Indian Oil Corporation Limited Mathura Refinery Mathura – 281005 (U.P.) India Internet Site : www.iocl.com



## **Refineries Division**

Ref: MR/HSE/ENV/2022-23/EC Condition compliance

Date: 13.03.2023

Τo,

Deputy Director General of Forests (C), Ministry of Env., Forest and Climate Change, Integrated Regional Office, Kendriya Bhawan, 5th Floor, Sector "H", Aliganj, Lucknow - 226020

Subject: Compliance Status of Environmental Clearance Conditions Mathura Refinery

## Dear Sir,

Enclosed please find the compliance status of conditions of following Environmental clearances for the period April'22-Sept'22 along with Annexure.

- Quality Improvement Project from BS-IV to BS-VI, MOE&F Letter No. F-11011/151/2016- IA II(I) dtd. 13<sup>th</sup> Sept, 2017
- Dimerization unit (55 TMTPA), MOE&F Letter No. J-11011/208/2013- IA II(I) dtd. 19<sup>th</sup> Sept, 2014
- Revamp of Existing Fluidized Catalytic Unit (FCCU) of Mathura Refinery for LPG Yield & Reliability Improvement, MoE&F Letter No. J-11011/283/2006-IA II(I) dated 22<sup>nd</sup> Mar, 2007 & dtd 11<sup>th</sup> Oct, 2013
- MS Quality Up-gradation (MSQU) and additional Diesel Hydro Treatment (DHDT) projects with associated facilities at Mathura Refinery MOE&F Letter No. J-11011/6/2000-IA II(I) Dated 30<sup>th</sup> April, 2001
- Installation of Diesel Hydro Desulphurisation unit at Mathura Refinery, MOE&F Letter No. J.11012/65/96-IA-II(I) Dated 5<sup>th</sup> Dec, 1996
- 6. Expansion of Mathura Refinery from 7.5 MMTPA to 8.0 MMTPA and matching secondary processing facilities (Once through Hydrocracker, Hydrogen unit, SRU, Amine absorption/ Amine Regeneration Unit, Sour Water Stripper and augmented Thermal Power Capacity), MOE&F Letter No. J-11011/15/94-IA-II Dated 19<sup>th</sup> Jan, 1995

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## **Refineries** Division

 Propylene (24,000 MT/yr), Isobutylene (12,500 MT/yr) and 4,50,000 MT/yr Catalytic Reformer Unit at Mathura Refinery MOE&F Letter No. J-11011/9/89-IA-II Dated 28<sup>th</sup> June, 1990

This is for your perusal and record please.

Thanking you,

Yours faithfully, For & On behalf of IOCL, Mathura Refinery

(Mhton)

(Manish Tewari) General Manager (TS & HSE)

Manish Tewari ugiyala (dashidi kati, tateu giya ahrudaam) General Manager (Tech Services, H, S&E) affarat affarat affarata fa Indian Oil Corporation Ltd. Indian Oil Corporation Ltd. Mahura Refinery, Mahura-281005

Encl: As above

Copy to:

The Regional Officer, UP Pollution Control Board, 65, Baldevpuri, Maholi Road, MATHURA – 281 004

For Quality Improvement Project from BS-IV to BS-VI Grade at Mathura Refinery, Mathura (Uttar Pradesh) by M/s Indian Oil Corporation Limited-Compliance Status on 'Conditions of Environmental Clearance by MoEF **Environmental Clearance** 

Ref: MOE&F Letter No. F-11011/151/2016- IA II(I) dtd. 13-Sept-2017

	011	2	EC-1		
Supporting Document as Annexure		4		Annexure-A	
Remarks within 200 characters			E	SO2 emission is within 450 Kg/hr limit	
Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Agree to comply	Complied.	Complied.		Agree to comply
Condition	There shall be no change in the total capacity of the Agree refinery for which earlier EC was granted.	There shall be no increase in pollution load in Complied. respect of air emission, waste water and solid/hazardous waste generation.	There shall be no additional requirement of fresh Complied water and shall remain as 669 cum/hr and the waste water generation shall be reduced from 176 cum/hr to 169 cum/hr.	Total SO2 emissions shall be within the prescribed Complied. limit of 450 kg/hr approved earlier and recorded in EC	As the project site falls within the limit of Taj Agree to comply Trapezium zone, all orders of Hon'ble courts and other statutory requirements, guidelines and directions issued from time to time, as applicable, shall be complied with letter and spirit.
SN	J.	5.	ຕໍ	4.	ů.

Not Com		
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on conditions of all sued earlier from		
<b>Condition</b> The specific and general conditions of all the environmental clearances issued earlier from time to time shall be complied.		

	Compliance status on the for D for D Ref: MOE&F Letter N	for Dimerization unit (55 TMTPA)' tter No. J-11011/208/2013- IA II(I) dtd. 19-Sept-2014	Compliance Status on 'Conditions of Environmental Clearance by MoEF for Dimerization unit (55 TMTPA)' Ref: MOE&F Letter No. J-11011/208/2013- IA II(I) dtd. 19-Sept-2014		
SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure	
	A: Specific Conditions				
	Compliance to all the environmental conditions complisitipulated in the environmental clearance letter no. J-11011/9/89 IA-II(I) dtd. $28^{th}$ June 1990, J- 11011/15/94 IA-II(I) dtd. $19^{th}$ January 1995, J- 11011/15/65/96 IA-II(I) dtd. $5^{th}$ December 1996, J- 11011/6/2000 IA-II(I) dtd. $30^{th}$ April 2001, J- 11011/283/2006 IA-II(I) dtd. $22^{nd}$ March 2007 and J-11011/283/2006 IA-II(I) dtd. $11^{th}$ Oct'2013	omplied	All stipulations as mentioned in Ministry's letters have been complied with.	I.	DIMER -
:=	M/s Mathura Refinery shall comply with new Being complied standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R 186(E) dtd. 18 <sup>th</sup> March, 2008.	Being complied			
<b>=</b>	Continuous online stack monitoring for SO2, NOx Complied and CO of all the stacks shall be carried out. Low NOx burners shall be installed.	Complied	Continuous on-line SO <sub>2</sub> , NOx and CO analyzers Installed in all the 28 stacks. Low NOx burners are installed in all the heaters of the units.		
.×	The process emissions ((SO2, NOx, HC (Methane & I Non-methane)). VOC's and Benzene from various	Being complied	Process Emissions are well under control.		

DIMER -

SN	Condition	Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	as Annexure
	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			
	efficiency of the pollution control device has been			
	achieved.			
>		Being complied	Monitoring of fugitive emission	
	prepared & implemented to control HC/VOC		is carried out as per MoEF	
	emissions. Focus shall be given to prevent fugitive		Gazette GSR 186(E). HC leak	
	emissions for which preventive maintenance of		detectors have also been	
	pumps, valves, pipelines are required. Proper		provided at strategic locations	
	maintenance of mechanical seals of pumps and		in process units and offsite area	
	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.			
vi.	SO2 emissions after installation of Dimerisation unit Complied	Complied.	Stack wise SO <sub>2</sub> emission detail is Annexure-A	Annexure-A
	shall not exceed 450 kg/hr and further efforts shall		attached as Annexure-A	
	be made for reduction of SO2 load through use of			
	low sulfur fuel.			
vii.	As proposed record of sulfur balance shall be	be Being complied.	Detailed sulfur balance is	ž

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SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	maintained at the refinery as part of the environmental data on regular basis. The basic component of sulfur balance includes sulfur input through feed (sulfur content in crude oil), sulfur output from Refinery through products, by products(elemental Sulfur), atmospheric emissions etc.		maintained.	
viii.	Ambient air quality monitoring stations [PM10, PM2.5, SO2, NOx, H2S, mercaptans, non-methane-HC and Benzene] shall be set-up in the complex in consultation with Uttar Pradesh 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 GLC's.	Being complied.	l Ambient Air Quali ng Stations set up ery area in consultatio PPCB. In additio has a mobile van ambient air quality efinery.	
×	Ambient Air Quality data shall be collected as per AMAQES standards notified by the Ministry on 16 <sup>th</sup> NAQES standards and trend analysis w.r.t past monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in the project area.	Complied.	Ambient Air Quality data is A monitored as per NAAQS standards notified by the Ministry on 16 <sup>th</sup> November, 2009 and trend analysis is carried out regularly.	is <b>Annexure-B</b> be er, is
×	missions from DG set shall gh adequate stack height as p s. Acoustic enclosure shall	be Complied. ber be	Mathura Refinery don't use DG set for power generation.	

Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
provided to the DG sets to mitigate the noise pollution. Besides, acoustic enclosures/silencer shall be installed wherever noise levels exceed the limit.			
Total raw water requirement from Koyala river, C Keetham lake and Gokul barrage should not exceed 1070 m <sup>3</sup> /hr and prior permission shall be obtained from competent authority. As proposed, no additional water shall be required for proposed project. Industrial effluent shall be treated in the effluent treatment plant. Treated effluent shall be recycled/reused as make-up for the raw water cooling tower and remaining treated effluent shall be discharged into the nallah	Complied.	No additional water used in the Treated project.	Treated Effluent Quality <b>Annexure-C</b>
All the effluents after treatment shall be routed to Complied a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flow rate, pH and TOC shall be provided.	complied.	Mathura Refinery has holding pond of 19000 m <sup>3</sup> capacity in upstream of ELR. Analyzers are provided at ELR.	
Oil catchers/oil traps shall be provided at all C possible locations in rain/storm water drainage system inside the factory premises.	all Complied ge	Oil catcher/oil traps are provided at strategic locations in the refinery premises	
As proposed, oily sludge shall be disposed off Complied through bio-remediation. Annual oily sludge generation and disposal data shall be submitted to the Ministry's regional office and CPCB.	Complied	Annual Oily Sludge data is submitted regularly via Hazardous waste return to Ministry's regional office and	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	S Remarks within 200 characters	supporting vocument as Annexure
			CPCB.	
XV.	The Company should strictly comply with the rules Being complied	Seing complied	All the rules and regulations	
	Import of Hazardous Chemicals rules, 1989 as		and Import of Hazardous Chemical Rules 1989 &	
			re beir	
			complied.	
Xvi	The membership of common TSDF shall be	be Being complied	Spent catalyst is disposed off	
	obtained for the disposal of hazardous waste. Copy		through CPCB/ SPCB approved	
	of authorization or membership of TSDF shall be		TSDF agency via open tender	
	submitted to Ministry's Regional Office at Lucknow.		basis or sold through MSTC to	
	Chemical/inorganic sludge shall be sent to		CPCB/ SPCB approved party.	
	treatment storage disposal facility (TSDF) for		MR has also TSDF Membership.	
	hazardous waste. Spent catalyst shall be sent to			
	authorized recyclers/re-processors.			
:vii	xvii Proper oil spillage prevention management plan		Any oil spillage/leakage in	
	shall be prepared to avoid spillage/leakage of		process units is routed to	
	oil/petroleum products and ensure regular		Effluent Treatment Plant via	
	monitoring.		OWS network.	
viii	xviii The company shall strictly follow all the	the Complied		
	recommendations mentioned in Charter on		1 1	
	Corporate Responsibility for Environment			
	Protection (CREP)			
xix	To prevent fire and explosion at oil and gas facility, Com	Complied		
	potential ignition sources shall be kept to a		separation distance between	
	minimum and adequate separation distance		equipment maintained as per	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	between potential ignition source and inflammable materials shall be in place.		PESO rules/OISD Standards.	
×	Green belt shall be developed & maintained Com around the plant periphery. Greenbelt	mplied.	Green belt has been developed inside and around plant	
	development shall be carried out considering CPCB guidelines including selection of plant species and in consultation with local DFO	2	periphery. an ecological park has been developed in the refinery premises. Plant species has been selected considering CPCB guidelines.	
Xxi	All the recommendations mentioned in the rapid Comrisk assessment report, disaster management plan and safety guidelines shall be implemented.	mplied.	16	
ii.	Xxii Company shall adopt Corporate Environment Policy Com as per the Ministry's O.M No. J-11013/41/2006-IA. II(I)dtd. 26th April 2011 implemented.	mplied.	*	
iii	Xxiii Provision shall be made for the housing of Com construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, 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.	mplied	1	
	y adhere t	mplied	Strictly adhered stipulations made by UPPCB and State	
	Board (SPCB), State Government and any other		Government. Hence complied.	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	as Annexure
	statutory authority.			
1	No further expansion or modifications in the plant Agree to comply should be carried out without prior approval of the	Agree to comply		
	Ministry of Environment & 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.			
Ш.	The project authorities must strictly comply with Complied	Complied.	All the rules and regulations	
	the rules and regulations under Manufacture,		under Manufacture, Storage	
	Storage and Import of Hazardous chemicals Rules,		and Import of Hazardous	
	2000 as amended subsequently. Prior approvals		Chemical Rules, 2000 are being	
-	from Chief Inspectorate of Factories, Chief		complied.	
-	Controller of Explosives, Fire Safety Inspectorate		All necessary approvals are	
	etc. must be obtained wherever applicable.		obtained from respective	
			authorities.	
.≥	The overall noise levels in and around the plant Complied	Complied.	To control the noise levels Noise	Voise monitoring
	area should be kept well within the standards by		adequate control measures Annexure-D	Annexure-D.
	providing noise control measures including		have been provided. Moreover,	
	acoustic hoods, silencers, enclosures etc. on all		Employees are using Personal	
	sources of noise generation. The ambient noise	5	Protective Equipment if	
	levels should conform to the standards prescribed		continuous exposure is more	
	under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).		than TLVs.	

S	Condition	Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	as Annexure
>	A separate environmental management cell	cell Complied.	Full-fledged Environment Annexure-F	nexure-F
	equipped with full fiedged iduotatory iddifites must be set up to carry out the environmental	•	accredited Pollution Control Lab	
	management and monitoring functions.		exists.	
ż	Adequate funds shall be earmarked towards capital Complied.	Complied.	Environment Expenditure for Ann	for Annexure-G
	cost and recurring cost/annum for environmental		the period of Apr'22 to Sep'22 is	
	implement the conditions stipulated by MoEF and			
	State Government along-with the implementation			
	schedule for all the conditions stipulated herein.			
	The funds so provided shall not be diverted for any			
	other purposes.			
::!>	Regional Office of this Ministry/Central Pollution Com	Complied.	Six monthly reports are -	
	Control Board/ State Pollution Control Board will		regularly furnished to MoEF&CC	
	monitor the stipulated conditions. A six monthly		Lucknow office as well as in	
	compliance report and the monitored data along		UPPCB regional office Mathura.	
	with statistical interpretation should be submitted			
1	to them regularly.			
viii	A copy of clearance letter shall be sent by the Com	Complied		
	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	h.		
	processing the proposal. The clearance letter shall			
	also be put on the website of the company by the			
	proponent.			

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
,×	The project proponent shall upload the status of Complied	Complied	Compliance reports are being	-
	compliance of the stipulated environmental		sent regularly MoEF&CC	
	clearance conditions, including result of the		Lucknow office as well as UPPCB	
	monitored data on their website and shall update		Regional office Mathura.	
-	the same periodically. It shall simultaneously be		Display board is placed at main	
-	sent to the regional office MoEF, the respective		gate of the refinery for the	
	zonal office of CPCB and SPCB. The criteria		environmental data.	
	pollutant levels namely; PM10, PM2.5, SO2, NOx,			
	HC(Methane & non-methane). VOCs (ambient			
	levels as well as stack emissions) or critical sectoral			
	parameters, indicted for the projects shall be			
-	monitored and displayed at a convenient location			
-	near the main gate of the company in the public			
_	domain.			
×	The project proponent shall also submit six	six Complied	Six monthly reports are	
-	monthly reports on the status of the compliance of		regularly furnished to UPPCB	
	stipulated environmental conditions including	ΪŦ	regional office.	
	results of monitored data (both in hard copy as			
-	well as by e-mail) to the regional office of MoEF,			
	the respective zonal office of CPCB and SPCB. The			
	regional office of this ministry/CPCB/SPCB shall			
	monitor the stipulated conditions.			
xii.	The environmental statement of each financial	Complied	Environmental statement of	
	year ending 31 <sup>st</sup> March in Form-V as is mandated		each financial year ending 31st	
	to be submitted by the project proponent to the		March in Form-V is regularly	
	concerned SPCB as prescribed under the EPA rules,		submitted to the concerned	
	1986 as amonded subsequently shall also he put		SPCB as prescribed under the	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the respective Regional Offices of MoEF by e-mail.		EPA rules, 1986.	
iix	The Project Proponent should inform the public Com 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://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 Regional Office.	Complied	The advertisements were published in following newspapers for this EC: 1. Akinchan Bharat & Kalpatru Express on 1.10.2014 in Hindi	
XIII	The project Authorities shall inform the Regional Complied 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 commencing the land development work.	Complied	1	

Conditions of Environmental Clearance by MoE&F for revamp of Existing Fluidized Catalytic Unit (FCCU) of Mathura Refinery for LPG **Yield & Reliability Improvement** 

MoE&F Letter No. J-11011/283/2006 - IA II(I) dated  $22^{nd}\,$  Mar,2007 & dtd  $\,11^{th}$  Oct, 2013

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Supporting Document as Annevure
		Agree to comply		
À.	SPECIFIC CONDITIONS			
	The company should strictly adhere to the	Complied	=	
	stipulations made by MoEF vide OM No.J-		mentioned in Ministry's	
	11011/65/96-IA-II dated 5 <sup>th</sup> December 1996 and vide letter no. J-11011/6/2000-		letters have been complied with.	
	IA-II (I) dated 30 <sup>th</sup> April, 2001.			
:="	The crude oil processing capacity shall not	Agree to Comply	Noted	
	exceed 8.0 MMTPA due to revamp of			
	existing Fluidized Catalytic Cracking Unit.			•
ii	The total SO <sub>2</sub> emission from the entire	Being complied	Total SO <sub>2</sub> emission is within	Annexure-A
	refinery complex shall not exceed 450 kg/hr		the stipulated limit of 450	SO <sub>2</sub> Emission
	even after the proposed revamp of FCCU.		kg/hr for Apr-22 to Sep-22	Data
	The gaseous emissions (SO <sub>2</sub> , NOx, HC, CO)		The other gaseous	
	and particulate matters, from various		emissions viz. NOx, HC, CO	
	process units shall conform to the	×	also conforms to the	
	standards prescribed under Environment		prescribed standards.	
	(Protection) Rules, 1986 or norms			
	stipulated by the SPCB whichever is most			
	stringent. At no time, the emission level			
	should go beyond the stipulated standards.			
	In the event of failure of pollution control			

FCC -

EC-3

	Condition	<b>Self declaration</b> Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
s) ul ai	systems(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.			
Fēd	The company shall comply with proposed emission and effluent standards for petroleum oil refineries.	Being complied	Emission and Effluent standards are fully complied with. 3 <sup>rd</sup> stage cyclone separator has been installed in FCC for PM compliance.	
	Additional Sulphur Recovery Unit (SRU) of 60 TPD with more than 99% efficiency shall be installed to prevent excess SO <sub>2</sub> and H <sub>2</sub> S emissions. The company shall install continuous system for SO <sub>2</sub> monitoring. Manual monitoring for all the emission parameters shall be carried out once in a month. Sulphur recovery efficiency shall be calculated on monthly basis, using quantity of Sulphur recover.	Complied	Additional Sulphur Recovery Unit of 60 TPD with more than 99% efficiency on 18 <sup>th</sup> Jun'2011. Manual monitoring and sulphur recovery efficiency calculation is being done monthly.	
ANTDED	Adequate ambient Air Quality Monitoring Stations SO <sub>2</sub> , NOx, HC shall be set up in the refinery area in consultation with SPCB, based on occurrence of maximum ground level concentration and down wind direction of wind. The monitoring network	Complied	3 AAQMS are set up in the refinery in consultation with UPPCB. A mobile van is available to monitor ambient air quality. Continuous on-line SO <sub>2</sub> ,	Annexure-B Ambient Air Quality Data

SN	Condition	<b>Self declaration</b> Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	must be decided based on making exercise to represent short term GLCs. In addition, a		NOx, CO and PM analyzers have been provided in the	
	mobile van with adequate facilities to		stacks.	
	monitor ambient air quality outside the refinery premises should be provided.	-		
	Continuous on-line stack monitoring			
	equipment should be installed for	*		
	measurement of SO <sub>2</sub> , NOx and HC.			
vii.	Fugitive emissions of HC from product	Complied	Monitoring of fugitive	
	storage tank yard, crude oil tanks etc must		emission is carried out as	
	be regularly monitored. Sensors for	×	per MoEF Gazette GSR	
	detecting HC leakage should also be		186(E). HC leak detectors	
	provided at strategic locations.		have also been provided at	
			strategic locations in	
			process units and offsite	
		*	area.	
viii.	The liquid effluent generated from the	Complied	The liquid effluent	Annexure-C
	proposed project shall be treated		generated is treated and	ELR Quality
	comprehensively to conform to the load-		recycled in refinery through	Parameter
	based standards and concentration limits		Effluent Treatment Plant.	
	prescribed under EPA Rules. The entire		Treated wastewater is	
	treated wastewater shall be recycled for		being reused in fire water,	
	reuse for firewater, plant operation and		plant operation and green	
	green belt development so as to conserve		belt development.	
	the fresh water.			

