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

इंडियनआयल IndianOil

Refineries Division

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

Date: 13.03.2023

To,
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.

- 1. 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
- 2. Dimerization unit (55 TMTPA), MOE&F Letter No. J-11011/208/2013- IA II(I) dtd. 19<sup>th</sup> Sept, 2014
- 3. 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
- 4. 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
- 5. 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
- 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**

7. 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

(Manish Tewari) General Manager (TS &HSE)

Manish Tewari
पहाप्रवेधक (तक्तीकी मेवार् म्हार्य्य हारा और पर्यावण)
General Manager (Fech Services, H, S&E)
क्रिक्ट अधिक कर्मार्थ कर्मार्थ हारा और पर्यावण हिल्ला कर्मार्थ हारा अधिक स्थाव कर्मार्थ हारा हारा है जिल्ला होते हैं कर्मार्थ है कर्म है क्या है क्या है कर्म है क्या है है क्या है क्या

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

S	Condition	Self declaration Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document as Annexure
		Agree to comply		
1	There shall be no change in the total capacity of the Agree to comply refinery for which earlier EC was granted.	Agree to comply		
	There shall be no increase in pollution load in Complied.	Complied.		
2.	respect of air emission, waste water and			
	solid/hazardous waste generation.			
	There shall be no additional requirement of fresh Complied.	Complied.		
C	water and shall remain as 669 cum/hr and the waste			
ń	water generation shall be reduced from 176 cum/hr			
	to 169 cum/hr.			
	Total SO2 emissions shall be within the prescribed Complied.	Complied.	SO2 emission is within 450	Annexure-A
4	limit of 450 kg/hr approved earlier and recorded in		Kg/hr limit	
	EC			
	As the project site falls within the limit of Taj Agree to comply	Agree to comply		
	Trapezium zone, all orders of Hon'ble courts and	25		
5	other statutory requirements, guidelines and	~		
e)	directions issued from time to time, as applicable,			
	shall be complied with letter and spirit.			

Supporting Document as Annexure	
Remarks within 200 characters	Half yearly compliance reports of all environmental clearances sent to MoEF & CC and UPPCB regularly.
Self declaration Complied / Being complied / Not Complied / Partially complied /	Agree to comply Complied
Condition	The specific and general conditions of all the environmental clearances issued earlier from time to time shall be complied.
SN	6.

## 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

SS	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Supporting Document as Annexure
	A: Specific Conditions			
	Compliance to all the environmental conditions complied	omplied	All stipulations as mentioned in	
	stipulated in the environmental clearance letter no.		Ministry's letters have been	
	J-11011/9/89 IA-II(I) dtd. 28" June 1990, J-		compiled with.	
	11011/15/94 IA-II(I) dtd. 19 <sup>th</sup> January 1995, J-			
	11015/65/96 IA-II(I) dtd. 5 <sup>th</sup> December 1996, J-			11
	11011/6/2000 IA-II(I) dtd. 30 <sup>th</sup> April 2001, J-			
	11011/283/2006 IA-II(I) dtd. 22 <sup>nd</sup> March 2007 and			
	J-11011/283/2006 IA-II(I) dtd. 11 <sup>th</sup> Oct'2013			
:=	M/s Mathura Refinery shall comply with new Bei	seing complied		
	standards/norms for Oil Refinery Industry notified			
Y	under the Environment (Protection) Rules, 1986			
	vide G.S.R 186(E) dtd. 18 <sup>th</sup> March, 2008.			
∷≓	Continuous online stack monitoring for SO2, NOx Complied	Complied	Continuous on-line SO <sub>2,</sub> NOx and	
	and CO of all the stacks shall be carried out. Low		CO analyzers installed in all the	
	NOx burners shall be installed.		28 stacks.	
		,	Low NOx burners are installed in	
		AD The state of th	all the heaters of the units.	
.≥	The process emissions ((SO2, NOx, HC (Methane & Being complied	3eing complied	Process Emissions are well	
	Mon-mothanoll VOC's and Benzene from various		under control.	

form to ironmer ssion le dards. I ol syste e immee be re polluti mpleme is shall i which I which I given. sach ur sach ur strategion of 450 kg d 450 kg iduction		Self declaration		Supporting Document
		Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	as Annexure
		Agree to comply		
	standards prescribed			
	rection) Act. At no			
	nall go beyond the			
	event of failure of			
	dopted by the unit,			
	put out of operation			
	until the desired			
	itrol device has been			
	Repair program shall be Be	Being complied	Monitoring of fugitive emission	
	to control HC/VOC		is carried out as per MoEF	
	n to prevent fugitive		Gazette GSR 186(E). HC leak	
	tive maintenance of		detectors have also been	
	re required. Proper		provided at strategic locations	
	seals of pumps and		in process units and offsite area	
	ventive maintenance			
	Il be prepared and		3	
	s of HC from product			
	must be regularly			
	ting HC leakage shall			
	ons.			
shall not exceed 450 kg/hr and f be made for reduction of SO <sub>2</sub> lo	n of Dimerisation unit Co	omplied.	Stack wise SO <sub>2</sub> emission detail is Annexure-A	Annexure-A
be made for reduction of SO <sub>2</sub> lo	d further efforts shall		attached as Annexure-A	
	load through use of			
low sulluf luel.				
vii. As proposed record of sulfur	sulfur balance shall be Be	be Being complied.	Detailed sulfur balance is	流

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.  Ambient air quality monitoring stations [PM10, Being complied. 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.  Ambient Air Quality data shall be collected as per Complied. NAAQES standards notified by the Ministry on 16th November, 2009 and trend analysis w.r.t past	Being complied.  Complied.	
monitoring results shall also be carried out. Adequate measures based on the trend analysis shall be taken to improve the ambient air quality in		on 16 <sup>th</sup> N trend an regularly.
the project area.  The gaseous emissions from DG set shall be dispersed through adequate stack height as per	be Complied.	Mathura Refinery don't use DG set for power generation.

