

MINUTES OF PUBLIC HEARING

For "Proposed Expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and putting up infrastructures for implementation of BS-V norm of fuel quality and installation of Propylene Recovery Unit (PRU) and Revamp of Captive Power Plant (CPP) at Mumbai Refinery, Village Anik, Chembur Mumbai"

IN RESPECT OF

M/s. Hindustan Petroleum Corporation Limited (Mumbai Refinery),
Mahul, Chembur, Mumbai

Date of Public Hearing	:-	13.05.2016
Timing of Public Hearing	:-	12.00 Hrs.
Venue	:-	Hindustan Petroleum Nagar (West) Residential Colony, Sports Complex, Mahul Road, Chembur, Mumbai-400 074

Preamble:

M/s. Hindustan Petroleum Corporation Limited (Mumbai Refinery), Mahul, Chembur, Mumbai has submitted proposal for "Proposed Expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and putting up infrastructures for implementation of BS-V norm of fuel quality and installation of Propylene Recovery Unit and Revamp of Captive Power Plant (CPP) at Mumbai Refinery, Village Anik, Chembur Mumbai" to Ministry of Environment, Forest and Climate Change (MoEF&CC). The matter regarding the same was discussed in Expert Appraisal Committee (EAC) and was accorded Terms of Reference during 36th meeting (old committee) held during 16-17th March, 2015 for Mumbai Refinery Expansion Project for proposed expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and accordingly issued the Terms of Reference (TOR) vide letter no- F. NO. J-11011/413/2015-IA II (I) dated 18th May 2015 and 4th meeting (new committee) held during 11-12th February, 2016 for Propylene Recovery Unit and revamp of Captive Power Plant. It has been mentioned in the Minutes of Meeting held during 11-12th February, 2016 of Expert Appraisal Committee that public hearing to be conducted as per the provisions of the EIA Notification, 2006. Hence, as per TOR and EIA Notification, 2006, Public Hearing is required to be held under Chairmanship of the District Collector, Mumbai Suburban District.

Accordingly, project proponent, **M/s. Hindustan Petroleum Corporation Limited** (HPCL), submitted an application to Maharashtra Pollution Control Board (MPCB) for conducting Public Hearing as per the provisions of EIA Notification -2006 and TOR issued by MoE&F, Govt. of India New Delhi. In this regard MPCB approached District Collector, Mumbai Sub-urban for public hearing date. Accordingly District Collector, Mumbai Sub-urban vide letter no. C/Office-07/Kavi-141/16, Dated-11/4/2016 fixed public hearing on 13th May, 2016 and Maharashtra Pollution Control Board published public notices in Marathi newspaper namely "Sakal" and English newspaper "Indian Express" on dated 12.04.2016 mentioning about date, time & venue of Public hearing. The appeal was made to concerned to submit objections, suggestions, complaints, comments, if any, in respect of

the said project to concerned regulatory authority (Expert Appraisal Committee) it was also mentioned that written responses will be accepted by regulatory authorities till the date of public hearing and during the course of public hearing also. The venue for the said public hearing was decided at Hindustan Petroleum Nagar (West) Residential Colony, Sports Complex, Mahul Road, Chembur, Mumbai-400 074. The said venue was finalized considering easy accessibility to local peoples and close proximity to the proposed project.

Copy of draft E.I.A. report along with executive summary in respect of the said project was made available in English/ Marathi in the following offices to apprise the public.

- 1) District Collector, Mumbai Suburban District, Administrative Building, 10th Floor, Near Government Quarters, Bandra (East), Mumbai-400 051.
- 2) Environment Dept. Govt. of Maharashtra, 15th floor, New administrative Bldg. Mantralaya, Mumbai-400 032
- 3) Asst. Commissioner, B.M.C., M-West ward, Chembur Station Road, Chembur (E), Mumbai- 400 071.
- 4) General Manager, District Industry Centre/ Directorate of Industries, ICL Bldg., Opp. Tata Nagar, V.N.Purav Marg, Chunabhati (E), Mumbai-400 022.
- 5) Joint Director (WPC), MPC Board, Kalpataru Point, 3rd floor, Opp. Cine Planet Cinema, Nr.Sion Circle, Sion(E), Mumbai- 400 022.
- 6) Regional Office, Mumbai/ Sub-Regional Office, Mumbai-3, Raikar Chambers, 'A' Wing, 216, 2nd Floor, Deonar Gaon Road, Near Jain Mandir, Govandi (East), Mumbai-400088.