	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
t d t d S O	Guard ponds of sufficient holding capacity shall be provided to contain the effluent during process disturbances and or ETP failure. The concerned units must be shut down in case of effluent quality exceeding the prescribed limits.	Complied	Surge Reservoirs of 18000 $m^3$ capacity, guard Ponds (10000 $m^3$ ) and Polishing Ponds (35000 $m^3$ ) are used for storage of treated effluent and Holding pond of 19000 $m^3$ is available before ELR discharge.	
L 2 T T L D T C D T C O A O C	The company shall adopt mounded storage for LPG. The recommendations made in the Rapid Risk Assessment Report must be incorporated while firming up the plant layout and equipment design. The company must prepare a comprehensive risk assessment/analysis of the refinery and associated facilities once the engineering design and layout are frozen. Based on this, on-site and off-site emergency; preparedness plan must be prepared. Approval from the nodal agency must be obtained before commissioning the project.	Complied	3 nos. of LPG and 2 nos. of Propylene Mounded storage have been provided. Emergency Response & Disaster Management Plan (ERDMP) of Mathura Refinery is valid till 25.09.2025.	
tt S S	Green belt of adequate width and density shall be raised around the Taj region to mitigate the effects of fugitive emission. Selection of plant species should be as per the CPCB guidelines.	Complied	Near Taj & Runakta Reserve Forest in Agra region total 1,15,000 trees have been planted by Mathura Refinery. Selections of plants are	

SN	Condition	<b>Self declaration</b> Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
			based on CPCB guidelines.	
xii.	The company shall incorporate water- harvesting measures in civil constructions as part of the project and action plan shall be submitted.	Complied	Rain water harvesting is a regular activity in company. Total 18 Rain Water Harvesting pits are available in Refinerv and Township.	
B.	GENERAL CONDITIONS:			
	No further expansion or modifications in the plant shall be carried out without prior	Agree to Comply	Any expansion or modifications in the plant	
	approval of the Ministry of Environment and Forests.		shall be carried out with prior approval of the	
	•	Ŧ	Ministry of Environment & Forests and Climate Change (MoEF&CC).	
e ii	In case of deviations or alterations in the project proposed 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. Data on ambient air quality, stack emission as well as fugitive emissions of HC must be regularly monitored and submitted to CPCB	Agree to Comply Being Complied	In case of deviations or alterations in the project, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required. Quarterly Data to CPCB is regularly submitted on quarterly basis and Half	

SN	Condition	<b>Self declaration</b> Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	Regional office once in 6 months.		submitted along with compliance report.	
.>	Influent and effluent quality monitoring	Being Complied	Quality monitoring of	Annexure-C
	stations shall be set up in consultation with		influent is being done on	ELR Quality
	the SPCB. Regular monitoring stations		continuous basis in Effluent	
	should be carried out for the MINAS		Treatment Plant. Treated	
	parameters.		Effluent quality is also	
			regularly monitored on	181
			continuous basis as per	
			MINAS.	
÷.	The overall noise levels in and around the	Being Complied	To control the noise levels	Annexure-D
	plant area shall be kept well within the		adequate control measures	Noise
	standards (85 dBA) by providing noise		have been provided.	Monitoring Data
	control measures including acoustic hoods,		Moreover, Employees are	
	silencers, enclosures etc. on all sources of		using Personal Protective	
	noise generation. The ambient noise levels		Equipment if continuous	
	should conform to the standards		exposure is more than TLVs.	
	prescribed under Environmental			
	(Protection) Act, 1986 Rules, and 1989 viz.			2
	75 dBA (daytime) and 70 dBA (night time).			
۲i.	The project authorities must strictly comply	Complied	All the rules and regulations	
	with the rules and regulations under		under the Manufacture,	
	Manufacture, Storage and Import of		Storage and Import of	
	Hazardous chemicals Rules, 1989 as		Hazardous Chemicals Rules,	
	amended subsequently. All approvals from		1989 are being complied.	
	state and nodal agencies including OISD,		All necessary approvals are	
	Chief Inspectorate of Eactories Chief		obtained from respective	

SN				
SN		Self declaration		Supporting
-	Condition	Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Document as Annexure
	Controller of Explosives, Fire Safety Inspectorate etc. must be obtained.		authorities.	
vii. /	Adequate provisions for infrastructure	Complied	Adequate facilities such as	
+	facilities such as water supply, fuel,		water supply, power supply,	
01	sanitation etc. should be ensured for		sanitation etc have been	
5	construction workers during the		I for construct	
	construction phase so as to avoid felling of		workers during the	
- 01	urees and pollution of water and the surroundings.		construction phase.	
viii. 1	The project proponent shall also comply	Complied	Environmental measures	
-	with all the environmental protection		and safeguards	
1	measures and safeguards recommending in		recommended in the EIA	
+	the ElA and Risk Analysis report.		and Risk Analysis Report are	
			complied	
ix.	Occupational Health Surveillance	Complied	Occupational Health	Annexure-E
	programme shall be undertaken as regular		Surveillance program is	( OHC data)
9	exercise for all the employees, specifically		undertaken as regular	
-	for those engaged in handling hazardous		exercise for all the	
	substances.		employees, specifically for	
			those engaged in handling	
			hazardous substances.	
×. /	A separate environmental management cell	Complied	Full-fledged Environment	Annexure-F
	equipped with full fledged laboratory		Protection (EP) cell exists. A	(HSE
	facilities must be set up to carry out the		well-equipped NABL	Organogram)
	environmental management and		accredited Pollution Control	
-	monitoring functions.		Lab exists to monitor	
			environmental performance	

Supporting Document as Annexure		Annound																									
Remarks within 200 characters	on day-to-day basis.	Advantato finad is allocatod	for environmental	expenditure.	Refer Annexure-G	environmental expenditure	for the period of Apr'22 to	Sep'22.			Six monthly reports are	regularly furnished to	MOEF&CC, Lucknow office	as well as in UPPCB regional	office Mathura.		The advertisements were	published in Amar Ujala and	Danik Jagran on 28.03.2007	in Hindi	The copies of the above	were sent to the Regional	Office of the Ministry vide	letter dated 15.5.2007.			
<b>Self declaration</b> Complied / Being complied / Not Complied / Partially complied / Agree to comply		Boing Complied									Complied						Complied										
Condition		The project suthorities will provide	s for both recurring a	recurring to implement the conditions	stipulated by MoEF 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.	The stipulated conditions will be monitored	by the Regional Office of this Ministry at	Lucknow/ CPCB / SPCB. A six monthly	compliance report and the monitored data	along with statistical interpretation should	be submitted to them regularly.	The Project Proponent shall inform public	that 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 MoEF at	http:/envfor.nic.in. This should be	advertised within seven days from the date	of issue of clearance letter at least in two	local newspapers that are widely circulated	in the region of which one shall be in the
SN											xii.						xiii.										

	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Supporting Document as Annexure
vern conc forw	vernacular language of the locality concerned and a copy of same shall be forwarded to the Regional office.	Agree to comply		
The Regi date of th and deve	The project Authorities shall inform the Complied 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 commencing the land development work.	Complied		

			CTOT:07:07 MIN	
SN	Condition	Self declaration Complied / Being complied / Not Complied / complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
1	All the specific conditions and general conditions specified in the environmental clearance accorded vide Ministry's letter no. J-11011/283/2006-IA II (I) dated 22 <sup>nd</sup> March, 2007 shall be implemented.	Complied		
2	M/s IOCL 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		
ε	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. Leak Detection and Repair programme shall be implemented to control HC/VOC emissions.	Being Complied	Monitoring of fugitive emission is carried out as per MoEF Gazette GSR 186(E). HC leak detectors have also been provided at strategic locations in process units and offsite area.	
4	$SO_2$ emissions after product mix from the plant shall not exceed 450 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	Complied	SO <sub>2</sub> emission is within the limit of 450 Kg /hr. Natural Gas and fuel gas (S <20 ppm) are being used on continuous basis as fuel to the furnace. New SRU has been installed in 2011	

	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.			
-	Total fresh water requirement from River	Complied	Total fresh water	
	Yamuna and Keetham Lake after expansion		requirement is within the	
_	shall not exceed 815 m <sup>3</sup> /hr and prior		limit of 815 m3/hr. Treated	
	permission shall be obtained from the		Effluent reuse is more than	
	Competent Authority. Additional water		83 %.	
	requirement shall be met from recycled water.		H	
	Industrial effluent generation will be 44 m <sup>3</sup> /hr			
	and treated in the effluent treatment plant.			
	Treated effluent shall be recycled/ reused			
-	within the factory premises to the maximum			
	extent and remaining treated effluent will be			
	discharged into nallah. Domestic sewage shall			
-	be treated in sewage treatment plant (STP).			
-	All the effluents after treatment shall be routed	Complied	Flow rate & pH is available at	
	to a properly lined guard pond for equalization		ELR discharge.	
_	and final control. In the guard pond, automatic		5 no. polishing pond and	
_	monitoring system for flowrate, pH and TOC		19000 m3 capacity of new	
_	shall be provided.		polishing pond is available	
		- 1	before discharging ELR to	
-			Yamuna River.	

Compliance Status on 'Conditions of Environmental Clearance by MoEF for Installation of MS Quality Up-gradation (MSQU) and Additional Diesel Hydro Treatment (DHDT) Projects with Associated Facilities at Mathura Refinery'.

