scope

Regional setting

Location

Landuse

Climate

Topography and drainage

Geology –Regional and Local

General Hydrogeology (aquifer types, aquifer depth, zone tapped etc.)

Groundwater condition (In core and buffer zones)

Spatial and temporal variations in water levels Groundwater quality (Shallow and deep aquifer)

Impact of groundwater extraction on local groundwater

Hydrograph of water level/piezometer in monitoring wells

Trend analysis of historical water levels Flow net analysis (groundwater flow direction)

Year wise/ bench wise mine dewatering computation as per approved mine plan

Conclusions

## Annexure VI

**Indicative list of Infrastructure projects**

Residential townships including commercial buildings
Office building
School
College
University
Special Economic Zone
Metro Station
Railway Station
Bus Depot
Airport
Seaport
Highway infrastructure
Fire station
Warehouse
Business Plaza
Malls & Multiplex
Hospitals
Nursing Homes
Resort
Hotel/ Restaurant/ Food Plaza
Holiday home/Guest house/ Hostels
Banquet Hall/ Marriage Gardens
IT Complex
Logistics & Cargo
Clubs
Trade Centre

## Annexure -VII

**Supreme Court Order in Civil Writ petition 36 of 2009 regarding measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells**

In Re: Measures for prevention of fatal accidents of small children due to their falling into abandoned bore wells and tube wells

Union of India and Ors.

Respondents(s)

**ORDER**

With this Court issuing requisite guidelines vide order dated 11th February, 2010, subject to slight modifications, nothing survives in the present writ petition.

That modification is as follows:

- (i) The owner of the land/ premises, before taking any steps for constructing bore well/ tube well must inform in writing to the concerned authorities in the area, i.e., District Collector/ District Magistrate/ Sarpanch of the Gram Panchayat/ any other Statutory Authority/ concerned officers of the Department of Ground Water/ Public Health/ Municipal Corporation, as the case may be, about the construction of bore well/ tube well.
- (ii) Registration of all the drilling agencies, namely, Government/ Semi Government, Private etc. should be mandatory with the district administration/ Statutory Authority wherever applicable.
- (iii) Erection of signboard at the time of construction near the well with the following details:-
  - (a) Complete address of the drilling agency at the time of construction/ rehabilitation of well.
  - (b) Complete address of the user agency/owner of the well.
- (iv) Erection of barbed wire fencing or any other suitable barrier around the well during construction.
- (v) Construction of cement/ concrete platform measuring 0.50x0.50x0.60 meter (0.30 meter above ground level and 0.30 meter below ground level) around the well casing.
- (vi) Capping of well assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.
- (vii) In case of pump repair, the tube well should not be left uncovered.
- (viii) Filling of mud pits and channels after completion of works.
- (ix) Filling up abandoned bore wells by clay/sand/boulders/pebbles/drill cuttings etc. from bottom to ground level.
- (x) On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.
- (xi) District Collector should be empowered to verify that the above guidelines are being followed and proper monitoring check about the status of bore holes/ tube wells are being taken care through the concerned state/ Central Government agencies.
- (xii) District/ Block/ Village wise status of bore wells/tube wells drilled viz. No. of wells in use, No. of abandoned bore wells/ tube wells found open, No. of abandoned bore wells/ tube wells properly filled up to ground level and balance number of abandoned bore wells/ tube wells to be filled up to ground level is to be maintained at District Level.

In rural areas, the monitoring of the above is to be done through Village Sarpanch and the Executive from the Agriculture Department.

In case of urban areas, the monitoring of the above is to be done through Junior Engineer and the Executive from the concerned Department of Ground Water/Public Health/ Municipal Corporation etc.

- (xiii) If a bore well/ tube well is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water/ Public Health/ Municipal Corporation/ Private Contractor etc. must be obtained by the aforesaid agencies that the 'Abandoned' bore well/tube well is properly filled upto the ground level. Random inspection of the abandoned wells is also to be done by the Executive of the concerned agency/ department. Information on all such data on the above are to be maintained in the District Collector/ Block Development Office of the State.

We are informed that the last paragraph of the earlier order dated 11th February, 2010, concerning publicity has been duly complied with.

Subject to the above, the writ petition is disposed of.

.....CJI.  
[S.H. KAPADIA]

.....J.  
[K.S. RADHAKRISHNANA]

.....J.  
[SWATANTER KUMAR]

New Delhi,  
August 6, 2010

### ANNEXURE VIII

#### List of States/Union territories where ground water extraction is being regulated by Central Ground Water Authority

1. Andaman and Nicobar Islands
2. Assam
3. Arunachal Pradesh
4. Bihar
5. Chhattisgarh
6. Dadra and Nagar Haveli and Daman and Diu
7. Gujarat
8. Haryana
9. Jharkhand
10. Madhya Pradesh
11. Maharashtra
12. Manipur
13. Meghalaya
14. Mizoram
15. Nagaland
16. Odisha
17. Punjab
18. Rajasthan
19. Sikkim
20. Tripura
21. Uttar Pradesh
22. Uttarakhand
23. Andhra Pradesh (only mining projects)
24. Telangana (only mining projects)

