Half Yearly EC Compliance Report APSEZ _Utility corridor- 2023 for Period April 23 to Sept. 23

Bhagwat Swaroop Sharma < Bhagwat.Sharma1@adani.com>

Wed 11/29/2023 8:08 PM

To:iro.gandhingr-mefcc@gov.in <iro.gandhingr-mefcc@gov.in>;eccompliance-guj@gov.in <eccompliance-guj@gov.in>
Cc:ec-rdw.cpcb@gov.in <ec-rdw.cpcb@gov.in>;ro-gpcb-kute@gujarat.gov.in <ro-gpcb-kute@gujarat.gov.in>;ms-gpcb@gujarat.gov.in <ms-gpcb@gujarat.gov.in>;mefcc.ia3@gmail.com
<mefcc.ia3@gmail.com>;monitoring-ec@nic.in <monitoring-ec@nic.in>;direnv@gujarat.gov.in <direnv@gujarat.gov.in>;Charanjit Singh <Charanjit.Singh@adani.com>;Sujalkumar Shah
<sujal.shah@adani.com>

1 attachments (8 MB)

EC Compliance Report_Utility Corridor_Apr'23 to Sep'23.pdf;



APSEZL/EnvCell/2023-24/070

Date: 28.11.2023

To

The Inspector General of Forest / Scientist C, Integrated Regional Office (IRO), Ministry of Environment, Forest and Climate Change,

Aranya Bhawan, A Wing, Room No. 409,

Near CH 3 Circle, Sector - 10A,

Gandhinagar - 382007.

E-mail: eccompliance-guj@gov.in, iro.gandhingr-mefcc@gov.in

Sub

: Half Yearly Compliance for CRZ clearance for 'Road, Rail & Utility corridor and LPG Pipeline project at Mundra, Kutch, District: Gujarat' by M/s Adani Ports and Special Economic Zone Ltd.

Ref

: CRZ clearance vide letter no. F.No.11-9/2023-IA.III, dated 5th April 2023 for "Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat by M/s Adani Ports and SEZ Limited". (Copy of CRZ clearance is attached as Annexure – 1)

Dear Sir,

Please refer to the above cited reference for the said subject matter. In connection to the same, it is to state that copy of the compliance report for the CRZ Clearance for the period of April 2023 to September 2023 is being submitted through soft copy (e-mail communication).

Kindly consider above submission and acknowledge.

Thank you,

Yours Faithfully,

For, M/s Adani Ports and Special Economic Zone Limited

Bhagwat Swaroop Sharma Head - Environment Mundra & Tuna Port

Encl: As Above

Copy to:

- 1) The Director (IA Division), Ministry of Environment, Forests & Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003.
- 2) The Zonal Officer, Regional Office, CPCB Western Region, Parivesh Bhawan, Opp. VMC Ward Office No. 10, Subhanpura, Vadodara 390023.
- 3) The Member Secretary, GPCB Head Office, Paryavaran Bhavan, Sector 10 A, Gandhi Nagar 382010.
- 4) The Director, Forests & Environment Department, Block 14, 8th floor, Sachivalaya, Gandhi Nagar 382010.
- 5) The Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham 370201

Adani Ports and Special Economic Zone Ltd Adani House, PO Box No. 1 Mundra, Kutch 370 421 Gujarat, India CIN: L63090GJ1998PLC034182 Tel +91 2838 25 5000 Fax +91 2838 25 51110 info@adani.com www.adani.com

Registered Office: Adani Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Guiarat. India



APSEZL/EnvCell/2023-24/070

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- The Director, Forests & Environment Department, Block 14, 8th floor, Sachivalaya, Gandhi Nagar 382010.
- The Regional Officer, Regional Office GPCB (Kutch-East), Gandhidham 370201

Adani Ports and Special Economic Zone Ltd Adani House, PO Box No. 1 Mundra, Kutch 370 421

Gujarat, India CIN: L63090GJ1998PLC034182 Tel +91 2838 25 5000 Fax +91 2838 25 51110 info@adani.com www.adani.com

Registered Office: Adani Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Guiarat. India



CRZ Clearance Compliance Report



Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat

Adani Ports and SEZ Limited

For the period of April–2023 to September–2023



Adani Ports and Special Economic Zone Limited, Mundra.

From : Oct'22 To : Mar'23

Status of the conditions stipulated in Environment and CRZ Clearance

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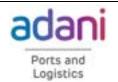
From: Apr'23 To: Sep'23

Status of the Conditions Stipulated in CRZ Clearance

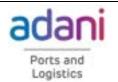
APSEZ has been granted CRZ clearance vide letter no. F.No.11-9/2023-IA.III, dated 5th April 2023 for "Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat by M/s Adani Ports and SEZ Limited". (Copy of CRZ clearance is attached as Annexure – 1)

Project Status:

Sr. No.	Project	Status as on 30.09.2023				
1.	Development of Road, Rail and Utility Corridor	Not developed so far				
2.	Laying of underground LPG Pipeline	APSEZ has laid an underground LPG pipeline having total length of 91.35 Km for distribution of LPG from dispatch station located within existing Mundra LPG Terminal to existing GAIL facility at Mithi Rohar, Gandhidham with intermediate SV Stations and the same is operation. APSEZ has already obtained CtE & CtO for the said activities from Gujarat Pollution Control Board. Details of CtE / CtO are as below.				
		Sr. No.	Permission	Project activity	Ref. No.	Remarks
		а)	CtE – Fresh	For Laying the. Underground LPG pipeline for transportation of LPG from Mundra LPG terminal Pvt. Ltd (MLTPL) to receiving terminal GAIL Mithi Rohar, having a total length of 91.35 KM (with 03 nos. of SV stations).	CtE - 54993	Annexure – 2
		b)	CtO – Fresh	To operate the. Underground LPG pipeline for transportation and distribution of LPG @ 6.75 MMTPA	AWH-66223	Annexure – 3
		c)	CtE - For CRZ applicability Amendment as per revised pipeline route map		CtE-66434	Annexure – 4
		d)	CtO – Amendment	falls within APSEZ area	W-68345	Annexure – 5



From: Apr'23 To: Sep'23



From: Apr'23 To: Sep'23

Status of the Conditions Stipulated in CRZ Clearance

Compliance Report of CRZ Clearance



From: Apr'23 To: Sep'23

Status of the Conditions Stipulated in CRZ Clearance

Half yearly Compliance report of CRZ Clearance for "Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat" by M/s Adani Ports and SEZ Limited (APSEZ) issued vide letter no. F.No.11-9/2023-IA.III, dated 5th April 2023.

Sr. No.	Conditions	Compliance Status as on 30.09.2023
PART	A - SPECIFIC CONDITIONS:	
(i)	All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.	Complied The laid down of LPG pipeline has been carried out confirming the existing rules and regulation and as per the CRZ notification 2011, as amended from time to time. Further, development of remaining project i.e. development of Road, Rail & Utility Corridor will be carried out in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
(ii)	The utility corridor should be restricted to within port limit.	Point noted and agreed
(iii)	All facilities in utility corridor should comply with detailed in risk and safety management plan as presented the committee and compliance report to be submitted to Regional Office.	Complied. The following safety measures are being taken for operation of underground LPG Pipeline and the same will be adopted during operation of utility corridor (liquid / gaseous pipeline) also: LPG is being transported through in dedicated pipelines. Corrosive liquid / gaseous cargo shall be transported in dedicated concentric pipelines made of SS to avoid any corrosion of the pipeline and leakages. Necessary approvals from chief inspector of factories and license under Petroleum Explosives Safety Rules shall be obtained. The prior approval from PESO has been obtained for underground pipeline. The copy of PESO approval is attached as ANNEXURE-6. The relevant codes and guidelines shall be adopted: (1). OISD Standard-244: Storage and handling of Petroleum Products and (2). IS 6044-2 (2001): Code of Practice for Liquefied Petroleum Gas Storage Installations. The existing disaster management plan shall be effectively implemented for the proposed utility corridor operations. The guidelines published by OISD on "Integrity Assessment of Cross Country Pipelines" shall be adopted during the operational phase. Necessary fire hydrant and fire water network



From: Apr'23 To: Sep'23

Sr. No.	Conditions	Compliance Status as on 30.09.2023
		system shall be developed in consultation with concerned regulatory authorities. • A detailed quantitative risk assessment shall be undertaken during the detailed engineering phase to assess the layers of protection needed to protect the assets of the port facilities due to any major fire accidents. • Techno-Safe Consultants has been retained for the preparation of this Emergency Response and Disaster Management Plan (ERDMP) of LPG Pipeline from Mundra Port to GAIL Station at Mithi Rohar. The copy of ERDMP study report is attached as ANNEXURE - 7.
(iv)	Sufficient gap / distance between pipelines need to maintain for safety & maintenance activities.	Not applicable for development of LPG Pipeline. Will be complied at the time of utility corridor development.
(v)	Any temporary physical infrastructure setup and excavated material shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.	Complied. There is no requirement of temporary physical infrastructure setup as the local manpower are being utilized during construction phase. The construction debris, excavated soil wastes generated during underground LPG pipeline laying project have been collected as per the applicable environmental guidelines and reused for restoration to maintain the original condition after completion of construction of work. The same practice will be adopted during development of Rail, Road and Utility corridor project.
(vi)	The pipeline where crossing of water body / river / creek areas should be laid through Horizontal Directional Drilling (HDD) method.	Complied The underground LPG pipeline is laid down using the Horizontal Directional Drilling (HDD) method without affecting the flow of the creek and mangrove where it is crossing through it.
(vii)	No storage reservoir for sea water shall be permitted and only project activity i.e. pipelines conveyance system etc. shall be installed.	No storage reservoir for sea water required as the project activity is only for development of Road, Rail, Utility corridor and LPG pipeline and water is being sourced through APSEZ desal plant / GWIL water through dedicated pipeline.
(viii)	No groundwater shall be extracted within the CRZ area to meet the	Being complied.



From: Apr'23 To: Sep'23

No.		30.09.2023
	water requirements during the construction and/or operation phase of the project.	APSEZ does not draw any ground water for the water requirement during construction as well as operation phase. Present source of water for project activities is desalination plant of APSEZ and/or water through Gujarat Water Infrastructure Limited (GWIL).
(ix)	Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.	Point noted and agreed. No permanent labour camp required as the local manpower are being utilized during construction phase. All the activities are being done in in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
(x)	The prior approval from PESO should be obtained before commencement of the project.	Complied The prior approval from PESO has been obtained for Commencement and to operate the LPG pipeline for distribution of LPG from dispatch station located within existing Mundra LPG Terminal to existing GAIL facility at Mithi Rohar, Gandhidham with intermediate SV Stations through underground pipeline. The copy of PESO approval is attached as ANNEXURE – 6.
(xi)	All the conditions stipulated by the Gujarat Coastal Zone Management Authority vide its letter No.ENV-10-2018-76-T, dated 20/10/2022 and commitments made by the PP before the GCZMA and EAC shall be followed in letter and spirit.	Complied The compliance report of conditions stipulated by the Gujarat Coastal Zone Management Authority vide its letter No.ENV-10-2018-76-T, dated 20/10/2022 is attached as ANNEXURE - A.
(xii)	All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.	Point Noted and compiled. All the requisite permissions / clearances obtained from the concerned authorities for LPG pipeline project and same will be continued for Rail, Road and Utility corridor project.
	B - GENERAL CONDITIONS:	
(i)	Management of solid waste in accordance with the Solid Waste Management Rules, 2016 shall be strictly implemented.	Waste Management – APSEZ has adopted 5R concept for environmentally sound management of different types of solid & liquid wastes. Please refer below details about management of each type of waste. Solid (Non Hazardous) Waste Management: A well-



From: Apr'23 To: Sep'23

Sr. No.	Conditions		Com	pliance Statu 30.09.2023		
(ii)		established system for segregation of dry & wet waste is in place. All wet waste (Organic waste) is being segregated & utilized for compost manufacturing and/or biogas generation for cooking purpose. The compost is further used by in house horticulture team for greenbelt development. Whereas dry recyclable waste is being sorted in various categories. Presently manual sorting is being done for sorting of different types of solid waste. Segregated recyclable materials such as Paper, Plastic, Cardboard, PET Bottles, and Glasses, etc. are then sent to respective recycling units, whereas remaining non-recyclable waste is bailed and sent to cement plant (M/s. Ambuja Cement Ltd., Kodinar) for Co-processing as RDF (Refused Derived Fuel). The copy of membership agreement with M/s. Ambuja Cement Ltd., Kodinar is attached as ANNEXURE – 8. APSEZ, Mundra is certified for Zero Waste to Landfill management system (ZWTL MS 2020) by TUVRheinland India Pvt. Ltd. (valid up to 31.05.2024). The copy of certified for Zero Waste to Landfill management system is attached as ANNEXURE – 9. Complied APSEZ has obtained CtE & CtO for the underground LPG pipeline project from Gujarat Pollution Control Board as per below.				
	Pollution) Act, 1981 and/ or the Water (Prevention and Control of Pollution) Act, 1974, as may be	Sr. No.	Permission	Project activity	Ref. No.	Remarks
	applicable.	a)	CtE – Fresh	For Laying the. Underground LPG pipeline for transportation of LPG from Mundra LPG terminal Pvt. Ltd (MLTPL) to receiving terminal GAIL Mithi Rohar, having a total length of	CtE - 54993	Annexure – 2



From: Apr'23 To: Sep'23

Sr. No.	Conditions		Com	npliance Statu 30.09.2023		
				91.35 KM (with 03 nos. of SV		
		b)	CtO – Fresh	stations). To operate the. Underground LPG pipeline for transportation and distribution of LPG @ 6.75 MMTPA	AWH- 66223	Annexure – 3
		c)	CtE – Amendment	For CRZ applicability as per revised	CtE- 66434	Annexure – 4
		d)	CtO – Amendment	pipeline route map falls within APSEZ area	W- 68345	Annexure – 5
		CtE/		d Utility corricate pollution of icable.		
(iii)	Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of Competent Authority.	dispo for a	excavated rosed-off. Cor rea developr	muck has be nstruction was ment within th ce will be adop nent.	ste, if any e project	, is utilized site.
(iv)	All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by Central / State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea / coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent. The treated waste water shall be reused for landscaping, flushing and / or HVAC cooling purposes etc. within the development. The project proponent should also make	to ce for h norm durin Durin gene station	generated truction phatentralized ST orticulture pass and the range balance page operation rated domesons only hap disposed of	d domestic use of LPG piper of APSEZ and urpose after consume practice roject developed the stic sewage from through Some pranted	nd dispose confirming will be ment. PG Pipelion interrupts quantity ak pit / 5	s treated in sed on land g the GPCB continued ne project, mediate SV y, which is Septic tank



