



SALAV PORT PVT. LTD.

Regd. Office: 5A, Jindal Mansion
Dr G Deshmukh Marg, Mumbai – 400 026.
Phone : 022-2351 3000
Fax : 022-2352 6400
CIN : U74999MH2015PTC262561

Ltr. No. MH/SPPL/EIA/2017/02

Date: 31st March, 2017

To,

The Director (IA-III)

Infrastructure and Miscellaneous Projects & CRZ

Ministry of Environment, Forests & Climate Change (MoEF & CC)

Indira Paryavaran Bhavan, Jor Bagh Road

New Delhi- 110 003

SUB: Terms of Reference (ToR) for the proposed Expansion of Captive Jetty Facility in Revdanda Creek at Salav, Dist. Raigad, Maharashtra- Reg.

Ref.: i. Our earlier application for ToR; Ltr. No. MH/SPPL/EIA/2016/01 dated 11.08.2017.
ii. Minutes of the 9th EAC (Infra-2) meeting dated 22.09.2016.

JSW Salav Port Pvt. Ltd. (JSW SPPL) is currently operates the captive jetty facility in Revdanda creek at village Salav. The existing jetty with a length of 235 m with mooring dolphin at 21 m, currently handles about 3.0 MTPA of captive cargo for the hinterland industries. It is proposed to expand the port facility with the construction of additional jetty length of 500 m. The proposed expansion is envisaged to cater to the raw material demand and export of finished products of the proposed expansion of steel plant, and coke oven plant by JSW Group at Salav. The jetty facility once operated would be capable of handling about 21 MTPA of raw material of various cargoes and nearly 10 MTPA of finished products.

For prior Environmental Clearance (EC), we had earlier submitted the filled Form I and proposed Terms of Reference (ToR) to the MoEFCC, New Delhi. The same was considered in the 9th EAC meeting and the committee suggested us to re-submit Form I along with the Survey of India Topo sheet maps of the project area.

In this regard, we are herewith re-submitting the duly filled updated Form I, and Survey of India Topo sheet maps for your kind consideration to grant ToR for conducting the EIA studies.

We request you to kindly include in the forthcoming meeting of the Expert Appraisal Committee (EAC) for its appraisal.

Your kind consideration in the regard is highly appreciated and obliged.

Thanking You,
Yours Sincerely,

(R R PATRA)

Vice President-Strategy & Planning

FORM-I

PROPOSED EXPANSION OF CAPTIVE JETTY FACILITY IN REVDANDA CREEK AT SALAV, DIST. RAIGAD, MAHARASHTRA



Submitted to:

**Ministry of Environment, Forests and Climate Change
(MoEFCC), New Delhi**

Submitted by:

JSW SALAV PORT PVT. LTD.

March, 2017

FORM-I

(I) BASIC INFORMATION

1	Name of the Project/s	Proposed Expansion of Captive Jetty Facility in Revdanda Creek at Salav, Dist. Raigad, Maharashtra.
2	S. No. in the schedule	7 (e): Ports, harbours, break waters, dredging
3	Proposed capacity / area / length / tonnage to be handled / command area/ lease area / number of wells to be drilled	Expansion of existing Salav jetty facility from present 235 m jetty length and 21 m mooring <i>dolphin</i> by adding additional jetty length of 500 m to handle cargoes from present 3.0 MPTA to 31.0 MPTA.
4	New / Expansion / Modernization	Expansion
5	Existing Capacity / Area etc.	3.0 MTPA cargo capacity
6	Category of Project i.e. 'A' or 'B'	Category 'A'
7	Does it attract the general condition? If yes, please specify.	No
8	Does it attract the specific condition? If yes, please specify.	No
9	Location	The existing jetty facility is located at Salav (pls. refer Appendix I-III).
	Plot/Survey /Khasra No	-
	Village	Salav
	Tehsil	Murud
	District	Raigad
	State	Maharashtra
10	Nearest railway station /airport along with distance in kms.	Roha is the nearest railway station at about 35 km from the location. The nearest airport is Mumbai (national and international) located at about 120 km from the location.
11	Nearest Town, City, District HQs along with distance in kms.	Alibaug (Dist. HQ) is the nearest town which is about 20 km north from the location.
12	Village Panchayat, Zilla Parishad Municipal Corporation, Local body (complete postal address with telephone nos.)	<i>Village Panchayat:</i> Salav, Welspun Baug Tehsil: Murud Dist.: Raigad PIN - 402 202, Maharashtra