## Annexure IX

**Glossary of technical terms used**

1. **Safe area:** Area categorized as SAFE from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
2. **Semi-critical area:** Area categorized as SEMI-CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organizations. Details available on the websites of NOCAP and CGWB.
3. **Critical area:** Area categorized as CRITICAL from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organisations. Details available on the websites of NOCAP and CGWB.
4. **Over-exploited area:** Area categorized as OVER-EXPLOITED from the ground water resources point of view, based on the latest ground water resources assessment carried out jointly by CGWB and State ground water organisations. Details available on the websites of NOCAP and CGWB.
5. **Aquifer:** Geological formation capable of storing and transmitting ground water.
6. **Deeper Aquifer:** In areas having multiple aquifer system, the aquifer(s) occurring below the uppermost aquifer.
7. **Well:** Any structure used for the extraction of groundwater, including open wells, dug wells, bore wells, dug-cum-bore wells, tube wells, filter points, collector wells, infiltration galleries, recharge wells, or any of their combinations or variations.
8. **Government Agency:** May be Central or State Government body.
9. **Supplier:** Government/ Government approved Water Supply Agency.
10. **Mine:** Area where mining activity is taking place, or area abandoned after mining.
11. **Illegal Ground Water abstraction Structure:** Any energized abstraction structure viz. dugwell, tubewell, borewell which is being used to withdraw ground water without valid No Objection Certificate from Central Ground Water Authority.
12. **Rainwater Harvesting:** The technique or system of collection and storage of rainwater, at micro watershed scale, including roof-top harvesting, for future use or for recharge of groundwater.
13. **Mining Project:** Project which involves mining activity either open cast or underground or both.
14. **Ground Water Draft:** Quantum of ground water withdrawal.
15. **Saline Water:** Water having salinity in excess of 2500  $\mu$ siemens/cm at 25<sup>o</sup>C.
16. **Water Table Intersection:** Intersection of the water table on excavation of the overlying material due to mining or other activities.
17. **Drinking and domestic use:** Besides drinking & domestic use of households, this category will cover drinking requirement of industries not requiring water for industrial process; drinking, washing, cleaning use etc. in case of hospitals, hotels, malls & multiplexes, institutions, offices, banquet halls, fire stations, metro stations, railway stations, airports, sea ports, stadia etc.
18. **Recycle/Reuse:** Using treated waste water for various purposes/ putting water to multiple uses.
19. **Government Department:** Either Central Government or State Government.
20. **Municipality:** Municipality, a Municipal Corporation or similar body of local urban governance by any other name.
21. **Groundwater:** Water, which exists below the surface in the zone of saturation and can be extracted through wells or any other means or emerges as springs and base flows in streams and rivers;
22. **Bgl :** Below Ground Level.
23. **BCM :** Billion cubic metres.

24. **Groundwater Abstraction structure:** Structure used to withdraw groundwater like bore well / tube well / dug well/dug cum bore well/tunnel well.
25. **Observation well or Piezometer:** A bore well/tube well used only for measuring the water level/piezometric head and to take water sample periodically but not used for groundwater abstraction.
26. **Water Audit:** A method of quantifying water use in simple or complex systems, with a view to reducing water usage and often saving money on otherwise unnecessary water use.
27. **Ground water pollution:** If concentration of any parameter in ground water exceeds the maximum permissible limit for drinking water prescribed by the Bureau of Indian Standards.
28. **Cooperative Group Housing Societies/ Builder flats:** A Housing Society is a society formed by house owners within a residential complex. The housing society formed must be formally registered with registrar of co-operatives.
29. **KLD – Kilo Litre per day**
30. **EC<sub>GW</sub>** - Environmental compensation for drawing illegal ground water.
31. **EC<sub>GWR</sub>** - Environmental compensation rates for drawing illegal ground water.

### ANNEXURE X

#### Annual water audits by the industries (Source – CII)

Water audit is a systematic process of objectively obtaining a water balance by measuring flow of water from the site of water withdrawal or treatment, through the distribution system, and into areas where it is used and finally discharged. Conducting a water audit involves calculating water balance, water use and identifying ways for saving water.

Water audit involves preliminary water survey and detailed water audit. Preliminary water survey is conducted to collect background information regarding plant activities, water consumption and water discharge pattern and water billing, rates and water cess. After the analysis of the secondary data collected from the industry, detailed water audit is conducted, which involves the following steps:

- On site training and discussion with facility manager and personnel
- Water system analysis
- Quantification of baseline water map
- Monitoring and measurements using pressure and flow meters and various other devices
- Quantification of inefficiencies and leaks
- Quantification of water quality loads and discharges
- Quantification of variability in flows and quality parameters
- Strategies for water treatment and reuse or direct use

A detailed water balance is finally developed. Water quality requirement at various user areas is mapped, which helps in developing 'recycle' and 'reuse' opportunities.

The detailed water audit report contains the following:

- Water consumption and wastewater generation pattern
- Specific water use and conservation
- Complete water balance of the facility
- Water saving opportunities
- Method of implementing the proposals
- Full description and figures
- Investment required

Industries can undertake following measures for water conservation:

- Setting up of norms for water budgeting
- Modernization of industrial process to reduce water consumption
- Recycling water with a re-circulating cooling system
- Ozonation cooling water approach which can result in five fold reduction in blow down when compared to traditional chemical treatment
- Reduction in reuse of de-ionized water by eliminating some plenum flushes, converting from a continuous flow to an intermittent flow system and improving control on the use
- Use of waste water for gardening
- Proper processing of effluents to adhere to the norms of disposal.

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