

हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

Annexure-I

(भारत सरकार उपक्रम) पंजीकृत कार्यालय : 17, जमशोदजी टाटा रोड, मुंबई - 400 020.

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE) REGISTERED OFFICE . 17. JAMSHEDJI TATA ROAD. MUMBAI - 400 020.

मुंबई रिफाइनरी, पो. ऑ. बॉक्स नं. 18820, बी. डी. पाटील मार्ग, माहूल, मुंबई - 400 074. MUMBAI REFINERY, P.O. BOX NO. 18820, B. D. PATIL MARG. MAHUL, MUMBAI - 400 074. टेलोफोन : TELEPHONE : 2507 6000, कॅक्स : FAX : 2554 2008, तार - हिनरिफ, TELEGRAM - HINREF CIN: L23201MH1952GOI008858

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to at load in ALL THE TOTY STATES BLOCKED To. Kell The Member Secretary (Industry-II), UNIVER U.S. - THE DE Ministry of Environment, Forest and Climate Change (MoEFCC), Room No. 302, Vayu Wing, 3rd Floor, - 2 Xu 21119 Indira Gandhi Parayavaran Bhawan Jor Bagh Road New Delhi - 110003

Sub: Intimation to MoEFCC regarding change in water consumption and effluent generation from proposed expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and installation of Propylene Recovery Unit (PRU) and Revamp of Captive Power Plant (CPP) of M/s Hindustan Petroleum Corporation Ltd at Mumbai Refinery (File no. J-11011/413/2014-IA II (I)).

- Reference: 1) Environmental Clearance Letter File no. J-11011/413/2014-IA II (I) dated January 21, 2017.
 - 2) HPCL's letter dated July 17, 2018 with subject "Intimation to MoEFCC regarding change in project configuration for Proposed Expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and installation of Propylene Recovery Unit (PRU) and Revamp of Captive Power Plant (CPP) of M/s Hindustan Petroleum Corporation Ltd at Mumbai Refinery (File no. J-11011/413/2014-IA II (I)) under clause/notification 7(ii) (b) of MoEFCC notification S.O. 3518 (E) dated November 23, 2016.

Dear Sir,

This has reference to the Environmental Clearance (EC) letter dated January 31, 2017 for proposed expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and installation of Propylene Recovery Unit (PRU) and revamp of Captive Power Plant (CPP) of M/s Hindustan Petroleum Corporation Ltd. at Mumbai Refinery (File no. J-11011/413/2014-IA II (I)).

Page 1 of 3

At the time of preparation of 'Feasibility Report' and 'Environment Impact Assessment', the policy regarding implementation of BS V/VI was deliberated in the country. However, no policy was firmed up. Hence, in anticipation, the project was initiated for part BS-IV and part BS-V/VI MS production. The directive of BS-VI implementation of both MS and HSD across the country from April 1, 2020 was subsequently announced by GOI on January 6, 2016 and Notification regarding the same was issued on February 19, 2016. This necessitated changes in project configuration to meet 100% BS-VI quality of MS.

As per MoEFCC notification S.O. 3518 (E) dated November 23, 2016 under point no. 7(ii)(b), the project proponent shall inform the Ministry of Environment, Forest and Climate Change (MoEFCC), if there is any change in configuration of the plant after detailed engineering. In view of this, intimation letter was submitted to MoEFCC on July 20, 2018.

Therefore, as per MoEFCC notification S.O. 3518 (E) dated November 23, 2016 under point no. 7(ii)(b), HPCL takes this opportunity to appraise you that post detailed engineering there has been change in fresh water requirement and effluent feed to existing IETP as was submitted during Environment Clearance.

Please find below tabular comparison of fresh water requirement and effluent generation as per EC and Post Detailed Engineering:

	As per EC in m3/hr	Post Detailed Engineering in m3/hr	Change in m3/hr
Additional Fresh water	112	168	Increase of 56 m3/hr
Total Effluent to existing IETP	178	226	Increase of 48 m3/hr

The additional fresh water will be sourced from Municipal Corporation and additional effluent generated will be treated in existing IETP which is designed for 300 m3/hr.

HPCL in its water conservation endeavor is in the process of developing a scheme to treat existing DM Plant Neutralizing Pit effluent which is around 25-30 m³/hr. in the existing ETP. This will increase ETP feed to around 250 m³/hr. (increase of 72 m³/hr. over EC value) which is still within the design feed rate of 300 m³/hr.

From the above, it is evident that:

- 1. There is no change in the overall crude processing capacity of 9.5 MMTPA.
- 2. Total pollution load will remain within existing limit.
- 3. There is no change in number of products from the refinery.
- 4. Existing ETP is already designed to handle increased effluent load with ZERO liquid discharge.

Page 2 of 3

Basis on the above, we request you to kindly accept this letter for your necessary record and further perusal for Proposed Expansion of Mumbai Refinery from actual 7.5 MMTPA to 9.5 MMTPA of crude capacity and installation of Propylene Recovery Unit (PRU) and Revamp of Captive Power Plant (CPP) of M/s Hindustan Petroleum Corporation Ltd. at Mumbai Refinery (File no. J-11011/413/2014-IA II (I)) under point no. 7(ii) (b) of MoEFCC notification S.O. 3518 (E) dated November 23, 2016.

With Warm Regards,

Kamalakar R Vikhar Chief General Manager – Projects Mumbai Refinery - HPCL

ANNEXURE-II

Details of CSR Activities in surrounding areas in 2020-21 (October 2020-March 2021)

S. No.	Details of Activities	Expenditure Incurred on individual activity (Rs.)
1	Toilet Construction at Gavanpada Gausiya Masjid. Toilet block handed over to community in the hands of Hon MP Rahul Shewale, Local community leaders & ED-MR.	2385384.00
2	Plastic partition provided to 1000 nos. of auto rickshaw.	291360.00
	Total amount spent on CSR activities in the vicinity of Mumbai Refinery during October 2020-March 2021	2676744.00

Annexure-III



हिन्दुरतान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार उपक्रम) पंजीकृत कार्यालय : 17, जमशेदजी टाटा रोड, मुंबई - 400 020.

HINDUSTAN PETROLEUM CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE) REGISTERED OFFICE : 17, JAMSHEDJI TATA ROAD, MUMBAI - 400 020.