13	Name of the applicant	JSW Salav Port Pvt. Ltd.
14	Registered Address:	5A, Jindal Mansion Dr. G. Deshmukh Marg Mumbai - 400 026 Phone: 022-2351 3000 Fax: 022-2352 6400
15	Address for correspondence: Name Designation (Owner / Partner /CEO) Address Pin Code E-mail Telephone No. Fax No.	Mr. Rashmi Ranjan Patra Vice President – Strategy & Planning JSW Centre, Bandra Kurla Complex Bandra (East), Mumbai, Maharashtra - 400 051 rashmiranjan.patra@jsw.in santhosh.nair@jsw.in Phone No: 022-4286 2006 Fax No. : 022-4286 3000
16	Details of Alternative sites examined, if any. Location of these sites should be shown on a topo sheet.	The project is an expansion of the existing jetty facility with technically sound feasibility for expansion, and minimum environmental footprints.
17	Interlinked Project	<p>1. JSW Steel (Salav) Ltd. has proposed to develop 3.0 MTPA Steel Plant.</p> <p><i>JSW Steel (Salav) Ltd. proposes to expand the existing plant and set up additional units to a capacity of 3.0 MTPA Integrated Steel Plant to produce flat and long products. Proposed Jetty would handle the requirement of incoming raw materials (majorly iron ore, non-coking and thermal coal) and outgoing finished products (long and flat steel products).</i></p> <p>2. Proposed development of 3.0 MTPA Coke Oven Plant.</p> <p><i>JSW and its subsidiary company propose to set up a 3.0 MTPA Coke Oven plant for the substitution of Natural Gas with Coke Oven Gas for producing sponge iron from the plant. This technology is now being developed in steel plants and is becoming viable for usage in production of Sponge</i></p>

		<p><i>Iron. The proposed Jetty facility would handle the coking coal for its raw material requirement.</i></p> <p>Expansion of the jetty is necessary to cater to the increased demand of the incoming raw materials for production and outgoing finished products. Project details with their raw material requirement proposed to be handled at the proposed jetty facility is given as Annexure-IV.</p>
18	Whether separate application of interlinked project has been submitted?	Yes, Industrial Projects-I, MoEFCC, New Delhi
19	If yes, date of submission	<p>1. ToR for EIA granted <i>vide</i> letter dated 22.06.2016 for 3.0 MTPA steel plant.</p> <p>2. ToR for EIA granted <i>vide</i> letter dated 28.04.2015, for 3.0 MTPA coke oven plant.</p>
20	If no, reason	--
21	<p>Whether the proposal involves approval/clearance under: if yes, details of the same and their status to be given.</p> <p>(a) The Forest (Conservation) Act, 1980?</p> <p>(b) The Wildlife (Protection) Act, 1972?</p> <p>(c) The C.R.Z. Notification, 1991?</p>	Yes, CRZ Notification, 2011
22	Whether there is any Government Order/Policy relevant/relating to the site?	No
23	Forest Land involved (hectares)	No
24	<p>Whether the proposal involves approval / clearance under: if Yes, details of the same and their status to be given.</p> <p>(a) Name of the Court</p> <p>(b) Case No.</p>	No

	(c) Order/ directions of the Court, if any and its relevance with the proposal project.	
--	---	--

(II) ACTIVITY
1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.)

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	The proposed expansion is for creating additional berths for increasing the cargo handling capacity at the jetty. Reclamation of 100 acres of land behind the berths is proposed for port back up by using the dredged material for storage of cargo.
1.2	Clearance of existing land, vegetation and building?	No	Not envisaged
1.3	Creation of new land uses	Yes	Creation of port back up area by reclamation of 100 acres of land behind the berths using dredged material.
1.4	Pre-construction investigations e.g. bore holes, soil testing?	Yes	Detailed geotechnical investigations shall be carried out as part of DPR and detailed design.
1.5	Construction works?	Yes	The construction works proposed to be undertaken are: <ol style="list-style-type: none"> 1. Construction of new jetty. 2. Controlled dismantling and strengthening of the existing jetty. 3. Jetty backup- material storage area. <ol style="list-style-type: none"> a. open stockpiles (mechanized) and dust suppression systems b. hard stands c. covered godowns 4. Jetty backup comprising the following; <ol style="list-style-type: none"> a. gate complex b. jetty admin building and MC building c. fire engine room

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
			d. electrical substation e. internal roads f. jetty amenities (canteen, OH clinic, stores, workshops etc.) g. firefighting system- yard hydrants, fire water tanks h. STP
1.6	Demolition Works?	Yes	The existing jetty would be dismantled in a controlled manner and strengthened with the additional construction of new jetty.
1.7	Temporary sites used for construction works or housing of construction workers?	No	Local laborers shall be deployed for construction work. No housing of the construction workers is envisaged.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations	No	Not envisaged
1.9	Underground works including mining or tunnelling?	No	Not envisaged
1.10	Reclamation works?	Yes	Reclamation would be carried out behind the berths. About 100 acre of land shall be created in shallow waters using the dredged material.
1.11	Dredging?	Yes	To deepen the channel and berthing area, dredging shall be carried out. About 30 million m ³ of material shall be dredged. The dredged material shall be used for reclamation in the port back up area.
1.12	Offshore structures?	Yes	Construction of additional 500 m jetty.
1.13	Production and manufacturing Process?	No	The project is the expansion of the existing jetty and does not envisage any production or manufacturing process.
1.14	Facilities for storage of goods or materials?	Yes	Site of the steel plant and coke oven plant proposed for expansion is located at about 3 km from the jetty.