All these authorities were requested to arrange wide publicity within their respective jurisdictions.

A public hearing panel comprising of the following members was constituted by Maharashtra Pollution Control Board vide letter no. BO/ID (WPC)/PH/B-1662 office order no. E-43 of 2016 dated 25 April, 2016 in accordance with the EIA Notification dated 14th September, 2006 and as amended thereto issued by Ministry of Environment and Forest, Govt. of India.

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| 1. | Shri. D. S. Kushwah
District Magistrate,
Mumbai suburban. | - | Chairman |
| 2. | Shri. B. P. Solunke
Regional Officer
Maharashtra Pollution Control Board, Mumbai. | - | Member |
| 3. | Shri. S. R. Said
Sub-Regional Officer, Mumbai- III
Maharashtra Pollution Control Board, Mumbai. | - | Convener |

At the outset, Shri. S. R. Said, Sub-Regional Officer, Mumbai-III and Convener of Public Hearing panel welcomed all those present and commenced the public hearing. He apprised the people with the introductory information about the purpose of the public hearing and appealed them to come forward with suggestions, complaints, objections &

comments, if any, about the environmental aspects of the proposed project. He thereafter requested Hon'ble Chairman to commence the hearing procedure.

Hon'ble Chairman briefed people about the concept and objective of Public Hearing. He made an appeal to participants & all to attend the public hearing peacefully and place their views regarding Environment aspect. On the behalf of administration, he appealed the people to express their feelings, difficulty freely and without any fear. Today's Public Hearing is being held to know your difficulties and feelings. He stated that videography of the said public hearing is being carried out by MPCB as per the procedure laid down in EIA Notification 2006. Chairman further stated that the presentation about the proposed projects will be given by the project proponent and then the questions/ objections shall be raised by participants. He made an appeal to participants to come forward with their name & address before raising any query/objections so that the name of the participant along with views will be included in the proceedings of meeting. Then Chairman requested project proponent to give the presentation of the projects along with its salient features in local language.

On behalf of project proponent, Shri. S. K. Kulkarni, Head – Central Procurement, HPCL made a Power Point Presentation on the Environment aspects of the projects including salient features of EIA Report in Marathi. The project proponent elaborated the details of proposed project on following grounds.

- Project Description.
- Base Line Data with respect to Air, Water, Land, Noise, Ecology, Settlements, etc.
- Impact likely to occur due to the project on Air, Water, Noise, Hydrology, Settlements and Bio-diversity and forest.
- Mitigation measures and Environment management plan for the project during construction phase as well as operation.
- Other details as outlined in the EIA Report.

Chairman of the public hearing panel decided that project proponent should provide consolidated answer to all the queries/objections at the end. Thereafter, Chairman of Public Hearing announced that the forum is open for question answer. The issues raised and reply submitted by project proponent is as below:

STATEMENT OF ISSUES

- 1) Name: Mr. Navin Acharya
Address:Chembur

S.No.	Issue Raised	Comments made by project proponent
1	HPCL information about new project should be given to all the residents. What about employment and jobs for contractors, many contractors are blacklisted. What about CSR fund to be spend on Gawanpada. Gas vehicle	Tree plantation is done in summer, winter, & rainy seasons. Due to mono rail project gardens along the roads could not be developed. We can make gardens for local people / children. As explained by Mr. V. Agashe –GM-HR, Local

