

1. EXECUTIVE SUMMARY

M/s Indian Oil Corporation Limited (IOCL) is a Government of India, premier Public Sector Organisation / Company and is engaged in the business of refining, transporting and marketing of petroleum products including Motor Spirit, HSD and SKO in the country.

IOCL, Kochi Terminal facility was established in 1998 at Irumpanam with the existing tankage capacity of 76226 KL, and 2 nos of 600 mm dock lines for HSD/SKO and Naphtha/MS commissioned on in 2005 and 2006 respectively. Receipt of products is from BPCL - Kochi Refinery /Tankers through pipelines. Dispatch of products by Tank Trucks to Retail Outlets/Consumers.

To cope up with the increasing demand of various petroleum products for commercial use and transportation, IOCL proposes an augmentation of the terminal storage facilities comprising construction of new tanks and re-allocation of existing tanks of petroleum product storage within the existing facility at Irumpanam, Thiruvankulam Village, Thripunithura Municipality, Ernakulam District, Kochi Terminal. The proposed project is being carried out by M/s Indian Oil Corporation Limited (IOCL), situated at 13 km from Ernakulam, 45 km from Kottayam and 62 km from Thrissur. This is an existing petroleum products importation, storage and distribution/marketing facility.

An Environmental Clearance (J-16011/50/2001-IA-III) under EIA notification, 2006 exists for products transfer through Dock line from Tanker Berth at Cochin Port to Irumpanam Marketing Terminal of IOCL, issued by the then Ministry of Environment and Forests (MoEF) in 2003. Facility has also been awarded an Integrated Consent to Operate (CTO) by KSPCB (R16ERRCTOA1019586) in 2016. There is also a revised Consent Order for Petroleum Sludge Disposal from KSPCB (R16ERRCTOA10195860, issued in 2016. IOCL has also been granted with a PESO License (P/HQ/KL/15/305 (14508)) valid till 31.12.2020. Permission is also granted by PESO to operate the terminal during night hours on 18/02/2013. Integrated CTO for the facility is valid till 30.06.2018.

As per EIA Notification, 2006 and subsequent amendments the proposed project falls under schedule 6(b) Isolated Storage & Handling of Hazardous Chemicals, Category B and is coming under General Condition since the site is in Greater Cochin, a critically polluted area declared by CPCB, CEPI of Greater Cochin at CPCB website is 57.94 (2013). We have submitted our application in MoEF & CC vide file no. IA-J-11011/42/2018-IA-II (I) & dated 27/01/2018 under Category A, 6(b). MoEF & CC EDS dated 28/02/2018 directed us to appraise in SEAC/SEIAA. As on date, The Kerala SEAC/SEIAA is unavailable since the term has completed on 19.03.2018 as per MoEF Notification S.O 804 (E) dated 19.03.2015. Hence the project is being hereby submitted to MoEF & CC for appraisal under Category B.

The project is located at Latitude 9° 58.876'N, Longitude 76° 021.233'E at Block No: 10, S. Nos. 30/11 12; 31/3, 4, 6, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 22, 25, 26, 27, 31, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 71, 72; 39/3; 48/3, 4, 5, 6, 7; 49/1, 2, 4; 50/1, 2, 3, 4, 5, 6, 7, 8, 9; 51/1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33; 52/1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14; 69/2, 3, Indian Oil Corporation Limited, Irumpanam, Thiruvankulam Village, Thrippunithura Municipality, Ernakulam District, Kochi – 682 309, Kerala.

Total Land area required is 78.65 Acres (318285.3 Sq. M.) of which 8.99 acres is developed as greenbelt, i.e, 11.43 %. Existing Tankages Area is 23.70 Acres (95910.5 Sq. M.), Proposed Tankages Area is 13.70 Acres (55510 Sq. M) and Total Tankages Area after Expansion will be 37.40 Acres (151420.5 Sq. M.). Details are as given in **Table 1-1**.

Water is purchased from approved road tankers. Total water Requirement is 351 KLD of which 109 KLD is used for maintaining greenbelt. Wastewater generated is 31 KLD. Wastewater will be disposed into septic tank/soak pit. STP will be installed at site during expansion.

Power requirement for the existing facility is 300 KVA which is sourced from KSEB. No additional power requirement is envisaged for proposed expansion. Power back up will be provided by 2 DG sets each of 700 KVA. The existing DG sets of 380 KVA and 500 KVA respectively will be used for standby. These are provided with stacks of 30m height AGL.