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
			Both inbound and out bound cargo storage would be carried out behind the berths over the reclaimed land in port backup area and shall be transported to the plants through conveyor belts and other suitable means.
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	<p>The sewage generated from the domestic consumption due to expansion activities shall be treated in a STP. Treated water after disinfection shall be used for gardening and for dust suppression in the port premises.</p> <p>Solid waste of municipal origin shall be segregated into degradable and non-degradable waste. Non-biodegradable waste shall be disposed off through authorized vendors. Biodegradable waste shall be composted onsite and shall be used as manure in horticulture.</p>
1.16	Facilities for long term housing of operational workers?	No	Employees shall be accommodated in the existing housing colony of JSW.
1.17	New road, rail or sea traffic during construction or operation?	No	-
1.18	New road, rail, air, water or other transport infrastructure including new or altered routes and stations, ports, airports etc?	No	-
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	Not envisaged
1.20	New or diverted transmission lines or pipelines?	No	Not envisaged
1.21	Impoundment, damming, culverting, realignment or	No	Not envisaged

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
	other changes to the hydrology of watercourses or aquifers?		
1.22	Stream crossings?	No	Not envisaged
1.23	Abstraction or transfers of water from ground or surface waters?	No	Not proposed
1.24	Changes in water bodies or the land surface affecting drainage or run-off	No	Not envisaged
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	<p>During the construction phase, construction materials, mechanical and electrical materials will be procured from local sources.</p> <p>During the operational phase there shall be transportation of cargo <i>to-fro</i> the port. Also the personnel involved in the construction/operational activities shall be commute on a daily basis.</p>
1.26	Long-term dismantling or decommissioning or restoration works?	Yes	Controlled dismantling of old jetty and construction of new jetty with an additional length of 500 m.
1.27	On-going activity during decommissioning which could have an impact on the environment?	No	Not envisaged
1.28	Influx of people to an area in either temporarily or permanently?	Yes	<p>Temporary influx likely due to workers engaged by contractors during the construction phase.</p> <p>Most of the operational workforce employed during operation phase of the port will be from the local employment.</p>
1.29	Introduction of alien species?	No	Not envisaged
1.30	Loss of native species or genetic diversity?	No	Not envisaged
1.31	Any other actions?	No	-

2. Use of Natural resources for construction or operation of Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply).

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
2.1	Land specially undeveloped or agricultural land (ha)	No	Land for port back-up shall be created in the shallow waters of intertidal/subtidal area by utilisation of dredged material.
2.2	Water (expected source and competing users)	Yes	The requirement shall be met from the existing allocation of JSW Steel (Salav) Ltd. About 600 KLD of water would be required for full operation of the jetty facility.
2.3	Minerals (MT)	No	Not envisaged
2.4	Construction material – stone, aggregates, and/ soil (expected source-MT)	Yes	Construction material shall be obtained from the local authorised quarries.
2.5	Forests and timber (source-MT)	No	Not envisaged
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	Power will be drawn from the local sub-station of MSEDCL. About 8 MVA of power shall be required for the final phase of the project.
2.7	Any other natural resources (use appropriate standard units)	No	Not envisaged

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the	No	Not envisaged

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
	environment (flora, fauna, and water supplies)		
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	Not likely
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	<p>The expansion of the port shall create additional job opportunities to the tune of 200-250 persons during construction and 75-100 person during operation phase. This will help in the development of the ancillary business and secondary/ tertiary employment opportunities in the region. The standard of living of the population surrounding the proposed project area is likely to be improved.</p> <p>Adequate CSR plan for the project area shall be formulated by the company and implemented in phase wise.</p>
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.	No	Not likely
3.5	Any other causes	No	--

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	Not envisaged
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Adequate facility for collection, conveyance and disposal of municipal solid waste shall be developed. Biodegradable fraction of the waste shall be manured in the port premises. Non-

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
			biodegradable fraction will be collected and shall be handed over to local corporation for further disposal.
4.3	Hazardous wastes (as per hazardous waste management rules)	Yes	The oil and grease generated from maintenance activities at jetty will be handed over to authorized users/recyclers approved by SPCB.
4.4	Other industrial process wastes	No	Not envisaged
4.5	Surplus product	No	Not envisaged
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Biological sludge generated from treatment shall be mixed with the vermi-composted manure and used for horticulture.
4.7	Construction or demolition wastes	No	Not likely to be generated in significant quantity.
4.8	Redundant machinery or equipment	No	Not envisaged
4.9	Contaminated soils or other materials	No	Not envisaged
4.10	Agricultural wastes	No	Not envisaged
4.11	Other solid wastes	No	Not envisaged