O,	SN	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, Complied Keetham lake and Gokul barrage should not exceed 1070 m³/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 be discharged into the nallah	omplied.	No additional water used in the Treated project.	Treated Effluent Quality <b>Annexure-C</b>
	∺	ent shall be routed to for equalization and rd pond, automatic ate, pH and TOC shall	Complied.	Mathura Refinery has holding pond of 19000 m <sup>3</sup> capacity in upstream of ELR. Analyzers are provided at ELR.	
	ii ×	Oil catchers/oil traps shall be provided at all Complied possible locations in rain/storm water drainage system inside the factory premises.	omplied	Oil catcher/oil traps are provided at strategic locations in the refinery premises	
	×i×	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	Remarks within 200 characters	Supporting Document as Annexure
		1	CPCB.	
×		eing complied	All the rules and regulations	
	and guidelines under Manufacture, Storage and		under the Manufacture, Storage	
	Import of nazardous chemicals rules, 1989 as amended in October, 1994 and January, 2000.		chemical Rules, 1989 &	
			Ē	
			compiled.	
×		eing 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.			
×	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.	
XVIII	The company shall strictly follow all	the Complied	J	
	recommendations mentioned in Charter on			
	Corporate Responsibility for Environment			
	Protection (CREP)			
×i×	To prevent fire and explosion at oil and gas facility, Complied	complied	Minimum and adequate	
	potential ignition sources shall be kept to a		separation distance between	
	minimum and adequate separation distance		equipment maintained as per	

		Self declaration		Supporting Document
	Condition	Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	as Annexure
	between potential ignition source and inflammable materials shall be in place.		PESO rules/OISD Standards.	
×		Complied.	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		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 Complied	Complied.	<u> 16</u>	
	risk assessment report, disaster management plan and safety guidelines shall be implemented.			
	Xxii Company shall adopt Corporate Environment Policy Complied. as per the Ministry's O.M No. J-11013/41/2006-IA.	Complied.	-1	
	II(I)dtd. 26th April 2011 implemented.			
iii.XX		Complied		
	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.			d
	B: General Conditions			
	The project authorities must strictly adhere to the Complied	Complied	Strictly adhered stipulations	
	stipulations made by the State Pollution Control		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	Superior Sup	Supporting Document as Annexure
	statutory authority.			
i	No further expansion or modifications in the plant Agr	Agree to comply		
	should be carried out without prior approval of the			
	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.			
≔	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	se monitoring
	area should be kept well within the standards by		adequate control measures Annexure-D	nexure-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	50	Protective Equipment if	
	levels should conform to the standards prescribed		continuous exposure is more	
	under EPA Rules, 1989 viz. 75 dBA (daytime) and 70		than TLVs.	
	dBA (nighttime).			

S	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
>	A separate environmental management equipped with full fledged laboratory facil must be set up to carry out the environme management and monitoring functions.	cell Complied. ities ntal	Full-fledged Environment Annexure-F Protection (EP) cell with NABL accredited Pollution Control Lab exists.	Annexure-F
· <del>&gt;</del>	Adequate funds shall be earmarked towards capital Complied cost and recurring cost/annum for environmental pollution control measures and shall be used to 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.	omplied.	Environment Expenditure for the period of Apr'22 to Sep'22 is attached as Annexure-G	for Annexure-G 2 is
III	Regional Office of this Ministry/Central Pollution Complied.  Control Board/ State Pollution Control Board will monitor the stipulated conditions. A six monthly compliance report and the monitored data along with statistical interpretation should be submitted to them regularly.	omplied.	Six monthly reports are regularly furnished to MoEF&CC Lucknow office as well as in UPPCB regional office Mathura.	
>	viii A copy of clearance letter shall be sent by the 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 processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.	omplied		

SN	Condition	Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document as Annexure
		Agree to comply		
	The project proponent shall upload the status of Complied	Complied	oliance reports	ř
	compliance of the stipulated environmental		sent regularly MoEF&CC	
	monitored data on their wakeite and chall undate		Lucknow office as well as UPPCB	
	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	g.
	monthly reports on the status of the compliance of	0	regularly furnished to UPPCB	
	stipulated environmental conditions including	15	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.			
	The environmental statement of each financial Complied	Complied	Environmental statement of	
	year ending 31st March in Form-V as is mandated		each financial year ending 31 <sup>st</sup>	
	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 amended subsequently, shall also be put		SPCB as prescribed under the	

0)	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		EPA rules, 1986.	
		and shall also be sent to the respective Regional Offices of MoEF by e-mail.			
^	Ξ	The Project Proponent should inform the public Complied	Complied	The advertisements were	
		that the project has been accorded environmental		published in following	
		clearance by the Ministry and copies of the		newspapers for this EC:	
		clearance letter are available with the State		1. Akinchan Bharat &	
		Pollution Control Board/ Committee and may also		Kalpatru Express on	
		be seen at Website of the Ministry of Environment		1.10.2014 in Hindi	
		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			
5	7.1	newspapers that are widely circulated in the region		Car	
		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.		× × ×	
×	ij×	The project Authorities shall inform the Regional Complied	Complied	ı	
_		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 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<sup>nd</sup> Mar,2007 & dtd 11<sup>th</sup> Oct, 2013

		Self declaration		Supporting
S	Condition	Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Document as Annexure
Ą	SPECIFIC CONDITIONS			
,2	The company should strictly adhere to the	Complied	All stipulations as	
	stipulations made by MoEF vide OM No.J-		mentioned in Ministry's	
	11011/65/96-IA-II dated 5 <sup>th</sup> December		letters have been complied	
	1996 and vide letter no. J-11011/6/2000-		with.	
	IA-II (i) dated 30 <sup>th</sup> April, 2001.		;	
:=	The crude oil processing capacity shall not	Agree to Comply	Noted	Y
	exceed 8.0 MMTPA due to revamp of			
	existing Fluidized Catalytic Cracking Unit.			*
i	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			

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	systems(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.	:•		
N. N	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 in the feed to SRU and quantity of Sulphur recover.	Complied	Additional Sulphur Recovery Unit of 60 TPD with more than 99% efficiency was commissioned on 18 <sup>th</sup> Jun'2011. Manual monitoring and sulphur recovery efficiency calculation is being done monthly.	
.i>	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

		Self declaration		Supporting
SN	Condition	Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Document as Annexure
		Agree to comply		
	must be decided based on making exercise		NOx, CO and PM analyzers	
	to represent short term GLCs. In addition, a		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.			
∷	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.	0	have also been provided at	
			strategic locations in	
			process units and offsite	
			area.	
iii,	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.			

S	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
×	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 <sup>3</sup> capacity, guard Ponds (10000 m <sup>3</sup> ) and Polishing Ponds (35000 m <sup>3</sup> ) are used for storage of treated effluent and Holding pond of 19000 m <sup>3</sup> is available before ELR discharge.	
×	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.	
· <del>×</del>	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.	

		Self declaration		Sunnorting
SN	Condition	Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Document as Annexure
			based on CPCB guidelines.	
×ii.	The company shall incorporate water-	Complied	Rain water harvesting is a	
	harvesting measures in civil constructions		regular activity in company.	
	as part of the project and action plan shall		Total 18 Rain Water	
	be submitted.		Harvesting pits are available	
			in Refinery and Township.	
ю.	GENERAL CONDITIONS:			
:	No further expansion or modifications in	Agree to Comply	Any expansion or	
	the plant shall be carried out without prior		modifications in the plant	
	approval of the Ministry of Environment		shall be carried out with	
	and Forests.		prior approval of the	
			Ministry of Environment &	
			Forests and Climate Change	
			(MoEF&CC).	
:=	In case of deviations or alterations in the	Agree to Comply	In case of deviations or	
	project proposed from those submitted to		alterations in the project, a	
	this Ministry for clearance, a fresh		fresh reference shall be	
	reference shall be made to the Ministry to		made to the Ministry to	
	assess the adequacy of conditions imposed		assess the adequacy of	
	and to add additional environmental		conditions imposed and to	
	protection measures required, if any.		add additional	
			environmental protection	
			measures required.	
ij	Data on ambient air quality, stack emission	Being Complied	Quarterly Data to CPCB is	
	as well as fugitive emissions of HC must be		regularly submitted on	
	regularly monitored and submitted to CPCB		quarterly basis and Half	
	once in three months and to Ministry's		yearly data is also	