मुंबई रिफाइनरी, पो. ऑ. बॉक्स नं. 18820, बी. डी. पाटील मार्ग, माहुल, मुंबई - 400 074. MUMBAI REFINERY, P. O. BOX NO. 18820, B. D. PATIL MARG, MAHUL, MUMBAI - 400 074. टेलीफोन : TELEPHONE : 2507 6000, फॅक्स : FAX : 2554 2008, तार - हिनरिफ, TELEGRAM - HINREF Date: 2nd March, 2017

To,

The Assistant Municipal Commissioner, Municipal Corporation of Greater Mumbai, M/E Ward office building, Govandi (W), Mumbai-400043

Sub: Information regarding grant of Environmental Clearance to Hindustan Petroleum Corporation Limited (HPCL) Mumbai Refinery.

Dear Sir/Madam,

SD

We wish to inform you that HPCL Mumbai Refinery has received Environmental Clearance (EC) from Ministry of Environment, Forest and Climate Change (MoEF&CC) via letter dated 31st January, 2017 for proposed expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA crude processing capacity. Copy of the above mentioned EC letter is attached for your information.

. मनपा आयुवत एम्/यूव विभाग AEM With warm regards, बहन्मबई महानगए पालिका MAR 2017 28.24 25

Very truly yours,

Anil Kumar Ranjan

DGM (I/C)-Projects Mumbai Refinery-HPCL

Attachment: Environmental Clearance letter dated 31st January, 2017.



हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

(भारत सरकार उपक्रम) पंजीकृत कार्यालय : 17, जमशेदजी टाटा रोड, मुंबई - 400 020.

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To,

The Sub-Regional officer, Mumbai-III, Maharashtra Pollution Control Board, Raikar Chambers, 'A' Wing, 216, 2nd Floor, Deonar gaon Road Govandi (E), Mumbai 400088

Sub: Information regarding grant of Environmental Clearance to Hindustan Petroleum Corporation Limited (HPCL) Mumbai Refinery.

Dear Sir/Madam,

We wish to inform you that HPCL Mumbai Refinery has received Environmental Clearance (EC) from Ministry of Environment, Forest and Climate Change (MoEF&CC) via letter dated 31st January, 2017 for proposed expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA crude processing capacity. Copy of the above mentioned EC letter is attached for your information.

OFFICE, MUMBAI

CLANSENS A WING 216, 2ND FLOOR

IN ROAD, NEAR JAIN WANDIR,

R. SHIRA POLLUTION CONTROL BOARD

With warm regards,

Very truly yours,

Anil Kumar Ranjan DGM (I/C)-Projects Mumbai Refinery-HPCL

GOUNTRON M. AUMERI - MODER Attachment: Environmental Clearance letter dated 31st January, 2017.

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Annexure-IV





INDRAPRASTHA GAS LIMITED

NOTICE INVITING TENDER (OPEN DOMESTIC)

Indraprastha Gas Limited (IGI) (CIN:	L23201DI	L1998PL	.C097614)	invites sealed	bic
and the second sec	a management	from aligible	hiddow &	- fallamina.		

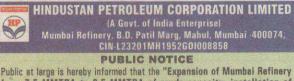
Tender	and the second	Sale of Bid Document		Submission of offe	
No.	Brief Description of Work	From	То	(till 1430 Hrs. IST)	
	Rate Contract for Civil Modification Works for IGL CNG Stations, DTC Depots, etc. in NCT of Delhi & NCR		13.03.2017	14.03.2017	

also be purchased from the office of CGM (C&P), IGL Bhawan, Plot No.4, Community Centre, Sector-9, R.K.Puram, New Delhi-110022. Ph.: 011-46074607. All subsequent hanges w.r.t above tender will be posted only on the above menti ed website

C/VD1 KOLKATA METROPOLITAN DEVELOPMENT AUTHORITY

Abridge e-NIT No. 22/SE(WC)/WS/KMDA of 2016-2017 (2nd Call) e-tender is invited by the Superintending Engineer, West Circle, WS Sector, KMDA Padmapukur W.T.P. Campus, Shibpur, WS Sector, KMDA Padmapukur W.T.P. Campus, Shibpur, Howrah - 711 109 from eligible and resourceful contractors for the following work: Name of Work : Design, drawing, construction and commissioning of Clear Water Underground Reservoir 0.40 MGD capacity (UGR No. 4), together with Pump House on UGR, Substation building including supply and installation of related Electro-Mechanical works over pile foundation along with trial run for 3 months and subsequent operation and Maintenance for 12 months at Ward No. 4 of Raipur - Sonarpur Municipality on Turnkey Basis under AMRUT. Estimated Amount : Rs. 5,28,93,000/-. Earnest Money : Rs. 10,57,800/-. Time of Completion: 12 Months. Last date and time of construction of bide online is 1003,2017 at 18:50 hrs. For details contact the ssion of bids online is 10.03.2017 at 18:50 hrs. For details contact the office or visit our both websites. KMDA/T-583/A-Contad(4)/2016-17

Visit Website : www.kmdaonline.org/www.wbtenders.gov.in



from 7.5 MMTPA to 9.5 MMTPA of crude capacity, installation of Propylene Recovery Unit (PRU) AND Revamp of Captive Power Plant (CPP) AT B. D. PATIL MARG, MAHUL, MUMBAI by M/s Hindustan Potroleum Corporation LIMITED, has been accorded Environmental Clearance by Ministry of Environment, Forest and Climate Change (MoEF & CC). The details of the environmental clearance are available with the Maharashtra Pollution Control Board and may also be seen at the website of MoEF & CC at http://moef.nic.in. This public notice is being issued as per instruction of MoEF & CC vide letter F. No. J-11011/413/2014-IA.II(I) dated 31st January, 2017.



1189-A e-mail id: se sicbam@yahoo.com aperintending Engineer, Southern Irrigation Circle, Berhampur.

e-Procurement Notice No. SE, SIC - 11 / 2016-17 Type of Work :- Flood Control Works and Restoration of spillway.