5. Release of pollutants or any hazardous, toxic or noxious substances to air (kg/hr)

S. No	Information/ Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	Tail pipe emissions will be generated from vehicles, cranes/material handling equipments running on diesel engines and DG sets.
5.2	Emission from production processes	No	The engines shall meet the respective emission norms. Project does not involve any production processes.
5.3	Emissions from materials handling including storage or	Yes	Fugitive dust may be generated from the material handling activities.

S. No	Information/ Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
	transport		Dust suppression systems with water sprinklers/dry fog system shall be provided to prevent the fugitive dust emissions. Further, the development of Greenbelt/ Dust screens would prevent/arrest/control the fugitive dust emissions.
5.4	Emissions from construction activities including plant and equipment	Yes	Fugitive emission from transportation handling & storage of raw materials is likely. Dust emissions are also likely from transportation on unpaved surfaces & construction related earth movement. Construction machine/vehicles are also likely to add some emission during construction phase.
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	Dust emissions from raw material handling and construction materials are envisaged. Suitable dust suppression and dust extraction methods shall be deployed. There is no possibility of any odour generation as there are no organic solvents/processes involved.
5.6	Emissions from incineration of waste	No	Not envisaged
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	Not envisaged
5.8	Emissions from any other sources	No	Not envisaged

6. Generation of Noise and vibration, and emissions of Light and Heat

S. No	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	During construction phase some noise may be generated from construction activities and equipments.

S. No	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
			During operational phase noise may be generated from loading /unloading activities. Proper mitigation measures shall be deployed to attenuate the noise.
6.2	From industrial or similar processes	No	Not likely
6.3	From construction or demolition	Yes	Some noise may be generated from the construction activities and running of the construction equipments. The equipments shall be maintained regularly which will help in reducing these noise levels.
6.4	From blasting or piling	Yes	No percussion piling is proposed in the project. Noise may likely to be generated during rotary piling. However, distance from shore and generally high wind turbulence will ameliorate the noise effect.
6.5	From construction or operational traffic	Yes	Localized noise during day time.
6.6	From lighting or cooling systems	No	Not envisaged
6.7	From any other sources	No	Not envisaged

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	No	Not envisaged
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	No	The sewage water will be treated and used for greenbelt development within the jetty area. Discharge to water and land is not envisaged.

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/rates, wherever possible) with source of information data
7.3	By deposition of pollutants emitted to air into the land or into water	No	Not envisaged
7.4	From any other sources	No	Not envisaged
7.5	Is there a risk of long term build-up of pollutants in the environment from these sources?	No	Not envisaged

8. Risk of accidents during construction or operation of the project, which could affect human health or the environment

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc. and from storage, handling, use or production of hazardous substances	No	Storages/handling of large quantities of oil is not envisaged at the port.
8.2	From any other causes	No	Not envisaged
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, slides, could burst etc)	No	The area is generally flat land. There is no record of occurrence of floods, landslides, cloud bursts etc. The proposed project site falls in Zone-III as per IS-1893 (Part-I):2002. Hence, seismically it is not an active zone.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality

S. No.	Information/Checklist Confirmation	Yes/ No	Details thereof (with approximate quantities/ rates, wherever possible) with source of information data
9.1	Lead to development of supporting, facilities, ancillary development or development stimulated by the project which could have impact on the environment	Yes	Ancillary facilities may arise due to the proposed development but to an extent that will not have significant cumulative environmental impacts.
	Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.)	Yes	Existing infrastructure facilities will be expanded / upgraded by the different Govt. departments to meet the project requirement.
	Housing development	No	--
	Extractive industries	No	--
	Supply industries	No	--
	Other		--
9.2	Lead to after use of the site, which could have an impact on the environment	No	Not likely
9.3	Set a precedent for later developments	Yes	Ancillary industries may be developed as a consequence of the proposed development.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	Not envisaged

(III) Environmental Sensitivity

S. No.	Areas	Name/ Identity	Aerial distance (within 15 km) Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	The heritage landscape areas are as follows; i. Korlai Fort- 2.0 km ii. Revdanda Fort- 1.5 km iii. Kolaba Fort- 12.0 km