S	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	ks	Supporting Document as Annexure
	Regional office once in 6 months.		submitted along with compliance report.	
i.	Influent and effluent quality monitoring	Being Complied	Quality monitoring of	_
	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		int Plant. Trea	
	parameters.		regularly monitored on	1/85
			in bacic ac	
			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.			
	75 dBA (daytime) and 70 dBA (night time).			
<u>'</u>	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 Factories. Chief		obtained from respective	

		Self declaration		Supporting
SN	Condition	Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Document as Annexure
		Agree to comply		
	Controller of Explosives, Fire Safety		authorities.	
	Inspectorate etc. must be obtained.			
vii.	Adequate provisions for infrastructure	Complied	Adequate facilities such as	
	facilities such as water supply, fuel,		water supply, power supply,	
	sanitation etc. should be ensured for		sanitation etc have been	
	construction workers during the		provided for construction	
	construction phase so as to avoid felling of		workers during the	
	trees and pollution of water and the		construction phase.	
	surroundings.			
	The project proponent shall also comply	Complied	Environmental measures	
	with all the environmental protection		and safeguards	
	measures and safeguards recommending in		recommended in the EIA	
	the EIA and Risk Analysis report.		and Risk Analysis Report are	
			complied	
×	Occupational Health Surveillance	Complied	Occupational Health	Annexure-E
	programme shall be undertaken as regular		Surveillance program is	(OHC data)
	exercise for all the employees, specifically		undertaken as regular	
	for those engaged in handling hazardous		exercise for all the	
	substances.		employees, specifically for	
		2	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	

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
			on day-to-day basis.	
×i.	The project authorities will provide	Being Complied	Adequate fund is allocated	Annexure-G
	adequate funds for both recurring and non-		for environmental	
	recurring to implement the conditions		expenditure.	
	stipulated by MoEF as well as the State		Refer Annexure-G	
	Government along with the		environmental expenditure	
	implementation schedule for all the		for the period of Apr'22 to	
	conditions stipulated herein. The funds so		Sep'22.	
	provided should not be diverted for any			
	other purposes.			
xii.	The stipulated conditions will be monitored	Complied	Six monthly reports are	
	by the Regional Office of this Ministry at	Α.	regularly furnished to	
	Lucknow/ CPCB / SPCB. A six monthly		MOEF&CC, Lucknow office	
	compliance report and the monitored data		as well as in UPPCB regional	
	along with statistical interpretation should		office Mathura.	
	be submitted to them regularly.			
xiii.	The Project Proponent shall inform public	Complied	The advertisements were	
	that project has been accorded		published in Amar Ujala and	
	environmental clearance by the Ministry		Danik Jagran on 28.03.2007	
	and copies of the clearance letter are		in Hindi	
	available with the SPCB / Committee and		The copies of the above	
	may also be seen at Website of the MoEF at	0	were sent to the Regional	
	http:/envfor.nic.in. This should be		Office of the Ministry vide	
	advertised within seven days from the date		letter dated 15.5.2007.	
	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	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	vernacular language of the locality concerned and a copy of same shall be forwarded to the Regional office.			
ĸiv.	xiv. 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		3

		Colf doclaration		
SS	Condition	Complied / Being complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
1	All the specific conditions and general	Complied		
	conditions specified in the environmental	N		
	11011/283/2006-IA II (I) dated $22^{nd}$ March,			
	2007 shall be implemented.			
2	M/s IOCL shall comply with new	Complied		
	standards/norms for Oil Refinery Industry			
	notified under the Environment (Protection)			
	Rules, 1986 vide G.S.R. 186(E) dated 18th	*		
	March, 2008.			
က	Fugitive emissions of HC from product storage	Being Complied	Monitoring of fugitive	
	tank yards etc. must be regularly monitored		emission is carried out as per	
	Sensors for detecting HC leakage shall be		MoEF Gazette GSR 186(E). HC	
	provided at strategic locations. Leak Detection		leak detectors have also been	
	and Repair programme shall be implemented		provided at strategic	
	to control HC/VOC emissions.		locations in process units and	
			offsite area.	
4	SO <sub>2</sub> emissions after product mix from the plant	Complied	SO <sub>2</sub> emission is within the	
	shall not exceed 450 kg/hr and further efforts		limit of 450 Kg /hr. Natural	
	shall be made for reduction of SO <sub>2</sub> load		Gas and fuel gas (S <20 ppm)	
	through use of low sulphur fuel. Sulphur		are being used on continuous	
	recovery units shall be installed for control of		basis as fuel to the furnace.	
	H <sub>2</sub> S emissions		New SRU has been installed	
			in 2011	

n	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	Complied	Sulphur Balance is available,	
9	Total fresh water requirement from River Yamuna and Keetham Lake after expansion shall not exceed 815 m³/hr and prior permission shall be obtained from the Competent Authority. Additional water requirement shall be met from recycled water. Industrial effluent generation will be 44 m³/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).	Complied	Total fresh water requirement is within the limit of 815 m3/hr. Treated Effluent reuse is more than 83 %.	
_	All the effluents after treatment shall be routed to a properly lined guard pond for equalization and final control. In the guard pond, automatic monitoring system for flowrate, pH and TOC shall be provided.	Complied	Flow rate & pH is available at ELR discharge. 5 no. polishing pond and 19000 m3 capacity of new polishing pond is available 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

		Self declaration		
SN	Condition	Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Supporting Document as Annexure
		Agree to comply		
	A: Specific Conditions			
:	The company should strictly adhere to Complied	Complied	All stipulations as mentioned in-	
	the stipulations made by MoEF vide		Ministry's letters have been complied	
	OM No. J-11011/65/69-IA-II(I) dated 5 <sup>th</sup>		with.	
	December 1996.			
Ħ	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		nforms 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		i.i.	
	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			

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document
		complied / Agree to comply		Alliexula
	should not be restarted until the			120
	achieve the desired efficiency.			
∷	Sulphur recovery units with more than Complied.	Complied.	4 nos. Sulphur Recovery Units having	
	99% efficiency shall be provided to	8	efficiency more than 99% along with	
	prevent excess SO2 and H2S emissions.		TGTU are provided.	
Ņ	Adequate Ambient Air Quality	Quality Complied.	ual Ambient Air Qua	Ambient Air quality
	Monitoring Stations SO2, NOx, HC		~	one Annexure-B
	should be set up in the refinery area in		continuous Ambient Air Quality	
	consultation with SPCB, based on		Monitoring Stations are set up in the	
	occurrence of maximum ground level		refinery area in consultation with	
	concentration and down wind direction		UPPCB	
	of wind. The monitoring network must			
	be decided based on making exercise			
	to represent short term GLCs. In			46
	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.			
^	Fugitive emission of HC form product Complied.	Complied	Monitoring of fugitive emission is	i
	storage tank yard, crude oil tanks etc.		carried out on quarterly basis as per	
	must be regularly monitored. Sensors		MoEF Gazette GSR 186(E). HC leak	