<p>(hydrogen) are bursted – what precaution is taken. No garden for gavanpada people. No employment for village people. You can return land to us. Outside contract labor are recruited. Public Hearing boards are not kept in each village. No dispensary is provided in the village level. We request for action by the Government. BMC Water is used for plant. Why not RCF water is utilized by purifying the same. One day medical camp is not sufficient. We are breathing chemicals – slow poison. Mumbai will be effected by pollution. Why could not be prepare /contractors from ourselves. We residents are not allowed easily inside Refinery premises. We are going to oppose the project unless you provide us contract jobs. Our contractors are being blacklisted. Why we should support. Within 10 km premises we and our family is suffering. There is no place to play our children. We will fight for the same. Please protect the environment. Why tankers are not systematized. Heavy vehicles are there due to this plant. Please try to divert the traffic-Heavy/light via link road. Request to implement the same through Govt. Authorities.</p> <p>There was no much publicity of the public hearing.</p>	<p>employment is main point raised by the local people. It is Central Govt. co and it is assured that local people will be given preference. I had meeting with Mr. Vinayak Mhatre. Company started at 1954 and people were recruited and till date they have raise up to good level. We have contacted Regional Directorate of Apprentice Training (RDAT) and after their training they will get skilled in particular trade and then we can take them as apprentices in our company. We have proposal for 60 people for training from local community.</p> <p>Recycled water is used for cooling tower and firefighting only. For other use, water is being sourced from BMC.</p> <p>We have requested Government for triangular plot near freeway for parking space, with water facility and hence it will be utilized for clearing traffic on the road.</p> <p>The LPG pipeline from HPCL / BPCL refinery to URAN has been commissioned and after capacity increase it is envisaged that it will reduce the traffic.</p> <p>Amount to be invested by companies for CSR should be 2% of its Profit After Tax (PAT). CSR activities 2014-15, 3.8 crore and Maharashtra 7.8 Crore have been spent on these activities. Yearly income below Rs.50000/-, Medical facilities are provided free at Shusrut Hospital and between yearly income Rs. 50000 and Rs. 100000, medical fees @ 50% only of the cost of treatment is charged.</p> <p>Your suggestion for garden, school, toilet but the there is no space for these activities. Bharat nagar old toilets will be renovated.</p> <p>Base line data for EIA study has been considered within 10 km radius and has been found with in limit. Last point of pollution we are going to reduce the same. The pollution figure is included of all the companies, Tata, BPCL & others. The expansion will be within the boundary.</p> <p>Pollution will be there but we have installed new unit to scrub catalyst from FCCU unit and hence catalyst will not spread in the area.</p> <p>HPCL recruits people as per Indian Labor Act and provision of Central Government. There will be</p>
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		no increase in transportation due to proposed project. As per regular OISD audit / conformance to emission standard we are not allowed to release any chemical. HPCL will consider all social proposal endorsed by District Collector.
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2) Name: Mr.Vinayak Bhikaji Mhatre
Address:Gawanpada

Sr.No	Issue raised	Comments made by project proponent
1	Our land is purchased by paise.36 war in 1936, I can say project affected. After morcha from Sharad Acharya in 1977, 7/8 people were recruited. HPCL has help us by providing uniform. HPCL helped us during fire time and we are suffering from pollution / transportation – we cannot reach in time school and hospital. It should be very convenient. Travel should be convenient. HPCL & BPCL traffic is main problem. And therefore we are opposing the project. Very strong smell we have to bear. You should inform us about recruitment / advertisement. Pl provide us hall, garden. 80% people should be recruited from local but it is not seen. This our problem. We are not opposing project. We should get preference in contract and recruitment.	HPCL thanks for the support and will continue to extend its support. We have requested Government for triangular plot near freeway for parking space, with water facility and hence it will be utilized for clearing traffic on the road. HPCL recruits people as per Indian Labor Act and provision of Central Government.

3) Name: Amogh Siddha Apparao Patil - Teacher
Address:Gavanpada

Sr.No	Issue raised	Comments made by project proponent
1	All have submitted the problems. 150 school meet is taken by the HPCL. It is very good and thanks to HPCL. Narayanrao Acharya Vidyalaya students are provided with uniform, notebooks, and prizes – monetary benefit to SSC / XII students. School will be renovated. Project should not be affected and local people should be benefited.	HPCL thanks for the support.

- 4) Name: Mr. Vitthal Kharatmol – BJP Corporator
Address:Chembur, Mumbai

Sr.No	Issue raised	Comments made by project proponent
1	<p>No information was given by the HPCL to me. I came to know from outside and I am present here. HPCL – BPCL companies are NAVRATNAS. Company started at 1952-1954. Land was given by the local villagers. After 1965 disaster – people were given jobs in BPCL, HPCL, TATA etc. R. C. Marg is for transportation. There is more traffic. I demand the tankers should be diverted through freeway, so traffic will be reduced. Planning should be done for local people. I do not have any objection about project. Local people should get opportunity to develop. HPCL always helped us. People from zopadpatti are studying in my school and HPCL has provided us benches immediately on my demand. Next to RCF open ground to be open for local children. Where new project is coming a garden to be provided in that plot. Present garden available with HPCL to be open for general public. For Oswal land, I have suggested so many facilities to general public, like garden & cemetery, fire station, school etc. Tankers parking question to be taken into consideration. Pollution is reduced at a certain level. But it should come to "O" level.</p>	<p>We have requested Government for triangular plot near freeway for parking space, with water facility and hence it will be utilized for clearing traffic on the road.</p> <p>The LPG pipeline from HPCL / BPCL refinery to URAN has been commissioned and capacity increase is envisaged which will reduce the traffic.</p> <p>Your suggestion for garden, school, toilet but there is no space for these activities. Bharat Nagar old toilets will be renovated.</p>