S. No.	Areas	Name/ Identity	Aerial distance (within 15 km) Proposed project location boundary
2	Areas which are important or sensitive of ecological reasons – wetlands, water courses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	The proposed project is in the Kundalika river, Revdanda creek. The estuarine part of Kundalika River is about 2 km. Project location is outside the Notified Eco-Sensitive zone of Phansad Wildlife Sanctuary.
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	The nearest mangrove area from the proposed location is at about 1.6 km.
4	Inland, coastal, marine or underground waters	Yes	Jetty expansion is in the confluence point of the Kundalika River.
5	State, national boundaries	No	-
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	-
7	Defence installations	No	-
8	Densely populated or built-up area	No	-
9	Areas occupied by sensitive man made land uses (<i>hospitals, schools, places of worship, community facilities</i>)	Yes	Local schools, hospitals and health centers exist in the 15 km radius from the project site. The religious places are; I. Korlai Church- 1.6 km II. Birla Mandir- 2.8 km
10	Areas containing important, high quality or scarce resources (<i>ground water resource, surface resources, forestry, agriculture, fisheries, tourism, minerals</i>)	No	No scarce resources are located in the 15 km radius of project area.
11	Areas already subjected to pollution or environmental damage. (<i>those where existing legal environmental standards are exceeded</i>)	No	The project site/surroundings is not a listed under any critically polluted area.

S. No.	Areas	Name/ Identity	Aerial distance (within 15 km) Proposed project location boundary
12	Areas susceptible to natural hazard which could cause the project to present environmental problems (earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)	No	The proposed project site falls in zone-III as per IS-1893 (Part-I): 2002. Hence, seismically it is a stable zone.

UNDERTAKING

I hereby given undertaking that the data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any, to the project will be revoked at our risk and cost.

Date: 31.03.2017

Place: Mumbai

Rashmi Ranjan Patra

Vice President – Strategy & Planning
 JSW Salav Port Private Limited
 JSW Centre, Bandra Kurla Complex,
 Bandra (East), Mumbai-400 051

(IV) PROPOSED TERMS OF REFERENCE (ToR) FOR EIA STUDY

The Terms of Reference (ToR) proposed for preparation of Environmental Impact Assessment Report includes Environmental Management Plan for grant of Environmental Clearance under EIA Notification, 2006 and CRZ Notification, 2011 is as under:

1. General

- a. Impact area of 10 km around the project boundary
- b. One season environmental baseline monitoring
- c. Adherence to the sector specific guideline manual, and standard ToR issued by the MoEFCC

2. Project Description

- a. Type, Need and Location of the project.
- b. Size and process description of the project with aspects which may affect the environment.
- c. Relevant maps/plates showing various details.

3. Description of the Environment

- a. Study area, period, components & methodology;
- b. Description of the study area w.r.t its environmental settings as under:
 - Physico-chemical settings** – comprising of meteorological & air environment; noise environment; land environment and water environment.
 - Ecological settings** – comprising of aquatic flora-fauna.
 - Demographic settings** – comprising socio-economic status, infrastructure, etc.
- c. Environmental Monitoring – **one season**

S. No.	Attribute	Parameters
1	Meteorology	Wind speed, direction, temperature, humidity, rainfall etc.
2	Land Use	Land use and Land cover (LULC) map of different components
3	Ambient air quality	PM10, PM2.5, SO ₂ , NO ₂ , Pb, CO, and NH ₃
4	Noise levels	Noise levels in dB(A)
5	Water Quality (both surface & ground water)	Physico-chemical and Biological parameters
6	Sediment Quality	Physico-chemical and Biological parameters
7	Marine Biodiversity	Marine biodiversity reported from the project area, if any
8	Soil Quality	Parameters related to agricultural and afforestation potential
9	Terrestrial Environment	Flora & fauna of the project influence area
10	Fishery Status	Fishery status of the project influence area
11	Socio-economic Status	Socio economic status, demographic, and social impact etc.

4. Anticipated environmental impacts and mitigation measures

- a. Assessment of impact on the baseline due to size, location, operation, accidental or incidental activities of the project.
- b. Measures for minimizing the anticipated impacts.
- c. Assessment of importance of various impacts and parameters.
- d. Mitigative measures.

5. Environmental monitoring programme

- a. Periodical monitoring of the environment during construction and operation phase of the project.
- b. Identify and analyse crucial parameters (air, water environment) for monitoring.

6. Additional Studies

- a. Risk assessment and disaster management plan
- b. Corporate social responsibility (CSR) plan

7. Environment Management Plan

- a. Proposed mitigate measures and their implementation.
- b. Structure of environment management cell.
- c. Administrative and cost control of implementation schedule.