		Self declaration		
SN	Condition	Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document as Annexure
		complied / Agree to comply		
	for detecting HC leakage should also be	ā	detectors have also been provided at	
	provided at strategic locations.		strategic locations in process units and offsite area.	
.×	As reflected in the EIA/ EMP, out of 753 Complied.	Complied.	The treated effluent meets MINAS	
	m3/hr of effluent generated, a		concentration-based standards as	
	minimum of 340 m3/hr should be		well as load-based standards under EP	
	recycled after treatment to conform		Rules.	
	with the load based standards and		Mathura Refinery is recycling Effluent	
	concentration limits prescribed under		more than 83% with discharge limit of	
	EPA limits. Remaining 413 m3/hr of		169m3/hr	
	effluent may be discharged into river			
	Yamuna/ Barari Minor Irrigation Canal.			
	However, IOCL should as far as possible		p:	
	maximize reuse / recycling of treated			
	wastewater for firewater, plant			
	operation and green belt development			
	so as to conserve the fresh water.			
vii.	Guard ponds of sufficient holding Complied	Complied	Surge Reservoirs of 18000 m3 along	1
	capacity should be provided to contain		) m3)	
	the effluent during process		Polishing Ponds (35000 m3) and	
	disturbances and or ETP failure. The		holding ponds 19000 m3 is available	
	concerned units must be shut down in		used for storage of treated effluent	
	case of effluent quality exceeding the		with quality deviation.	
	prescribed limits.		- 1	
XIII.	The company should adopt mounded Complied	Complied	No new LPG storage has been	

S	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
.×	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 lay out are frozen. Based on this, on-site and offsite emergency preparedness plans must be prepared. Approval from the nodal agency must be obtained before commissioning the project.  Green belt of adequate width and Complied density should 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	envisaged under this project. For new Projects only mounded storage is considered.  Recommendations of rapid Risk Assessment incorporated, Emergency plan updated.  Near Taj and Runakta Reserve Forest in Agra region total 1,15,000 trees have been planted by Mathura Refinery.  Selection of plants is based on CPCB guidelines	
×	The company should incorporate Complied water-harvesting measures in civil constructions as part of the project and action plan should be submitted.	Complied	Rain water harvesting is a regular activity in company. Total 18 Rain Water Harvesting pits are in available in Refinery and Township.	

		منافدية والموام كالمرك		
S	Condition	Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document
		complied / Agree to comply		
	B: General Conditions			
	The project authorities must strictly	strictly Complied	Stipulations made by UPPCB and	
	adhere to the stipulations made by the		State Government are being complied	
	UP State Pollution Control Board and		with.	
	the State Government.			
Ξ	No further expansion or modifications Agree to Comply	Agree to Comply		
	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.	
≡	In case of deviations or alterations in Agree to Comply	Agree to Comply	E)	
	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.			
.≥	Data on ambient air quality, stack Being Complied	Being 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.			
>	Influent and effluent quality monitoring Complied	Complied	Quality monitoring of influent is being Annexure-C done on continuous basis in ETP.	Annexure-C
	פווסמומ מכר מלה			

Supporting Document as Annexure	Sr	en re Annexure-D an	der ing ned per
Remarks within 200 characters	Treated Effluent quality is also regularly monitored on continuous basis as per MINAS	To control the noise levels adequate control measures have been provided. Moreover, Employees are Annexure-Dusing Personal Protective Equipment if continuous exposure is more than TLVs.	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.
Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply		Complied	Complied
Condition	consultation with the SPCB. Regular monitoring should be carried out for the MINAS parameters.	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	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
SN		i>	ii.

		Self declaration		
SN	Condition	Complied / Being complied / Not Complied / Partially	Remarks within 200 characters	Supporting Document as Annexure
		Agree to comply		
	Inspectorate etc. must be obtained.	×		
viii.	Adequate provisions for infrastructure Complied	Complied	Adequate facilities such as water	
	facilities such as water supply, fuel,		supply, power supply, sanitation etc	
	sanitation etc. should be ensured for		provided for construction workers	
	construction workers during the		during the construction phase.	
	construction phase so as to avoid			
	felling of trees and pollution of water			
	and the surroundings.			
. <u>×</u>	The project proponent shall also	also Complied.	Environmental measures and	
	comply with all the environmental		safeguards recommended in the EIA	
	protection measures and safeguards		and Risk Analysis Report are complied	
	recommending in the EIA and Risk			
	Analysis report.			4
×	Occupational Health Surveillance Complied.	Complied.	Occupational Health Surveillance Annexure-E	Annexure-E
	programme should be undertaken as		programme is undertaken as regular	
	regular exercise for all the employees,		exercise for all the employees,	
	specifically for those engaged in		specifically for those engaged in	
	handling hazardous substances.	a a	handling hazardous substances.	
.i.	A separate environmental Complied.	Complied.	Full-fledged Environment Protection Annexure-F	Annexure-F
	management cell equipped with full		(EP) cell with NABL accredited Lab	
	fledged laboratory facilities must be set		exists.	
	up to carry out the environmental			
	management and monitoring functions.			
xii.	The project authorities will provide Complied.	Complied.	Environment Expenditure for the	
	adequate funds for both recurring and		הפווסת סו סכו לד נס ואומו לב וא מנימכוובת	

S				
	Condition	Complied / Being complied / Not Complied / Partially complied /	Remarks within 200 characters	Supporting Document as Annexure
		Agree to comply		
	non-recurring to implement the		as Annexure-G	Annexure-G
	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.			
XIII.	The stipulated conditions will be	will be Being Complied	Six monthly reports are regularly	
	monitored by the Regional Office of		furnished to MoEF &CC Lucknow	
	this Ministry at Chandigarh / Central		office as well as in UPPCB regional	
	Pollution Control Board/ State Pollution		office Mathura.	
	Control Board. A six monthly			
	compliance report, and the monitored			
	data along with statistical			\
	interpretation should be submitted to			
	them regularly.			
xiv.	The Project Proponent should inform Complied.	Complied.	The advertisements were published in	ā
	the public that the project has been		the following newspapers for this EC:	
	accorded environmental clearance by		a , Dainik Jagaran	0
	the Ministry and copies of the		Hindustan on 4. 5. 2001	
	clearance letter are available with the	*	Hindi	
	State Pollution Control Board/			
	Committee and may also be seen at			
	Website of the Ministry of Environment			

NS	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			
	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.			
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

	Section 2010 Control of the Control			
	200	Self declaration		
		Complied / Being		Supporting
CNI	Condition	complied /	Remarks within 200 characters	Document
2		Not Complied / Partially complied /		as Annexure
		Agree to comply		
H	The project authority must strictly adhere to the Complied	Complied		
	stipulations laid down by the Uttar Pradesh State			
	Pollution Control Board and the State Govt.			
2.	No expansion or modernization of the plant	the plant 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 &	9
			Forests.	
3.	The total SO2 emission from Mathura Refinery Complied	Complied	SO <sub>2</sub> 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			
1	the hydrocracker unit under the Matching			
	Secondary Processing Facilities.			-36
4.	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		*)	
	treated effluent meets the MINAS.			
5.	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	72	leachate collection facility provided for	
9	the Ministry within a period of 3 months.		disposal of sludge.	
6.	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.	