Ref: MOE&F Letter No. J-11011/6/2000 IA II(I) Dated 30-April-2001

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Supporting Document as Annexure
	A. Snecific Conditions	Agree to comply		
	The company should strictly adhere to Complied	amplied	All stipulations as mentioned in	
2	the stipulations made by MoEF vide	3	have	
	OM No. J-11011/65/69-IA-II(I) dated 5 <sup>th</sup>		with.	
	December 1996.			
ij.	The total SO2 emission from the entire Complied	Complied	Total SO <sub>2</sub> emission is well within the Annexure-A	Annexure-A ( SO2
	refinery complex should not exceed		stipulated limit of 450 kg/hr. The Emission)	Emission)
	450 kg/hr even after the proposed		other gaseous emissions viz. NOx, HC,	
	expansion. The gaseous emissions		informs to th	
	(SO2, NOx, HC, CO) and particulate		prescribed under Environment	
	matters, from various process units		(Protection) Rules, 1986	
	should conform to the standards			
	prescribed under Environment			
	(Protection) Rules, 1986 or norms			
	stipulated by the SPCB whichever is			
	most stringent. At no time, the		5	
	emission level should go beyond the			
	stipulated standards. In the event of			
	failure of pollution control system(s)			
	adopted by the unit, the respective unit			

MSOU-

- EC-4

S	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	should not be restarted until the control measures are rectified to achieve the desired efficiency.			2
i≣	Sulphur recovery units with more than Complied. 99% efficiency shall be provided to prevent excess SO2 and H2S emissions.	Complied.	4 nos. Sulphur Recovery Units having efficiency more than 99% along with TGTU are provided.	
<u>&gt;</u>	Adequate Ambient Air Quality Monitoring Stations SO2, NOX, HC should be set up in the refinery area 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 making exercise to represent short term GLCs. In addition, a mobile van with adequate facilities to monitor ambient air quality outside the refinery premises should be provided. Continuous on line stack monitoring equipment should be installed for measurement of SO2, NOX and HC.	Quality Complied. X, HC area in ed on d level irection rk must sercise S. In lequate quality ould be e stack ild be 02, NOX	Three manual Ambient Air Quality Ambient Monitoring Stations and one Annexur continuous Ambient Air Quality Monitoring Stations are set up in the refinery area in consultation with UPPCB	ality Ambient Air quality one Annexure-B the with
>	Fugitive emission of HC form product Complied. storage tank yard, crude oil tanks etc. must be regularly monitored. Sensors	Complied.	Monitoring of fugitive emission is carried out on quarterly basis as per MoEF Gazette GSR 186(E). HC leak	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	for detecting HC leakage should also be provided at strategic locations.	G	detectors have also been provided at strategic locations in process units and offsite area.	
vi.	As reflected in the EIA/ EMP, out of 753 Complied. m3/hr of effluent generated, a minimum of 340 m3/hr should be recycled after treatment to conform with the load based standards and concentration limits prescribed under EPA limits. Remaining 413 m3/hr of effluent may be discharged into river Yamuna/ Barari Minor Irrigation Canal. However, IOCL should as far as possible maximize reuse / recycling of treated wastewater for firewater, plant operation and green belt development so as to conserve the fresh water.	Complied.	The treated effluent meets MINAS concentration-based standards as well as load-based standards under EP Rules. Mathura Refinery is recycling Effluent more than 83% with discharge limit of 169m3/hr	
vii.	Guard ponds of sufficient holding Complied capacity should be provided to contain the effluent during process disturbances and or ETP failure. The concerned units must be shut down in case of effluent quality exceeding the procorribed limits	Complied	Surge Reservoirs of 18000 m3 along with Guard Ponds (10000 m3) and Polishing Ponds (35000 m3) and holding ponds 19000 m3 is available used for storage of treated effluent with quality deviation.	3
viii.	The company should adopt mounded Complied	Complied	No new LPG storage has been	

		Self declaration Complied / Being complied /		Supporting Document
SN	Condition	Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	as Annexure
	storage for LPG. The recommendations made in the Rapid Risk Assessment		envisaged under this project. For new Projects only mounded storage is	
	Report must be incorporated while		considered.	
	firming up the plant layout and		Recommendations of rapid Risk	
	equipment design. The company must		lcorporatec	
	Pro-		pian updated.	
	associated facilities once the			
	engineering design and lay out are			
	frozen. Based on this, on-site and off-			
	site emergency preparedness plans	х		
	must be prepared. Approval from the		3	
	nodal agency must be obtained before			
	commissioning the project.	×	-	
ix.	Green belt of adequate width and Complied	omplied	Near Taj and Runakta Reserve Forest	
	density should be raised around the Taj		in Agra region total 1,15,000 trees	
	region to mitigate the effects of		have been planted by Mathura	
	fugitive emission. Selection of plant		Refinery.	
	species should be as per the CPCB		Selection of plants is based on CPCB	
	guidelines.		guidelines	
×	The company should incorporate Complied	complied	Rain water harvesting is a regular	
	water-harvesting measures in civil		activity in company. Total 18 Rain	
	constructions as part of the project and		Water Harvesting pits are in available	
	action plan should be submitted.		In Kettnery and Townsnip.	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document as Annexure
		complied / Agree to comply		
	B: General Conditions			
	The project authorities must strictly Complied	omplied	Stipulations made by UPPCB and State Government are being complied	
	UP State Pollution Control Board and		with.	
	the State Government.			
:=	No further expansion or modifications Agree to Comply	gree to Comply	cpansion	
	in the plant should be carried out		modifications in the plant shall be	
	without prior approval of the Ministry		carried out with prior approval of the	
	of Environment & Forests.		Ministry of Environment & Forests.	
III.	In case of deviations or alterations in Agree to Comply	gree to Comply		
	the project proposed from those			
	submitted to this Ministry for			
	clearance, a fresh reference should be			
	made to the Ministry to assess the			
	adequacy of conditions imposed and to			
	add additional environmental			
	protection measures required, if any.			
iv.	Data on ambient air quality, stack Being Complied	seing Complied		
	emission as well as fugitive emissions		3	
	of HC must be regularly monitored and			
	submitted to CPCB once in three			
	months and to Ministry's Regional			
	office once in 6 months.			
۷.	and effluent quality monitori	Complied	Quality monitoring of influent is being Annexure-C	Annexure-C
	stations snouid be set up in			

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	consultation with the SPCB. Regular monitoring should be carried out for the MINAS parameters.		Treated Effluent quality is also regularly monitored on continuous basis as per MINAS	
-i.	The overall noise levels in and around the plant area should be kept well within the standards (85 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 the standards prescribed under Environmental (Protection) Act, 1986 Rules, and 1989 viz. 75 dBA (daytime) and 70 dBA	Complied	To control the noise levels adequate control measures have been provided. Moreover, Employees are using Personal Protective Equipment if continuous exposure is more than TLVs.	Annexure-D
<ul><li>Kili</li></ul>	The project authorities must strictly Complied comply with the rules and regulations under Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended on 3 <sup>rd</sup> October, 1994. All approvals from state and nodal agencies including OISD, Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety	Complied	All the rules and regulations under Manufacture, Storage and Import of Hazardous Chemicals Rulesare being complied. All necessary approvals are obtained from respective authorities as per requirement.	

SN Inspector viii. Adequate facilities sanitation construct felling of felling of	Compliane Completion Completion Completion Completion Not Completion Not Completion Not Completion	Self declaration Complied / Being complied / Not Complied / Partially complied /		Supporting Document
	interaction of the second of t	Acros to comply	Remarks within 200 characters	as Annexure
	e provisions for infrastructure ( such as water supply, fuel, on etc. should be ensured for			
	such as water supply, fuel, on etc. should be ensured for	Complied	Adequate facilities such as water	
	on etc. should be ensured for		supply, power supply, sanitation etc	
	-		provided for construction workers	
	construction workers during the	14	during the construction phase.	
	construction phase so as to avoid			
	felling of trees and pollution of water			
	and the surroundings.			
	The project proponent shall also	also Complied.	Environmental measures and	
comply	comply with all the environmental		safeguards recommended in the EIA	
protectic	protection measures and safeguards		and Risk Analysis Report are complied	
recomme	recommending in the EIA and Risk			
Analysis report.	report.			
x. Occupational	cional Health Surveillance Complied.	Complied.	Occupational Health Surveillance Annexure-E	Annexure-E
program	programme should be undertaken as		<b>(1)</b>	
regular e	regular exercise for all the employees,			
specifica	specifically for those engaged in		specifically for those engaged in	
handling	handling hazardous substances.	x	handling hazardous substances.	
xi. A	separate environmental Complied.	Complied.	Full-fledged Environment Protection Annexure-F	Annexure-F
manager	management cell equipped with full		(EP) cell with NABL accredited Lab	
fledged	fledged laboratory facilities must be set		exists.	
up to (	to carry out the environmental			
managei	management and monitoring functions.			
xii. The pro	The project authorities will provide Complied.	Complied.	Environment Expenditure for the	
adequat	adequate funds for both recurring and		period of Oct'21 to Mar'22 is attached	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	non-recurring to implement the conditions stipulated by the Ministry of Environment & 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.		as Annexure-G	Annexure-G
	The stipulated conditions will be the monitored by the Regional Office of this Ministry at Chandigarh / Central Pollution Control Board/ State Pollution Control Board. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.	be Being Complied of iral hly red ical to	Six monthly reports are regularly furnished to MoEF &CC Lucknow office as well as in UPPCB regional office Mathura.	
xiv.	The Project Proponent should inform Complied. 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	Complied.	The advertisements were published in the following newspapers for this EC: Amar Ujala , Dainik Jagaran and The Hindustan on 4. 5. 2001 Hindi	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	and Forests at http:/envfor.nic.in. This should be advertised within seven days			
	from the date of issue of the clearance			
	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 Regional Office.			
XV.	The project Authorities should inform Complied.	Complied.		
	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			
	commencing the land development			
	work.			