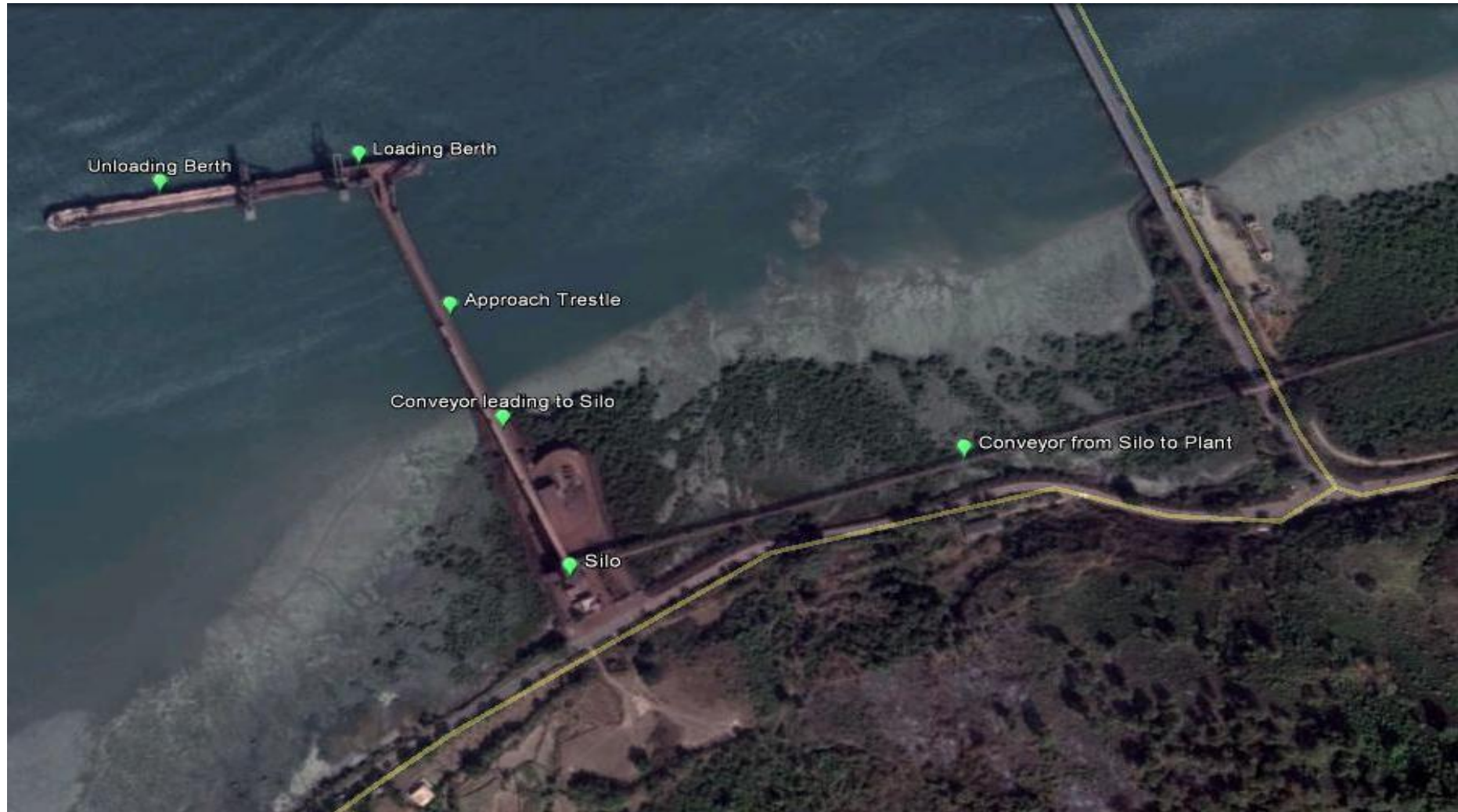
8. HTL and LTL Demarcation

The HTL/LTL demarcation map shall be prepared with the help of one of the approved agency identified by MoEFCC for this purpose.