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)

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

SN	Condition	Self declaration Complied/Being complied / Not Complied / partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
	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	24;	SO <sub>2</sub> emission is 450 kg/h. SO <sub>2</sub>	
	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.	The second secon		
	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.		ł.	
	The standby SRUs should always be			
	functional.	2 2		
	The efficiency of SRU should be	Complied.	SRUs as mentioned above are	
	further increased to reduce SO <sub>2</sub>		of > 99% efficiency with TGTU.	
	emission from the present level of			

1	12000 ppm.		1	
4	The present policy of using 50%	Complied		
	indigenous low sulphur crude			
	should be continued, and LSHS	4		
	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	/4
	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.	- X	done once in month	
9.	Continuous flow measuring systems	15	Online analyzers provided in	
	should be installed in all the stacks		stacks for measurement of	
95	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	
8	provision made in Hazardous Waste	11	bioremediation of Residual oily	
	Management Rules of EPA (1986).		sludge, in this process sludge is	
.+			converted into soil.	
9.	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			
	different meteorological conditions			10
	and different seasons to see at			

Ily SO <sub>2</sub> ) emitted by Mathura are reaching Agra. The tudy should be completed ubmitted to the Ministry of ment & Forests for review.  To assess the impact of Complied. The earliest.  To assess the impact of complied. The earliest. The earliest. The earliest. The matural gas in power plant and the furnaces to reduce emission. In addition, the of the furnaces to reduce emission. In addition, the period with the governmental gas should also be pursued with the governmental gas pipeline to a governmental gas pipeline to a speedy seritation.  Refinery. This matter be pursued with the downling a spur-line and additional facilities to should be installed in the dadditional facilities to a status of NOx levels within			Natural Gas facility commissioned in Dec'96.	Low NOx burners provided in all the new furnaces.
what co (especial Refinery above s within a report st re	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.	4 E 1 0 8 9	project authority should liately explore the possibility in antural gas in power plant and the furnaces to reduce by emission. In addition, the on for natural gas should also ade by running a spur-line he HBJ natural gas pipeline to ra Refinery. This matter be pursued with the ned governmental ities for speedy nentation.	emitting lled in the icilities to vels within

The second secon	and the second s		
	the applicable standards.		
13.	The quality of effluent in the	Complied.	Experts from the Bombay
	polishing pond should be		Natural History Society have
	maintained in such a manner so		recorded 96 species of birds
	that they continue to attract		during the survey conducted
	migratory birds. Use of polishing		by them.
	lagoon for aquaculture should be	2	
	also explored.		
14.	Efforts should be made to increase	Complied.	Tree plantation is regular
	the density of the existing		activity in Mathura Refinery.
	plantation especially around the		Adequate numbers of trees
	ecological park, holding ponds,		has been planted in the
	polishing pond, truck loading		mentioned location.
	facility, oil sludge lagoons,		
	equalisation ponds, TPS, 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

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

SN	Condition	Self declaration Complied / Being complied / Not Complied / Partially complied / Agree to comply	Remarks within 200 characters	Supporting Document as Annexure
2.0	The project authority should not exceed the throughput capacity (7.5 MMTPA) of the plant either in the form of crude or in the form of any product from outside for processing. Processing of special cut Naphtha of 2,77,000 TPA is not to be undertaken since it will result in increasing the processing capacity of the refinery.	Complied	Clearance for 8.0 MMTPA obtained from the MOE&F vide Letter No. J-11011/15/94-IA-II dated 19 Jan, 1995.	
5.	The project authority must strictly adhere to the stipulations made by the Uttar Pradesh State Pollution Control Board.	Complied	Stipulations made by the UPPCB are complied with.	
ĸi	The LPG requirement of the surrounding districts shall not be affected due to the proposed product diversification activities.	Complied.	LPG supply is not affected.	
4	At no time the SO <sub>2</sub> emission from various unit shall be beyond 1000 kg/hr. In the event of failure of any pollution control system adopted by the unit, the respective units should be put out of	Complied.	Present stipulation limit is of 450 Kg/h. SO <sub>2</sub> emission is within the present stipulated limit of 450 kg/hr.	Annexure-A

restrate until the control systems are rectified to achieve the desired efficiency. This sulphur recovery unit should always be functional.  5. The project authority will utilize the compiled.  Treated effluent is recycled treated effluent to the extent of 55% ceither as process water or for agricultural and the extent of 55% ceither as process water or for agricultural and the extent of 56% ceither as process water or for agricultural and the extent of 56% ceither as process water or for agricultural and the extent of 56% ceither as process water or for agricultural and the extent of fluent to the extent of 56% ceither as process water or for agricultural and the extent of fluent as well as at four outside the plant as well as the forests, Govt. of India everyyear.  The project must maintain all the existing complied.  The project must maintain all the existing complied.  The project must maintain all as sewage treatment plant should be undertaken a well as sewage treatment plant should be undertaken as well as sewage treatment plant should be undertaken as well as sewage treatment plant should be undertaken as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatment plant should be undertakent as well as sewage treatme		The second secon			
should always be functional.  The project authority will utilize the complied.  The project authority will utilize the conformed effluent to the extent of 65% either as process water or for agricultural definents as process water or for agricultural definents.  Afforestation purposes.  The entire quantity of liquid effluents generation, fire water and horticulture.  The entire quantity of liquid effluents will have to be treated and should strictly conform to the specified standards.  The existing air quality monitoring Being complied stations at three different locations in the plant as well as at four outside the plant should be maintained properly. The recorded data should be furnished to the State Board and to the Ministry of Environment & Forests, Govt. of India every year.  The project must maintain all the existing complied.  The project must maintain all the existing 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 treatment plant should be undertaken at regular intervals for all relevant		operation immediately and should not be restarted until the control systems are rectified to achieve the desired efficiency. This sulphur recovery unit			
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unit of the effluent as well as sewage treatment plant should be undertaken at regular intervals for all relevant		months. Performance evaluation of each			
treatment plant should be undertaken at regular intervals for all relevant		unit of the effluent as well as sewage			
intervals for all		treatment plant should be undertaken at			
		intervals for all			