- 5) Name: Mr. Vishnu Gaikwad. – Ramdas Athwale group
Address: Chembur

Sr.No	Issue raised	Comments made by project proponent
1	<p>Presentation done by HPCL is wrong. We stay in wadi, and galli. The local people in public hearing are in very less number. We came to know from outside people. Cut outs were not put. This Public hearing is bogus. We are not opposing project. But we take objection on behalf of Republican group. We request to give them permission for project, but local 50/60% people should be given opportunity to work – employment. No contractors are paying ESIC & PF. Please take care of the local contractor.</p>	<p>As per EIA procedure baseline environmental is conducted as per guidance or MPCB. HPCL thanks for the support.</p> <p>HPCL recruits people as per Indian Labour Act and provisions of Central Government.</p> <p>HPCL ensures that all wages are paid as per the norms.</p>

	How serious HPCL is about pollution.	
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- 6) Name: Ms. Shweta Bhatt, Conservation Action Trust (CAT)
Address: Ghatkopar

Sr.No	Issue raised	Comments made by project proponent
1	<p>In the presentation there is no mention of bio-diversity. If pollution is going to increase because of projects by HPCL, TATA, BPCL, RCF then why cumulative study has not been carried out? I want to know about expansion. Whether pollution will increase or not & what is your plan about it? What affect is going to be made by this project?</p> <p>Whether pollution will increase if 7 MW to 81 MW power increase?</p> <p>There is no mention of oil leak and spillage in presentation.</p>	All written queries submitted by Ms. Shweta has been replied point wise and is attached as annexure I

- 7) Name: Mr. Vidyadhar Patil
Address: Gavanpada

Sr.No	Issue raised	Comments made by project proponent
1	Lighting is not available from Calico to Gavanpada road so night travel is unsafe. For this three meetings have taken place.	HPCL noted
2	Local people to get employment	HPCL recruits people as per Indian Labour Act and provisions of Central Government.
3	Asphalt / stone are lying on the road - which is not clear last 3 months. Behind tankers bad business is going on. No street lights are on the road. You can survey immediately and it is very dangerous for our family members. It is very difficult after 10.00 p.m. Gavanpada nullah is not repaired. We request for ROJI-ROTI. We are not demanding employment and medical.	<p>No solid waste of HPCL Refinery is thrown outside. However, will extend its support for cleaning the waste outside also.</p> <p>HPCL noted the same.</p>

- 8) Name: Mr. Subhas Salve
Address: Chembur

Sr.No	Issue raised	Comments made by project proponent
1	The MPCB should take care that no pollution will increase. And We do not have any objection for project. Our	<p>There is no increase in emission above consent limit due to proposed project.</p> <p>HPCL will provide employment as per Indian</p>

	family members are suffering from Asthama & other deceases. We request for employment and hospital facility.	Labor Act and provisions of Central Government. Yearly income below Rs.50000/-, Medical facilities are provided free at Shusrut Hospital and between yearly income Rs. 50000 and Rs. 100000, medical fees @ 50% only of the cost of treatment is charged.
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- 9) Name: Ms.Sheetal Kamble
Address: Kurla

Sr.No	Issue raised	Comments made by project proponent
1	HPCL has provided us training such as beautician, tailoring & others at Vishnu Nagar. Most of us are fixed in employment in other companies. We have grown with HPCL. Some people from Vishnu Nagar are working in HPCL during shut-down period.	HPCL thanks for the support.

- 10) Name: Mr.Harishchandra Eknath Thakur
Address: Gavanpada

Sr.No	Issue raised	Comments made by project proponent
1	Please give us details about project. Why we are not given preference in employment. Where Gavanpada people will go. Other states people are being recruited and where we will go? Only when employment is not given to local people then we will oppose to expansion You are not clearing asphalt and stone falling on the road immediately which is more essential. We want combined meeting with Gawanpada representatives otherwise we will oppose. Only authorized people should talk to us.	No solid waste of HPCL Refinery is thrown outside. However, will extend its support for cleaning the waste outside also. HPCL-CSR team coordinates regularly with all people in the locality. HPCL will provide employment as per Indian Labor Act and provisions of Central Government.