CONDITIONS OF ENVIRONMENTAL CLEARANCE BY MOEF&CC FOR INSTALLATION OF DIESEL HYDRO DESULPHURISATION UNIT AT MATHURA REFINERY

MOE&F Letter No. J.11012/65/96-IA-II(I) Dated 5 Dec, 1996

SN	Condition	Self declaration Complied / Being complied / Partially Not Complied / Partially	Remarks within 200 characters	Supporting Document as Annexure
		Agree to comply		
	The project authority must strictly adhere to the Complied	Complied		
	Pollution Control Board and the State Govt.			
	No expansion or modernization of the plant Agree to comply	Agree to comply	Any further expansion or modifications in	
	should be carried out without approval of the		the plant shall be carried out with prior	
	Ministry of Environment &Forests.		approval of the Ministry of Environment & Forests.	9
	The total SO2 emission from Mathura Refinery Complied	Complied	SO2 emission is well within the stipulated Annexue-A	Annexue-A
	including DHDS project should not exceed	•	limit of 450 kg/hr.	
	stipulated norm of 450 kg/hr after installation of			
	the hydrocracker unit under the Matching		· · · · · · · · · · · · · · · · · · ·	
	Secondary Processing Facilities.			
	As indicated in the EMP the existing ETP should Complied.	Complied.	ETP has been modernized. Treated Effluent	*
	be adequately augmented to accommodate the	-	meets the New Standards.	
	additional effluent from the DHDS project before			
	commissioning the project so as to ensure the		5	
	treated effluent meets the MINAS.			
	Time bound Action Plan for disposal of oily Complied.	Complied.	Oily sludge is generated in refinery	
	sludge/ recovery of oil and design details of the		operations. PVC lined pit with proper	
	solid waste disposal pit should be furnished to		leachate collection facility provided for	
	the Ministry within a period of 3 months.		disposal of sludge.	
	SRU having an efficiency of more than 99% should Complied.	Complied.	4 no. of Sulphur Recovery Units including	
	be installed.		one standby along with TGTU having >99%	
			efficiency have been commissioned	

DHDS -

EC-5

MATCHING SECONDARY PROCESSING FACILITIES (ONCE-THROUGH HYDROCRACKER, HYDROGEN UNIT, SRU, AMINE ABSORPTION/ AMINE CONDITIONS OF ENVIRONMENTAL CLEARANCE BY MOE&F FOR EXPANSION OF MATHURA REFINERY FROM 7.5 MMTPA TO 8.0 MMTPA AND REGENERATION UNIT, SOUR WATER STRIPPER AND AUGMENTED THERMAL POWER CAPACITY)

SN	Condition	Self declaration Complied/Being complied / Not Complied / partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
1.	At no time the SO <sub>2</sub> emission from	Complied	The present stipulated limit on Annexure-A	Annexure-A
	various units should go beyond 450		$SO_2$ emission is 450 kg/h. $SO_2$	
	kg/hr.		emission is within the stipulated	
	In the event of failure of any		limit of 450 kg/hr.	
	pollution control system adopted			
	by the unit, the respective units			
	should be put out of operation			
	immediately and should not be			
	restarted until the control systems			
	are rectified to achieve the desired			
	efficiency.	2		
2.	Provisions should be made for	Complied.	At present 4 nos. of SRUs of	
	standby sulphur recovery units (30		60 TPD each including one as	
	TPD) in addition to the proposed		standby unit has been	
	two units of 30 TPD each so as to		installed.	
	ensure that high SO <sub>2</sub> emissions are			
	avoided in the event of SRU failure.			
1	The standby SRUs should always be			
	functional.			
ŕ	The efficiency of SRU should be	Complied.	SRUs as mentioned above are	4
	further increased to reduce SO <sub>2</sub>		of > 99% efficiency with TGTU.	
	emission from the present level of			-

MOE&F Letter No. J-11011/15/94-IA-II Dated 19 Jan, 1995

(7.5-8.0)

EC-6

	12000 ppm.			
4.	The present policy of using 50%	Complied		
	indigenous low sulphur crude			
	should be continued, and LSHS			
	obtained from this crude should be			
	solely used as internal fuel oil.			
5.	The continuous ambient air quality	Complied.	Continuous SO <sub>2</sub> monitoring	74
1	monitoring equipment located at		AAQMS at Farah, Keetham,	
	Farah, Keetham, Sikandara and		Sikandara and Bharatpur. Third	
	Bharatpur should be properly		Party monitoring of SO <sub>2</sub> , NOx,	
	calibrated using permeation tubes /		PM, CO, NH <sub>3</sub> , N2O, SPM being	
	span gas.		done once in month	•
6.	Continuous flow measuring systems		Online analyzers provided in	
	should be installed in all the stacks		stacks for measurement of	
4	of Mathura Refinery.		SO <sub>2</sub> , NOX, CO, PM.	
7.	The total hydrocarbon loss from the	Complied.	The total hydrocarbon loss	
	refinery should be reduced to 0.5%		from the refinery in 2021-22	
	from the present value of 0.8%.		was 0.23%.	
		~		
¢,	Adequate steps should be taken to	Complied.	Bio-remediation pit with HDPE	
	safely dispose the oily sludge as per		lining ia available for	
5	provision made in Hazardous Waste		bioremediation of Residual oily	
	Management Rules of EPA (1986).		sludge, in this process sludge is	
.1			converted into soil.	
ە	A study to assess the impact of SO <sub>2</sub>	Complied.	Waived by the MOE&F vide	
	on Agra (Taj Mahal) should be		Letter No. J-11011/15/94-1A, II	
	carried out using tracer HF analysis.		(I) dated 21/12/99.	
	This study should be done in			
-	rent meteorological conditio			
	and different seasons to see at			

																									· ·					
			*						01 L 2					Natural Gas facility	commissioned in Dec'96												Low NOx burners provided in	all the new furnaces.		
					1		Complied.			*			•	Complied.						4						5	Complied.			
what concentration the pollutants	(especially SO <sub>2</sub> ) emitted by Mathura	Refinery are reaching Agra. The	above study should be completed	within a period of one year and	report submitted to the Ministry of	Environment & Forests for review.	e impact of	vehicular pollution between	Mathura – Delhi and Mathura –	Agra should also be carried within 6	months and remedial measures	wherever necessary should be	taken at the earliest.	The project authority should	immediately explore the possibility	of using natural gas in power plant	boiler and the furnaces to reduce	the SO <sub>2</sub> emission. In addition, the	provision for natural gas should also	be made by running a spur-line	50	Mathura Refinery. This matter	should be pursued with the	concerned governmental	authorities for speedy	implementation.	Low nitrogen oxide emitting	burners should be installed in the	proposed additional facilities to	keep the status of NOx levels within
							10.							11.		л.		•••				s.,.					12.			

the applicable standards.13. The quality of effluent in the polishing pond should be maintained in such a manner so that they continue to attract migratory birds. Use of polishing lagoon for aquaculture should be also explored.14. Efforts should be made to increase plantation especially around the ecological park, holding ponds, polishing ponds, TPS, SRU and equalisation ponds, TPS, SRU and		
The quality of effluent in the polishing pond should be maintained in such a manner so that they continue to attract migratory birds. Use of polishing lagoon for aquaculture should be also explored. Efforts should be made to increase the density of the existing plantation especially around the ecological park, holding ponds, polishing pond, truck loading facility, oil sludge lagoons, equalisation ponds, TPS, SRU and		
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the density of the existing plantation especially around the ecological park, holding ponds, polishing pond, truck loading facility, oil sludge lagoons, equalisation ponds, TPS, SRU and		Tree plantation is regular
plantation especially around the ecological park, holding ponds, polishing pond, truck loading facility, oil sludge lagoons, equalisation ponds, TPS, SRU and	existing	activity in Mathura Refinery.
ecological park, holding ponds, polishing pond, truck loading facility, oil sludge lagoons, equalisation ponds, TPS, SRU and	und the	Adequate numbers of trees
<ul> <li>polishing pond, truck loading facility, oil sludge lagoons, equalisation ponds, TPS, SRU and</li> </ul>	ponds,	has been planted in the
facility, oil sludge lagoons, equalisation ponds, TPS, SRU and	loading	mentioned location.
equalisation ponds, TPS, SRU and	lagoons,	
	SRU and	
flare areas.		

CONDITIONS OF ENVIRONMENTAL CLEARANCE BY MOE&F FOR PROPYLENE (24,000 MT/yr), ISOBUTYLENE (12,500 MT/yr) AND 4,50,000 MT/yr CATALYTIC REFORMER UNIT AT MATHURA REFINERY

C.

Self declarationSelf declarationComplied / Being complied / Not Complied / complied /Remarks within 200 charactersSupporting DocumentAgree to complyAgree to complySupporting charactersSupporting bocument	CompliedClearance for 8.0obtained from the videLetterN11011/15/94-IA-IIJan, 1995.	must strictly <b>Complied</b> Stipulations made by the made by the UPPCB are complied with.	e surrounding Complied. LPG supply is not affected. ed due to the diversification	I from variousComplied.Present stipulation limit isAnnexure-Akg/hr. In theof 450 Kg/h. SO2 emission islution controlwithinthepresente unit, thestipulatedlimitof 450
Self c Complied / Not Com co Agree			The LPG requirement of the surrounding Complied. districts shall not be affected due to the proposed product diversification activities.	
S	н.	5	m	4.

MOE&F Letter No. J-11011/9/89-IA-II Dated 28<sup>th</sup> June, 1990

PRU-



	operation immediately and should not he			
	until the contro			
	rectified to achieve the desired			
	efficiency. This sulphur recovery unit			
	should always be functional.			
5.	The project authority will utilize the	Complied.	Treated effluent is recycled	
	treated effluent to the extent of 65%		to the tune of 83 % for	
	either as process water or for agricultural		various uses in the refinery	
	/afforestation purposes.		viz. Cooling Tower make-up,	
			DM water generation, fire	
	The entire quantity of liquid effluents		water and horticulture.	
	generated within various operations will		Treated effluent meets	
	have to be treated and should strictly		MINAS.	
	conform to the specified standards.			
6.	The existing air quality monitoring	Being complied	Reports are periodically	Annexure-B
	stations at three different locations in		sent to the UPPCB and the	
	the plant as well as at four outside the		MOE&F.	
	plant should be maintained properly.			
	The recorded data should be furnished to		2	
	the State Board and to the Ministry of			
	Environment & Forests, Govt. of India			
	every year.			
7.	The project must maintain all the existing	Complied.	ï	
	water quality monitoring stations at		•	
	different locations of the plant. The			
	recorded data shall be furnished to State			
	Board & to this Ministry once in 3			
	months. Performance evaluation of each			
	unit of the effluent as well as sewage			
	int plant should be under			
	regular intervals for all relevant			

C.R.