- Total No of Works :- 06(Six) Nos
- 3. Amount put to tender: Varies from Rs. 169.26 lakhs to 281.95 lakhs.
- 4. Period of completion:- 11(Eleven) to 15(fifteen) calendar months

Procurement officer	Bid Identification No.	Bid Amount (Rs. in lakhs)	Availability & Submission of Bid On-line	
A Start	SE,SIC,(BNID) - 25 / 2016-17	258.09	1.10 3.10	
Superintending Engineer, Southern Irrigation Circle, Berhampur, Ganjam	SE,SIC,(BNID) - 26 / 2016-17	281.95	1.	
	SE,SIC,(BNID) - 27 / 2016-17	238.37	From 02.03.2017 10.00 A.M to 17.03.2017, 5.00 P.M.	
	SE,SIC,(BNID) - 28 / 2016-17	242.76		
	SE,SIC,(BNID) - 29 / 2016-17	230.38		
	SE,SIC,(BNID) - 30 / 2016-17	169.26		

Further detail can be seen from the Govt. website www.tendersorissa.gov.in Superintending Engineer,

32061/11/0012/1617

Southern Irrigation Circle, Berhampur.



HINDUSTAN PETROLEUM CORPORATION LIMITED

Annexure-IV

(A Government of India Enterprise) CENTRAL PROCUREMENT ORGANISATION · MARKETING Marathon Futurex, 9th Floor, N M Joshi Marg, Lower Parel (East), Mumbai-400 013 Phone:022-23030073, 23030079, 23030081

E-Tender Notice Public Tender under Two Bid system (Technical & Price Bid) is invited through e-tender from eligible Indian bidders for following Pre-Bid Meeting Due Date & Tender No Tender

and the second second	Description	Dara of Little	ITTHO
16000268- HD-10157	Canopies at Retail Outlets under NCZ	14:00 hrs	20.03.2017 15:00 hrs
16000269- HD-10157			21.03.2017 15:00 hrs
	visions, clarifications, corrigenda, addenda, tin d on HPCL website (www.hindustanpetrol		

regularly visit this website to keep themselves updated. Bidders meeting the eligibility criteria can participate by logging into the site https://etender.hpcl.co.in Sr./Ch. Category Manager-CPO (Mktg.)

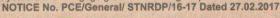
INVITATION NOTICE FOR STATION RE-DEVELOPEMENT

h off Regulators

General Manager (Works), Central Railway, CST Mumbai invites applications for Qualification and Technical Proposal for Development of Railway Stations in sealed cover in prescribed format from reputed contractors/ developers/ consultants separately for the following locations in the state of Maharashtra:- Name of Work and Invitation Number: 1 Request for proposal for selection of project proponent for redevelopment of Pune Station of Central Railway on as is where is" basis as per general guidelines of Railway Board available on web site - http://www.indianraliways.gov.in/index new.html under station redevelopment (Tenders & Suppliers info/Tenders) (Invitation No. PCE/General/STNRDP/ 16-17 /1 dated 27.02.2017). 22 Request for proposal for selection of project proponent for redevelopment of Lokmanya Tilak (Terminus) Station of Central Railway on "as is, where is" basis as per general guidelines of Railway Board available on web site - http:// www.indianrailways.gov.in/index new.html under station redevelopment (Invitation No. PCE/General/STNRDP/16-17/2 dated 27.02.2017). Request for proposal for selection of project proponent for redevelopment of Thane Station of Central Railway on as is where is" basis as per general guidelines of Railway Board available on web site - http://www.indianrailways.gov.in/index new.html under station redevelopment.

Location	Pune	LTT ,	Thane
Indicative Project Cost (Excluding Cost of commercial Development Project)	200 Cr.	250 Cr.	200 Cr.

Vacant Land 8.0 acres 8.0 acres 1.23 acres Lease Period: 45 years; Station Facility Maintenance Period [including Construction Period): 15 years; Cost of Invitation Form: ₹ 10,000/-DP/ 16-17/2 dated 27.02.2017). The cost of the Tender Form should be attached with the offer document, failing which the tender will be summarily rejected. Earnest Money: ₹5,00,000.00 Applications unaccompanied with requisite Earnest money shall be summarily rejected. Availability of Invitation Forms: Invitation Document will be available on website www.cr.indianrailways.gov.in (Tenders & suppliers info/ Tenders) from 27.02.2017 (18:00 hrs.) for downloading and in the Office of General Manager (Works), Central Railway, CST Mumbai-400 001 for sale on all working days within office hours. Due date and time of Opening: 12.06.2017 at 1600 hrs.; Validity of offer: 365 days from due date of opening. • Stations are to be developed on "As is where is" basis, in order to bring them to international standards and providing the comfort and convenience to passengers and other stakeholders. The development of Railway Station will primarily consist of upgrading the level of passenger amenities by new construction / renovation / alteration to existing station building, platform surface, circulating area, etc. to serve better the needs of the passengers. . Interested Applicants are advised to refer to the Manual of Standards and specifications for Railway Station for development of World class stations through public private partnership (Vol-I&II), available at the website www.indianrailways.gov.in (Ministry of Railways - about Indian Railways Corporate View-Directorates-Land & Amenities-Worlds Class Stations). . Land will be provided for a lease period of 45 years. Land mortgaging & further leasing not permitted.





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हिन्दुस्तान पेट्रोलियम कॉर्पोरेशन लिमिटेड

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July 30, 2021

To,

Deputy Director General of Forests (Central), West Central Zone, Regional Office, New Secretariat Building, Opposite VCA Ground, Civil Lines, Nagpur-440001

Subject: Submission of six monthly compliance for Expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at B.D. Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL – Environmental Clearance F. No. J-11011/413/2014-IA-II(I) dated January 31, 2017.

Dear Sir,

Please find attached herewith, six monthly compliance report of subject Environmental Clearance for the period October 2020 to March 2021 for Mumbai Refinery Expansion Project (MREP), PRU & revamp of CPP along with other existing ECs.