- 11) Name: Vikas Thakur
Address: Chembur

Sr.No	Issue raised	Comments made by project proponent
1	We have no objection for Project & Pollution but give us employment.	HPCL will provide employment as per Indian Labor Act and provisions of Central Government .

12) Name: Mr. Navin Acharya
Address: Chembur

Sr.No	Issue raised	Comments made by project proponent
1	Before filling asphalt a fitness of drum is taken or not.	HPCL noted.

13) Name: Mr.Ashok Jagtap
Address: Chembur – National Academy

Sr.No	Issue raised	Comments made by project proponent
1	Dr. Kuthari has given us course – regarding electrician, beautician, wiremen, tailoring - training is given to all the students and they are provided employment through us. It is requested to give job in the company itself. 60 students are being given training and they are also working but on contract basis. They should be given permanent jobs.	HPCL will provide employment as per Indian Labor Act and provisions of Central Government.

14) Name: Mr.Karna Damodar Dhunbale, MNS party
Address: Gawanpada

Sr.No	Issue raised	Comments made by project proponent
1	Project has to be come because already there are many project, of BPCL, TATA, etc, and I demand local and Marathi should be given employment. The project should not go outside Mumbai, Maharashtra. I am from MNS and will support all the time. Pollution is not a problem. Parking can be done at Wadala parking lot. All Marathi local should get employment.	HPCL will provide employment as per Indian Labor Act and provisions of Central Government. We have requested Government for triangular plot near freeway for parking space, with water facility and hence it will be utilized for clearing traffic on the road.

15) Name: Mr. Prakash Bhosale – Rashtrawadi Party
Address: Chembur

Sr.No.	Issue raised	Comments made by project proponent
1	Whether MPCB is going to take action or not? Regarding contract employees entry, no Police verification is taken care. We support this project. Bharat Nagar people are not given anything. We have realized Acid rain in this area.	Baseline data for EIA report has been collected within the 10 km radius of the refinery. All the pollution parameters are found within limit. Baseline data has been attached in EIA report. Amount to be invested by companies for CSR should be 2% of its Profit After Tax (PAT). CSR


<p>So many people are suffering from many illness. CSR fund should get to Chembur. A meeting is requested with company management and NGO & CSR head.</p>	<p>activities 2014-15, 3.8 crore and Maharashtra 7.8 Crore have been spent on these activities. Yearly income below Rs.50000/-, Medical facilities are provided free at Shusrut Hospital and between yearly income Rs. 50000 and Rs. 100000, medical fees @ 50% only of the cost of treatment.</p>
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The Chairman of the public hearing called upon the people present if there are any other question /issues the same may be asked. However, nobody came with any question. Thereafter project proponent was called to give detailed answer to all the issues/queries raised during the proceedings. As most of the queries/objections raised by the participants are common, i.e., employment/work contract to be given to local people, traffic problems due to movement of trucks, which require separate truck parking area, facilities for health of local people, playground/gardens. More tree plantation shall be done by company and proper provision for utilization CSR funds.


The summary of major issues raised and reply submitted by project proponent is as below:

1. **Employment Issue:** HPCL will provide employment as per Indian Labour Act and provisions of Central Government.
2. **CSR Issue:** Amount to be invested by companies for CSR should be 2% of its Profit after Tax (PAT).
3. **Traffic Issue:** HPCL has requested Government to provide us the triangular plot near freeway exit at Mahul for parking space and hence it will be utilized for clearing traffic on the road, etc.

The Chairman of the public hearing panel while concluding the proceedings summarized that majority of the points raised by the participants fall under common header as above and has been responded by project proponent. With this, Chairman concluded public hearing with vote of thanks.


(S. R. Said)
 SRO, MPCB, Mumbai-III
 and
 Convener of Public Hearing
 Panel


(B. P. Solunke)
 RO, MPCB
 And
 Member of Public Hearing


(D. S. Kushwaha)
 District Magistrate, Mumbai -Suburban and
 Chairman of Public Hearing Panel
 Panel

Annexure-1

Comments, questions and suggestions for the public hearing on 13th May, 2016 on "Expansion of Mumbai refinery from 7.5 MMTPA to 9.5 MMTPA, Installation of propylene recovery unit and revamp of captive power plant"

1. Why site monitoring was carried out only for 3 months representing pre-monsoon season and not for all four seasons viz. Pre-monsoon, Monsoon, Post-monsoon and Winter Season.

This is as per approved TOR.