	parameters covered during study.		
∞i	No change in design of stacks should be	Complied.	
	State Pollution Control Board. Alternate		
	pollution control systems should be		22
	provided and stacks should be designed		
	properly to take care of excess		
	hydrocarbon emission due to failure in		i.
	any system in the plant.		
.6	Sludge recirculation to aeration basin	Being complied.	
	from final clarifier should be done		
	regularly for maintaining desired MLSS		
	concentration.		
10.	Generation of oily sludge in crude oil	Being complied.	Mechanized cleaning is
	tank should be kept to the minimum by		being done for all crude oil
	hot gas oil flushing system or any other		tanks, which come under
	approved method.		cleaning.
11.	The disposal of all types of sludges to the	Complied.	Bio-remediation pits with
	landfill site should be made after PVC	9	==
	lining or after putting impervious layer.		Residual Oily Sludge
	Proper arrangement should be made for		disposal. Groundwater
	overflow during rainy season. Regular		monitoring being done on
	ground water monitoring is required to		periodic basis.
	be undertaken at different levels to		
	monitor any contamination through		
	seepage/ leakage. A pump should be		
	installed to pump out leachate from time		
	to time and discharge into the combined		
	waste water stream.	20	
12.	Proper control of hydrocarbon emissions	Being complied	By following proper start-
	Stionia de elisalea autilig stait ap perioa		Composid.

0	of any unit		ancilizing smooth start-lin of	
	any anne.		בווים מווים מווים מווים מלווים	
			process units and avoiding	
			hydrocarbon emissions to	
			the atmosphere.	
13. St	Standby sulphur recovery unit should	Being complied	3 nos. of sulphur recovery	
a	always be kept in operation ready phase		units are in running with	
SC	so that excess $SO_2/H_2S$ emission can be		one SRU as hot standby.	
ā	avoided.			
14. C	Captive power station and other utilities	complied	Low S Fuel Oil used. Fuel	
ls S	should preferably use LSHS instead of		Gas and predominantly	
<u></u>	fuel oil so as to avoid any excess $SO_2$		Natural Gas is used as fuel	
	release from the boiler house. The		& as feed in Hydrogen	
Ö	additional capacity for heaters and utility		Generation Units.	
f f	furnaces should use only LSHS.			
15. TI	The project authority must explore the	complied	Existing furnaces utilize very	
Ω	possibility of converting the existing		less low S liquid fuel. Also,	
٠ ـ	heaters into gas based system.		since 1996, Max. Natural	
			Gas is being used in	
			heaters/furnaces.	
16. T	The project authority must control	complied	For fugitive emission	
- Fu	fugitive emission of HC from existing and		control, secondary seal are	
	new storage tanks. Monitoring in this		provided in floating roof in	
В	area should be carried out regularly.		crude oil and light product	
			service. Monitoring of	
			fugitive emission being	
			done for 10000 points per	
			quarter.	
17. R	Regular calibration of automatic	Complied.	Monthly calibration is being .	
	recording system through permeation		done. Records maintained	
<u> </u>	tube/ standard gas cylinder system	g		

ic development plan should be complied.  A full-fledged control laboratory should be set up supervision of senior technical and analysis of samples supervision of senior technical the plant with suitable plant proper infrastruction workers should be construction workers should be to this Ministry within six om the clearance date.  An full-fledged control laboratory is really planted till date.  A full-fledged control laboratory is really free plantation.  A full-fledged control laboratory is really free plant with suitable plant with suitable plant with suitable plant with suitable plant with proper infrastructural uning the construction period.  An full-fledged control laboratory is really free plant with suitable plant with suitable plant with suitable plant with proper infrastructural uning the construction period.  An full-fledged control laboratory is really free plant with suitable plant		1 ( ) 2 ( )		
Green belt development plan should be compiled, Mathura Retinery developing green belt consultant.  Consultant.  A full-fledged laboratory should be set up for collecting and analysis of samples under the supervision of senior technical personnel.  The density of the existing plantation of the plant with suitable plant species.  All the construction workers should be provided with proper infrastructural facilities during the construction period.  The No Objection Certificate and the Disaster Management Plan should be doubled adopted with standard laid down for occupational health of the workers should be adopted and followed. It indian standards in this regard for any specific cases are not saviable the relevant standards of samples.  Rounds developing green belt tree plantation as patients are planted till date.  A full-fledged laboratory skigs tree plantation as planted till date.  A full-fledged polluti for compiled.  A full-fledged polluti and the SE developing green belt with suitable plant specific cases are not service for the seven of the plant with suitable plant familiars and the compiled.  The health monitoring the adopted and followed. If indian standards in this relevant standards of the seven of the relivents are periodic.  The standard laid down for occupational familian standards in this relevant standards of the seven of the relivent same deformed.  Reports are periodic are plantation as under followed. If indian standards of the periodic and plantation are periodic and plantation and standards of the seven of the relivent standards and the seven are periodic and plantation and the plantation of the planta		Should be dolle at regulal littervals.		
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A full-fledged laboratory should be set up for collecting and analysis of samples under the supervision of senior technical personnel.  The density of the existing plantation species.  All the construction workers should be furnished to this Ministry within six months from the clearance date.  The standard laid down for occupational health of the workers should be and followed. If lolding standards in this regard for any specific cases are not available the relevant standards of the workers are not available the relevant standards of serving the corpusional the periodicial plants and fundament. The standard serving the construction benefor the serving the construction period.  The standard laid down for occupational health of the workers should be adopted and followed. If ludian standards in this relevant standards are periodicial periodicial plants.  The standard for any specific cases are not available the relevant standards are periodicial periodicial populution and plants are populutional to application of the periodic available plant standards in this serving the corpusitional the periodic available plant standards in this serving the periodicial periodicial periodicial periodicial periodic available plant standards in this serving the corpusitional periodicial per		consultant.		tree plantation as per details given below.
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All the construction workers should be provided with proper infrastructural facilities during the construction period.  The No Objection Certificate and the Disaster Management Plan should be furnished to this Ministry within six months from the clearance date.  The standard laid down for occupational health of the workers should be adopted and followed. If Indian standards in this regard for any specific cases are not available, the relevant standards of several experience of the relinery.  Reports are periodical paraginal for any specific cases are not available, the relevant standards of several experience of the relinery.  Reports are periodical paraginal for any specific cases are not available the relevant standards of several experience of the relinery.  Reports are periodical paraginal for any specific cases are not available the relevant standards of available the relevant		direction of the plant with suitable plant		Runakta Reserve Forest in
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furnished to this Ministry within six months from the clearance date.  The standard laid down for occupational health of the workers should be adopted and followed. If Indian standards in this regard for any specific cases are not available, the relevant standards of specific and provided and formula		Disaster Management Plan should be		
The standard laid down for occupational health of the workers should be adopted and followed. If Indian standards in this regard for any specific cases are not available, the relevant standards of		furnished to this Ministry within six	84	
The standard laid down for occupational Complied.  The health monitoring workers should be adopted and followed. If Indian standards in this regard for any specific cases are not available, the relevant standards of seports are periodici		months from the clearance date.		
	23.	The standard laid down for occupational	Complied.	The health monitoring of
the Occupational Centre of the refinery Reports are peric		health of the workers should be adopted		workers are carried out by
Centre of the ref		and followed. If Indian standards in this		
the relevant standards of		regard for any specific cases are not		Centre of the refinery.
מוכ ורוכאמוור אמוור א מוור אמוור אמו		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 using Personal Protective Equipment if continuous exposure is more than TLVs.	Annexure-D
25.	Regular safety audit should be done for fire hazards or any other major accident in the plant.	Complied.	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		