From: Apr'23 To: Sep'23

Sr. No.	Conditions	Compliance Status as on 30.09.2023
	alternate arrangement for situation arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.	
(v)	Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.	Complied The hazardous waste is being collected and disposed to the authorized vendors as per Hazardous and Other Wastes (Management and Handling) Rules, 2016.
(vi)	A copy of the clearance letter shall be uploaded on the website of the concerned State Coastal Zone Management Authority/State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries Centre and Collector's Office I Tehsildar's office for 30 days.	The copy of CRZ clearance letter has been submitted to the respective concerned authorities the District Collector Office, Bhuj, the Deputy Chief Conservator of Forest office, Bhuj, District Industries Centre office, Bhuj, Range Forest Office, Mundra, GPCB Reginal Office, Gandhidham, Sub District Magistrate office, Mundra, Mamlatdar Office, Mundra, and Taluka Vikas Adhikari office, Mundra. with the request for display at least for 30 days. The acknowledgements are attached as ANNEXURE – 10. A copy of the clearance letter is uploaded on APSEZ web site https://www.adaniports.com
(vii)	A six-monthly monitoring report shall need to be submitted by the project proponent to the concerned Regional Office of this Ministry regarding the implementation of the stipulated conditions.	/ports-downloads. Point noted and being complied. As our project for LPG pipeline has been commenced from May'2023 only, hence we are submitting first half yearly compliance report to all the concerned authorities for the period Apr'23 to Sep'23 and now onwards we will submit half yearly compliance report on regular basis within defined timeline.
(viii)	The Ministry of Environment, Forest & Climate Change or any other Competent Authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.	Point noted and agreed
(ix)	Full co-operation shall be extended to the officials from the Regional Office of MoEF&CC, during monitoring of implementation of	Point noted and agreed



From: Apr'23 To: Sep'23

Sr. No.	Conditions	Compliance Status as on 30.09.2023
	environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&CC.	
(x)	In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.	Point noted and agreed
(xi)	The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, for noncompliance.	Point noted and agreed
(xii)	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective Competent Authorities.	Point noted and will be complied.
(xiii)	The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at https://parivesh.nic.in/. The advertisement should be made	Complied. The original copy of the CRZ clearance was obtained on 05.04.2023 and advertisement (containing informing that the CRZ clearance is accorded to the proposed project and a copy of clearance letter is available with the SPCB and may also be seen at the website of MoEF&CC) was given in local Newspaper Sandesh in Gujarati (local) language; and in The Indian Express (English) newspaper dated 11.04.2023. Copy of the newspapers attached as ANNEXURE – 11.



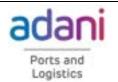
From: Apr'23 To: Sep'23

Sr. No.	Conditions	Compliance Status as on 30.09.2023
	within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional Office of this Ministry.	
(xiv)	A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.	Complied The copy of CRZ clearance letter has been submitted to the respective concerned authorities the District Collector Office, Bhuj, the Deputy Chief Conservator of Forest office, Bhuj, District Industries Centre office, Bhuj, Range Forest Office, Mundra, GPCB Reginal Office, Gandhidham, Sub District Magistrate office, Mundra, Mamlatdar Office, Mundra, and Taluka Vikas Adhikari office, Mundra. with the request for display at least for 30 days. The acknowledgements are attached as ANNEXURE – 10.
(xv)	The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.	A copy of the clearance letter is uploaded on APSEZ web site https://www.adaniports.com/ports-downloads . Point noted and being complied. As our project for LPG pipeline has been commenced from May'2023 only, hence we are submitting first half yearly compliance report to all the concerned authorities for the period Apr'23 to Sep'23 and now onwards we will submit half yearly compliance report on regular basis within defined timeline.
		The same will be also uploaded on APSEZ web site https://www.adaniports.com/ports-downloads.
(xvi)	The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the project proponent along with the status of compliance of clearance conditions and shall also be sent to the respective Regional Office of the	Point noted and will be complied



From: Apr'23 To: Sep'23

Sr. No.	Conditions	Compliance Status as on 30.09.2023
	Ministry by e-mail.	
6	This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.	Point noted and agreed
7	The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the CRZ clearance, if implementation of any of the above conditions is not found satisfactory.	Point noted and agreed
8	Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.	Point noted and agreed
9	Any appeal against this CRZ clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Point noted and agreed
10	The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.	Point noted and agreed



From : Apr'23 To : Sep'23

Sr. No.	Conditions	Compliance Status as on 30.09.2023
11	This issues with approval of the Competent Authority.	Point noted and agreed



From: Apr'23 To: Sep'23

Status of the Conditions Stipulated in CRZ Clearance

ANNEXURE - A

Compliance Report of GCZMA CRZ recommendations vide its letter No.ENV-10-2018-76-T, dated 20/10/2022



From: Apr'23 To: Sep'23

S. No	GCZMA Condition	Compliance
1.	M/S APSEZL, Mundra shall carry out mangrove plantation in 50 Hectare area in consultation with concerned District Forest Office of Forest Department / Gujarat Ecology Commission within one year and shall deposit the required amount in Forest Department/Gujarat Ecology Commission.	Agreed to Comply APSEZ will do mangrove afforestation in 50 Ha area in consultation with concerned District Forest Office of Forest Department/ Gujarat Ecology Commission. There is no any impact on mangroves due to laying of underground LPG Pipeline as HDD methodology has been adopted for the same. There shall be likely impact on mangrove due to proposed road, rail & utility corridor (which have not been developed so far) shall not more than 0.15 Hectare as per undertaking given to GCZMA. However, to enhance the marine biodiversity, till date APSEZ has carried out mangrove afforestation in 3890 ha. area across the coast of Gujarat. Total expenditure for the same till date is INR 1070.8 lakh. Details on Mangroves afforestation & Green belt development carried out by APSEZ till
2.	M/S APSEZL shall ensure that likely impact on mangrove due to proposed utility corridor shall not more than 0.15 Hectare as per undertaking given to GCZMA.	date is annexed as ANNEXURE - 12 . Agreed to Comply APSEZ will ensure that impact on mangrove due to proposed Utility corridor project shall not more than 0.15 Hectare and to protect and conserve the mangroves in and around utility corridor during construction as well as operation phase. Agreed to Comply
3.	All necessary permissions from different Government Departments / agencies including FCA, shall be obtained by the APSEZL before commencing the expansion activities	Agreed to Comply APSEZ get and will get all the requisite permissions for different Government Departments / agencies including FCA as applicable before commissioning of proposed project activities.
4.	Unit shall carry out above ground construction only and in creek area above high tide level with clear height of @ 6 to 10 meters.	Agreed to comply for proposed road, rail & utility corridor project.



From: Apr'23 To: Sep'23

S. No	GCZMA Condition	Compliance
5.	Unit shall maintain sufficient distance between piles to facilitate the movement of fisherman boats.	Agreed to comply for proposed road, rail & utility corridor project.
6.	M/S Adani Ports and SEZ Limited shall submit an undertaking strictly adhere to protect and conserve the mangroves in and around utility corridor during construction as well as operation phase.	APSEZ had submitted an undertaking stating "to protect and conserve the mangroves in and around utility corridor during construction as well as operation phase" to the GCZMA vide our letter dated 21st June, 2022 and same is being complied judiciously" Copy of the same is enclosed as ANNEXURE – 13.

Annexure – 1

F.No.11-9/2023-IA.III Government of India Ministry of Environment, Forest and Climate Change IA-III Section (CRZ)

Indira Paryavaran Bhawan Jor Bagh Road New Delhi – 110003 Dated: 5th April, 2023

To

M/s Adani Ports and SEZ Limited Adani House, Nr. Mithakhali Circle Navarangpura, Ahmedabad Gujarat – 380009

Email: environment.mundra@adani.com

Subject: Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat by M/s Adani Ports and SEZ Limited - CRZ Clearance - regarding. Sir.

This has reference to your proposal No. IA/GJ/CRZ/411806/2022 dated 18th January, 2023 on the above mentioned project proposal for CRZ Clearance, in accordance with the provisions of the Coastal Regulation Zone (CRZ) Notification, 2011 issued under the Environment (Protection) Act, 1986.

- The Ministry of Environment, Forest and Climate Change has examined the proposal for CRZ Clearance to the project for Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat by M/s Adani Ports and SEZ Limited.
- 3. The proposal was considered by the Expert Appraisal Committee (EAC) for Infrastructure Development, Coastal Regulation Zone, Building / Construction and Miscellaneous projects, in its meeting held on 7th February, 2023. The project proponent and their consultant made detailed presentation and informed as under:
- (i) M/s Adani Ports and SEZ Limited (APSEZ) has proposed to (i) develop a new utility corridor from the west side of south port, which comprises of road, rail, pipeline, HT line, other utility services and proposed to develop (ii) underground cross-country LPG pipeline route (@91.35 km) from east side of the south port connecting Mundra LPG Terminal Pvt Ltd to GAIL facility at Mithirohar, Gandhidham.
- (ii) M/s APSEZ has proposed that project utility corridor will have a width of 100m and approximate length of 7 km, inclusive of 2 numbers of 4 lane roads, 2 railway lines, pipeline, HT power line and other utility lines (including facilities such as pipelines, power & networking cables, gas networks etc.). The entire stretch of the corridor will be above ground and at the creek crossing; it will be on an elevated bridge supported with pile structure. The dimension of the utility corridor as:

S. No	Type of the Corridor Lane	Proposed width of each corridor (m)
1	Utility corridor	12
2	Pipeline corridor	20
3	Rail corridor	15
4	Road corridor	35
5	Power / HT line corridor	18
	Total width	100

(iii) The Area falling in CRZ as:

Proposed Activities	Project	CRZ IA	CRZ IB	(NDZ)	CRZ III (200 m to 500 m)	CRZ IV B
Proposed LPG	Pipeline	-		-	1259.12	**
(m)	20	370.03	59.68	91.87	-	-



	175.79	10.19	42.09	-	
Proposed HT Power Line	-	-	801.85	-	46.05
(Length in m)	1733.08	355.70	1110.01		396.15
	1601.18		418.61	-	100
Proposed Road Corridor	2.19	0.61	0.72	25	0.22
(Area in Ha)	7.63	0.31	2.80	-	
Proposed Pipeline		0.00	6.03	1.79	-
Corridor (Area in Ha)	0.91	0.33	13.15	-	0.09

(iv) The CRZ applicability for the project as:

S.No	Proposed Development	CRZ Classification	Permissible clause as per CRZ Notification 2011
1	Proposed	CRZIII NDZ (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
2	underground LPG Line	CRZIII (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
3	Line	CRZ IA (Mangrove Buffer)	3(iv)(a), 4(i)(a) &(f), , 4(ii)(d), 8(l)(i)(b) &(c)
4		CRZ IB	3(iv)(a), 4(i)(a) &(f), 4(ii)(d) and 8(I)(ii)(g)
5	Proposed HT	CRZIII NDZ (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
6	Power Corridor	CRZIII (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
7		CRZIVB	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
8		CRZIA (Mangrove Buffer)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d), 8(l)(i)(b) &(c)
9		CRZ IB	3(iv)(a), 4(i)(a) &(f), 4(ii)(d) and 8(l)(ii)(g)
10	Proposed Road	CRZIII NDZ (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
11	and Rail Corridor	CRZIA (Mangrove Buffer - On Stilts)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d), 8(l)(i)(b) &(c)
12		CRZIA (On Stilts)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d), 8(l)(i)(b) &(c)
13		CRZIVB	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
14		CRZ IB	3(iv)(a), 4(i)(a) &(f) , 4(ii)(d) and 8(l)(ii)(g)
15	Proposed	CRZIII NDZ (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
16	Pipeline Corridor	CRZIII (Port Limit)	3(iv)(a), 4(i)(a) &(f), 4(ii)(d)
17		CRZ IB	3(iv)(a), 4(i)(a) &(f) , 4(ii)(d), and 8(l)(ii)(g)

- (v) The total Employment likely to be about 60 during construction phase (Temporary: 50 and Permanent: 10).
- (vi) The project site is falling under Zone V (Highest Risk Zone) Seismic Zone and Disaster Management Plan has been drawn for natural disasters such as earthquake, cyclone, tsunami, flood and man-made disaster such as fire
- (vii) The estimated cost of the project is approximately ₹495 Crores. The EMP budget allocated ₹35 lakhs Per Annum.
- (viii) The Gujarat Coastal Zone Management Authority vide letter No.ENV-10-2018-76-T, dated 20/10/2022, has recommended the project for CRZ clearance.



4. The Committee made detailed deliberation on the proposal. The Committee noted that the GCZMA has recommended the project and intimated that the activity is permissible. The EAC advised to PP that the LPG pipeline is not a Public Utility Corridor and it need clarification in this regard and also suggested to submit clarification immediately by e-mail to all EAC Members. The PP has submitted clarification vide e-mail / letter No. Nil, dated 07/02/2023 and same also circulated to all EAC members including MoEFCC and also accepted by EAC while approving the minutes.

The Committee after detailed deliberations and based on the clarifications/ information submitted by PP recommended the proposal for CRZ Clearance, subject to certain terms and conditions.