With Warm Regards,

Kamalakar R. Vikhar Chief General Manager (I/C) – Projects Mumbai Refinery – HPCL

Page **1** of **18**

SIX MONTHLY COMPLIANCE REPORT

PART -1: DATA SHEET

1	Project type	Industry		
2	Name of the Project	Mumbai Refinery Expansion Project (MREP)		
3	Clearance Letter/ OM no. and date	File no. J-11011/413/2014-IA II (I) dated 31 st January, 2017		
4	Location	n;		
	a) District	Mumbai Suburban		
	b) State	Maharashtra		
	c) Location	Mahul		
	d) Latitudes	19° 01′ 18″ N		
	e) Longitudes	72° 53' 57" E		
5	Address for Correspondence	 a) Mr. Kamalakar R Vikhar Chief General Manager (I/C)-Projects Hindustan Petroleum Corporation Limited Mumbai Refinery, P. O. Box. No. 18820, B D Patil Marg, Mahul, Mumbai – 400 074, Maharashtra, India Tel: +91-22-25077028, 25078628 Website: www.hindustanpetroleum.com Email: vikharkr@hpcl.in b) Mr. Shirsendu Ghosh DGM- Project Process Hindustan Petroleum Corporation Limited Mumbai Refinery, P. O. Box. No. 18820, B D Patil Marg, Mahul, Mumbai – 400 074, Maharashtra, India Tel: +91-22-25076177, 25078977 Website: www.hindustanpetroleum.com Email: shirsendughosh@hpcl.in 		

6	Salient Features	The project envisages, enhancement of crude refining
	a) Of the Project	capacity from 7.5 to 9.5 MMTPA along with revamp of MS block and DHT unit to produce BS-VI MS, revamp of captive power plant and installation of Propylene Recovery Unit. The new/ revamp units are as under:
		 CDU revamp Installation of new Single VDU at FR (In lieu of FR & LR VDUs) for Energy optimization. Revamp of MS Block Units and DHT Unit for enhanced Crude capacity and BS-VI MS production Installation of new HGU. Installation of Propylene Recovery Unit Revamp of Captive Power Plant
	b) Of the Environment Management Plan	HPCL-MR has a fully functional Environment Management Plan which includes following under 3 broad areas:
		 A. Effluent a. State-of-the-art Integrated Effluent Treatment Plant (IETP) with a 7200 MLD capacity. Includes primary treatment, secondary treatment (bio), tertiary treatment units. b. Domestic Effluent/ Sewage Treatment Plant (STP) with 600 MLD capacity. c. 100% recycling of processed effluents from IETP for steam generation (70%) and cooling towers make up water (30%). B. Source Emission a. Tail Gas Treatment Plant to check the SO2 and H2S release in SRU plant b. Flue Gas Scrubbing Plant (2 nos.) for scrubbing out the SPM and SO2 from the FCCU regenerator out let flue gas. c. Flare Gas Recovery system: for recovering the gas let-down to flare. d. Stack monitoring analyzers for all the stacks in the refinery e. Installation of low NOx burners in all the new furnaces coming under revamp.
		C. Ambient Air a. VOC plant in IETP for capturing the volatile organic compound being liberated in atmosphere.

		has bee	 b. Ambient Air Quality Monitor nos.) ironment Management System of System of Management System of Sys	umbai Refinery
7	Break-up of the project area a) Submergence area : Forest and Non forest b) Others	Non For	est	
8	Breakup of the project affected population with enumeration of those losing houses/dwelling units/ agricultural land and landless laborers/ artisans.	Not App	licable as expansion is within the Refir	nery premises.
 9 Financial Details: a) Project cost originally planned and subsequent revised estimates and the year of price reference 		PRU and MR-II Ta MR-II pro MREP ar	y Planned MREP cost- Rs. 3223.43 Cr. Revamp of CPP- Rs. 622.45 Cr. in 201 nkage Project-Rs. 1100 Cr. In 2015-16 oject was merged with MREP, so total nd MR-II project= Rs. 4199 Cr in 2015-2 estimate of MREP and MR-II project= 1	5-2016 project cost of 16.
	b) Allocation made for environment	S. No.	Description of items	Approx. Cost (in Rs.)
	management plan with item wise and year wise	1.	IETP facility	7.1 Cr
	break up.	2.	Environmental Monitoring Expenses	0.3 Cr
		3.	MPCB payments	0.38 Cr
		4.	CAAMS/CSMS/EQMS/Online Connectivity	1.5 Cr
		5.	Bioremediation / Sludge management/Waste Minimization	4 Cr
			Environment C 1911	
		6.	Environment facilities improvement studies	0.4 Cr
		6. 7.		0.4 Cr 1.3 Cr
			improvement studies	

	c) Internal Rate of Return and the year of	
	assessment.	Revamp of CPP: 23% in 2015-2016
	d) Whether (c) includes the cost of Environment management as shown above.	Yes
	e) Actual expenditure incurred on the Project so far.	
	f) Actual expenditure incurred on the environmental management plans so far	
10	Forest land requirement	
	a) The status of approval for diversion of forest land for non-forestry use.	Not Applicable as with in the Refinery premises.
	b) The status of clearing felling.	Not Applicable
	C) The status of compensatory afforestation, if any.	Not Applicable as the revamp is within the Refinery premises.
	d) Comments on viability & sustainability of compensatory afforestation program in the light of actual field experience so far.	Project is coming up within existing Refinery. Green belt is coming up adjacent to Refinery in MR-II plot as a part of MR-II project.
11	The status of clear felling in non-	Not Applicable.
	forest areas (such as submergence area or reservoir, approach roads), if any with quantitative information required.	

12	Status of Construction (Actual & /or planned)	
	a) Date of Commencement (Actual & /or planned).	January 2017 (MREP).
		PRU and Revamp of CPP projects' construction is yet to be planned
	b) Date of Completion (Actual & /or planned)	Planned date: June 30, 2021 (Under approval)
13	Reason for the Delay, if the project is yet to start.	Project construction is in progress.
14	Date of site visits	
	a) The dates on which project was monitored by the Regional Office on the previous occasions, if any.	June 15, 2019
	b)Date of site visit for this monitoring report	No site visit is made
15	Details of correspondence with project authorities for obtaining action plans/information on status of compliance to safeguards other than the routine letters for logistics support for the site visit.	NIL

Compliance of Environmental Clearance conditions for the period October 2020 to March 2021

Project: Expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at B.D. Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL

Reference No.: F. No. J-11011/413/2014-IA-II(I) dated January 31, 2017 by Ministry of Environment, Forests and Climate Change, GOI

A. Specific Conditions

S. No.	Particulars	Compliance Status
i,	M/s HPCL shall comply with standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186 (E) dated 18 th March, 2008.	Complied
ii.	Continuous on-line stack monitoring for SO_2 , NO_x and CO of all the stacks shall be carried out.	On-line stack monitoring facilities shall be provided to all new stacks under this project. The existing stacks have the online monitoring facility of the parameters.
iii.	The process emissions [SO_2 , NO_x , HC {Methane and Non-methane}], VOCs and Benzene form various units shall conform to the standards prescribed under the environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.	Complied
iv.	Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leak shall be provided at strategic locations.	 LDAR Programs is implemented in existing refinery and same shall be extended to new facilities under this project. Preventive maintenance of mechanical seals is undertaken periodically. Fugitive emission of hydrocarbon from tank farm is being regularly monitored in the existing Refinery. This program will be extended to new facilities once commissioned. Preventive maintenance schedule is drawn for all the units as per OISD and other statutory guidelines.