# Total SO<sub>2</sub> emissions from the refinery

		SO	Emission (	Apr'22-Sep	<b>'22</b> )		
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

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

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

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

## A. Inside Refinery

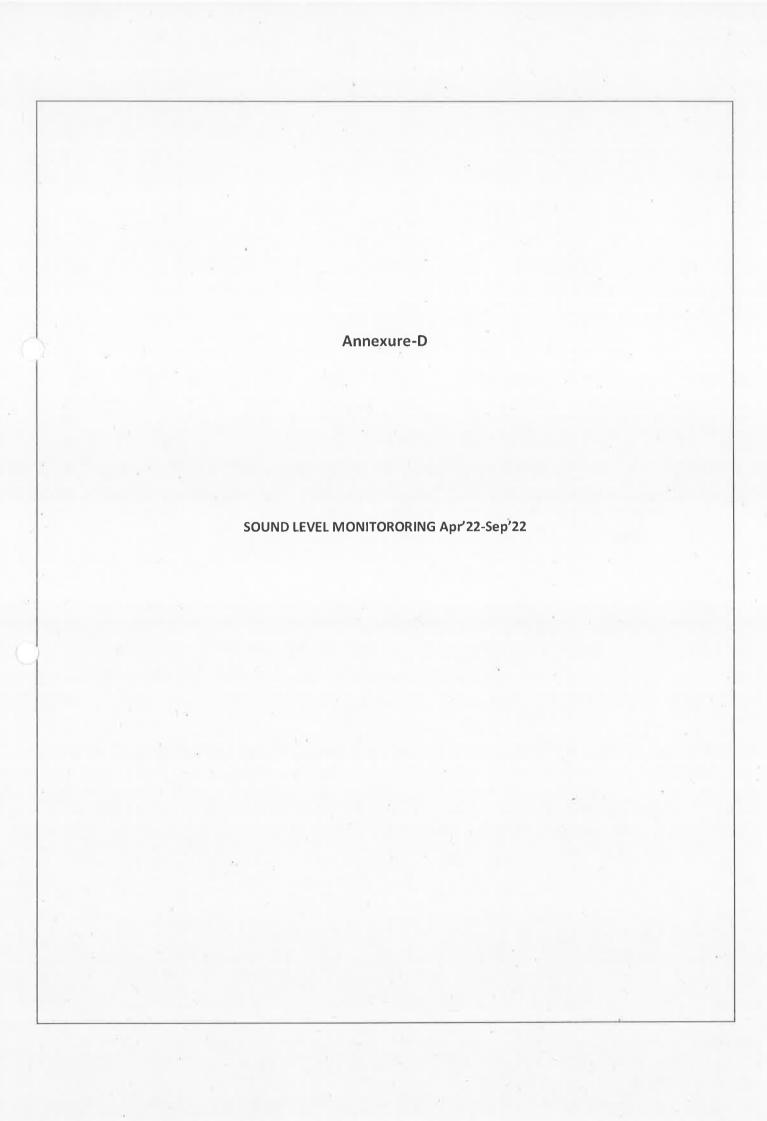
	Unit	Limit	Apr'22	May'22	Jun'22	July'22	Aug'22	Sep'22
PM <sub>10</sub>	μg/m³	100	153	124	119	78	70	84
PM <sub>2.5</sub>	μg/m³	60	66	56	56	40	31	37
SO <sub>2</sub>	μg/m³	80	9	11	12	11	11	12
NO <sub>2</sub>	μg/m³	80	20	24	26	24	26	23
NH <sub>3</sub>	μg/m³	400	23	24	27	22	24	23
СО	μg/m³	2000**	990	1000	1010	930	943	970
O <sub>3</sub>	μg/m³	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/m³	20*	ND	ND	ND	ND	ND	ND

- \* annual average
- \*\* 8 hour average
- Rest are 24 hours average

# Annexure C

# Treated Effluent Discharge Quality as per MINAS Standards

Parameter	LIMIT (mg/l)	12	Apr'2	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
рН	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	0.252
Sulphides	0.5	0.17	0.50	0.39	0.23	0.49	0.36	0.28	0.50	0.42



# A Area Sound Level monitoring

# **APRIL -2022** TLV (TWA) = 90 dBA

5.4.22	Prod / New PRU	18NPM 201 A/B	91.2
		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
		22PM 1A/B	Shut Down
		25 V4	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)	
	X X	19 P M 103 A/B	88.5
		Co Boiler	88.1
		19 PM 106 A/B	91.1
		19 PM 2 A/B	90.7
		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
		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
	*	12 PM 1 A /B	88.8
		11 PM 7 S	96.1
		FURNACE	87.6
		CONTROL ROOM	68.5

AArea Sound Level n	nonitoring	<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
9.5.22	Prod / DHDT	301 P 01 A/B PUMP	Shut down
		301 P 04 A/BPUMP	
11.0		301 P 3 A PUMP	
		301 P 06 A PUMP	
		301 K 01 B COMP. (NEAR WHEEL)	
		CONTROL ROOM	
9.5.22	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
		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
6.5.22	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
6.5.22	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
	H P	302 K 11 A/B	88.4
		NEAR 340 KM 001	95.1
		CONTROL ROOM	68.1
6.5.22	P& U /Water	COMPRESSOR HOUSE	97.8
	Block	COMPRESSOR HOUSE – INSIDE CABIN	74.8
12.5.22	Prod/ Prime G	306 P 1 B	88.4
±4.9 46 46	1 Tody Trillie G	307 P 2 B	89.1
		Comp House	88.9

AArea Sound Level monitoring		
	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
		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
		315 PM 2 A/B	S/Down
		308 PM 1 A/B	88.1
254		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
90		GT HALL I	90.7
		GT HALL II	91.3
		GT HALL III	91.5
		SEAL FAN AREA(I)	95.1
		STEAM GENERATOR HALL	89.0
		CONTROL ROOM	67.5
8.6.22	PROD/ETP	ISPH	88.4
		SOPH	87.6
		TPH	88.1
		RPH	88.1