ould be of the ternate ternate ternate ternate esigned excess     Complied.       uld be esigned excess     Mechanized for all c tanks, which come being done for all c tanks, which come cleaning.       a MLSS     Mechanized for done for done to the voter       a MLSS     Mechanized for done for all c tanks, which come cleaning.       s to the votes to through ould be on time mbined     Bio-remediation for all c tanks, which come cleaning.       s to the votes to through ould be mbined     Bio-remediation for ould be periodic basis.       ovels to through ould be mbined     By following prope up procedures		parameters covered during study		
No change in design of stacks should be made without the prior approval of the State Pollution control systems should be barrier at the pollution control systems should be provided and stacks should be designed properly to take care of excess hydrocarbon emission due to failure in any system in the plant.       Complied.         Sludge recirculation to aeration basin any system in the plant.       Being complied.         Sludge recirculation to aeration basin from final clarifier should be done regularly for maintaining desired MLSS concentration.       Mecl         0.       Generation of oily sludge in crude oil being complied.       Mecl         1.       The disposal of all types of sludges to the minimum by hot gas oil flushing system or any other approved method.       Mecl         1.       The disposal of all types of sludges to the land and fill site should be made after PVC indifies it actual allor.       Being complied.       Bior clear to the minimum by hot gas oil flushing system or any other approved method.         1.       The disposal of all types of sludges to the complied.       Displayer to the minimum by hot gas oil flushing intervice to the minimum by hot gas oil flushing system or any other approved method.       Bior to the complied.       Bior to the complete.       Bior to the disposal of all types of sludges to the complete.       Bior to the disposal of all types of sludges to the complete.       Bior to the disposal of all types of sludges to the complete.       Bior to the disposal of all types of sludges to the complete.       Bior to the complete.       Bior to the complete.       Bior to the complete.		haiaiiicicis covered dumis siday.		
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Proper control of hydrocarbon emissions Being complied should be ensured during start up period		waste water stream.	2	
period up procedures	12.	Proper control of hydrocarbon emissions	Being complied	
		should be ensured during start up period		up procedures thereby

<ul> <li>13. Standby sulphur recovery unit should always be kept in operation ready phase so that excess SO<sub>2</sub>/ H<sub>2</sub>S emission can be avoided.</li> <li>14. Standby use LSHS instead of fuel oil so as to avoid any excess SO<sub>2</sub> release from the boiler house. The additional capacity for heaters and utility furnaces should use only LSHS.</li> <li>15. The project authority must explore the possibility of converting the existing heaters into gas based system.</li> <li>16. The project authority must control fugitive emission of HC from existing and new storage tanks. Monitoring in this</li> </ul>	y phase can be utilities		process units and avoiding	
	y phase can be utilities			
	y phase can be utilities			
	y phase can be utilities		hydrocarbon emissions to	
	y phase can be utilities		the atmosphere.	
	y phase can be utilities	Being complied	3 nos. of sulphur recovery	
			units are in running with	
	_		one SRU as hot standby.	
	co ICUC inctord of	complied	Low S Fuel Oil used. Fuel	
	IN DESIGN OF A		Gas and predominantly	
	oid any excess SO <sub>2</sub>		Natural Gas is used as fuel	
	boiler house. The		& as feed in Hydrogen	
	or heaters and utility		Generation Units.	
	only LSHS.			
	-	complied	Existing furnaces utilize very	
			less low S liquid fuel. Also,	
	d system.		since 1996, Max. Natural	
			Gas is being used in	
			heaters/furnaces.	
fugitive emission of H new storage tanks.	authority must control o	complied	For fugitive emission	
new storage tanks.	HC from existing and		control, secondary seal are	
	Monitoring in this		provided in floating roof in	
area should be carried out regularly.	d out regularly.		crude oil and light product	
			service. Monitoring of	
			fugitive emission being	
			done for 10000 points per	
			quarter.	
17. Regular calibration	of automatic	Complied.	Monthly calibration is being .	
recording system through permeation	chrough permeation		done. Records maintained	
tube/ standard gas	as cylinder system	2		

	should be done at regular intervals.		
18.	Green belt development plan should be strictly followed as suggested by consultant.	Complied.	Mathura Refinery is developing green belt by tree plantation as per details given below. Total approx. 3,23,689 trees
			planted till date.
19.	A full-fledged laboratory should be set up for collecting and analysis of samples	Complied.	A full-fledged pollution control laboratory exists to
	under the supervision of senior technical personnel.		monitor environmental performance. The
			laboratory is recognized by NABL.
20.	The density of the existing plantation	Complied.	Approx. 1,15,000 trees has heen planted in Tai and
	direction of the plant with suitable plant		Runakta Reserve Forest in
	species.		Agra region( SE direction).
21	All the construction workers should be provided with proper infrastructural	Complied.	
	facilities during the construction period.		
22.	The No Objection Certificate and the	Complied.	
	Disaster Management Plan should be	14	
	months from the clearance date.		
23.	The standard laid down for occupational	Complied.	The health monitoring of
	health of the workers should be adopted		-
	and followed. If Indian standards in this		the Occupational Health
	r any specific cases are r		f the ref
	available, the relevant standards of		Reports are periodically

	WHO/ ILO etc. should be followed. Regular survey should be made and recorded data should be furnished to this Ministry once in six months.		sent to the MOE&F.	
24.	Noise levels should be maintained within the permissible limit, to avoid occupational health hazards to the persons working within the plant.	Complied.	To control the noise levels adequate control measures have been provided. Moreover, Employees are	Annexure-D
25.	Regular safety audit should be done for fire hazards or any other major accident in the plant.	Complied.	using Personal Protective Equipment if continuous exposure is more than TLVs. Safety audits are carried out periodically.	
26.	A separate environmental management cell with suitably qualified people to carry out various functions relating to environmental management should be set up under the control of a senior technical person who will directly report to the Chief Executive.	Complied.	Environmental Management Cell having qualified personnel exists to monitor environmental performance.	Annexure-F
27.	Adequate fund provision (capital & recurring expenditure) should be provided for implementation of all the conditions stipulated herein and funds so provided should not be diverted for any other purpose. The funds earmarked for this purpose should be communicated to this Ministry within three months.	Complied		

#### Annexure A

# Total $SO_2$ emissions from the refinery

		SO	2 Emission (	Apr'22-Sep	'22)		
Month	Unit	Apr'22	May'22	Jun'22	July'22	Aug'22	Sep'22
SO <sub>2</sub>	kg/hr	235.3	218.12	229.2	172.0	215.4	197.3

	0			01		
Stack	Apr'22	May'22	Jun'22	July'22	Aug'22	Sep'22
CDU	2.26	2.74	1.99	1.99	3.26	9.31
VDU	0.54	0.65	0.48	0.48	0.78	2.23
VBU-I	0.06	0.10	0.07	0.07	0.20	0.21
VBU-II	0.06	0.10	0.07	0.07	0.20	0.21
TGTU	0.01	0.01	0.01	0.01	0.01	0.01
FCCU	0.29	0.15	0.05	0.05	0.28	0.38
СОВ	74.18	78.71	89.67	90.16	76.92	114.06
BBU	0.01	0.01	0.06	0.06	0.07	0.07
SRU(A,B,C,D)	153.60	130.95	133.25	75.49	130.07	114.06
CRU-I	0.48	0.66	0.43	0.43	0.36	0.57
CRU-II	0.83	1.14	0.74	0.74	0.63	0.98
DHDS	0.37	0.40	0.18	0.18	0.17	0:18
DHDT	0.18	0.12	0.08	0.08	0.06	0.06
HGU II PDS	0.10	0.09	0.02	0.02	0.03	0.11
OHCU-I	0.14	0.10	0.02	0.02	0.08	0.09
OHCU-II	0.28	0.21	0.04	0.04	0.16	0.19
NHDT	0.19	0.20	0.07	0.07	0.08	0.08
HGU-I	0.05	0.03	0.05	0.05	0.02	0.01
HGU-II reformer	0.01	0.01	0.01	0.02	0.01	0.01
Prime G	0.03	0.06	0.05	0.05	0.02	0.02
Prime-G Revamp	0.03	0.06	0.05	0.05	0.02	0.02
TPS Boiler& HRSG(I,II,III)	1.63	1.75	1.86	1.86	1.93	1.81
TOTAL (kg/hr)	235.3	218.12	229.2	172.0	215.4	197.3

## Average Stack Wise SO<sub>2</sub> Emission kg/ hr

Annexure B

## Ambient Air Quality Monitoring Report Sampling and analysis by Refinery / Consultant / State Board / Central Board

#### A. Inside Refinery

	Unit	Limit	Apr'22	May'22	Jun'22	July'22	Aug'22	Sep'22
PM <sub>10</sub>	$\mu g/m^3$	100	153	124	119	78	70	84
PM <sub>2.5</sub>	µg/m³	60	66	56	56	40	31	37
SO <sub>2</sub>	µg/m³	80	9	11	12	11	11	12
NO <sub>2</sub>	$\mu g/m^3$	80	20	24	26	24	26	23
NH <sub>3</sub>	µg/m <sup>3</sup>	400	23	24	27	22	24	23
СО	µg/m <sup>3</sup>	2000**	990	1000	1010	930	943	970
O <sub>3</sub>	µg/m <sup>3</sup>	100**	25	27	29	28	27	24
BENZENE	µg/m³	5*	ND	ND	ND	ND	ND	ND
BENZO(a)PYRENE (as BaP)	ng/m <sup>3</sup>	1*	ND	ND	ND	ND	ND	ND
LEAD	μg /m³	1	ND	ND	ND	ND	ND	ND
ARSENIC	ng/m <sup>3</sup>	6*	ND	ND	ND	ND	ND	ND
NICKEL	ng/m <sup>3</sup>	20*	ND -	ND	ND	ND	ND	ND

• \* annual average

• \*\* 8 hour average

• Rest are 24 hours average

Annexure C

Parameter	LIMIT (mg/l)	1	Apr'22	2		May'2	2		Jun'22	2
		Min value	Max value	Average value for month	Min value	Max value	Average value for month	Min value	Max value	Average value for month
pН	6.0 - 8.5	7.8	8.0	7.9	7.7	8.1	7.9	7.7	8.2	8.0
Oil & Grease	5.0	3.7	4.3	4.0	3.8	4.3	4.1	3.6	4.2	3.9
BOD	15.0	8.0	13.0	10.4	10.0	14.0	11.6	9.0	12.0	10.3
COD	125.0	64.0	112.0	86.1	79.0	115.0	96.2	72.0	102.0	86.5
TSS	20.0	7.0	18.0	10.9	5.0	20.0	13.8	7.0	13.0	9.0
Phenols	0.35	0.162	0.242	0.200	0.184	0.288	0.230	0.0	0.1	0.0
Sulphides	0.5	0.24	0.49	0.40	0.20	0.49	0.35	0.2	0.46	0.3
			July'2	2		Aug'2	2		Sep'2	2
Parameter	LIMIT (mg/l)	Min value	Max value	Average value for month	Min value	Max value	Average value for month	Min value	Max value	Average value for month
рН	6.0 - 8.5	7.8	8.2	8.0	7.6	8.3	7.9	7.5	8.1	7.8
Oil & Grease	5.0	2.2	4.6	3.8	3.0	4.7	3.9	3.0	4.8	4.0
BOD	15.0	10.0	13.0	11.4	7.0	13.0	- 10.7	9.0	13.0	11.3
COD	125.0	77.0	106.0	93.5	56.0	108.0	88.6	76.0	116.0	92.7
TSS	20.0	5.0	20.0	11.6	12.0	19.0	17.4	16.0	20.0	18.7
Phenols	0.35	0.218	0.342	0.265	0.218	0.304	0.266	0.190	0.294	0.251
Sulphides	0.5	0.17	0.50	0.39	0.23	0.49	0.36	0.28	0.50	0.42