i.		5. HC detectors have been considered during detail engineering and lay out finalization at strategic locations.
V.,	SO ₂ emission after expansion from the plant shall not exceed 525 Kg/hr and further efforts shall be made for reduction of SO ₂ load through use of low Sulphur fuel. Sulphur recovery units shall be installed for control of H_2S emissions. The overall Sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.	Low Sulphur fuel has been considered for firing in heaters and boilers. SO ₂ emission after expansion from the plant shall not exceed 525 Kg/hr.
vi.	As proposed, record of Sulphur balance shall be maintained at the refinery as part of the environmental data on regular basis. The basic component of Sulphur balance include Sulphur input through feed (Sulphur content in crude oil), Sulphur output from Refinery through products, byproduct (elemental Sulphur), atmospheric emissions etc.	Noted
vii.	Flare gas recovery system shall be installed.	Flare gas recovery system is already in operation in the existing Refinery.
viii.	Ambient air quality monitoring stations, [PM_{10} , PM_{25} , SO_2 , NO_x , H_2S , mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Maharashtra State Pollution Board, based on occurrence of maximum ground level concentration and down-wing direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.	Refinery has 3 operational ambient air quality monitoring stations within the premises.
ix.	The freshwater requirement from BMC after expansion of proposed project shall not exceed 538 m ³ /hr and prior permission shall be obtained from the competent authority.	Reference is made to the HPCL's letter no. MREP/MoEFCC/02 dated October 24, 2019 submitted to the Member Secretary MoEFCC (kindly refer Annexure I). Under clause/ notification 7 (ii)(b) of MoEFCC notification S.O. 3518(E) dated November 23, 2016, HPCL has intimated MoEFCC regarding change in water consumption and effluent generation from the expansion project. The total water consumption post revamp will be 594 m ³ /hr. This increase in water consumption is due to incorporation of detail engineering numbers.

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Х.	As proposed, Industrial effluent generation shall not exceed 178 m ³ /hr after proposed expansion and treated in the integrated effluent treatment plant. Treated effluent shall be recycled/reused within the factory premises. Domestic sewage shall be treated in sewage treatment plant (STP).	Reference is made to the HPCL's letter no. MREP/MoEFCC/02 dated October 24, 2019 submitted to the Member Secretary MoEFCC (kindly refer Annexure - I). Under clause/ notification 7 (ii)(b) of MoEFCC notification S.O. 3518(E) dated November 23, 2016, HPCL has intimated MoEFCC regarding change in water consumption and effluent generation from the expansion project. The total water effluent generation post revamp will be 250 m ³ /hr. This increase in effluent generation is due to incorporation of detail engineering numbers and HPCL's water conservation initiative. Existing ETP is adequate for the same.
xi.	Automatic mechanical oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.	Automatic mechanical oil catchers are already in place in the existing Refinery.
xii.	At least 2.5% of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore (Nagpur).	Though ESR activities are being taken up, HPCL had also requested for reconsideration of ESR amount. Various ESR activities through Projects have been undertaken such as deployment of traffic wardens in the vicinity of Refinery for traffic management, training of under-privileged youth in the vicinity for skill development program in partnership with TATA STRIVE to create employment opportunities. Kindly refer Annexure – II for details.
B. Gene	eral Conditions	
• i.,	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board(SPCB), state Government and any other statutory authority.	Noted
ii.	No further expansion or modification in the project shall be carried without prior approval of the Ministry of Environment and Forests. In case of deviations or alternations in the project proposal from those submitted to the Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	Noted

iii.	The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least	Refinery has 3 operational ambient air quality monitoring stations within the premises.
	one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.	
iv.	The national Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826 (E) dated 16 th November, 2009 shall be followed.	Noted
V.	The overall noise levels in and around the plant area shall be kept within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	Complied
vi.	The company shall harvest rain water from the rooftops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.	Some of the buildings are equipped with rainwater harvesting to recharge the ground water.
vii.	Training shall be imparted to all employees of safety and health aspects of chemical handling. Pre-employment and routine periodical medical examinations of all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.	Complied
viii.	The company shall also comply with Environmental Protection Measures and safeguard proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing related to the project shall be implemented.	Will be complied. Kindly refer Annexure –II and Point No. 9 of the data sheet which is part of this compliance report.
ix.	The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.	Project is coming up within the existing Refinery premises. Various CSR activities are already in place for the surrounding areas. Kindly refer Annexure -II
x.	The company shall undertake eco-developmental measures including community welfare measures in the	Eco-developmental measures including community welfare measures for the overall improvement of the environment in the near

	project area for the overall improvement of the environment.	 vicinity of the Project is being undertaken under CSR. Kindly refer Annexure – II for details. Green belt development is undertaken at MR-II project site which is adjacent to the Refinery.
xi.	A separate environment management cell with full- fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.	A separate environment management cell and a laboratory to carry out the environmental management and monitoring functions is operational.
xii.	The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.	Noted. Kindly refer Point No. 9 of the data sheet which is part of this compliance report.
xiii.	A copy of clearance letter shall be sent by the project proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations if any, were received while processing the proposal.	Complied Kindly refer Annexure - III
xiv.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and MPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.	Six monthly compliance report of the EC conditions is submitted regularly and also posted on HPCL website.
XV.	The environmental statement for each financial year ending 31 st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the Company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Office of MoEF by e-mail.	Complied The Environmental Statement for 2019-20 is available on website of Company.

xvi.	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the concerned Regional office of this Ministry.	Advertisement regarding grant of Environmental Clearance was published on
xvii.	The project authorities shall inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.	 Project approved vide HPCL board meeting dated September 29, 2015. Project start date is November, 2017. Consent to Establish received from Maharashtra Pollution Control Board on May 25, 2018. Intimation letter for change in project configuration submitted to MoEFCC, New Delhi on July 20, 2018 as there is no change in pollution load. Revised CTE for change in configuration from MPCB received on March 26, 2019. Consent to Operate approved by MPCB, final letter awaited. Project is under commissioning.