Solid waste generated during construction will be 25 Kg/day and during operation Solid waste generated will be 387.5 Kg/day. Organic waste will be disposed to biomethanation plant, and

inorganic waste disposed to PCB authorized recyclers. Manpower after expansion will be 125 + 650 truck crew. Total project cost is Rs. 31,289.59 Lakhs.

Table 1-1 Tankage details

A) Proposed Allocation:

Existing Tanks			Reallocated to
Tank No.	Name of Product	Capacity (KL)	Product
T1	HSD	6300	ATF
T2	HSD	6300	ATF
T3	HSD	6300	ATF
T6	HSD	2900	ATF
T9	Motor Spirit	3000	Ethanol
T10	Motor Spirit	3000	Ethanol
T11	LAN	7389	Motor Spirit
Total		35189	

B) Proposed New Tankages:

Tank No.	Name of Product	Class*	Licensed Capacity (KL)
T18	Motor Spirit	A	11415
T19	Motor Spirit	A	11415
T20	Motor Spirit	A	11415
T21	Motor Spirit	A	11415
T22	HSD	B	15000
T23	HSD	B	15000

T24	HSD	B	15000
T25	HSD	B	15000
T26	Biodiesel	B	2040
T27	Biodiesel	B	2040
T28	PCK	B	2900
		Total	112640

C) Details of Products, Tanks & Quantity:

S.No	Tank No.	Name of Products	Class*	Existing	Reallocation		Proposed	After Expansion
				Licensed Capacity (KL)	Proposed Re-allocation to	Capacity (KL)	Proposed Capacity (KL)	Capacity (KL)
1	T1	HSD	B	6300	ATF	6300	-	6300
2	T2	HSD	B	6300	ATF	6300	-	6300
3	T3	HSD	B	6300	ATF	6300	-	6300
4	T4	HSD	B	6300	No change	-	-	6300
5	T5	HSD	B	6300	No change	-	-	6300
6	T6	HSD	B	2900	ATF	2900	-	2900
7	T7	SKO	B	2900	No change	-	-	2900
8	T8	SKO	B	2900	No change	-	-	2900
9	T9	Motor Spirit	A	3000	Ethanol	3000	-	3000

10	T10	Motor Spirit	A	3000	Ethanol	3000	-	3000
11	T11	Naphtha (LAN)	A	7389	-		-	7389
12	T12	Motor Spirit	A	7389	-		-	7389
13	T13	Motor Spirit	A	7389	-		-	7389
14	T14	Motor Spirit	A	7389	-		-	7389
15	T15	Ethanol	A	70	-		-	70
16	T16	Ethanol	A	200	-		-	200
17	T17	Ethanol	A	200	-		-	200
18	T18	Motor Spirit	A	-	-		11415	11415
19	T19	Motor Spirit	A	-	-		11415	11415
20	T20	Motor Spirit	A	-	-		11415	11415
21	T21	Motor Spirit	A	-	-		11415	11415
22	T22	HSD	B	-	-		15000	15000
23	T23	HSD	B	-	-		15000	15000
24	T24	HSD	B	-	-		15000	15000
25	T25	HSD	B	-	-		15000	15000
26	T26	Biodiesel	B	-	-		2040	2040
27	T27	Biodiesel	B	-	-		2040	2040
28	T28	PCK	B	-	-		2900	2900
Total				76226		35189	112640	188866

D) Summary of the Products, Tanks & Quantity:

S.No		Existing	Reallocation	Proposed	After Expansion
1	No of Products	5	1 no newly proposed 2 nos retained from existing	3	8
2	No of Tanks	17	7 nos Tanks are reallocation	11	28
3	Product Capacity (KL)	76226	35189	112640	((76226 - 35189) + 35189 + 112640) 188866

Note:

*Petroleum Product Classification References:

1. Petroleum and Explosives Safety Organisation (PESO), Govt. of India
(http://www.peso.gov.in/Work_Manual/wmchap10wo.pdf)

2. The Petroleum and Natural Gas Regulatory Board Regulations (2006), Petroleum Rules (1976), Govt. of India
Proposed Project Tankage Area 13.70 Acres (within total area of 78.65 Acres)