5. Based on the recommendation of the Gujarat Coastal Zone Management Authority and considering the submissions made by the project proponent, the Ministry of Environment, Forest and Climate Change, in acceptance of the recommendations of the Expert Appraisal Committee (CRZ), hereby accords CRZ Clearance to the project for Development of Road, Rail, Utility Corridor and LPG Pipeline at Mundra, District Kutch, Gujarat by M/s Adani Ports and SEZ Limited, under the provisions of the CRZ Notification, 2011 and amendments thereto, subject to the compliance of terms and conditions as under:-

PART A - SPECIFIC CONDITIONS:

- All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
- The utility corridor should be restricted to within port limit.
- (iii). All facilities in utility corridor should comply with detailed in risk and safety management plan as presented the committee and compliance report to be submitted to Regional Office
- (iv). Sufficient gap / distance between pipelines need to maintain for safety & maintenance activities.
- (v). Any temporary physical infrastructure setup and excavated material shall not be dumped in water bodies or adjacent areas and the site shall be restored to its original condition after completion of construction of work.
- (vi). The pipeline where crossing of water body / river / creek areas should be laid through Horizontal Directional Drilling (HDD) method.
- (vii). No storage reservoir for sea water shall be permitted and only project activity i.e. pipelines conveyance system etc. shall be installed.
- (viii). No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and / or operation phase of the project.
- (ix). Permanent labour camp, machinery and material storage shall not be set up in the CRZ area.
- (x). The prior approval from PESO should be obtained before commencement of the project.
- (xi). All the conditions stipulated by the Gujarat Coastal Zone Management Authority vide its letter No.ENV-10-2018-76-T, dated 20/10/2022 and commitments made by the PP before the GCZMA and EAC shall be followed in letter and spirit.
- (xii). All necessary clearance from the concerned authority, as may be applicable should be obtained prior to commencement of project or activity.

PART B - GENERAL CONDITIONS:

- (i). Management of solid waste in accordance with the Solid Waste Management Rules, 2016 shall be strictly implemented.
- (ii). 'Consent to Establish' and /or 'Consent to Operate' shall be obtained from State Pollution Control Board under the provisions of Air (Prevention and Control of Pollution) Act, 1981 and / or the Water (Prevention and Control of Pollution) Act, 1974, as may be applicable.

Lun

- (iii). Disposal of muck during construction phase should not create any adverse effect on the neighbouring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of Competent Authority.
- (iv). All liquid waste arising from the proposed development will be disposed of as per the norms prescribed by Central / State Pollution Control Board. There shall not be any disposal of untreated effluent into the sea / coastal water bodies. It shall be ensured that the wastewater generated is treated in the STP as committed by the project proponent. The treated waste water shall be reused for landscaping, flushing and / or HVAC cooling purposes etc. within the development. The project proponent should also make alternate arrangement for situation arising due to malfunctioning of STP. There shall be regular monitoring of standard parameters of the effluent discharge from STP under intimation to the SPCB.
- (v). Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (vi). A copy of the clearance letter shall be uploaded on the website of the concerned State Coastal Zone Management Authority/State Pollution Control Board. The Clearance letter shall also be displayed at the Regional Office, District Industries Centre and Collector's Office / Tehsildar's office for 30 days.
- (vii). A six-monthly monitoring report shall need to be submitted by the project proponent to the concerned Regional Office of this Ministry regarding the implementation of the stipulated conditions.
- (viii). The Ministry of Environment, Forest & Climate Change or any other Competent Authority may stipulate any additional conditions or modify the existing ones, if necessary in the interest of environment and the same shall be complied with.
- (ix). Full co-operation shall be extended to the officials from the Regional Office of MoEF&CC, during monitoring of implementation of environmental safeguards stipulated. It shall be ensured that documents/data sought pertinent is made available to the monitoring team. A complete set of all the documents submitted to MoEF&CC shall be forwarded to the concerned Regional Office of MoEF&CC.
- (x). In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Ministry.
- (xi). The Ministry reserves the right to add additional safeguard measures subsequently, if considered necessary, and to take action to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner, including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, for non-compliance.
- (xii). All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponent from the respective Competent Authorities.
- (xiii). The project proponent should advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded CRZ Clearance and copies of clearance letters are available with the State Pollution Control Board (SPCB) and may also be seen on the website of the Ministry of Environment, Forest and Climate Change at https://parivesh.nic.in/. The advertisement should be made within Seven days from the date of receipt of the Clearance letter and a copy of the same should be forwarded to the concerned Regional Office of this Ministry.
- (xiv). A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

- (xv). The proponent shall upload the status of compliance of the stipulated conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB.
- (xvi). The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the project proponent along with the status of compliance of clearance conditions and shall also be sent to the respective Regional Office of the Ministry by e-mail.
- This Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.
- 7. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the CRZ clearance, if implementation of any of the above conditions is not found satisfactory.
- Concealing factual data or submission of false / fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
- Any appeal against this CRZ clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- 10. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- This issues with approval of the Competent Authority.

(Dr. H. Kharkwal) Scientist 'E' (CRZ)

Copy to:

- The Additional Chief Secretary, Forest & Environment Department, Government of Gujarat, 8th Floor, Block – 14, New Sachivalaya, Gandhinagar – 382010, Gujarat.
- The Deputy DGF (C), Ministry of Environment, Forest and Climate Change, Integrated Regional Office, Gandhi Nagar A wing- 407 & 409, Aranya Bhawan, Near CH-3 Circle, Sector-10A, Gandhi Nagar-382010, Gujarat.
- The Member Secretary, Gujarat Coastal Zone Management Authority, Block No: 14/8th Floor, New Sachivalaya, Sector - 10A, Gandhinagar, Gujarat.
- The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Delhi - 110032
- The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar – 382010, Gujarat.
- 6. Guard File/Monitoring File / Website / Record File

(Dr. H. Kharkwal) Scientist 'E' (CRZ)

Annexure – 2



Regional Office - Kutch (East) Gujarat Pollution Control Board Room No. 215-216-217, 2nd Floor, Kandla Port Trust Administrative Building, Gandhidham - 370201, Kutch. Email:- ro-gpcb-kute@gujarat.gov.in

No.: RO/GPCB Kut(E)/74006

CONSENT TO ESTABLISH CTE-54993

To

Adani Ports and Special Economic Zone Limited (PCB ID -74006),

Adani Port & SEZ Limited, Mundra

Vil.: Mundra. Tal.: Mundra. Dist.: Kutch.

Subject:

Consent to Establish (NOC) under Section 25 of Water (Prevention and Control of

Pollution) Act 1974 and Section 21 of Air (Prevention and Control of Pollution) Act

1981.

Reference:

Your CTE Application Inward ID NO. 225102, dated 13/05/2022.

Sir,

Without prejudice to the powers of the Board under the Water (Prevention and Control of Pollution) Act-1974, the Air (Prevention and Control of Pollution) Act-1981 and the Environment (protection) Act-1986 and without reducing your responsibilities under the said Acts in any way, this is to inform you that the Board Grants Consent to Establish (NOC) of industrial activity at Adami Port & SEZ Limited, Mundra, Vil.:

Munc a. Tal.: Mundra. Dist.: Kutch.

The	list of	the products to be manufacture is as below.	
_ I	No.	Activity	Quantity
	ļ	Laying 20" dia. Underground LPG pipeline for transportation of LPG from Mundra LPG terminal Pvt. Ltd (MLTPL) to receiving terminal GAIL Mithi Rohar, having a total length of 91.35 KM (with 03 nos. of SV stations).	6.75 MMTP/

Specific condition: -

1. No ground water shall be used for the project coming under dark zone without prior permission of competent authority.

2. You shall not carry out any activity which may attract the applicability of EIA notification-

3. Management of Solid Waste generated from industrial activities shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46).

4. As per provision of Rule-18 of Solid Waste Management Rules-2016 all industrial units using fuel and located within 100 km from the refused derived fuel (RDF) plant shall made an arrangement to replace at least five percent of their fuel requirement by refused derived fuel so produced.

5. Unit shall comply with the Board circular dated 27/08/2021 regarding retrofitting of emission control devices/equipment in D.G. Set with a capacity of 125 KVA and above.

6. Unit shall comply the submitted Self declaration dated 11/05/2022.

7. Unit shall not carried out any activity which may attract the CRZ notification 2011 & amendment there in.





Regional Office - Kutch (East)
Gujarat Pollution Control Board
Room No. 215-216-217, 2nd Floor,
Kandla Port Trust Administrative Building,
Gandhidham - 370201, Kutch.
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	C 114	Januba Tilanan Ast				
3.1		under the Water Act water: Tankers.				
3.2		no industrial water con	cumption and was	te water general	ion from manufacturing	
3.2		f no moustrial water con f other ancillary operation		te water general	don nom manaracearing	
3.3		ry of fresh water consumpt		rnose shall not e	vceed 0.5 KL/Day.	
3.4	The quantit	y of the Domestic waste w	rater (sewage) shall	not exceed 0.4 K	I./Day.	
3.5		aste water shall be dispos				
4		under the Air Act	ica on this bagin board			
4.1		ng shall be used as fuels.				
***	Sr. No.		ntity			
	1.		.it/Hr.			
4.2	The followi	ng flue gas emission throu		hall conform to th	e following standards.	
	Sr. No	Stack attached to	Stack height meter	in Parameter	Permissible Limit	
	1	DG sets (250 KVA- Stand by)	7	PM	150 mg/Nm ³	
	ļ 	DG sets (75 KVA-		SO2	100 PPM	
	2	Stand by)	5	NOx	50 PPM	
4.4	industry s	ntration of the following hall not exceed the limite issued by MoEF & CC da	s specified hereun	der as per Natio	nal Ambient Air Quality	
	Sr. No.	Pollutant	Time Weight	ed Concenti	ation in Ambient air	
] 5		Average		gram/cum	
	1	Sulphur Dioxide (SO,)	Annual		50	
	<u> </u>		24 Hours	<u></u>	80	
}	2	Nitrogen Dioxide (N02)	Annual		40	
		D. N. J. L. Matter (DM1)	24 Hours 0) Annual		80	
	3	Particulate Matter (PM1	24 Hours	İ	100	
	4	Particulate Matter (PM2			40	
	•		24 Hours		60	
4.5	The applic	cant shall provide portho	oles, ladder, platfo	rm etc. at chimn	ey(s) for monitoring the	
	air emissi	ons and the same shall b	e open for inspec	tion to/and tor	use of Board's staff. The	
	chimnev(s	s) vents attached to var	ious sources of e	mission shall be	e designed by numbers	
	such as S-	1. S-2. etc. and these sha	ll be painted/ disp	played to facilita	te identification.	
 	such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.					
4.6	The industry shall make adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to					
4.6	within the	e premises so as to mair	ntain ambient air	quality standard	in respect of noise to	
4.6	within the	premises so as to mair	ntain ambient air	quality standard ring night time.	is in respect of noise to	
4.6	within the	premises so as to mair 75dB(a) during day tim	ntain ambient air e and70 dB(A)du	ring night time.	ls in respect of noise to Daytime is reckoned in	
4.6	within the less than between	premises so as to mair	ntain ambient air e and70 dB(A)du	ring night time.	ls in respect of noise to Daytime is reckoned in	

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Regional Office - Kutch (East)
Gujarat Pollution Control Board
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Email: ro-gpcb-kute@gujarat.gov.in

The D.G. Set shall have acoustic enclosure and shall comply with the standards specified at Sr. no. 95 of Schedule-I of the rule-3 of E.P. Rules -1986 and Noise pollution level.as per the Air Act-1981.

D.G. Sets standards:

The flue gas emission through stack attached to D.G. Sets shall conform to the following standards.

- a) The minimum height of stack to be provided with each of the generator set shall be H=h +0.2(KVA) 112, where H=Total stack height in meter, h=height of the building in meters where or by the side of which the generator set is installed.
- b) Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the user's end
- c) The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Such circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.
- d) The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).
- e) All efforts shall be made to bring down the noise level due to the D.G. Set, outside the premises, within the ambient noise requirements by proper siting and control measures.
- f) Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G. Set manufacturer.
- g) A proper routine and preventive maintenance procedure for the D G. Set should be set and followed in consultation with the DG Set manufacture which would help prevent noise levels of the DG Set from deteriorating with use.
- 5 CONDITIONS UNDER HAZARDOUS WASTE.
- 5.1 The applicant shall provide temporary storage facilities for, each type of Hazardous Waste as per Hazardous & Other Waste (Management & Trans-boundary Movement) Rules, 2016 as amended from time to time.
- 5.2 The applicant shall obtain membership of common TSDF site for Hazardous Waste as categorized in Hazardous & other Waste (Management Trans-boundary Movement) Rules, 2016 as amended from time to time.
- 6 General Conditions
- Any change in personnel, equipment or working conditions as mentioned in the consents form/order should immediately be intimated to this Board.
- The waste generator shall be totally responsible for (I.E. Collection, storage, transportation and ultimate disposal) of the wastes generated.
- Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form 4 by 31s1 January of every year.

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Regional Office - Kutch (East)
Gujarat Pollution Control Board
Room No. 215-216-217, 2nd Floor,
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4	In case of any accident, details of the same shall be submitted in Form - 5 to Gujarat Pollution Control Board.
5	As per "Public liability Insurance Act - 91" company shall get Insurance policy, if applicable.
6	Unit shall take all concrete measures to show tangible results in waste generation reduction, voidance, reuse and recycle. Action taken in this regards shall be submitted within 03 months and also along with Form 4.
7	Industry shall have to display online data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous waste generated within the factory premises.
8	Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 10-meter width shall be developed.

For and behalf of Gujarat Poliution Control Board

> (Rajesh Kumar Parmar) Regional Officer

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Annexure – 3



Regional Office - Kutch (East)
Gujarat Pollution Control Board
Room No. 215-216-217, 2nd Floor,
Kandla Port Trust Administrative Building,
Gandhidham - 370201, Kutch.
Email:- ro-gpcb-kute@gujarat.gov.in

By R.P.A.D.

CONSOLIDATED CONSENT AND AUTHORIZATION (CC & A) CCA NO: AWH-66223 Appl. Type: CCA-Fresh

NO: GPCB/KUT/RO/CCA- Fresh/ID-74006/

In exercise of the power conferred under Section-25 of the Water (Prevention and Control of Pollution) Act-1974, under Section-21 of the Air (Prevention and Control of Pollution) Act-1981 and Authorization under rule 6(2) of the Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986.

And whereas Board has received consolidated application dated 30/06/2023 and inward no. 282709 for the consolidated consent and authorization (CC & A) of this Board under the provisions / rules of the aforesaid Acts, Consolidated Consent & Authorization is hereby granted as under.