Compliance of Environmental Clearance conditions (Green Fuels and Emission Control at Mumbai Refinery- H P C L, Mumbai)

(Vide F. No. J-11012/1/2002-IA-II(I) dated April 10, 2003 by Ministry of Environment & Forests, GOI)

B. Specific Conditions

S. No.	Particulars	Compliance Status	
i, ,	Reduction in the gaseous emission from the existing level (SO2) from 13.5 to 12.6 TPD and NOx from 6.5 to 5.9 TPD.	Complied	
ii.	Comprehensive waste water management system and recycling and reuse of treated effluent so that the total treated effluent should not exceed a maximum of 165 m3/hr.	Total treated effluent has been revised in subsequent ECs. The effluent from all the process units is being treated in the Refinery ETP. The 70 % treated effluent is being recycled to DM plant as feed and rest is recycled back to the fire water system.	
iii.	Disposal of hazardous DeSOx sludge at TSDF developed by M/s Mumbai Waste management Limited, Taloja.	HPCL-Mumbai refinery is a member of CHWTSDF located at Taloja and hazardous waste is being regularly disposed off to this facility.	
iv.	Replacement of existing LPG storage facility with mounded LPG storage.	Horton spheres have been dismantled and	
V.	The fresh water consumption should be pegged at the current level of 300 m3/hr. even after the proposed modernization. The additional water required, if any, should be met through recycling/reuse of treated effluent.	sed secondary source of Process Water (70% of ^{ny} , the treated effluent is being recycled)	
vi.	All recommendations made in the Risk analysis report should be complied with during design, construction and operation stages to contain the risk within the plant boundary. As stated earlier, LPG/Propane must be stored in mounded bullets only. Existing Horton spheres in this regard must be dismantled.	have been complied with. Horton spheres thave been dismantled and mounded LPG storage is commissioned.	
vii.	No further expansion or modification in the project shall be carried without prior permission of this Ministry.	all Project is executed as per the granted EC. And unit is being operated as per the valid CTO.	
viii.	Implementation of the project vis-a-vis environmental management/risk mitigation measures should be reported to the Ministry/Regional Office/State Pollution Control Board regularly on a six monthly basis.	Project is implemented and subsequent Consent for First Operate is amalgamated with existing refinery Consent To Operate. Environment Statement and other statutory compliances are being filed as mandated.	

Compliance of Environmental Clearance conditions (Setting up of Diesel Hydro treating facilities at Mumbai Refinery- H P C L, Mumbai)

(Vide F. No. J-11011/415/2008-IA-II(I) dated September 04, 2009 by Ministry of Environment & Forests, GOI)

C. Specific Conditions

S. No.	Particulars	Compliance Status
i,	M/s HPCL shall comply with the stipulations made in the environmental clearance accorded by the Ministry for the existing plant.	Complied. This report is submitted as EC conditions compliance report.
ii,	M/s HPCL shall comply with new standards/ norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March 2008.	Complied
iii.	The project authorities shall submit a feasible plan which will be followed to ensure that SO2 emission from the refinery does not exceed the stipulated figure of 12.6 TPD at any time.	Complied
iv.	Flue gas desulphurization on FCC shall be installed.	Flue Gas Scrubber Unit (FGSU) has been installed in both the FCCUs and is in continuous operation.
v.	All equipment and construction being carried to and from the refinery should be done in such a manner as not to create traffic congestion.	Complied during the construction phase. Project is completed and commissioned.
vi.	The process emissions (SO2, NOx, HC, VOCs and Benzene) from various units should conform to the standards prescribed by the Maharashtra Pollution Control Board from time to time. At no time, the emission levels should go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.	There are no open Process vents from where emissions (SO2, NOx, HC, VOCs and Benzene) are emitted. The fugitive emissions from the components are monitored, measured and attended as per the third party LDAR program covering whole of Refinery.
vii.	Ambient air quality monitoring stations, [SPM, SO2, NOx, H2S, Mercaptan, NMHC and Benzene] should be set up in the Refinery complex in consultation with SPCB, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs. Continuous on-line stack monitoring equipment should be installed for measurement of SO2, NOx, CO and CO2. Low NOx burners should be installed with online analyzers.	Presently, 3 nos of AAQMS monitoring stations are in service for monitoring of PM2.5, Sox, NOx, CO, PM10, Ozone, Benzene, NH3, H2S, HC and Mercaptan. This data is also uploaded on MPCB as well as CPCB server. On line Stack monitoring analyzers for SOx, NOx, CO & PM are provided for every stack in the refinery.
viii.	The proponent shall upload the status of compliance of the stipulated EC conditions, including monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional	MR-II Tankage project and Mumbai Refinery Expansion project compliance status of EC

	Office of MoEF, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant namely; SPM, RSPM, SO2, NOx (Ambient levels as well as stack emissions) VOC and HC, indicated for the project shall be monitored and displayed at the convenient location near the main gate of the Company in the public domain.	conditions are uploaded on the company website. All the Criteria Pollutant data is displayed for general public viewing on the LED screen, real-time basis at the Main Gate of the Company.
ix.	Monitoring of fugitive emissions should be carried out as per the guidelines of CPCB by fugitive emission detectors and reports should be submitted to the Ministry's regional office at Bhopal. For control of fugitive emission all unsaturated hydrocarbon will be routed to the flare system and the flare system should be designed for smoke less burning.	Yearly Leak detection & repair programme for various units of the refinery is in place for monitoring of fugitive emissions. Flare gas recovery compressor is installed for recycling it to Fuel Gas System.
x.	Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage should also be provided at strategic locations. The company should use low sulphur fuel to minimize SO2 emission. Sulphur recovery units should have efficiency of 99.5 %. Leak Detection and Repair programme should be implemented to control HC/VOC emissions. Work zone monitoring should be carried out near the storage tanks besides monitoring of HCs/VOCs in the work zone.	Fugitive emission from product storage tanks is controlled by way of providing primary as well as secondary seals. LDAR program is conducted in the refinery through- out the year. Work zone monitoring near storage tanks are being conducted for checking VOC. Our both SRUs are coupled up with Tail Gas Treating Unit. Hydrocarbon detectors are placed at strategic locations throughout the Refinery. Low sulphur fuel is optimized by replenishing with Natural gas.
xi.	The waste water should be treated in the waste water treatment plant and the treated effluent should meet the prescribed standards. Efforts should be made to recycle the treated effluent to achieve zero discharge.	The effluent from all the process units is being treated in the Refinery ETP. The 70 % treated effluent is being recycled to DM plant as feed and rest is recycled back to the fire water system.
xii.	The project authorities must strictly comply with the rules and regulation with regard to handling and disposal of Hazardous Wastes (Management, Handling and Trans Boundary Movement) Rules, 1989/ 2003/2008 wherever applicable. Authorization from the State Pollution Control Board must be obtained for collections/ treatment/ storage/ disposal of hazardous wastes.	Provisions under Hazardous Waste Management Rules are being complied. HPCL-Mumbai refinery is a member of CHWTSDF located at Taloja and hazardous waste is being regularly disposed off to this facility.
xiii.	The company should strictly follow all the recommendation mentioned in the charter on Corporate Responsibility for Environmental Protection (CREP) for the oil refineries.	Charter of CREP is being complied.
xiv.	The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. At place of ground flaring, the overhead flaring stack with knockout drums should be installed to minimize gaseous emissions during flaring.	Preventing fire hazards, containing oil spills and soil remediation programs are in place. Flare stack with knockout drums is operational.