## Treated Effluent Discharge Quality as per MINAS Standards

Annexure-D

## SOUND LEVEL MONITORORING Apr'22-Sep'22

Area Sound Level m	0	APRIL -2022	
		APRIL -2022 / (TWA) = 90 dBA	
5.4.22	Prod / New PRU	18NPM 201 A/B	91.2
0.7.22		18NPM 202 A/B	90.8
		18NPM 203A/B	91.5
		18NPM 204 A/B/C	89.1
		18NT 241	91.0
		CONTROL ROOM	67.5
5.4.22	Prod / MEROX	25 PM 1A/B	Shut Down
	THOU? MERCOX	22PM 1A/B	Shut Down
		25 \/4	89.0
		21 V9	88.1
		CONTROL ROOM	67.5
5.4.22	Prod /FCC	NEW TURBINE	97.9
		TURBINE HALL (OP'S	70.1
		ROOM)	
		19 P M 103 A/B	88.5
		Co Boiler	88.1
		19 PM 106 A/B	91.1
		19 PM 2 A/B	
		20 PM 8 A/B	88.4
		CONTROL ROOM	67.5
7.4.22	Prod / CRU	14 PM 1 A/B	88.9
		EXCHANGER AREA	88.4
		9 P 2 A/B/C	91.1
		COMPRESSOR	87.9
		PLATFORM	
		15 K1M1	88.9
		40 KM 1A/B	91.1
		NITROGEN PLANT	89.1
		CONTROL ROOM	68.5
7.4.22	Prod / VBU	16 PM 4 A/B	S/Down
	-	16 P 10A/B	91.8
		16 PM 1 A/B	91.1
		16 PM 2 A /B	90.6
	-	CONTROL ROOM	68.5
7.4.22	Prod / AVU	PH TESTING AREA	88.1
		Exchanger Area (pre)	87.1
		CHEMICAL AREA	86.9
	<i>a</i>	10 P 1 A/B/C/S	90.6
	× .	DESALTER AREA	89.1
		11 PM 108 A/B/C/S	91.1
		11 P M 102 A / B/C/S	91.3
		11PM 5 S ATF R/D	89.0
	÷1	12 PM 1 A /B	88.8
		11 PM 7 S	96.1
		FURNACE	87.6
		CONTROL ROOM	68.5

AArea Sound Level	monitoring		
		<b>MAY -2022</b>	
		TLV(TWA) = 90  dBA	
9.5.22	Prod / DHDS	02 PM 05 A	88.1
		02 PM 02 B	88.3
		02 PM 1 A PUMP	91.7
		02 K 1 COMPRESSOR (UP)	87.9
		CONTROL ROOM	68.1
.5.22	Prod / DHDT	301 P 01 A/B PUMP	Shut down
		301 P 04 A/BPUMP	
1.0		301 P 3 A PUMP	
		301 P 06 A PUMP	
		301 K 01 B COMP. (NEAR WHEEL)	
		CONTROL ROOM	
.5.22	Prod /OHCU	NEAR 7P 12 B	88.7
		NEAR 7P10 B PUMP	88.2
		EXCHANGER AREA	87.5
		7 KA 3 A/B COMPRESSOR (FAN SIDE)	88.3
		7 KA 3 C COMPRESSOR (FAN SIDE)	88.6
	- 2 <sup>1</sup> 1 - 1	7 P 1 A	87.9
		7P 5 A /B	89.6
		7P 2C / B / A	89.4
		SAMPLE SOUR WATER (V3)	88.1
		FURNACE F1/F2	88.7
		CONTROL ROOM	68.1
.5.22	Prod / HGU I	NEAR 6 PM 002 A/B	Shut Down
		NEAR 6 KM 003A/B	Shut Down
		NEAR 6K 004 A /B	88.2
		PSA 130	Shut Down
		PSA 140	97.1
		06 K 05 A/B	89.4
		CONTROL ROOM	68.1
.5.22	Prod / HGU II	302 P 12 A/B	89.4
		302 K 12 V2 / V3	Shut Down
		302 K 01 A/B COMPRESSOR	88.4
		PSA AREA	97.1
		302 K 11 A/B	88.4
		NEAR 340 KM 001	95.1
		CONTROL ROOM	68.1
.5.22	P& U /Water	COMPRESSOR HOUSE	97.8
	Block	COMPRESSOR HOUSE – INSIDE CABIN	74.8
.2.5.22	Prod/ Prime G	306 P 1 B	88.4
		307 P 2 B	89.1
		Comp House	88.9

	0	JUNE -2022	
		TLV (TWA) = 90  dBA	
8.6.22	PROD/SRU	05 K 1A	90.8
		5 C E 14	90.4
		PIT AREA	88.5
		05 K 1B	88.6
11		5 K1 C	86.9
		CONTROL ROOM	68.2
8.6.22	PROD/MSQ	308 K 1 A COMPRESSOR	88.7
		308 K 1 B COMPRESSOR	88.3
		309 PM 7 A/B PUMP	85.6
		309 PM 5 A/B	87.1
	2	315 PM 2 A/B	S/Down
		308 PM 1 A/B	88.1
2.5		309 PM 1 A/B	87.4
		310 PM 2 A/B	S/Down
		CONTROL ROOM	68.2
9.6.22	PROD/TPS	D M PLANT	86.1
		D M PLANT – CONTROL ROOM	73.1
		TURBINE HALL – DOWN (Old PRDS)	97.4
		BFP CABIN	82.6
		GT HALL I	90.7
		GT HALL II	91.3
		GT HALL III	91.5
		SEAL FAN AREA(I)	95.1
4		STEAM GENERATOR HALL	89.0
		CONTROL ROOM	67.5
8.6.22	PROD/ETP	ISPH	88.4
		SOPH	87.6
		ТРН	88.1
		RPH	88.1

AArea Sound Lev	el monitoring		
	J	JLY -2022	
	TLV (	$\Gamma WA$ ) = 90 dBA	
1.7.22	Prod / New PRU	18NPM 201 A/B	90.8
		18NPM 202 A/B	91.0
		18NPM 203A/B	92.0
		18NPM 204 A/B/C	89.7
		18NT 241	92.1
	÷	CONTROL ROOM	68.5
1.7.22	Prod / MEROX	25 PM 1A/B	Shut Down
		22PM 1A/B	Shut Down
		25 V4	87.9
		21 V9	88.6
	1	CONTROL ROOM	68.5
.7.22	Prod /FCC	NEW TURBINE	98.1
		TURBINE HALL (OP'S ROOM)	72.1
		19 P M 103 A/B	88.6
		Co Boiler	88.4
		19 PM 106 A/B	90.9
		19 PM 2 A/B	91.4
	2 I I I I I I I I I I I I I I I I I I I	20 PM 8 A/B	88.6
		CONTROL ROOM	68.5
.7.22	Prod / CRU	14 PM 1 A/B	88.7
		EXCHANGER AREA	88.0
		9 P 2 A/B/C	90.7
		COMPRESSOR PLATFORM	88.1
5		15 K1M1	88.1
		40 KM 1A/B	90.8
		NITROGEN PLANT	89.4
		CONTROL ROOM	67.9
.7.22	Prod / VBU	16 PM 4 A/B	S/Down
		16 P 10A/B	92.1
		16 PM 1 A/B	91.0
		16 PM 2 A /B	90.8
		CONTROL ROOM	67.5
.7.22	Prod / AVU	PH TESTING AREA	88.0
		Exchanger Area (pre)	88.5
	4	CHEMICAL AREA	87.6
		10 P 1 A/B/C/S	91.2
		DESALTER AREA	87.8
		11 PM 108 A/B/C/S	90.7
		11 P M 102 A / B/C/S	91.6
		11PM 5 S ATF R/D	89.5
		12 PM 1 A /B	88.4
	2 N	11 PM 7 S	95.8

6			FURNACE CONTROL	ROOM		88.4 67.9	
					-		
					•		
							,
2							
						a.	
ы () ,	11						

AArea Sound Level mo	nitoring		
	0	AUGUST -2022	
	1	$\Gamma LV (TWA) = 90 dBA$	
.8.22	Prod / DHDS	02 PM 05 A	87.9
		02 PM 02 B	87.5
		02 PM 1 A PUMP	91.0
		02 K 1 COMPRESSOR (UP)	88.1
		CONTROL ROOM	69.2
.8.22	Prod / DHDT	301 P 01 A/B PUMP	87.9
		301 P 04 A/BPUMP	87.4
		301 P 3 A PUMP	85.6
		301 P 06 A PUMP	81.6
	* c	301 K 01 B COMP. (NEAR WHEEL)	88.1
		CONTROL ROOM	69.2
.8.22	Prod /OHCU	NEAR 7P 12 B	88.0
		NEAR 7P10 B PUMP	87.4
		EXCHANGER AREA	88.0
		7 KA 3 A/B COMPRESSOR (FAN SIDE)	88.1
		7 KA 3 C COMPRESSOR (FAN SIDE)	88.5
		7 P 1 A	87.0
		7P 5 A /B	89.0
		7P 2C / B / A	89.1
		SAMPLE SOUR WATER (V3)	88.1
		FURNACE F1/F2	88.1
		CONTROL ROOM	69.2
.8.22	Prod / HGU I	NEAR 6 PM 002 A/B	Shut Down
		NEAR 6 KM 003A/B	Shut Down
	37 - C	NEAR 6K 004 A /B	88.1
		PSA 130	Shut Down
		PSA 140	96.1
		06 K 05 A/B	89.0
		CONTROL ROOM	70.1
.8.22	Prod / HGU II	302 P 12 A/B	89.1
		302 K 12 V2 / V3	Shut Down
		302 K 01 A/B COMPRESSOR	88.7
		PSA AREA	96.8
		302 K 11 A/B	87.9
		NEAR 340 KM 001	94.5
		CONTROL ROOM	70.1
.8.22	P& U /Water	COMPRESSOR HOUSE	97.0
	Block	COMPRESSOR HOUSE – INSIDE CABIN	73.2
1.8.22	Prod/ Prime G	306 P 1 B	87.9
		307 P 2 B	89.6
		Comp House	88.0