CONSOLIDATED CONSENT AND AUTHORISATION:

(Under the provisions / rules of the aforesaid Environmental Acts)

To,

M/s. Adani Ports and Special Economic Zone Limited,

Plot No: Adani Port & SEZ Limited, Mundra,

GIDC Estate: MPSEZ, Vill: Mundra - 370421,

Tal: Mundra, Dist: Kutch East.

1. Consent Order No.: AWH-66223, date of Issue 22/08/2023.

2. The consent under Water Act -1974, Air Act - 1981 and Authorization under Environment (Protection) Act, 1986 shall be valid up to 18/06/2028 to operate industrial plant to manufacture following product:

Sr. No.	List of Product	Quantity	Unit Per Month	Remarks
1.	Laying 20" dia. Underground LPG pipeline for transportation of LPG from Mundra LPG Terminal Pvt. Ltd. (MLTPL) to receiving terminal GAIL Mithi Rohar, having a total length of 91.35 KM (with 03 nos. of SV stations)	6.75	ММТРА	

SPECIFIC CONDITIONS:-

- a. No ground water shall be used for the project coming under dark zone without permission of competent authority.
- b. Industry shall comply with fresh water from valid source having permission of the competent authority.
- c. Industry shall not carry out any activity which may attract the applicability of EIA Notification-2006 & its amendment.
- d. Management of Solid Waste generated from industrial activities shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46).
- e. As per provision of Rule-18 of Solid Waste Management Rules-2016 all industrial units using fuel and located within 100 km from the refused derived fuel (RDF) plant shall

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- made an arrangement to replace at least five percent of their fuel requirement by refused derived fuel so produced.
- f. Industry shall comply with circular of the Board dated 27/08/2021 regarding retrofitting of emission control/equipment in D.G. Set of capacity 125 KVA and above as per system & procedure for emission compliance testing of retrofit Emission Control Devices, (RECD) for D.G. Set issued by CPCB dated 01/02/2022 at the earliest and submit compliance.
- g. Unit shall comply the submitted self-declaration dated 11/05/2022.
- h. Unit shall not carried out any activity which may attract the CRZ notification 2011 & amendment there in without prior CTE/CCA amendment of the board.

3. CONDITION UNDER THE WATER ACT:

- 3.1 Source of water: Tankers.
- The quantity of total water consumption shall not exceed 0.5 KL/Day as per below break 3.2 up as mentioned in form D submitted for consent application under Water Act- 1974.
 - a) Industrial: 00 KL/Day.
 - b) Domestic: 0.5 KL/Day.
- The quantity of total waste water generation shall not exceed 0.4 KL/Day as per below 3.3 break up as mentioned in form D submitted for consent application under Water Act
 - a) Industrial: 00 KL/Day
 - b) Domestic: 0.4 KL/Day
- 3.4 Industrial effluent management:
 - a) Mode of disposal of treated industrial effluent: There shall be no water consumption for industrial purpose and other ancillary operations.
 - a) Description for treated industrial effluent disposal: There shall be no discharge of industrial effluent from manufacturing process and other ancillary operations.
- 3.5 Domestic sewage management:
 - a) Mode of disposal of treated domestic sewage: Soak Pit/ Septic Tank.
 - b) Description for treated domestic sewage disposal: Generated domestic waste water shall be disposed into Soak Pit/ Septic Tank.
- The Board reserves the right to review and/or revoke the consent and / or make 3.6 modifications in the conditions which it seems fit in accordance with provisions of Water Act-1974.

4. CONDITIONS UNDER THE AIR ACT:

Industry shall use fuel as specified in this order and the flue gas emission through stack 4.1. shall conform to the following standards:

Sr. No.	Stack attached to	Capacity	Name of fuel	Quantity of Fuel	Air Pollution Control Measure (APCM)	Stack Height in Meter (From G.L.)	Parameter & Permissible limit
1.	D.G. Sets	250 KVA		100		07	PM 150mg/Nm ³
2.	D.G. Sets	75 KVA	H.S.D.	Lit/Hr.		05	SO ₂ 100 PPM NOX 50 PPM

There shall be no process gas emission from the manufacturing process and any other 4.2. ancillary industrial operation through various stacks/ vent of reactors, process, and vessei from plant premises.

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4.3. The concentration of the following parameters in the ambient air within the premises of the Industry shall not exceed the limits specified hereunder as per National Ambient Air Quality Standards issued by MoEF & CC dated 16th November-2009.

Cr. No.	Damamatana	Permissible Limit (microgram /m³)		
Sr. No.	Parameters	Annual	24 Hours Average	
1.	Particulate Matter (PM ₁₀)	60	100	
2.	Particulate Matter (PM _{2.5})	40	60	
3.	Oxides of Sulphur (SO _x)	50	80	
4.	Oxides of Nitrogen (NO _x)	40	80	

- Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.
- 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year. 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.
- 4.4 Industry shall provide portholes, ladder, platform etc. at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.
- 4.5 Industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75 dB(A) during day time and 70 dB(A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned between 10 p.m. and 6 a.m.

4.6 DG Sets Conditions:

The D.G. Set shall have acoustic enclosure and shall comply with the standards specified at Sr. no. 95 of Schedule-I of the rule-3 of E.P. Rules -1986 and Noise pollution level as per the Air Act-1981.

D.G. Sets standards:

The flue gas emission through stack attached to D.G. Sets shall conform to the following standards.

- a. The minimum height of stack to be provided with each of the generator set shall be H=h +0.2(KVA) 112, where H=Total stack height in meter, h=height of the building in meters where or by the side of which the generator set is installed.
- b. Noise from DG set shall be controlled by providing an acoustic enclosure or by treating the room acoustically, at the user's end
- c. The acoustic enclosure or acoustic treatment of the room shall be designed for minimum 25 dB (A) insertion loss or for meeting the ambient noise standards, whichever is on the higher side (if the actual ambient noise is on the higher side, it may not be possible to check the performance of the acoustic enclosure/ acoustic treatment. Such circumstances the performance may be checked for noise reduction up to actual ambient noise level, preferably, in the night time). The measurement for insertion loss may be done at different points at 0.5 m from the acoustic enclosure/room, and the averaged.
- d. The D.G. Set shall be provided with proper exhaust muffler with insertion loss of minimum 25 dB (A).
- e. All efforts shall be made to bring down the noise level due to the D.G. Set, outside the premises, within the ambient noise requirements by proper siting and control measures.

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- f. Installation of a D.G. Sets must be strictly in compliance with the recommendations of the D.G. Set manufacturer.
- g. A proper routine and preventive maintenance procedure for the D G. Set should be set and followed in consultation with the DG Set manufacture which would help prevent noise levels of the DG Set from deteriorating with use.
- 5. AUTHORISATION FOR THE MANAGEMENT & HANDLING OF HAZARDOUS WASTES Form-2 (See rule 6(2)).
- 5.1. Number of Authorization: AWH-66223, date of Issue 22/08/2023.
- 5.2. M/s. Adani Ports and Special Economic Zone Limited, is hereby granted an authorization to operate facility for following hazardous wastes on the premises situated at Plot No: Adani Port & SEZ Limited, Mundra, GIDC Estate: MPSEZ, Vill: Mundra 370421, Tal: Mundra, Dist: Kutch East.

Sr. No.	Name of Haz. Waste	Category Number	Quantity MT/Yr.	Facility and Mode of Disposal
1.	Used or Spent oil	5.1	0.3	Collection, storage, transportation and disposal by selling to registered recycler/ re-processor or reuse as lubricant in plant machineries within plant premises.
2.	Contaminated Cotton rags or other cleaning materials	33.2	0.1	Collection, Storage, transportation and disposal to authorized TSDF.

- 5.3. The authorization is granted to operate a facility for collection, storage within factory premises, transportation and ultimate disposal of Hazardous wastes as mentioned above.
- 5.4. The authorization shall be in force for a period as mentioned above.
- 5.5. The authorization is subject to the conditions stated below and such other conditions as may be specified in the rules from time to time under the Environment (Protection) Act-1986.

5.6. Terms and conditions of authorization:

- a. The authorized person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
- b. The authorization or its renewal shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
- c. The person authorized shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorization.
- d. Any unauthorized change in personnel, equipment or working conditions as mentioned in the application by the person authorized shall constitute a breach of his authorization.
- e. The person authorized shall implement Emergency Response Procedure (ERP) for which this authorization is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
- f. The person authorized shall comply with the provisions outlined in the Central Pollution Control Board guidelines on "Implementing Liabilities for Environmental Damages due to Handling and Disposahof Hazardous Waste and Penalty"
- g. It is the duty of the authorized person to take prior permission of the Gujarat Pollution Control Board to close down the facility.
- h. The imported hazardous and other wastes shall be fully insured for transit as well as for any accidental occurrence and its clean-up operation.
- The record of consumption and fate of the imported hazardous and other wastes shall be maintained.
- j. The hazardous and other waste which gets generated during recycling or reuse or recovery or pre-processing or utilization of imported hazardous or other wastes shall be treated and disposed of as per specific conditions of authorization.

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- k. The importer or exporter shall bear the cost of import or export and mitigation of damages if any.
- l. An application for the renewal of an authorization shall be made as laid down under these Rules.
- m. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
- n. Annual return (Form 4) shall be filed by June 30th for the period ensuring 31st March of the year.
- 5.7. The industry shall have to manage used or spent oil; empty or discarded barrels / containers / liners contaminated with hazardous chemicals / wastes, process waste as per Hazardous & Other Wastes (Management and Transboundary Movement) Rules-2016, framed under the E(P)Act-1986 and shall apply Authorization for all applicable waste.
- 5.8. The waste generator shall be totally responsible for (i.e. collection, storage, transportation and ultimate disposal) of the wastes generated.
- 5.9. In case of any accident, details of the same shall be submitted in Form 11 to Gujarat Pollution Control Board.

6. GENERAL CONDITION

- 6.1 In case of change of ownership/ management the name and address of the new ownership/ partners/ directors/ proprietor should immediately be intimate to the Board. Also any change in equipment or working conditions as mentioned in the consent form/ order should immediately be intimated to this Board.
- 6.2 Industry shall put up at the entrance a board displaying the name of the Industry, particulars of the products/ process and the name of proprietor/partners /directors of the Industry and the electricity consumer number as on the record of PGVCL.
- 6.3 The environmental statements pertaining to the previous year shall be submitting to this State Board latest by 30th June every year.
- 6.4 Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of land and a green belt of 5 meters width is developed.
- 6.5 The industry shall have to display the relevant information with regard to hazardous waste, waste water & air pollutants as indicated in the Courts Order in W.P. No.657 of 1995 dated 14th October-2003.
- 6.6 As per "Public Liability Insurance Act 1991", industry shall get Insurance Policy, if applicable.
- 6.7 Applicant shall also comply with the general conditions given in annexure I.
- 6.8 The waste generator shall be totally responsible for (I.E. Collection, storage, transportation and ultimate disposal) of the wastes generated.
- 6.9 Records of waste generation, its management and annual return shall be submitted to Gujarat Pollution Control Board in Form 4 by 31s1 January of every year.
- 6.10 In case of any accident, details of the same shall be submitted in Form 5 to Gujarat Pollution Control Board.
- 6.11 Empty drums and containers of toxic and hazards material shall be treated as per guideline published for management & handling of discarded containers". Records of the same shall be maintained and forwarded to Gujarat Pollution Control Board regularly.
- 6.12 In no case any kind of hazardous waste shall be imported without prior approval of appropriate authority.
- 6.13 In case of transport of hazardous waste to a facility for (I.E. Treatment, Storage and disposal) existing in a state other than the state where hazardous waste are generated,

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the occupier shall obtain "No Objection certificate" from the state pollution Control Board, the Committee of the concerned state or Union territory Administration where the facility exists.

6.14 Unit shall take all concrete measures to show tangible results in waste generation reduction, avoidance, reuse and recycle. Action taken in this regards shall be submitted within 03 months and also along with Form 4.

6.15 Industry shall have to display online data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including wastewater and air emissions and solid hazardous waste generated within the factory premises.

For and on behalf of GUJARAT POLLUTION CONTROL BOARD

(Rajesh Kumar Parmar) Regional Officer, Kutch (East)

ISSUED TO,

M/s. Adani Ports and Special Economic Zone Limited,

Plot No: Adani Port & SEZ Limited, Mundra,

GIDC Estate: MPSEZ, Vill: Mundra - 370421,

Tal: Mundra, Dist: Kutch East,

40°-76412,3710812023

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Annexure – 4



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Gujarat Pollution Control Board
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By R.P.A.D.

Consent to Establish (NOC)
CTE NO: CTE-66434 Appl Type: CTE-Ammendment

NO: GPCB/KUT/CTE-/ID-74006/

To,

M/s. Adani Ports and Special Economic Zone Limited,

Plot No: Adani Port & SEZ Limited, Mundra,

GIDC Estate: MPSEZ, Vill: Mundra - 370421,

Tal: Mundra, Dist: Kutch East.

SUB: Consent to Establish (NOC) under Section 25 of Water Act 1974 and Section 21 of Air Act 1981.

REF: Your NOC application No. 285178 dated 09/08/2023.

Sir,

Without prejudice to the powers of this Board under the Water (Prevention and Control of Pollution) Act-1974, the Air (Prevention and Control of Pollution) Act-1981 and the Environment (Protection) Act-1986 and without reducing your responsibilities under the said Acts in anyway, this is to inform you that this Board grants Consent to Establish (NOC) for setting up of an industrial plant/ activities at Plot No: Adani Port & SEZ Limited, Mundra, GIDC Estate: MPSEZ, Vill: Mundra - 370421, Tal: Mundra, Dist: Kutch East to manufacture the following product.

- 1. CTE Order No.: CTE-66434 date of issue 29/08/2023, Valid up to 08/08/2030.
- 2. The list of proposed products to be manufactured shall be as follows:

Sr. No.	List of Product	Quantity	Unit Per Month	Remarks
1.	Laying 20" dia. Underground LPG pipeline for transportation of LPG from Mundra LPG Terminal Pvt. Ltd. (MLTPL) to receiving terminal GAIL Mithi Rohar, having a total length of 91.35 KM (with 03 nos. of SV stations).). 	ММТРА	~-

SPECIFIC CONDITIONS:-

1. No ground water shall be used for the project coming under dark zone without permission of competent authority.

2. You shall not carry out any activity which may attract the applicability of EIA notification-2006

3. Management of Solid Waste generated from industrial activities shall be as per Solid Waste Management Rules-2016 (solid waste as defined in Rule-3(46).