2. The project site is located in an area lying on the edge of seismic zone 4. Moreover, it has been reported that the city of Mumbai lies over four fault lines. What possible measures will be undertaken in event of earthquake? Based on the precautionary principle approach, why is the refinery and all the structures not designed for Seismic Zone 4?

All buildings of refinery are designed as per IS1896 Part 1 considering seismic pattern of Zone IV. All other structures are designed as per IS1896 Part 4 considering seismic pattern of Zone IV.

3. The neighboring areas like Alibag (to Ratnagiri) fall in seismic zone IV. A tremor in this region would affect Mumbai. What measures have been undertaken in such event? Is the refinery and all the structures designed for such event?

All buildings of refinery are designed as per IS1896 Part 1 considering seismic pattern of Zone IV. All other structures are designed as per IS1896 Part 4 considering seismic pattern of Zone IV.

4. The Mahul creek lies in close proximity to the project site and harbors 19 species of mangroves and its associates, and also hosts thousands of birds including flamingos. Also, the area has salt pans, mudflats in close proximity. Please furnish details on what effect will the proposed expansion have on the biodiversity of the area?

The proposed expansion is carried out within the refinery premises. Moreover, the emission and effluent discharge from refinery will be within the prescribed limit given by MoEF/CPCB after the proposed expansion of MREP. Hence, no impact on biodiversity is envisaged due to the proposed expansion.

5. Were any measures undertaken presently to safeguard the diversity? Please provide details for the same.

Diversity will be impacted only due to air emissions. There will be no change in air emissions.

6. The EIA mentions about mangrove plantation undertaken by HPCL – MR. Please provide location and details of plantation and also photographs of before plantation and as on date. What were the costs incurred for this mangrove plantation activity? Also, was regular monitoring done to check for the status of planted species? Kindly furnish with monitoring reports, if any.

As a part of CSR program HPCL- MR, celebrated International Mangroves Action Day on Saturday July 26, 2014 for the first time. The Mangrove Cell, Forest Department (GoM) reached out to HPCL-MR for hosting such a day event of 'Mangrove Plantation'.

7. The Butcher Island (Jawahar Dweep) and Elephanta caves are located at distance of 4.8 and 5.1km from the site. Please furnish the details on possible impacts on the site. Please also furnish mitigation measures for same.

No possible impact is envisaged to the Butcher Island (Jawahar Dweep) and Elephanta caves as the predicted Ground Level Concentration from the refinery is falling within the refinery premises after proposed expansion.

8. The Gas turbines 1, 2, 3 and 4 will be dismantled. Where will the dismantled material transported and how will it be used? Kindly furnish with details of same.

All industrial equipment will be reused.

9. Oil spill incidents have been reported earlier in this area and surroundings which has led to destruction of mangroves. Please inform what mitigation measures will be undertaken to protect mangroves and associated biodiversity in the event of oil spill. Please also give details of measures taken to restore the degraded and destroyed mangroves.

No possible damage to mangrove is envisaged due to oil spill for the proposed expansion of MREP. However, in case of any disaster the OWS in the refinery is also equipped with closed blow-down (CBD) system which prevents oil ingress in the underground oil water system. The OWS are finally connected to API separator which are equipped with automatic mechanized oil skimmers at the inlet channel itself to prevent oil carry over into API separator.

10. Please give details of existing and proposed mitigation measures to protect the fauna and flora of the area.

The proposed MREP expansion project is to be carried out within the refinery premises. The raw material will come to refinery by road and most of the product is transferred through pipeline system. Hence, no impact on flora and fauna is envisaged.

Maintenance of the existing greenbelt will be continued and additional trees to be planted during construction and operation phase.

11. This area has coal fired Tata Power plant, RCF Fertilizer, chemical industries, and another petroleum refinery. Please furnish a copy of the Cumulative impact assessment report.

The baseline environmental status includes effect of all industries. Accordingly EIA is prepared considering cumulative impact.

12. The Mahul creek is used by fishermen to earn their livelihood. What impacts will the proposed project have on the fish catch and diversity? What are the mitigation measures for same?

The proposed MREP expansion will not have any impact on the livelihood of fishermen as the project is coming within the refinery premises.

13. Are there any compensation plans for the local fishermen? Please furnish with the details of same.

No change in emissions and no impact.

14. The Sewri mudflats, which harbor thousands of flamingoes, are located at a distance of 4.4 kms. What impact will the proposed project have on the flamingoes and the Sewri mudflats? Please furnish with details. Please also furnish with mitigation measures, if any.