XV.	To prevent fire and explosion at Oil and Gas facility, potential ignition sources should be kept to a minimum and adequate separation distance between potential ignition sources and flammable material should be in place.	OISD guidelines on distance criteria are being adhered.
xvi.	Occupational health surveillance of worker should be done on a regular basis and records maintained as per the Factory Act.	Complied.
xvii.	Greenbelt should be developed to mitigate the effect of fugitive emission all around the plant in a minimum 25% plant area in consultation with DFO as per CPCB guidelines.	Complied.
cviii.	The Company should undertake measures for rain water harvesting to recharge the ground water and minimize fresh water consumption.	Surface drain rain water harvesting reservoir has been constructed including ground water recharging through roof top rainwater harvesting.
xix.	Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.	Housing of construction workers is in the scope of Contractors. Project is completed and commissioned.
B. Gen	aeral Conditions	
ï.	The project authorities must strictly adhere to the stipulations made by the concerned State Pollution Control Board (SPCB) and the State Government and any other statutory body.	All the stipulations as made by SPCB is being complied and adhered to.
ii.	No further expansion or modification in the project shall be carried without prior approval of the Ministry of Environment and Forests. In case of deviations or alternations in the project proposal from those submitted to the Ministry for clearance, a fresh reference shall be made to the Ministry.	Project is executed as per the granted EC. And unit is being operated as per the valid CTO. Expansion of GFEC is granted as per EC for MREP-I.
iii.	At no time, the emissions shall go beyond the prescribed standards. In the event of failure of any pollution control system, the respective facilities should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved. Provision of adequate height of stack attached to DG sets & flare is to be done.	Complied.
iv,	Waste water shall be properly collected and treated so as to conform to the standards prescribed under EP Act & Rules and mentioned in the Consents provided by the relevant SPCB.	Waste water is collected and treated in Effluent Treatment plant and conforms to the standards prescribed under EP act and Rules.
v.	The overall noise levels in and around the premises shall be limited within the prescribed standards (75 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to	Complied
	the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	14
vi.	The project authorities must strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals etc. Necessary approvals from Chief Controller of Explosives must be obtained before	Complied

	commission of the expansion project, if required. Requisite On-site and Off-site Disaster Management Plans will be prepared and implemented.	
vii.	The project authorities will provide adequate funds as non-recurring and recurring expenditure to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purposes.	Complied.
viii.	The company shall develop rain water harvesting structures to harvest the run-off water for recharge of ground water.	Rainwater harvesting reservoir for usage of rainwater has been constructed having capacity of 50000 KL. Ground water recharging is also undertaken and completed through roof top rainwater harvesting at various locations inside the refinery premises.
ix.	The stipulated conditions will be monitored by the concerned Regional Office of this Ministry/ Central Pollution Control Board/ State Pollution Control Board. A six monthly compliance report and the monitored data should be submitted to them regularly. It will also be displayed on the Website of the Company.	Six monthly report is attached herewith. Report is uploaded on Company website.
х.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both on hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the SPCB.	Six monthly report is attached herewith.
xi.	A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad/Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/representations if any, were received while processing the proposal. The clearance letter shall also put up on the website of the Company by the proponent.	Complied
xii.	The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at http://www.envfor.nic.in. This should be advertised within seven days from the date of issue of the clearance letter at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the concerned Regional office of this Ministry.	Complied
xiii.	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986 as amended subsequently, shall also be put on the website of the Company along with the status of compliance of EC conditions and shall also be sent to the respective regional Office of the MoEF by e-mail	Environment Statement in Form-V is submitted online as mandated.

xiv.	A separate environment management cell with full-fledged laboratory facilities to carry out various management and monitoring functions shall be set up under the control of a Senior Executive.	Environment Management Cell is fully functional in the refinery. In house NABL approved Lab for various analysis is in operation.
XV.	The project authorities shall inform the Regional Office as well as the Ministry the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project	Approval: 05-03-2009 Date of Commissioning: October 2013 Financial Closure December 2014

F. No. J-11011/413/2014-IA.II (I) Government of India Ministry of Environment, Forest and Climate Change (I.A. Division)

Indira Paryavaran Bhawan Aligani, Jorbagh Road New Delhi - 110 003

E-mail: yogendra78@nic.in Telefax: 011-24695365 Dated: 31st January, 2017

To,

The Executive Director M/s HPCL, Petroleum House, 17, Jamshedji Tata Road, Mumbai - 400020.

Proposed expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 Subject: MMTPA at BD Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL-EC reg.

Your online proposal no. IA/MH/IND2/26662/2014. Ref.:

Sir,

This has reference to your online proposal no. IA/MH/IND2/26662/2014 along with project documents including Form I, Terms of References, Pre-feasibility Report, EIA/EMP Report along with Public Hearing Report regarding above mentioned project.

The Ministry of Environment, Forests and Climate Change has examined the 2.0application. It is noted that proposal is for proposed expansion of Mumbai Refinery from 7.5 MMTPA to 9.5 MMTPA at BD Patil Marg, Mahul, Mumbai, Maharashtra by M/s HPCL. M/s HPCL has proposed to enhance the refining capacity of its Mumbai refinery upto 9.5 MMTPA including Propylene Recovery Unit (PRU) and revamp of existing Captive Power Plant (CPP).