4. As per provision of Rule-18 of Solid Waste Management Rules-2016 all industrial units using fuel and located within 100 km from the refused derived fuel (RDF) plant shall

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made an arrangement to replace at least five percent of their fuel requirement by refused derived fuel so produced.

- Industry shall comply with circular of the Board dated 27/08/2021 regarding 5. retrofitting of emission control/equipment in D.G. Set of capacity 125 KVA and above as per system & procedure for emission compliance testing of retrofit Emission Control Devices, (RECD) for D.G. Set issued by CPCB dated 01/02/2022 at the earliest and submit compliance.
- 6& 7. Industry shall strictly comply with the conditions given in the CRZ Clearance obtained from MoEF & CC, New Delhi vide letter no: F. no. 11-9/2023.IA.III dated 05/04/2023.
- The other term and condition of CTE order no. CTE-54993, dated 13/05/2022 issued vide outward no. 16098, dated 24/06/2022 shall be remain unchanged.

For and on behalf of GUJARAT POLLUTION CONTROL BOARD

> (Rajesh Kumar Parmar) Regional Officer, Kutch East

ISSUED TO.

M/s. Adani Ports and Special Economic Zone Limited,

Plot No: Adani Port & SEZ Limited, Mundra,

GIDC Estate: MPSEZ. Vill: Mundra - 370421,

Tal: Mundra, Dist: Kutch East.

· 164841410912023 GPCB ID: 74006, Inward ID: 285178.

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Annexure – 5



Provisional Consent Order (CCA) Kaura Commercial Complex-1, 1132 1302. Tax office, Manglam Char rasta ,Sanskar nagar,

Gujarat Pollution Control Board - Kutch East

BHUJ - 370 001

Tele: (02832) 250 620

Consent No. W-68345 Valid upto: 18/06/2028

PCB Id:74006

Application: CtO:CCA-Ammendment, No. 289421 Dt. 18/10/2023, Granted On: 11/11/2023

Besides streamlining and simplifying of regulatory regime, Gujarat Pollution Control Board has taken initiative in from of introduction of Consolidated Consent and Authorization (CC&A) which provides for a one shot application and clearance of the consents under Water Act, Air Act and Authorization under Hazardous Wastes Rules for a period of 5 years.

Board issues consolidated consent and Authorization to an industrial unit for operation of plant/carrying out industrial activity specifying following conditions.

Consolidated Consent and Authorisation

In exercise of the power conferred under section-25 of the Water (Prevention and Control of Pollution) Act-1974, under section-21 of the Air (Prevention and Control of Pollution)Act-1981

and Authorization under rule 3(c)& 5(5)of the Hazardous Waste (Management, Handling and Transboundary Movement) Rules'2008 framed under the E(P)Act-1986.

And whereas Board has received consolidated Application No.(CtO:CCA-Ammendment) 289421 and Dated 18/10/2023 for the consolidated consent and authorization(CC&A) of this Board under the provisions / rules of the aforesaid Acts Consent & Authorization is hereby granted as under.

CONSENT AND AUTHORISATION: (under the provisions / rules of the aforesaid environmental acts)

To,

M/s. Adani Ports and Special Economic Zone Limited,

Adani Ports \u0026 SEZ Limited, Mundra, Kutch - 370421 (Gujarat), City: Mundra,

Dist: Kutch East, Tal: Mundra, SIDC: MPSEZ

Phone: 6359981629

1. Consent Order No: Valid Upto: W-68345 18/06/2028

2. All Conditions under the WATER ACT-1974 shall be Applicable to you as mentioned in the detailed Consent Order ***

Consented CETP: Not Linked to any CETP

Consented TSDF: Bhachau-Saurashtra Enviro Projects Pvt. Ltd[28203]

3. GENERAL CONDITIONS:-

the Water Cess Act- 1977.

- a) This order is provisional order and detailed order is considered as final.
- b) All the conditions & provisions under the Water Act 1974, the Air Act 1981 and the Environment (Protection) Act 1986 and the rules made there under shall be complied with *.
- c) All the conditions & provisions under the Hazardous Waste (Management, Handling and Trans boundary Movement) Rules 2008 as amended shall be complied d) The applicant shall provide portholes, ladder, platform etc at chimney(s) for monitoring the air emissions and the same shall be open for inspection to/and for use of Board's staff. The chimney(s) vents attached to various sources of emission shall be designed by numbers such
- as S-1, S-2, etc. and these shall be painted/displayed to facilitate identification.
- e) The industry shall take adequate measures for control of noise levels from its own sources within the premises so as to maintain ambient air quality standards in respect of noise to less than 75dB(A) during day time and 70dB(A) during night time. Daytime is reckoned in between 6 a.m. and 10 p.m. and nighttime is reckoned
- f) In case of change of ownership/management the name and address of the new owners/ partners/ directors/ proprietor or equipment or working conditions as mentioned in the consents form / order should immediately be intimated to the Board.
- g) Industry shall have to display data outside the main factory gate with regard to quantity and nature of hazardous chemicals being handled in the plant, including waste water and air emissions and solid hazardous wastes generated within the factory premises.
- h) The CCA shall be produced for inspection at the request of an officer authorized by the Gujarat Pollution Control Board.
- i) Any unauthorized change in personnel, equipment or working conditions as mentioned in the CCA order by CCA holder shall constitute a breach of this CCA. j) Adequate plantation shall be carried out all along the periphery of the industrial premises in such a way that the density of plantation is at least 1000 trees per acre of
- land and a green belt of 5 meters width is developed. K) The applicant shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under

*** Note: ACT-Specific, Industry-specific, Area-specific Conditions alongwith Product, Waste water effluent details shall be precisely mentioned in the DETAILED Consent

*** Note: This is only provisional communication. The final Consent/Authorization in hard copy with duly signed by competent authority shall the final and valid Consent/Authorization.

For and on behalf of Gujarat Pollution Control Board

D. M. Thaker.

(Member Secretary)

Annexure – 6



भारत सरकार/Government of India

वाणिज्यक और उद्योग मंत्रालय/Ministry of Commerce & Industry पेट्रोलियम तथा विस्फोयटक सुरक्षा संगठन (पेसो)/Petroleum & Explosives Safety Organisation (PESO) 5th Floor, A-Block, CGO Complex, Seminary Hills, Nagpur - 440006

ई-मेल /E-mail :

explosives@explosives.gov.in

दिनांक /Dated : **07/10/2022**

फोन/फैक्स नं. /Phone/Fax No : 0712 -2510248,

Fax-2510577

संख्या/No: A/M/HQ/GJ/PL/1 (P461465)

सेवा में /To.

M/s. M/s. Adani Ports & Special Economic Zone Limited,

Adani House, Post Bag No. 1.,

Mundra - 370 021

Mundra.

Taluka: Mundra, District: KUTCH State: Gujarat PIN: 370021

विषय/Sub:

MSIHC-1989 के अंतर्गत Dia 508.0000 mm. X Length 91.0000000 km PlotNo:- Mundra Mundra LPG Terminal Pvt Ltd Taluka. Mundra Dist. KUTCH State Gujarat Pincode :- 370421 से :- Mithi Rohar Taluka. Other Dist. KUTCH State Gujarat Pincode :- 370240 तक पाइपलाइन बिछाने की स्वीकृति/अनुमित- के बारे में /Permission of commissioning of Dia 508.0000 mm. X Length 91.0000000 km pipeline from PlotNo:- Mundra Mundra LPG Terminal Pvt Ltd Taluka. Mundra Dist. KUTCH State Gujarat Pincode :- 370421 to :- Mithi Rohar Taluka.

Other Dist. KUTCH State Gujarat Pincode: - 370240, under MSIHC-1989 reg.

महोदय /Sir(s),

उपरोक्त विषय पर कृपया आपके पत्र क्रमांक OIN1176039 दिनांक 05/10/2022 का संदर्भ ग्रहण करें I/Please refer to your letter No. OIN1176039 dated 05/10/2022, on the above subject.

चूंकि विषयक पाइपलाइन की स्थापना/बिछाने का काम पूर्ण हो चुका है और आपके द्वारा उक्त पाइपलाइनों के हाइड्रो टेस्ट की रिपोर्ट संतोषजनक होने की पृष्टि की गई है, उपरोक्त पाइपलाइन के प्रवर्तन हेतु एमएसआईएचसी नियम, 1989 के प्रावधान के अनुसार, कोई आपित नहीं है। पाइपलाइन को सुरक्षित रूप से संचालित करने के लिए हर सावधानी बरती जाएगी और संचालन और रखरखाव के किसी भी चरण में कोई असुरक्षित स्थिति पाए जाने पर तत्काल कार्रवाई की जाएगी I/Since installation/Laying of the subject pipeline have been completed and the report of hydro tests conducted of the said pipelines have been confirmed by you as being satisfactory, there is no objection to your commissioning the above pipeline as per the provision of MSIHC Rule, 1989. Every precaution shall be taken to safely operate the pipeline and immediate action is taken if any unsafe condition is noticed at any stage of operation and maintenance.

पाइपलाइन के प्रत्येक भाग के डिजाइन, निर्माण और परीक्षण के रिकॉर्ड, वेल्ड का स्थान, निर्माण की सामग्री, वाल्व, बेंड फ्लैंग्स आदि (प्रत्येक वेल्ड और फिटिंग के पहचान चिह्न के साथ) को रिकॉर्ड के लिए संरक्षित किया जाएगा।/The records of design, fabrication and testing of each section of pipeline, location of welds, material of construction, valves, bends flanges etc. (With identification marking for each weld and fitting) may please be preserved for records.

कृपया ध्यान दें कि पाइप लाइन का संचालन प्रस्तु त एसओपी के अनुसार किया जाएगा और सुरक्षित उपयोग और संचालन सुनिश्चित करने के लिए नियमित गश्त की जाएगी। एमएसआईएचसी नियम, 1989 के नियम 10 के तहत आवश्यकतानुसार एक स्वतंत्र एजेंसी से वार्षिक सुरक्षा लेखा परीक्षा रिपोर्ट तैयार की जाएगी और रिकॉर्ड के लिए प्रत्येयक वर्ष इस कार्यालय को यह रिपोर्ट प्रस्तुत की जाएगी।/Please note that operation of the pipeline shall be done according to SOP's furnished and regular patrolling is undertaken to ensure safe use and operation. Annual safety audit report from an independent agency as require under rule 10 of MSIHC rule, 1989 shall be carried out and submitted every year to this office for record.

. .

(Shivchandra D. Mishra) **Controller of Explosives** For Chief Controller of Explosives Nagpur

प्रतिलिपि अग्रेषित, अनुमोदित आरेखण की एक प्रति के साथ - / Copy along with a copy of the approved drawing is forwarded to the Jt. Chief Controller of Explosives, Vadodara, VADODARA

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Annexure – 7

AND DISASTER MANAGEMENT PLAN OF MUNDRA TO MITHIROHAR LPG PIPELINE

January, 2022



Prepared by

ADANI

Mundra to Mithirohar Pipeline, Kutchh district
Pin-370421, Gujarat







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FOREWORD

It gives me great pleasure to present to you the Emergency Response & Disaster Management Plan for ADANI LPG Import/Export from Mundra to Mithirohar Terminal pvt Ltd. Gujarat, prepared in line with requirements of the Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP)) Regulations, 2020.

This is a great stride towards safe and responsible operations for the organization to consciously design a guide to deal with disasters that have potential to occur during operations in an integrated and coordinated manner.

This ERDMP places emphasis on planning such that the accidents are minimized in the first place. It then stresses the need for a structured multi-layered response commensurate with the level of emergency coupled with a strong emergency organization churning out focused response. The final objective of this ERDMP aims at minimizing the impact on life, environment and property. ADANI strives to eliminate accident potential in its activities by integrating safety in its design, operations, and involvement of people, training and information dissemination. All stakeholders involved in our endeavors are continuously involved and informed to be more responsive to the goal of accident prevention.

Whilst this plan does not guarantee that there will not be any accidents/emergencies, it however provides an opportunity for all stakeholders to reduce the effects of any disaster that may befall us. I therefore call upon all the people in ADANI to acquaint themselves with the contents of the plan and proactively implement it.

Managing Director





Executive Summary

Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP)) Regulations, 2020 require all entities engaged in storage, transportation and distribution of LPG to prepare and implement an effective and concise Emergency Response & Disaster Management plan for their operations. APSEZ has been Authorized the work for connectivity of LPG Pipeline from Adani Port at Mundra to GAIL Station at Mithi Rohar by Petroleum Natural Gas Regulatory Board (PNGRB). This document is prepared in response to the above Regulations and demonstrates ADANI's commitment towards accident prevention, managing and responding to emergencies and assures complete compliance to the statutes.

This ERDMP is prepared in complete conformance to the ERDMP regulation such that each chapter coincides with the Rule number starting from Rule 2 of the regulation. Each and every aspect of the Regulation has been covered and applicable information and data provided against specific requirements stated under the rules.

Being a continual growth company, the data, information and facilities available at ADANI are dynamic. We at ADANI strive to enhance/upgrade the safety equipment and facilities, train our staff and stakeholders and keep the authorities updated from time to time. The data and information presented in this document is correct as on date mentioned in this document.