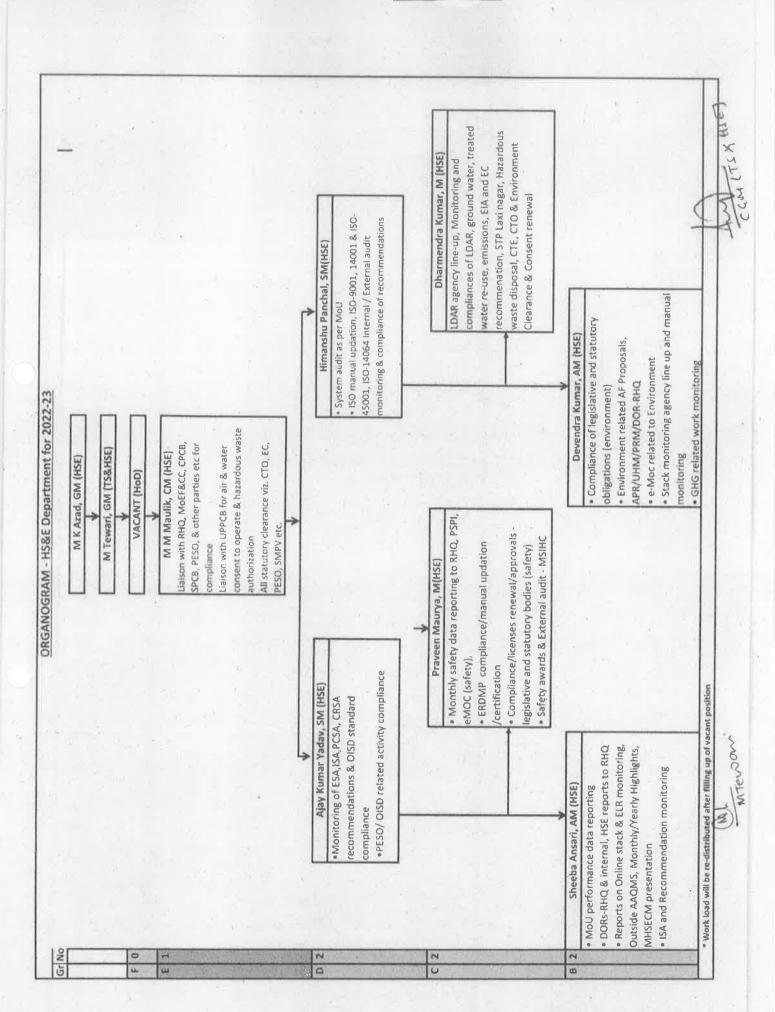
A	rea Sound Level monitoring		<b>SEPTERBER -2022</b> TLV (TWA) = 90 dBA	
b				
-	8.9.22	PROD/SRU	05 K 1A	91.2
			5 C E 14	91.0
			PIT AREA	88.7
		5	05 K 1B	87.9
	-		5 K1 C	87.6
			CONTROL ROOM	66.2
	8.9.22	PROD/MSQ	308 K 1 A COMPRESSOR	87.4
			308 K 1 B COMPRESSOR	87.9
			309 PM 7 A/B PUMP	86.1
			309 PM 5 A/B	87.5
			315 PM 2 A/B	S/Down
	A		308 PM 1 A/B	87.4
			309 PM 1 A/B	88.2
			310 PM 2 A/B	S/Down
			CONTROL ROOM	66.2
	9.9.22	PROD/TPS	D M PLANT	85.4
			D M PLANT – CONTROL ROOM	75.6
1			TURBINE HALL – DOWN (Old PRDS)	98.1
			BFP CABIN	85.7
			GT HALL I	91.2
			GT HALL II	90.8
			GT HALL III	90.1
		(4	SEAL FAN AREA(I)	96.1
			STEAM GENERATOR HALL	88.9
			CONTROL ROOM	68.5
	8.9.22	PROD/ETP	ISPH	88.6
				87.1
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		SOPH	
			ТРН	88.6
	1.1		RPH	88.4
ŀ.	Any other information.	ECG - 395 PFT - 313 TITMUS - 4 AUDIOMET		

Note: To control the noise levels adequate control measures like acoustic insulation in control rooms etc. have been provided. Moreover, Employees are using Personal Protective Equipment if continuous exposure is more than TLVs.

#### Annexure E

	(A	pr'22-Sep'22)			
S. N o.	Item		Status		7 3 4
	,	- <del>1</del>		B. 1	HEALTH
1.	Occupational Health Checks	Category	Target	Reported	Done
		Periodical Medical check-up	505	224	224
		Well Person Medical Check up	149	60	60
	*	Pre-employment	-	54	54
		Pre-retirement	15	02	02
		CISF	55	55	55
		Staff > 40 Yrs.	63	23	23
		Spouse > 40 Yrs.	190	54	54
		Father & Mother > 40 Yrs.	78	07	07
		Other's	01	01	01
		Total Examined	1056	480	480
2.	Status of first aid boxes in units/ locations	First – Aid box provided at a 2022	each loca	itions in Se	ptember

#### Occupational Health Surveillance programme (Apr'22-Sep'22)



ANNEXURE-F

### Annexure G

S.N.	Particulars	<u>Rs in Lakhs</u> <u>REVENUE EXPENDITURE</u> AS ON DATE 30.09.2022 for H-1 2022-23
А	O&M contracts	63.21
В	One Time Expenditure	74.24
С	AMC jobs	72.86
D	Audit / Study / Consultancy jobs	7.08
E	Monitoring jobs	13.30
F	Revenue Expenditure( A+B+C+D+E)	230.71
G	Capital Expenditure( ETP Modernization)	36.19
	Total Expenditure (F+G)	266.90

## COST OF ENVIRONMENT MANAGEMENT (2022-23 H1)

ANNEXURE - H



## इंडियन ऑयल कॉरपोरेशन लिमिटेड मथुरा रिफाइनरी INDIAN OIL CORPORATION LIMITED MATHURA REFINERY





## पर्यावरण, सुरक्षा, स्वास्थ्य और गुणवत्ता नीति

मथुरा रिफाइनरी कच्चे तेल को परिष्कृत करने और पेट्रोलियम उत्पादों की आपूर्ति में सतत् विकास, सुरक्षित कार्यस्थल एवं कर्मचारियों, संविदाकारो, ग्राहकों के साथ-साथ सामुदायिक जीवन स्तर में समृद्धि सुनिश्चित करते हुए स्वच्छ पर्यावरण के प्रति पूर्ण जागरूकता के साथ कारोबार करने के लिए प्रतिबद्ध है। मथुरा रिफाइनरी में हमारा विश्वास है कि अच्छी गुणवत्ता, सुरक्षा, स्वास्थ्य और पर्यावरण निष्पादन, कुशल और लामप्रव कारोबार प्रबंधन का आंतरिक हिरसा है।

हम :

- जन समुदाय, प्रक्रियाओं और परिसंपत्तियों की सुरक्षा के लिए सभी नियमों का पालन करेंगें और उन्हे बनाए रखेंगे।
- गुणवत्ता, व्यावसायिक स्वारथ्य एवं सुरक्षा और पर्यावरण संरक्षण को प्राप्त करने के लिए योजना बनाएंगे, डिजाइन करेंगे और उनका प्रचालन करेंगे तथा सुविधाओं, प्रक्रियाओं और कार्यविधियों, वायु प्रदूषक उत्सर्जन और प्रवाह निर्वहन लागू नियमों के अनुसार बनाए रखेंगे।
- दुर्घटनाओं और आपात स्थितियों में कारगर और तत्काल कार्यवाई के लिए प्रशिक्षित, सज्जित और तैयार रहेंगे।
- दुर्घटनाओं को रोकने और अपने गुणवत्ता, व्यावसायिक स्वास्थ्य एवं सुरक्षा एवं सुरक्षा और पर्यावरण निष्पादन में सुधार लाने के लिए उद्योग के सर्वोत्तम तरीकों को अपनाकर उन्हें बढ़ावा देंगे।
- निरंतर सुधार के जरिए गुणवत्ता, सुरक्षा, व्यावसायिक रवास्थ्य और पर्यावरण संरक्षण में अग्रणी बने रहने के लिए प्रतिबद्ध रहेंगे।
- पारिस्थितिक संतुलन और विरासत को सुरक्षित रखने के लिए प्रयास करेंगे।
- श्रमिकों और श्रमिकों के प्रतिनिधियों के परामर्श और भागीदारी के लिए प्रतिबद्ध रहेंगे।

 श्रमिकों और श्रमिकों के प्रतिनिधियों के परामर्श और भागीदारी के लिए प्रतिबद्ध रहेंगे।

# री गोने र्

दिनांक: 1 अगस्त 2022

देवजित गोगोई कार्यकारी निदेशक एवं रिफाइनरी प्रमुख

#### ENVIRONMENT SAFETY, OCCUPATIONAL HEALTH & QUALITY (ESHQ) POLICY

Mathura Refinery is committed to conduct business of Refining of Crude Oil and supply of petroleum products with strong environmental conscience ensuring sustainable development safe workplace and enrichment of quality of life of People (Employees, Contract workers, Customers and the Community). We at Mathura Refinery believe that good quality of product, industry best practices for performance in Occupational Health & Safety and environment is integral part of efficient and profitable business management.

## We shall:

- Establish and maintain industry best practices in safety of the people, the processes, the assets and healthy working conditions.
- Comply with all rules and regulations on Quality, Occupational Health & Safety and Environmental Protection.
- Plan, design, operate and maintain all facilities, processes and procedures to secure sustained Quality, Occupational Health & Safety and Environment Protection to eliminate hazards & minimize OH&S risks and maintain air emission & effluent discharge as per applicable norms.
- Remain trained, equipped and ready for effective and prompt response to accidents and emergencies.
- Adopt and promote industry best practices to avert accidents and improve our Occupational Health & Safety, Quality and Environmental performance.
- \* Remain committed to be a leader in Quality, OH & S Management Systems and Environment Protection through continual improvement.
- Make efforts to preserve ecological balance and heritage.
- Provide frame work for consultation and participation of workers and workers representatives.

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Date : 1 August 2022

Debajit Gogoi Executive Director & Refinery Head