The total cost of the project is ₹3223.43 Crores for refinery expansion and PRU & revamping of CPP with a capital investment of Rs.622.45 Crores. All new facilities are coming up within existing refinery having 13, 95,477 sq.m. The total area for setting up of new units within refinery premises is 2.1 acres. It is reported that no National Park and Wildlife Sanctuary is located within 10 km of the project site. Mahul creek is a shallow wetland area where lots of birds are seen in winter season. Capacities of existing and proposed units are as given below:

PRODUCTS	Existing production (KTPA)		
LPG	332		
LAN	272		
SCN	96		
Treated Hexane	30		
Solvent 1425	8.5	·	

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MO Error III	1075	
MS Euro III	1075	
MS Euro IV	0	
MTO	48	
ATF	600	
SKO	52	
Euro III Diesel	1810	
Euro IV Diesel	776	
LDO	88	
RPO	70	
FO 180 cst	567	··
Sulphur	37	
150 N Gr-I	81	·
500 N Gr-I	206	
Bright Stock	61	
IO-100	9	
VG-10 Bitumen	229	
VG-30 Bitumen	478	

The proposed expansion of products:-

Units	Design Capacity (KTPA)	Expansion Case (KTPA)
FRAPS/VPS	4000 (Kuwait)	6000
FREAPS/VPS	3500 (BH)	3500
NAPHTHA SPILTTER UNIT	1222	1222
Naphtha Hydro Treater (NHT) /Isomerisation	250	300
NHT/Continous Catalytic Reformer	545	654
PRIME G+	475	570
New Fludised Catalytic Cracking Unit (FCCU)	1227	1227
Old FCCU	950	950
Diesel Hydro Desulphurisation Unit	2270	2270
Diesel Hydro Treater Unit	2200	2200
PDA	755	755
Hydrogen Generation Unit (HGU)	14.5	14.5
New HGU	-	36
Visbreaker (VBU)-New Residue upgradation unit	-	565
Propylene Recovery Unit (PRU)	-	100
New GTG		81 MW

Total SOx emission from the refinery post expansion is expected to be 8.62 TPD which will be well within the existing permissible limit of 12.6 TPD as stipulated by MOEF/SPCB. Fresh water requirement from BMC will be increased from 426 m³/hr to $538m^3$ /hr after expansion. The additional power required for MREP shall be 13 MW, for PRU 600 KW (415 V LT) + 622 KW (6.6 KV HT). Recovery efficiency of existing two SRU trains will be increased from 99% to 99.9%. Low NOx burners will be installed to reduce NOx emission from all furnaces.

Effluent generation will be increased from 130 m³/hr to 178 m³/hr after expansion. PP confirmed that as the existing IETP can handle the above flow of 178 m³/hr, no new ETP is proposed for treatment. It is proposed that ETP treated water

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from Reverse Osmosis system will be routed to DM Plant for reuse. Spent catalyst will be sent to the authorized recycler/re-processors.

3.0 Public Hearing/Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 13th May, 2016.

4.0 All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category 'A' and appraised at the Central level.

5.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 12th and 14th meeting held during 23^{rd} -24th August, 2016 and 26th-27th October, 2016 respectively. Project Proponent and the EIA Consultant namely M/s EIL have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

6.0 Based on the information submitted by the project proponent, the Ministry of Environment and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

- i. M/s HPCL shall comply with standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18th March, 2008.
- ii. Continuous on-line stack monitoring for SO₂, NOx and CO of all the stacks shall be carried out.
- iii. The process emissions [SO₂, NOx, HC (Methane & Non-methane)], VOCs and Benzene from various units shall conform to the standards prescribed under the Environment (Protection) Act. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency of the pollution control device has been achieved.
- iv. Leak Detection and Repair programme shall be prepared and implemented to control HC/VOC emissions. Focus shall be given to prevent fugitive emissions for which preventive maintenance of pumps, valves, pipelines are required. Proper maintenance of mechanical seals of pumps and valves shall be given. A preventive maintenance schedule for each unit shall be prepared and adhered to. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored. Sensors for detecting HC leakage shall be provided at strategic locations.
- v. SO2 emissions after expansion from the plant shall not exceed 525 kg/hr and further efforts shall be made for reduction of SO2 load through use of low sulphur fuel. Sulphur recovery units shall be installed for control of H2S emissions. The overall sulphur recovery efficiency of Sulphur recovery unit with tail gas treating shall not be less than 99.9%.

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- vi. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- vii. Flare gas recovery system shall be installed.
- viii. Ambient air quality monitoring stations, [PM₁₀, PM_{2.5}, SO₂, NOx, H₂S, mercaptan, non-methane-HC and Benzene] shall be set up in the complex in consultation with Kerala State Pollution Control Board, based on occurrence of maximum ground level concentration and down-wind direction of wind. The monitoring network must be decided based on modeling exercise to represent short term GLCs.
- ix. Total freshwater requirement from BMC after expansion of proposed project shall not exceed 538 m³/hr and prior permission shall be obtained from the competent authority.
- x. As proposed, Industrial effluent generation shall not exceed 178 m³/hr after proposed expansion and treated in the integrated effluent treatment plant. Treated effluent shall be recycled/reused within the factory premises. Domestic sewage shall be treated in sewage treatment plant (STP).
- xi. Automatic mechanical Oil catchers/oil traps shall be provided at all possible locations in rain/ storm water drainage system inside the factory premises.
- xii. At least 2.5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESR) based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board (SPCB), State Government and any other statutory authority.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In *case* of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one stations is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.
- iv. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

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- v. The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- vi. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
- vii. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- viii. The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- ix. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.
- x. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xii. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- xiii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- xiv. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xv. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company

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along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.

- xvi. The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry at <u>http://moef.nic.in</u>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- xvii. The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

4.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

5.0 The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.

6.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

(Yogendra Pal Singh) Scientist 'D'

Copy to:-

- 1. The Principal Secretary, Environment Department, Government of Maharashtra, 15th Floor, New Administrative Building, Mantralaya, Mumbai - 400 032
- 2. The Additional Principal Chief Conservator of Forests, Regional Office (WCZ), Ministry of Environment, Forest and Climate Change, Nagpur.
- 3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
- 4. The Chairman, Maharashtra Pollution Control Board, Kalpataru Point, 3rd and 4th floor, Opp. Cine Planet, Sion Circle, Mumbai-400 022.
- 5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, New Delhi.
- 6. Guard File/Monitoring File/Record File.

(Yogendra Pal Singh) Scientist 'D'

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