ABBREVIATIONS

ALARP- As Low as Reasonably Practical

API - American Petroleum Institute

ASME - American Society Mechanical Engineering

ASTM - American Society for Testing and Material

CGS – City Gate Station

ECO - Emergency Co-ordination Officer

EGIG – European Gas Pipeline Incident Data Group

EPO - Emergency Planning Officer

ERDMP- Emergency Response & Disaster management Plan

ERT - Emergency Response Team

ESD - Emergency Shut Down

FCO - Fire Control Officer

FERA- Fire and Explosion Risk Assessment

HSE - Health, Safety Environment

MSDS - Material Safety Data Sheet

MSIHC - Manufacture Storage and Import of Hazardous Chemicals

OGP- International Association of Oil & Gas Producers

OISD - Oil industry safety directorate

OPSO - Over Pressure Shut Off

PCV – Pressure Control Valve

PLL - Potential Loss of Life

PNGRB - Petroleum & Natural Gas Regulatory Board

PSV- Pressure Safety Valve

SCADA - Supervisory Control and Data Acquisition

SCMH - Standard Cubic Meters per Hour

SDV- Slam shutdown valve

SV- Sectionalizing Valve

U.P. - Uttar Pradesh

UKOPA- UK Onshore Pipeline Operators' Association

SIL- Safety Integrity Level

PALL- Presurre Alarm Low Low

MLTPL- Mundra LPG Terminal Pvt Limited

PAH-Pressure Alarm High

PAL-Pressure Alarm Low

PAHH- Presurre Alarm High High

LOC- Loss of Contamination





CHAPTER - 1 BACKGROUND OF THE PLAN & OPERATIONS

1.1 INTRODUCTON

Adani Ports and Special Economic Zone Limited (APSEZ) is India's largest private multi-port operator. It is a part of the Adani Group, an integrated infrastructure corporation. The company (earlier known as Mundra Port & Special Economic Zone Ltd.) changed its name to Adani Ports and Special Economic Zone Limited on January 6, 2012. The company commenced operations at Mundra Port and currently operates 10 ports in India comprising 45 berths and 14 terminals across 6 states. Adani vision is to be a world class leader in businesses that enrich lives and contribute to nations in building infrastructure through sustainable value creation.

APSEZ has been Authorized the work for connectivity of LPG Pipeline from Adani Port at Mundra to GAIL Station at Mithi Rohar by Petroleum Natural Gas Regulatory Board (PNGRB). The Proposed 20" Ø LPG Pipeline will be laid for a length of 89.5 km & operated at 57 kg/cm² pressure. APSEZ intends to lay LPG Pipeline from Mundra Port to GAIL Station at Mithi Rohar and has appointed Adani Gas Limited as Project Management Consultants and Howe Engineering Projects (India) Pvt. Ltd. (HEPIPL) as its EPS Contractor.

Tractebel Engineering is providing the services of engineering consultants for this project and Techno-Safe Consultants has been retained for the preparation of this Emergency response and Disaster Management Plan (ERDMP) for this Proposed LPG Pipeline from Mundra Port to GAIL Station at Mithi Rohar.

1.2 KEY OBJECTIVES OF THE PLAN

In spite of the safety measures undertaken, the possibility of accidents either due to human errors and / or due to equipment / system failure cannot be ruled out. The lessons learnt from disasters all over the world, make it essential to draw an Emergency Preparedness Plan (or Disaster Management Plan) to negotiate such eventuality. The imperative of such a plan is to minimize the adverse effects of an accident and restoration of normalcy at the earliest by providing the measures to contain the incident and limit its consequences.





This Disaster Management plan has been prepared to address the following key objectives: -

- To safeguard lives, environment and property at site and in its neighborhood;
- To contain the incident and bring it under control and restore normalcy at the earliest;
- To minimize damage to lives, property and environment;
- To rescue and treat casualties on priority;
- To assist the district administration in evacuating people to safe areas;
- To extend necessary welfare assistance to casualties.

The above objectives are sought to be achieved through some of the following measures:

- Providing information to all concerned on the estimated consequences of the events that are likely to develop as a result of an emergency;
- Warning and advising people who are likely to be affected;
- · Mobilizing on-site and offsite resources;
- Calling up assistance from outside agencies;
- Initiating and organizing evacuation of affected people;
- Providing necessary first aid and other medical services that may be required;
- Collecting data on the latest developments, other information and requirements;
- Coordinating action taken by various agencies.

1.3 METHODOLOGY

The methodology adopted to achieve the desired objectives is given below:

- Collection of relevant data and information from the Concerned Project team, Operations, Pipeline, Maintenance and HSE.
- Evaluation of the site vis-à-vis neighboring facilities and surrounding areas, including pipeline routes, location of SVs.
- Collection of data related to processes, equipments and utility handled at site including, fire fighting arrangements, safety and alarm systems, electrical and instrumentation details, etc.
- Data compilation and analysis followed by identification of hazards
- Consequence analysis to assess the damage/effect of short-listed/credible accident scenarios by using Phast/Safeti software.





- Estimating failure rate frequencies associated with the identified accident scenarios.
- Risk assessment using the consequence analysis results and failure probabilities
- Development of recommendations for risk prevention or mitigation
- Preparation of Emergency Response & Disaster Management Plan (ERDMP) and its submission

1.4 ADANI FACILITIES DESCRIPTION

ADANI group proposes to lay 89 Km natural gas pipeline for transportation of LPG from TOP (Tap off Point) at Mundra LPG terminal Pvt. Ltd (MLTPL) in Kachchh district of Gujarat state.

The proposed Pipeline will supply LPG to GAIL Jamnagar-Loni Pipeline (JLPL) at Mithirohar station and shall have provision of connecting to proposed Kandla-Gorakhpur (KGPL) LPG pipeline.

Mundra LPG Terminal Pvt. Ltd (MLTPL) subsidiary of Adani Petroleum Terminal Private limited (APTPL) is building up a state of art LPG import terminal at Mundra Port with initial capacity of 3.6 MMTPA expandable to 8.8 MMTPA. Mundra terminal will be a critical LPG infrastructure which will provide long term supply support to the rapidly increasing LPG demand in the country. GAIL's existing Jamnagar Loni LPG pipeline (JLPL) is under expansion to 3.25 MMTPA and is envisaged to be further expanded up to 5.2 MMTPA in near future. Due to these expansions MKPL is expected to feed JLPL 0.8 MMTPA immediately and additional 0.6 MMTPA for JLPL later expansion. Kandla Gorakhpur pipeline (KGPL) which is under Bidding by PNGRB for 6 MMTPA capacity is emanating at Kandla and would be majorly fed by MKPL and IOCL Kandla LPG terminal. MKPL is an 89 km pipeline which emanates from India's biggest LPG import terminal connecting to India's largest LPG pipeline (JLPL) and would also be major feeder for proposed KGPL. APSEZ is planning to lay pipe line with adequate capacity to serve the incremental demand in JLPL and majority demand of KGPL. The major users of this pipeline would be Oil PSU's i.e. IOCL, BPCL and HPCL. APSEZ has studied various pipeline capacity scenarios keeping in mind the regional deficit and economic life of the pipeline project. With the above aim in mind the present project was conceived by APSEZ as a cross country underground LPG pipeline between Mundra LPG Terminal and Mithirohar. The Project details shall comprise of in general:

Laying and installation of a 20" underground cross-country pipeline spanning approximately 92 km route length and associated facilities.





- The pig Launcher & Receiver and associated facilities would be provided with suitable intelligent pigging.
- ❖ The Pipeline shall be protected by 3-layer PE external coating with permanent (impressed Current system) cathodic protection.
- ❖ The Sectionalizing Valve (SV) stations will be provided in accordance with the requirements of PNGRB guidelines and codes such as ASME B 31.4, OISD-214, etc., in order to sectionalize various sections of the pipeline.
- ❖ The insulating joints will be provided at transition point of above ground and underground portion of the pipeline for electrical isolation.
- ❖ An Optical Fibre Cable inside the conduit/ duct shall be laid along the Pipeline route at a safe distance from Pipeline in the common trench.
- All pipelines and associated systems shall be designed, constructed and tested as per latest edition of
- ❖ ASME B 31.4, and other relevant applicable codes like PNGRB T4S, API 1104, OISD-STD 141/ 214, CCOE, etc.

Dispatch Station

Dispatch station facilities shall be provided at Mundra LPG Terminal. The minimum facilities required at this location include Take off valves (MOVs), Control Valves, Pumps, Flow meters, Scrapper Launcher, isolation Valves with terminal instrumentation for flow, pressure, temperature etc. along with all electrical & instrumentation, control, ESD, firefighting, SCADA systems, their terminals/consoles, to be housed in existing substation and control room of MLTPL. All utilities for Dispatch station shall be tapped off from utility headers of the LPG terminal at area battery limit.

Sectionalizing Valve (SV) Stations

Sectionalizing Valve Station at suitable location as per OISD along the route and whatever additionally required as per Safety standards and requirements of approving authorities.

Receipt Station

Receipt Station facilities shall be established at Mithirohar near GAIL's terminal. Scope of MKPL shall terminate at outlet flange of MOV supplied by Adani Ports and SEZ (APSEZ) within GAIL premises at Mithirohar GAIL Station or as firmed up based on inputs from GAIL. Two full bore tap off with equal TEE and isolation valves shall be provided for future connections to proposed KGPL and any other agency. LPG receipt terminal shall be broadly provided with the following:

Pig receiving arrangement





- Filtering & pressure reduction
- Tap-Off for Future
- ❖ MOV's, HOV's, Electrical Room, Telecom Room, Battery Room
- Metering Facilities
- Fire & Relief Facilities
- ❖ Necessary Buildings/ Shed for Control Room, Substation, fire-fighting, Sample testing, Administrative Block, etc.

Meteorological Data:

The warmest month of the year is June, with an average temperature of 31.6 $^{\circ}$ C. The lowest average temperatures in the year occur in January, when it is around 18.6 $^{\circ}$ C. The difference in precipitation between the driest month and the wettest month is 170 mm. The variation in temperatures throughout the year is 13.0 $^{\circ}$ C.





CHAPTER - 2

DEFINITIONS (Reference Regulation 2)

- 2.1 In this ERDMP document, unless the context otherwise requires, -
 - (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
 - (b) "Board" means the Petroleum and Natural Gas Regulatory Boardestablished under sub-section (1) of section 3 of the Act;
 - (c) "Boiling Liquid Expanding Vapour Explosion (BLEVE)" means the violent rupture of a pressure vessel containing saturated liquid or vapour at a temperature well above its atmospheric boiling point and the resulting flash evaporation of a large fraction of the superheated liquid which produces a large vapour cloud which burns in the form of a large rising fireball due to ignition;
 - (d) "Chief Incident Controller" means the person who assumes absolute control of the unit and determines action necessary to control the emergency;
 - (e) "Codes of Practice" means the codes of practice for emergency response and disaster management plan notified by the Board;
 - (f) "Disaster" means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of, property, or damage to, or degradation of, environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
 - (g) "Disaster Management Plan "means a well coordinated, comprehensive response plan to contain loss of life, property, environment and provide speedy and effective recovery by making the most effective use of available resources in case of a disaster;
 - (h) "Emergency" means a situation or scenario which has the potential to cause serious danger to persons, environment or damage to property and which tends to cause disruption inside or outside the premises and may require the help of outside resources;
 - (i) "Emergency Response Vehicle (ERV)" means a vehicle for handling emergencies having necessary equipment meant for rescue and relief operations and ERV can be put to use within installation, outside of installation including road incident;
 - (j) "Hazard" means an event related to the property of substance or chemicals with a potential for human injury, damage to property, damage to the environment, or some combination thereof;
 - (k) "Incident" means an unplanned or unintended or intended event having potential to cause damage to life, property and environment;





- (I) "Incident Record Register" means a register containing complete information pertaining to all incidents covering near miss, and all other incidents leading to Level-I, Level-II and Level-III emergencies;
- (m) "Installation" means facilities, namely, gaseous product pipeline, liquid Product pipeline, hydrocarbons processing installation, oil and natural gas terminals and commercial storage and transportation, hydrocarbons gas bottling Installations including CNG, city gas distribution facilities and retail outlets;
- (n) "Leak" means release 'or discharge of a dangerous chemicals or substances or material into the environment;
- (o) "Level-I Emergency" means an emergency as defined under sub- regulation 6(a) of the ERDMP regulation;
- (p) "Level-II Emergency" means an emergency as defined under sub- regulation 6(b) of the ERDMP regulation;
- (q) "Level-III Emergency" means an emergency as defined under sub- regulation6 (c) of the ERDMP regulation;
- (r) "Mutual Aid Association" means an industrial mutual aid association in which participating industries as a community shall assist each other in case of emergency. Mutual aid associations supplement a site's emergency control plan. Services of member industries shall be requested only when the emergency threatens to exceed the capability of otherwise available resources;
- (s) "Occupier" of an installation means the person who has ultimate control over the affairs of the installation;
- (t) "Off Site Emergency" means an emergency that takes place in an installation and the effects of emergency extends beyond the premises or the emergency created due to an incident, catastrophic incidents, natural calamities, etc. It no longer remains the concern of the installation management alone but also becomes a concern for the general public living outside and to deal with such eventualities shall be the responsibilities of district administration;
- (u) "Off Site Emergency Plan" means a response plan to control and mitigate the effects of catastrophic incidents in above ground installation (AGI) or underground installations (UGI) or road transportation. This plan shall be prepared by the district administration based on the data provided by the installation(s), to make the most effective use of combined resources, i.e. internal as well as external to minimise loss of life, property, environment and to restore facilities at the earliest;
- (v) "On Site Emergency" means an emergency that takes place in an installation and the effects are confined to the Installation premise's involving only the people working inside the plants and to deal with such eventualities





is the responsibility of the occupier and is mandatory. It may also require help of outside resources;

- (w) "On Site Emergency Plan" means a response plan to contain and minimize the effects due to emergencies within the installations which have a potential to cause damage to people and facilities within the installation premises;
- (x) "Risk" means the chance of a specific undesired event occurring within a specified period or in specified circumstances and it may be either a frequency or a probability of a specific undesired event taking place;
- (y) "Risk Analysis" means the identification of undesired events that lead to the materialization of a hazard, the analysis of the mechanisms by which these undesired events could occur and, usually, the estimation of the extent, magnitude, and likelihood of any harmful effects;
- (z) "Risk Assessment" means the quantitative evaluation of the likelihood of undesired events and the likelihood of harm or damage being caused by them, together with the value judgments made concerning the significance of the results;
- (aa) "Risk Management" means the programme that embraces all administrative and operational programmes that are designed to reduce the risk of emergencies involving acutely hazardous materials. Such programmes include, but are not limited to, ensuring the design safety of new and existing equipment, standard operating procedures, preventive maintenance, operator training, incident investigation procedures, risk assessment for unit operations, emergency planning, and internal and external procedures to ensure that these programmes are being executed as planned;
- (ab) "Site Incident Controller" means the person who goes to the scene of the emergency and supervises the actions necessary to overcome the emergency at the site of the incident;
- (ac) "Spill" means an unintended release or discharge of hydrocarbon or any other dangerous liquid into the environment;
- (ad) "Transport Emergency (TREM) Card" means a card containing details about the nature of hazards, protective devices, telephone numbers and actions related to spillage, fire, first aid and other details of national and international (UN) numbers or signage which is common in India and abroad;
- (ae) "Unconfined Vapour Cloud Explosion (UVCE)" means the formation of vapour cloud due to release of significant quantity of liquefied hydrocarbons into the atmosphere and its explosion due to ignition which may cause high over pressure and low pressure that cause very heavy damage.
- (af) Project In-Charge means an individual that has ultimate control over the affairs of the project and is duly authorized by the entity
- 2.2 Words and expressions used and not defined in this ERDMP document, but defined





in the Act or rules or regulations made there under, shall have the meanings respectively assigned to them in this Act or in the rules or regulation, as the case may be.