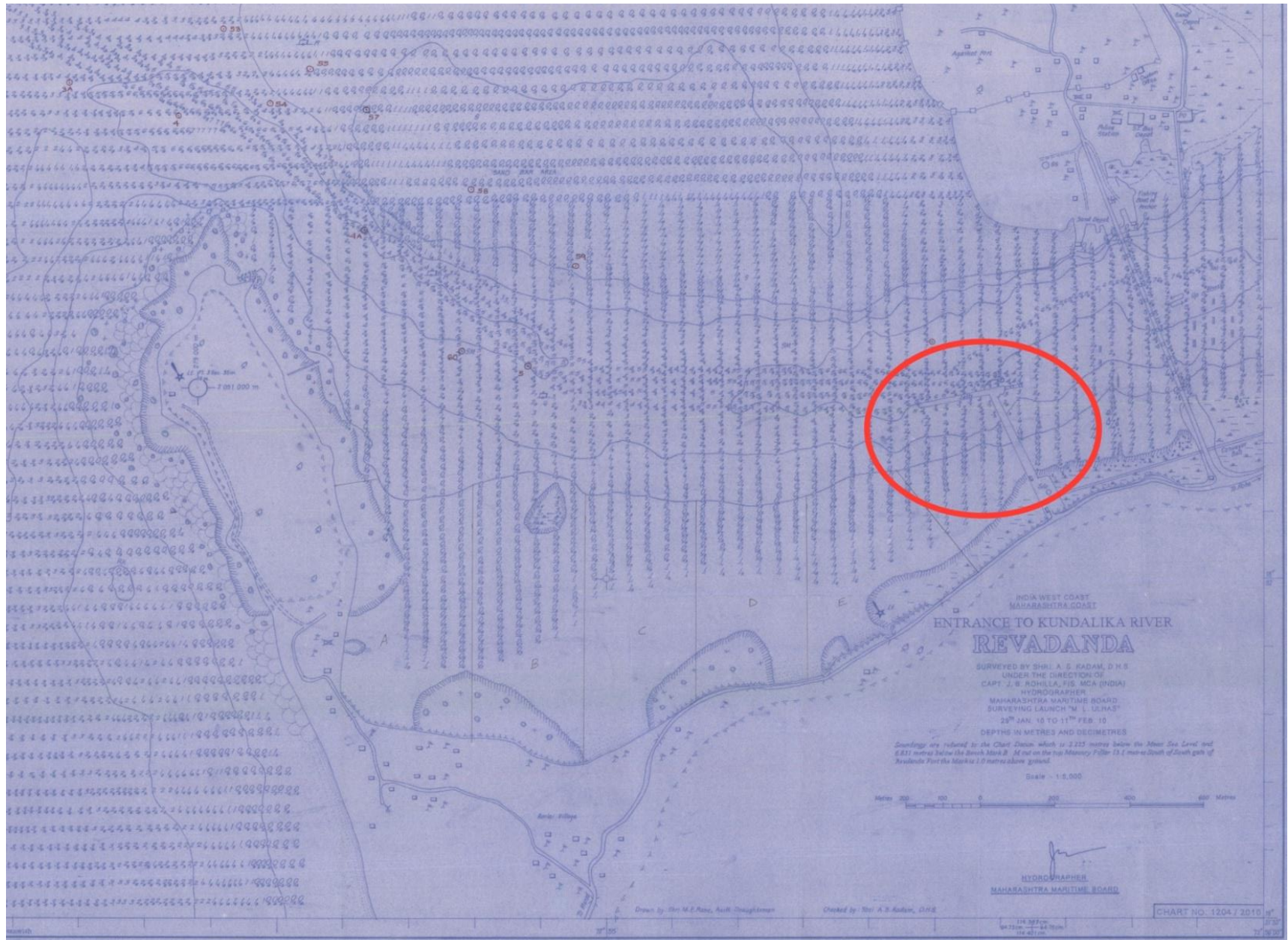
Google Imagery showing the existing Salav Jetty



Google Imagery showing the existing Salav Jetty Facilities



Salav Jetty Facility showing on the MMB Navigation Chart



Annexure-IV

I. Proposed 3.0 MTPA Steel Plant at Salav by M/s JSW Steel (Salav) Ltd.

M/s JSW Group acquired the 0.75 MTPA Gas based Sponge Iron plant of M/s Welspun Max Steel in the year 2014. After acquisition, JSW Steel (Salav) Ltd. now proposes to expand the existing plant and set up additional units to a capacity of 3.0 MTPA Integrated Steel Plant with a product list of flat and long products considering the market scenario. Therefore, expansion of existing jetty capacity is essential to handle the requirement of incoming raw materials (majorly iron ore, non-coking and thermal coal) and outgoing finished products (long and flat steel products). The major raw materials required for the 3.0 MTPA steel plant as given below shall be handled in the jetty. Apart from this, the finished steel products shall be handled in the proposed jetty. Therefore, it is required to expand the existing jetty as the present capacity will not be sufficient to handle the requirement of incoming raw materials and outgoing finished goods.

Annual major raw material requirement (net and dry basis):

Sl. No.	Raw material	Quantity (tpa)
01	Iron ore fines/conc.	4,200,000
02	Non-coking coal	1,500,000
03	Limestone (for Pellet Plant & Corex)	294,000
04	Dolomite (for Corex)	300,000
05	Limestone (for SMS & DR)	232,000
06	Dolomite (for SMS)	168,000
07	Thermal Coal	1,300,000
08	Coke	51,000
09	Bentonite/Gypsum	86,000
10	Ferro Alloys	42,000
11	Clinker	500,000

II. Proposed 3.0 MTPA Coke Oven Plant at Salav by M/s Dolvi Coke Projects Ltd.

JSW and its subsidiary company propose to set up a 3.0 MTPA Coke Oven plant for the substitution of Natural Gas with Coke Oven Gas for producing sponge iron from the plant. This technology is now being developed in steel plants and is becoming viable for usage in production of Sponge Iron. The proposed Jetty facility would handle the coking coal for its raw material requirement.