The proposed MREP expansion will not have any impact on flamingos habitat as the project is coming within the refinery premises.

15. Are there any near threatened, vulnerable, endangered, critically endangered species of flora and fauna found in the area? Please furnish with details of same.

Oriental White Ibis (*Threskiornis malanocephalus*) is a near threatened bird (IUCN) which sighted in the mangrove areas. They usually feed in open fields, marshy areas and live very close to human habitation. The proposed expansion project will not affect their habitat as all the facilities are limited to its battery limit.

16. Are there any species under Schedule I and II of the Wild Life Protection Act (1972) observed in the area? Please furnish with the details of same.

No Schedule I and II fauna species of the Wild Life Protection Act (1972) are observed in the area.

17. Please provide details on the hazardous waste generated by the proposed project and the steps that will be followed for their safe disposal.

All spent catalysts will be recycled.

18. Please provide details on the change in noise levels during the operation phase of the proposed project. Please furnish with mitigation measures of same.

The cumulative effect due to existing operation is found within limits at battery limit. Hence same will be maintained.

19. The HPCL premises also has LPG bottling plant. What will be the possible impacts in event of any mishap or accident due to the present project? Please furnish with the mitigation measures for same.

The baseline environmental status includes effect of all industries. Accordingly EIA is prepared considering cumulative impact.

20. The ambient air quality data does not have temperature and humidity parameters. Please furnish with the details of same.

Given in chapter-3

21. The treated effluent discharge analysis and stack emission data provided is only for the time 2013 – 2014 and Oct 14 to Mar 15. Please provide the data for the rest of 2015.

Data is provided as per approved TOR.

22. Please provide details on the current petroleum demand of the country and the change in the demand by the current expansion.

Ministry of Petroleum & Natural Gas is the custodian of demand vs. production distribution in the country. As per MOPNG instruction HPCL is increasing its refining capacity from 7.5 MMTPA to 9.5 MMTPA.

23. Please furnish with the safety measures for the additional storage of material due to proposed expansion project.

As per risk assessment study all locations including storage tanks are found acceptable from safety point of view.

24. As per table 2.2 the EIA report, a total of 9609.52 hectares of wetland fall under the 10 kms study area. What would be impact of the proposed project on the wetlands? What are the mitigation measures for the same?

No change in emissions and no impact on wetlands.

25. As per table 2.2 the EIA report, a total of 2271.75 hectares of mangroves fall under the 10 kms study area. What would be impact of the proposed project on the mangroves? What are the mitigation measure?

The proposed expansion is carried out within the refinery premises. Moreover, the emission and effluent discharge from refinery will be within the prescribed limit given by MoEF/CPCB after the proposed expansion of MREP. Hence, no impact on mangroves is envisaged due to the proposed expansion.

26. What will be the cumulative impact of the SO_x and NO_x emissions HPCL, Tata power plant, fertilizer industry, petrochemical and other industries, etc. in the vicinity of HPCL?

The baseline environmental status includes effect of all industries. Accordingly EIA is prepared considering cumulative impact.

27. What will be the cumulative impact of PM₁₀, PM_{2.5}, SO₂, NO₂, CO, NH₃, VOC, HC and non methane, Benzene, etc., emissions due to HPCL, Tata power plant, fertilizer industry, petrochemical and other industries, etc. in the vicinity of HPCL.

The baseline environmental status includes effect of all industries. Accordingly EIA is prepared considering cumulative impact.

28. What will be the impact of discharge from the ETP and the captive power plant? Kindly furnish with the mitigation measures of same.

No change in load and no impact.

29. The EIA report states that "with the installed facilities, the refinery shall be able to produce gasoline and diesel meeting Euro IV quality specifications, besides other petroleum products like LPG, Naphtha, Kerosene, ATF, Fuel oil and Sulphur and can meet the current market demands". Kindly furnish with details of the current output and the Euro specifications followed for the ongoing production.

Details are given in Attachment-I.

30. What is the total area required for setting up new units? The EIA report mentions two separate figures, 2.1 acres and 13.15 acres. Kindly furnish with the correct figures.

The two figures 13.15 acres (within MR), and 0.4 acres (within MR) refer to area for MREP and PRU + GTunits respectively and both are available within the existing refinery.

31. What are the storage and safety measures for the storage of additional material? Kindly furnish with details of same.

All tanks will be constructed conforming to OISD norms.