CHAPTER - 3

APPLICABILITY (Reference Regulation 3)

This section demonstrates the applicability of ERDMP regulations on ADANI's operations as shown below:

DCIOW.		
(a)	Hydrocarbons processing installation (refinery, gas processing, LNG Re- gasification installations etc.)	Not Applicable
(b)	Pipeline such as natural gas, propane, butane] etc. and the hydrocarbons products which remain in gaseous state at NTP	Applicable
(c)	Petroleum and petroleum product pipeline	Not Applicable
(d)	Petroleum storage facilities including POL depot, installations and terminals;	Not Applicable
(e)	Hydrocarbons gas bottling Installations having receiving, storage and handling facilities including storage for LPG, propane and butane	Not Applicable
(f)	City or local natural gas distribution facilities	Not Applicable
(g)	Retail outlets dispensing like Petroleum, Auto LPG, LNG, CNG etc	Not Applicable
(h)	Any other installation as may be notified by the Board from time to time	Not Applicable





CHAPTER - 4

SCOPE AND INTENT (Reference Regulation 4)

4.1 SCOPE

The scope of this ERDMP covers -

- (i) The identification of emergencies;
- (ii) The mitigation measures that attempt to reduce and eliminate the risk or disaster;
- (iii) The preparedness that to develop plans for actions when disaster or emergencies occur;
- (iv) The responses that mobilize the necessary emergency services including responders (primary, secondary and tertiary) like fire service, police service, medical service including ambulance, government as well as nongovernmental agencies;
- (v) The post disaster recovery with aim to restore the affected area to its original conditions;

4.2 INTENT

- (1) It is intended to apply these regulations –
- (a) To develop an ERDMP that should be concise and informative so that members of the emergency control organization should be able to quickly refer to the action plan to determine important functions that are being carried out
- (b) To manage an emergency and not to use ERDMP just as reference material for training and shall be made applicable:
 - (i) To prevent casualties both on-site and off-site;
 - (ii) To reduce damage to property, machinery, public and environment;
 - (iii) To develop a state of readiness for a prompt and orderly response to an emergency and to establish a high order of preparedness (equipment, personnel) commensurate with the risk;
 - (iv) To provide an incident management organogram with clear missions and lines of authority (incident command system, field supervision, unified command);
 - (v) To ensure an orderly and timely decision-making and response process (notification, standard operating procedures);
 - (vi) To maintain good public relations;
- (2) Note: No two locations shall be identical in respect of layout, surroundings, products, storage quantities, meteorological data etc. Therefore, ERDMP will be location specific as per the available resources.





Provided that, in respect of Cross-Country Pipelines, City Gas Distribution Networks, Retails Outlets, Road Transportation, the following methodologies may be adopted with respect to formulation of ERDMP, namely: -

- a. The entity can prepare a single ERDMP document of a Cross Country Pipeline. However, location/installation specific information shall be detailed in the document in accordance with regulations. Alternatively, entity can make ERDMP document installation/location wise also.
- b. b. The CGD entity can prepare a single ERDMP document for its Geographical Area. However, specific information and mitigation measures w.r.t CNG Stations, Domestic, Commercial and Industrial supplies shall be detailed in the document in accordance with regulations.
- c. Entities owning Retail outlets (ROs) shall identify various format for its RO like (Like RO with LPG, RO without LPG, RO in Cities, ROs on Highways or combination of two or more or other like devices) and prepare typical ERDMP in accordance with these regulations for implementation across all ROs of same format and ensure compliance. These documents shall be certified by the authorized personnel of the concerned entity; and
- d. For road transportation, entity shall identify the routes, prepare typical ERDMP and share the same with various stakeholders in accordance with regulations.
- (3) The entity shall formulate Emergency Plan for Constructions/Projects in accordance with the guidelines (Refer Annexure 2), duly approved by Project In-Charge. For Constructions/Projects in existing installations, the existing ERDMP document should either cover or be modified as per Annexure 2.





CHAPTER - 5

THE CONTENTS OF ERDMP (Reference Regulation 5)

5.1 INCLUSIONS OF THE ERDMP

The ERDMP shall include:

- (a) Classification of emergencies;
- (b) Implementation schedule;
- (c) Consequences of defaults or non-compliance;
- (d) Statutory requirements;
- (e) Pre-emergency planning;
- (f) Emergency mitigation measures;
- (g) Emergency preparedness measures;
- (h) Emergency response procedures and measures;
- (i) Emergency organisation and responsibilities;
- (j) Infrastructure requirements;
- (k) Declaration of on-site and off-site emergency;
- (I) Resources for controlling emergency;
- (m) Demographic information;
- (n) Medical facilities;
- (o) Evacuation;
- (p) Public relations and information to public;
- (q) Reporting of the incident;
- (r) Emergency recovery procedures;
- (s) Integration of the ERDMP with National Disaster Management Authority (NDMA) guidelines and action plan on Chemical Disasters (Industrial);
- (t) Security threat plan and action plan to meet the eventualities.





CHAPTER - 6

CLASSIFICATION OF EMERGENCY (Reference Regulation 6)

Emergencies can be categorized into three broad levels on the basis of seriousness and response requirements, namely: –

- **Level 1:** This is an emergency or an incident which
 - (1) Can be effectively and safely managed, and contained within the site, location or installation by the available resources;
 - (2) Has no impact outside the site, location or installation.
- Level 2: This is an emergency or an incident which
 - (i) Cannot be effectively and safely managed or contained at the location or installation by available resource and additional support is alerted or required;
 - (ii) Is having or has the potential to have an effect beyond the site, location or installation and where external support of mutual aid partner may be involved;
 - (iii) Is likely to be danger to life, the environment or to industrial assets or reputation.
- (c) Level 3: This is an emergency or an incident with off-site impact which could be catastrophic and is likely to affect the population, property and environment inside and outside the installation, and management and control is done by district administration. Although the Level-III emergency falls under the purview of District Authority but till they step in, it should be the responsibility of the unit to manage the emergency.

Note: Level-I and Level-II shall normally be grouped as onsite emergency and Level-III as off-site emergency.

6.1 LEVELS OF EMERGENCY RESPONSE

Level 1: The Manager (O) /On duty control room In-charge initiates Level 1 response after receipt of the emergency complaint at Port Operation Centre. Response is site specific and covered by Adani's emergency response plan. Information to be passed to Site Incident Coordinators of varios discipline.





Level 2: Level 2 response is activated when a senior person on site, after assessment and initial actions, conclude that the situation requires escalation to a higher authority due to severity, inadequate resources or adverse business implications e.g. attention of local population, media etc. ERP (this plan) is activated in this case.

Level 3: Level 3 response is activated when the local resources are not capable to cope-up with an emergency situation. There are adverse business implications and media, local population is getting concerned about the situation, and the situation is drawing more and more adverse attention. OFF SITE EMERGENCY is activated in this case. Situation requires escalation to corporate authority level.

Level-I and Level-II shall normally be grouped as onsite emergency and level-III as offsite emergency.

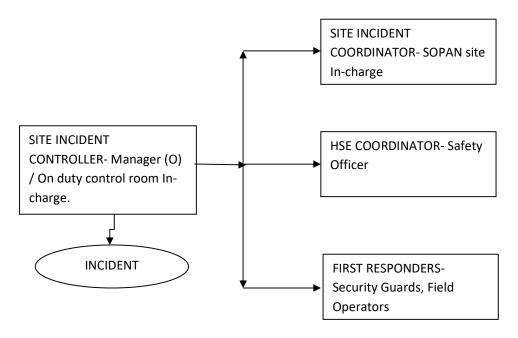
Level 1 Emergency may include the following Scenarios at the Dispatch station and SV station:

- 1) Failure/leak from the flanges.
- 2) Failure of LPG pump mechanical seal- resulting in small gas leakage
- 3) Short Circuit in the vehicle
- 4) Pinhole/small gas leakage in the tank truck fittings failures
- 5) Medical emergency like Snake bite, Animal bite & Food poisoning
- 6) Pandemic situation
- 7) Pilphrage which could damage pipeline that resulted into small leakage.
- 8) Cyber attack





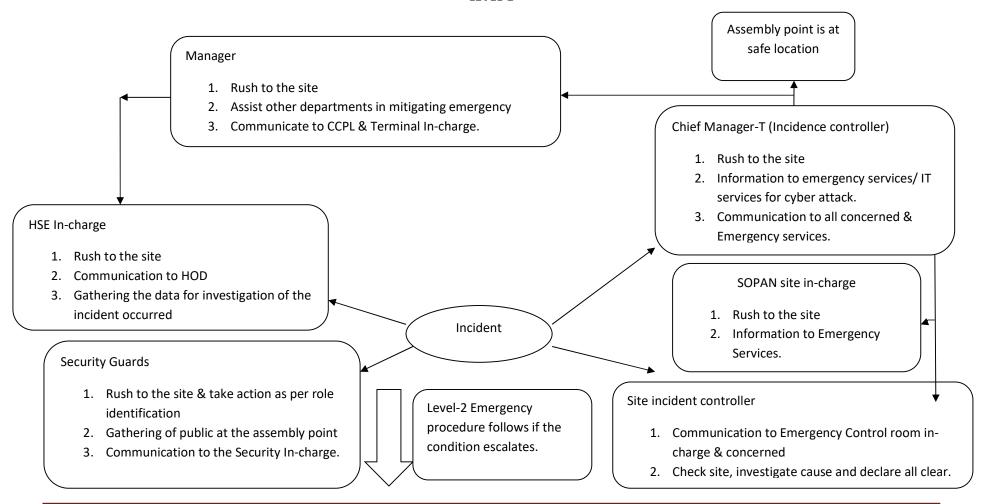
Emergency Handling & Responsibilities for Level - 1





ERDMP COMMUNICATION CHART WITH ROLES AND RESPONSIBILITIES

LEVEL-1



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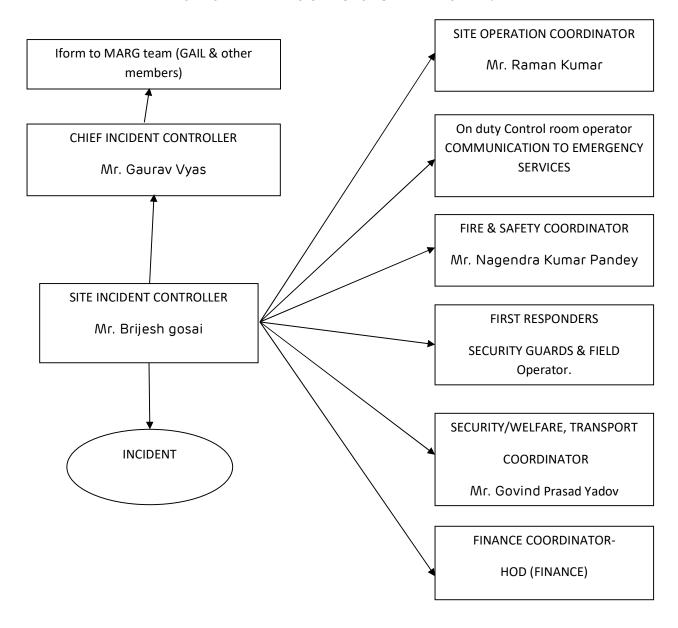
Level 2 Emergency may include the following Scenarios:

When the Level 1 Emergency could not be controlled, and situation becomes uncontrolled and requires intervention of external sources.

- * Gas Leakage due the CCPL flanges/joints Failure and subsequently caught fire.
- * Failure of the Pipeline between two station and subsequently caught Fire/explosion.
- * Fire due to Electric short circuit I Transformer, Electrical Panel, office building are



EMERGENCY HANDLING & RESPONSIBILITY FOR LEVEL -2





ERDMP COMMUNICATION CHART WITH ROLES AND RESPONSIBILITY

Mr. Gaurav Vyas: Rush to ECC (Emergency control centre) and take charge of chief coordinator, taking regular updates from fields. Inform and update to MLTPL Terminal Head & CEO (ADANI)

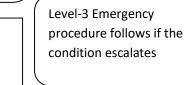
Fire and safety Coordinator (Mr. Nagendra Kumar Pandey)

- Rush to the incident site
- Mobilize his team and Assist district authority

Site Incident Coordinator (Brijesh gosai)

- Rush to the incident site along with his team
- After clearance of emergency, check site & give all clear for normal operation.

Finance officer: Rush to the site, Assist other departments & extend all possible help to injured staff in coordination with HR coordinator



LEVEL-2

For Level-2 ECC will be the CCR (Central control room)

Terminal In-charge (Media and PR Representative).

(Corporate communication: Pass on information if required to media/press in coordination with Chief Executive Officer)

Incidence Controller/Shift In-charge: (Level 1 Emergency escalates to Level-2) - Communication will be done as marked through respective dept. representative.

Incident

Finance Coordinator HOD- Nominate representative at site & arrange financial aid for emergent requirement of chief coordinator

Admin coordinator- Rush to ECC to assist chief coordinator. Depute representative to help the affected employees. Arrange for ambulance. Communicate with factory inspector (if required)



Level 3: Emergency may include the following Scenarios;

When the Level 2 Emergency could not be controlled and situation becomes uncontrolled and disastrous and requires help of district authorities like NDRF, etc.