# **AArea Sound Level monitoring**

**JULY -2022** TLV (TWA) = 90 dBA

4.7.22	Prod / New PRU	18NPM 201 A/B	90.8
7.1.22	1 TOU / NEW FILO	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
t./.22	FIOU / WEROX	22PM 1A/B	Shut Down
		25 V4	87.9
		21 V9	88.6
		CONTROL ROOM	68.5
1.7.22	Prod /FCC	NEW TURBINE	98.1
1.7.22	Prod /FCC		72.1
		TURBINE HALL (OP'S ROOM)	
		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
		20 PM 8 A/B	88.6
		CONTROL ROOM	68.5
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	88.1
		PLATFORM	
N - 1		15 K1M1	88.1
		40 KM 1A/B	90.8
		NITROGEN PLANT	89.4
		CONTROL ROOM	67.9
5.7.22	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
Ya .		CONTROL ROOM	67.5
5.7.22	Prod / AVU	PH TESTING AREA	88.0
		Exchanger Area (pre)	88.5
	30	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
	*	11 PM 7 S	95.8

FURNACE	88.4
CONTROL ROOM	67.9

AArea Sound Level mor		<b>AUGUST -2022</b> TLV (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
	-	301 K 01 B COMP. (NEAR WHEEL)	88.1
		CONTROL ROOM	69.2
5.8.22	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
14		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
	*	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
3.8.22	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
3.8.22	P& U /Water	COMPRESSOR HOUSE	97.0
	Block	COMPRESSOR HOUSE – INSIDE CABIN	73.2
11.8.22	Prod/ Prime G	306 P 1 B	87.9
		307 P 2 B	89.6
		Comp House	88.0

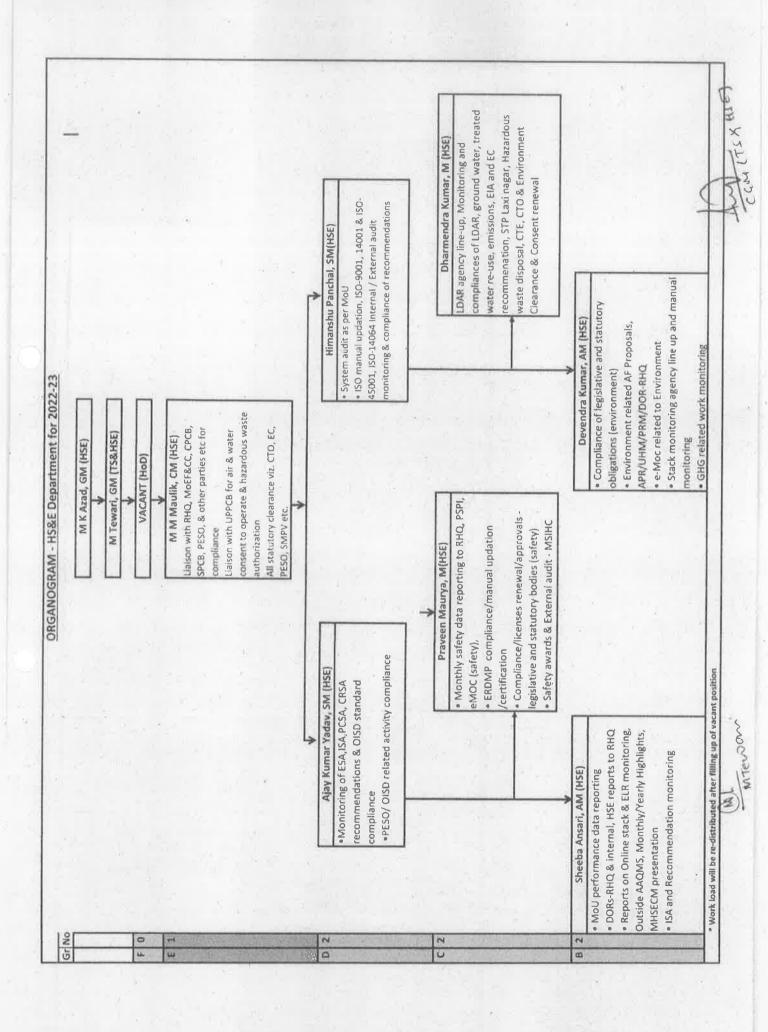
8.9.22	PROD/SRU	05 K 1A	91.2
		5 C E 14	91.0
		PIT AREA	88.7
		05 K 1B	87.9
		5 K1 C	87.6
		CONTROL ROOM	66.2
8.9.22	PROD/MSQ	308 K 1 A COMPRESSOR	87.4
		308 K 1 B COMPRESSOR	87.9
		309 PM 7 A/B PUMP	86.1
		309 PM 5 A/B	87.5
		315 PM 2 A/B	S/Down
		308 PM 1 A/B	87.4
		309 PM 1 A/B	88.2
		310 PM 2 A/B	S/Down
		CONTROL ROOM	66.2
9.9.22	PROD/TPS	D M PLANT	85.4
		D M PLANT - CONTROL ROOM	75.6
		TURBINE HALL – DOWN (Old PRDS)	98.1
1		BFP CABIN	85.7
		GT HALL I	91.2
		GT HALL II	90.8
		GT HALL III	90.1
		SEAL FAN AREA(I)	96.1
		STEAM GENERATOR HALL	88.9
		CONTROL ROOM	68.5
8.9.22	PROD/ETP	ISPH	88.6
		SOPH	87.1
¥ 2			88.6
		TPH	88.4
Any other informa	tion. ECG - 395	RPH	0011
The outer months	PFT - 313 TITMUS - 4 AUDIOMET	425	

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

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

		pi zz och zz/			
S. N	Item	Item			
	, A N	<del></del>		В.	HEALTH
1.	Occupational Health Checks	Category	Target	Reported	Done
		Periodical Medical check-up	505	224	224
		Well Person Medical Check up	149	60	60
	4	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	tions in Se	ptember



# Annexure G

# COST OF ENVIRONMENT MANAGEMENT (2022-23 H1)

S.N.	Particulars	Rs in Lakhs REVENUE EXPENDITURE AS ON DATE 30.09.2022 for H-1 2022-23
Α	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



# इंडियन ऑयल कॉरपोरेशन लिमिटेड मथुरा रिफाइनरी INDIAN OIL CORPORATION LIMITED





# 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, संविदाकारों, ग्राहकों के साथ—साथ सामुदायिक जीवन स्तर में समृद्धि सुनिश्चित करते हुए खच्छ 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 लामप्रद कारोबार प्रबंधन का आंतरिक हिस्सा है।

# हम:

- जन समुदाय, प्रक्रियाओं और परिसंपत्तियों की सुरक्षा के लिए सभी नियमों का पालन करेंगें और उन्हें 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 जिए गुणवत्ता, सुरक्षा, व्यावसायिक स्वास्थ्य 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 मागीदारी के लिए प्रतिबद्ध रहेंगे।
- श्रमिकों और श्रमिकों के प्रतिनिधियों के परामर्श और भागीदारी के लिए प्रतिबद्ध रहेंगे।

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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 climinate 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.

Date: 1 August 2022

Debajit Gogoi Executive Director & Refinery Head

विनांक: 1 अगस्त 2022