32. Please explain how the refinery expansion is being proposed in the context of the Mumbai Docklands Revival Project wherein shutting down of both the refineries has been proposed?

No change in emission scenario.

33. Please furnish a full matrix showing how the raw materials, intermediate products and final products will be transported and stored.

Same as existing. No change.

34. What will the impact of the project be on existing road and rail traffic and on existing pipelines?

No additional impact.

35. How old are the existing pipelines? How many leaks have been detected over the past 5 years?

Health status of all pipelines are undertaken as per OISD norms. No leak is detected during running of the refinery. However leaks are observed during hydro-tests/preventive maintenance tests done during the shutdown periods. The same are replaced/rectified as per OISD Norms.

36. What is the design life of these pipelines?

All pipelines are designed for 20 years life.

37. Please give details of maintenance carried out on existing pipelines.

During shut down of individual unit, all pipelines in the unit are undertaken various tests for leakages. This is done every 4 years for each of units.

38. How many continuous air monitoring stations are installed in and around the refinery? What are the minimum and maximum readings of SO₂, NO_x, CO, Ozone and PM₁₀ recorded by your monitoring systems? Please also give details of the maintenance carried out on the air monitoring stations, and the costs incurred on the maintenance and repairs of the equipment. Please also furnish details of the staff employed for carrying out air pollution monitoring and their technical qualifications.

A six month ambient air quality monitoring report is submitted to both MOEF & MPCB. All parameters were found well within limits. An amount of approximately Rs.20 Lakhs is spent annually for air pollution monitoring works. Refinery has installed automatic ambient air quality monitoring stations. In addition, annual contracts are given to MOEF approved laboratories for monitoring ambient air outside the refinery.

39. Why is the air monitoring data not available online to the public?

Refinery air quality monitoring feedback is provided to Pollution Control Board on real time basis.

40. Please also furnish full details of water availability, utilization, recycling, reuse and disposal. **Complete water balance indicating utilization, recycling and reuse is shown in Figure 2.12 of Chapter-2 of EIA report.**

41. What will be the impact of Tata Power converting their 500 MW gas fired power plant to coal?

There will be no change in emissions from the refinery before and after expansion. Accordingly no impact is envisaged due to development of other projects.

42. What is the design life of the Refinery?

25 years

43. Why is the refinery not producing Euro VI fuel?

Post MREP, we will producing fuel conforming to EURO V/VI norms.

44. What is the average quantity of gas being flared every day?

<0.1% of refinery capacity and only for safe operations.

45. What would be the improvement in air quality if this Refinery was shut down?

Refinery is not shut down completely. Only shut down is done in parts which will have very little direct reduction in emissions.

Attachment-I:

FEED	('000 TPA)
Bombay High	3500
Kuwait	6000
R LNG	24
Total	9524
MAJOR PRODUCTS	('000 TPA)
LPG	478
LAN	94
Special Cut Naphtha	96
Treated Hexane	30
MS EURO IV	1691
MTO	48
ATF	600
SKO	52
Euro IV Diesel	3223
Fuel Oil 180 cst	547
FO Bunker	550
Sulphur	59
150N Group I	70
500N Group I	100
SPINDLE OIL-GRI	15
SPINDLE OIL-GRII	32
150N Group II	76
500N Group II	92
Bright Stock	50
VG-10 Bitumen	594
VG-30 Bitumen	456

Key Parameters for High Speed Diesel

	Attribute	Unit	BS III	BS IV
1	Density @ 15°C	kg/m ³	820-845	820-845
2	Distillation: 95% volume recovery @ °C max	°C	360	360
3	Sulphur	ppm max	350	50
4	Cetane Number	Min	51	51
5	Cetane Index	Min	46	46
6	Flash Point, Abel, min	°C	35	35
7	KV @ 40°C	cSt	2.0-4.5	2.0-4.5
8	Polycyclic Aromatic Hydrocarbon (PAH), max	% wt.	11	11

Key Parameters for Motor Spirit or Gasoline

	Attribute	Unit	BS III		BS IV	
			Regular	Premium	Regular	Premium
1	Density at 15°C	kg/m ³	720-775	720-775	720-775	720-775
2	Sulphur	ppm max	150	150	50	50
3	RON	min	91	95	91	95
	MON	min	81	85	81	85
4	Benzene	% vol. max	1	1	1	1
5	Aromatics	% vol. max	42	42	35	35
6	Olefin	% vol. max	21	18	21	18