The coke making facilities are planned to generate 150,000 Nm³/hr of coke oven gas to be used for Sponge Iron/DRI production along with by-products viz 3,000,000 tonnes of gross coke per year and chemicals. The proposed jetty would handle 4,200,000 tpa coking coal, 2,80,000 tpa coal for gassfier for its raw material requirement.



निर्गत के लिए नहीं NOT FOR EXPORT

OPEN SERIES MAP

No. E43G14

Scale 1:50,000

	E43G13 (47B/13)	E43H1 (47F/1)
ARABIAN SEA	E43G14 (47B/14)	शुद्ध MAHARASHTRA E43H2 (47F/2)
	E43G15 (47B/15)	E43H3 (47F/3)

1 Greater Mumbai City, MAHARASHTRA.
2 Thane, MAHARASHTRA.

भारतीय सर्वेक्षण विभाग SURVEY OF INDIA

1st Edition 2012.

Price : PDF COPY केवल 00/-

CONVENTIONAL SYMBOLS

Express highway: with toll with bridge; with distance stone	
Roads, metalled: according to importance	
Roads, double configuration: according to importance	
Unmetalled road: Cart-track: Pack-track with Post: Foot-path	
Stream: with track in bed: underflow: Canal	
Dam: masonry or rock-fill: sandbank: Weir	
Water: dry with water channel: with sand & rocks: Tidal river	
Submerged rocks: Shoal: Scum: Reef	
Wells: Bore: unwell: Tube-well: Spring: Tank: permanent: dry	
Embankments: road or rail: bank: Broken ground	
Pathways, broad gauge: double: single with station: under construction	
Pathways, other gauges: double: single with distance stone: do	
Mineral line or tramway: Km. Cutting with tunnel	
Contours with sub-features: Rocky slopes: Cliffs	
Band Features: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)	
Town or Village: (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (21) (22) (23) (24) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (35) (36) (37) (38) (39) (40) (41) (42) (43) (44) (45) (46) (47) (48) (49) (50) (51) (52) (53) (54) (55) (56) (57) (58) (59) (60) (61) (62) (63) (64) (65) (66) (67) (68) (69) (70) (71) (72) (73) (74) (75) (76) (77) (78) (79) (80) (81) (82) (83) (84) (85) (86) (87) (88) (89) (90) (91) (92) (93) (94) (95) (96) (97) (98) (99) (100)	
Hut: permanent: temporary: Tower: Antiquarian	
Temple: Chhatra: Church: Mosque: Ghat: Tomb: Graves	
Lighthouse: Lightship: Buoy: lighted: unlighted: Anchorage	
Mine: View on profile: Grass: Scrub	
Palmer pathway: other: Plantain: Coffee: Bamboo: Other trees	
Areas: cultivated: wooded: Surveyed tree	
Boundary International	
mine demarcated: un-demarcated	
electric sub-station: tank or other: Signal	
Boundary pillar: surveyed: un-surveyed	
Height: stigmatised: station: public: appropriate	
Benchmark: geodetic: tertiary: canal	
Post office: Overhead tank	
Rest house or inspection bungalow: Circuit house: Police station	
Campsite ground: Forest reserved: protected	
Stated names administrative: locality or tribal	
Hospital: Dispensary: Veterinary Hospital / Dispensary	
Air-station: Helipad: Tourist site	
Power line with pylons surveyed: with poles un-surveyed	

NOTES :-
 Heights and Contours have not been shown.
 A relative height e.g. 20 represents the approximate height in metres, between the top and bottom of a steep slope.
 This sheet has been compiled from 1:25,000 surveys.
 The area shown in this sheet is magnetically disturbed and the variation given may differ largely from the actual value.
 Some of the rocky islands in Arabian Sea have been entered from the information supplied by the other Hydrographer to the Government of India and have not been departmentally verified.
 A relative height, e.g. 100, against a well, indicates the total depth in metres.
 Position of pylons of power lines has not been surveyed.

COMPILATION INDEX
 A. Surveyed 1964-62. Updated for major details during 2000-06.

Projection - UTM Datum - WGS 84
 Magnetic Variation from True North about 1° West in 2005.
 (Decreasing by about 1 annually).
 1:50,000
 1 cm to 1 km
 1 inch to 2.54 km

For further details about this map, please contact
 Director
 Maharashtra & Goa Geo-Spatial Data Centre
 Survey of India, Phule Nagar, Aundh Road
 Pune.

WEBSITE - www.surveyofindia.gov.in
 Reproduction in whole or part by any means is prohibited
 without the written permission of Survey of India, the
 National Mapping Agency.
 GOVERNMENT OF INDIA COPYRIGHT, 2012.

Topo Sheet Map: Salav, Maharashtra