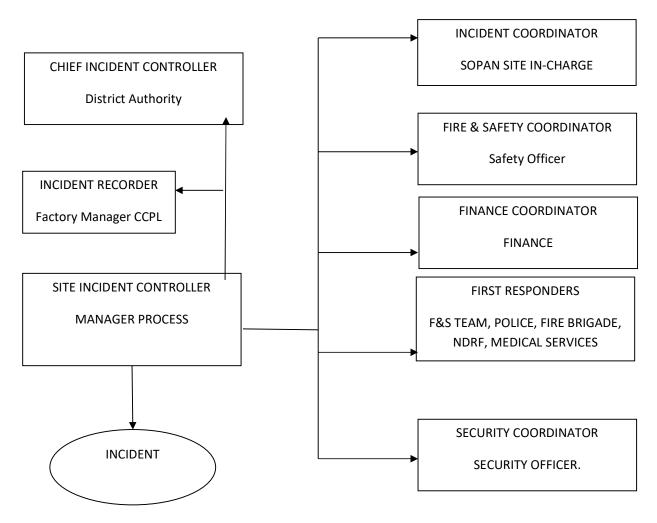
- Main Pipeline Failure i.e.
 - Natural Calamities like Floods, Earthquake.
 - Sabotage and Arson during riots
 - Aerial/ Drone Attack
 - Terrorist Attack

Incase of emergencies leading disruption of traffic / violent mob / Arson / Sabotage etc

- Shift In-charge with his team
 - a. Rush to the site immediately after receiving the information to take care of ADANI's Installations.
 - b. Inform to the concerned departments and HODs as per communication process.
- II. In case of emergencies leading disruption of traffic / Terrorist Attack / Violent mob / Arson / Sabotage etc if concerned coordinators are not able to reach the Incident site, the nearest Control Room and Installation where Executives can reach and section would be isolated, shall be designated as Emergency Control Sites. The Incident Coordinator shall brief the Chief Incident Coordinator about the situation.



EMERGENCY HANDLING & RESPONSIBILITY FOR LEVEL -3





ERDMP COMMUNICATION CHART WITH ROLES AND RESPONSIBILITY

LEVEL-3- Authority for declaring level-3 emergency is with District Authority (DM) and in his absence Emergency Response centre

Controller at Incident site

Controller at ECC

For Assisting Disaster Management Groups HODs (Fire & Safety, Instrumentation, Sr. Mgr. (Operations) and Representatives of Finance, Mech & Civil will rush to site and Coordinate. DGM-CCPL, Terminal Mgr.(T), Incident controller- for information to CCOE, PNGRB, GAIL etc

CHIEF COORDINATOR (CC): DGM-CCPL will be the Chief Coordinator

CC will arrange all necessary support/arrangements to control emergency & help to injured and their family members. Inform and update Terminal Manager & CEO about the incident. CEO will update to Chairman (ADANI)

CHEIF COORDINATOR (CC):

Depending upon the site condition. Chief Coordinator may station his team at Emergency Control Centre.



IMPLEMENTATION SCHEDULE

These Codes of Practices shall be implemented for the areas covered under Regulation 3 as per the implementation period mentioned in Schedule-I.

<u>SCHEDULE – I</u> <u>Schedule of Implementation of Code of Practice for ERDMP</u>

S. No.	Activity	Implementation time from the notification date	Present Status
1	On-site Emergency Plan	3 months	In place
2	Off-site Emergency Plan (Submission of information to District Authority)	3 months	Under Preperation
3	Resources in position	6 months	Adani employee recruited and O&M contract awarded to SOPAN
4	Accredited Third Party Certification of ERDMP	1 year	ERDMP Certified by DMI
5	Testing and Mock drills (On-site)	3 months	Conducted before LPG gas- in/ commissioning on 2 nd December 2022
6	Testing and Mock drills (Off-site)	14 months	Being conducted Refer Chapter 12, Section 12.1 for more details



CONSEQUENCES OF DEFAULT OR NON-COMPLIANCE (Reference Regulation 8)

- (1) There shall be a system for ensuring compliance to the provision of these regulations through developing a well-defined Emergency Response and Disaster Management Plan and conduction of mock drill and safety audits during the construction, commissioning and operation phase, as well as on an on-going basis. There shall also be a system of do's and don'ts regarding safety, mock drills or real emergencies for the visitors before entering an establishment. This should be supported by written instruction sheet for the visitor and ensured that visitor is accompanied by plant representative on forward visit and return gate.
 - Development of a well defined ERDMP Document submitted for review
 - Conducting Mock drills Mock drills being conducted as per schedule, drills also conducted on holidays and at odd-hours to gauge the preparedness. Details available at Section 12.1 of Chapter 12.
 - Safety Audits during Construction, Commissioning and Operation has been carried
 out on regular basis, by ADANI internal team members and external safety audit is
 done as per the statutory requirements of the PNGRB guidelines.
 - Do's and don'ts for visitors Each visitor into licensed area is frisked by the security guard and led to the concerned officer. Provided with safety instruction card having do's and don'ts as well as location of assembly area and escape routes.
- (1a) The Board of the concerned entity, within ninety days of the commencement of these regulations shall appoint one of its directors, who shall be responsible for ensuring compliance to these regulations.



- (2) The Board shall monitor the compliance of ERDMP, Technical Standards and Specifications including Safety Standards either directly or indirectly by accredited third party through separate regulations on third party conformity assessment.
- (3) In case of any deviation or shortfall, in achieving the recommended standards the entities are liable to penal provisions under the provisions of the technical standards, specifications including safety standards.
- (4) Mutual Aid Association not responding as per Memorandum of Understanding (MoU) or written agreement on request of assistance shall attract penalty under these regulations as under:-
 - (a) For first default in response, the defaulting entity with the application and its management shall have to submit written explanation to affected mutual aid members –
 - (b) For the second and successive failure, the defaulting entity shall have to pay the double of the billed amount of expenses incurred by affected mutual aid members in case of any eventuality occurs in the premises of affected mutual aid members. -



REQUIREMENTS UNDER OTHER STATUTES (Reference Regulation 9)

Requirement Under Regulation 9

(1) It shall be necessary to comply with statutory rules, regulations and Acts, such as, the Environment (Protection) Act, 1986, the Factories Act, 1948, the Inflammable Substances Act, 1952, the Motor Vehicles Act, 1988, the Public Liability Insurance Act, 1991, the Petroleum Act, 1934, the National Environment Tribunal Act, 1995, the Explosives Act, 1884 mentioned in **Schedule-II**. It shall also be necessary to comply with the relevant statutes, provisions and guidelines of the Disaster Management Act, 2005 and National Disaster Management Guidelines Chemical Disasters (Industrial), April, 2007.

SCHEDULE II List of Relevant Statutes on Management of Hazardous Substances

	Environment (Protection) Act, 1986 (amended 1991) and owing Rules there under:	
	-	Camanliad
a)	The Environment (Protection) Rules, 1986 (amended 2004).	Complied
b)	The Manufacture, Storage, and Import of Hazardous Chemicals Rules, 1989 (amended, 1994 and 2004)	Complied
c)	The Hazardous Wastes (Management and Handling) Rules, 1989 (amended 2000 and 2003)	Complied
d)	The Environment Prior Clearance Notification, 2006	NA
e)	The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.	Complied
f)	Bio-medical Wastes (Management and Handling) Rules. 1989.	Not Applicable
The		
a)	State Factory Rules	
b)	Conbtract Labour Regristation	
The	Inflammable Substances Act, 1952.	Complied
The Motor Vehicles Act, 1988 (amended 2001)		
a)	The Central Motor Vehicles Rules, 1989 (amended 2005).	Complied
The	Public Liability Insurance Act, 1991 (amended 1992).	Complied



a)	The Public Liability Insurance Rules, 1991 (amended 1993).	Complied		
The	Petroleum Act, 1934.	Complied		
a)	The Petroleum Rules, 2002	Complied		
The	Insecticide Rules, 1968 (amended 2000)	Not applicable		
a)	The Insecticide Rules, 1971 (amended 1999)	Not applicable		
The	The National Environment Tribunal Act, 1995. Compli			
The	Explosives Act, 1884 (amended till 1983)	Complied		
a)	The Gas Cylinder Rules, 2004	Complied		
b)	The Static and Mobile Pressure Vessels (Unfired) Rules, 1981 (amended 2002)	Complied		
c)	The Explosives Rules, 1983 (amended 2002)	Complied		
D)	Prohibited area	Complied		
E)	VHF Licence	Not Applicable as using UHF		



PRE-EMERGENCY PLANNING (Reference Regulation 10)

10.1 Hazard Identification

- (1) The first step towards ERDMP shall be to identify potential on-site and off-site hazards such as gas leaks, spills, fire, explosion, transportation incident, pipeline ruptures, equipment failure, natural calamities, etc. and the types of damage caused by them. The hazard identification shall include
 - (a) Information on toxicological, physical, and chemical properties of the substances being handled in the format of Material Safety Data Sheet (MSDS Annexure I);
 - ADANI has developed Material Safety Data Sheets in line with the Format given at Annexure 1 of the ERDMP regulations and the same are attached at Annexure for LPG, respectively.
 - (b) The identification of potential impact on downwind air quality or downstream water quality from an incidental release and possible danger to human, Flora and Fauna and animal health.
 - Air and Water Quality There will be insignificant impact on either air or water quality as there is no manufacturing process in the ADANI LPG Pipeline. For details on Flora and Fauna refer chapter-18.
 - (c) Hazards to the installation shall also include Natural perils such as floods, earthquakes, cyclones or landslides etc.
 - The network design basis takes care of the hazards due to earthquake, floods etc. Events leading to large gas leak with fire covered under Level 3 Emergencies.
 - (d) Check points for hazard identification are given at Check list-1.
 - The filled-in Checklist 1 is attached at Annexure IV to the report



10.2 Risk Analysis and Risk Assessment

The second step of the ERDMP process is to determine the risk of an incident associated with each hazard. The basic procedure in a risk analysis shall be as follows:

a) Identify potential failures or incidents (including frequency);

There is a possibility of failure associated with each mechanical component (vessels, pipes etc). These are *generic* failures and can be caused by such mechanisms as corrosion, vibration or external impact (mechanical or overpressure). A small event (such as a leak) may escalate to a bigger event, by itself causing a larger failure.

For each identified failure case, the appropriate data required to define that case is input into the package. Failure frequencies are derived from failure rate data bases. The generic failure rates data, upon which the study is based, are taken from source "OGP Database, March 2010."

The following failure frequency values were used for this study:

TABLE 1. GENERIC FAILURE DATA

Generic Failure Data from OGP Forum - Manual Valves

		Manu	al Valve Leak	Frequency[y	r¹]		
Hole Dia Range [mm]	Valve diameter						
tunge (mm)	2* [50mm]	6" [150mm]	12" [300mm]	18" [450mm]	24" [600mm]	36" [900mm]	
1 to 3	4.40E-05	5.80E-05	7.50E-05	9.00E-05	1.05E-04	1.32E-04	
3 to 10	2.17E-05	2.70E-05	3.50E-05	4.20E-05	4.90E-05	6.10E-05	
10 to 50	1.89E-05	1.42E-05	1.75E-05	2.10E-05	2.44E-05	3.10E-05	
50 to 150	0.00E+00	8.80E-06	4.70E-06	5.60E-06	6.50E-06	8.20E-06	
>150	0.00E+00	0.00E+00	5.80E-06	6.70E-06	7.60E-06	9.30E-06	
Total	8.30E-05	1.08E-04	1.38E-04	1.66E-04	1.93E-04	2.40E-04	



Generic Failure Data from OGP Forum - Instrument Connection

Hole Dia Range (mm)	All Releases	Full Releases	Limited Releases	Zero Pressure Releases	Full + Limited
1 to 3	3.50E-04	1.80E-04	1.60E-04	8.80E-06	3.40E-04
3 to 10	1.50E-04	6.80E-05	7.40E-05	5.50E-06	1.42E-04
10 to 50	6.50E-05	2.50E-05	3.60E-05	3.80E-06	6.10E-05
Total	5.70E-04	2.80E-04	2.70E-04	1.80E-05	5.50E-04

Generic Failure Data from OGP Forum – Automated Valves

		Automa	ated Valve Lea	ak frequency	[yr ⁻¹]		
Hole Dia Range [mm]	Valve diameter						
, and a firm of	2" [50mm]	6" [150mm]	12" [300mm]	18" [450mm]	24" [600mm]	36* [900mm]	
1 to 3	4.10E-04	3.50E-04	3.20E-04	2.97E-04	2.89E-04	2.67E-04	
3 to 10	1.61E-04	1.35E-04	1.20E-04	1.11E-04	1.06E-04	9.70E-05	
10 to 50	1.08E-04	5.70E-05	5.00E-05	4.50E-05	4.30E-05	3.90E-05	
50 to 150	0.00E+00	3.16E-05	1.14E-05	1.03E-05	9.50E-06	8.60E-06	
>150	0.00E+00	0.00E+00	1.70E-05	1.57E-05	1.51E-05	1.42E-05	
Total	6.80E-04	5.80E-04	5.20E-04	4.80E-04	4.60E-04	4.30E-04	

Generic failure data from OGP - Pipework

		Pipe	work Leak Fro	equency [m ⁻¹)	π ⁻¹]		
Hole Dia Range [mm]	Pipe diameter						
Nange [mm]	2" [50mm]	6" [150mm]	12" [300mm]	18" [450mm]	24* [600mm]	36" [900mm]	
1 to 3	8.60E-05	3.59E-05	3.11E-05	3.08E-05	3.07E-05	3.06E-05	
3 to 10	3.30E-05	1.34E-05	1.16E-05	1.13E-05	1.12E-05	1.11E-05	
10 to 50	2.00E-05	5.20E-06	4.40E-06	4.30E-06	4.30E-06	4.20E-06	
50 to 150	0.00E+00	3.80E-06	8.90E-07	8.60E-07	8.50E-07	8.50E-07	
>150	0.00E+00	0.00E+00	2.57E-06	2.57E-06	2.56E-06	2.56E-06	
Total	1.39E-04	5.80E-05	5.10E-05	4.90E-05	4.90E-05	4.90E-05	

❖ IGNITION PROBABILITIES:

- Ignition Probabilities - Generic

Delegas sate	Ignition probability		
Release rate	Gas	Liquid	
Minor [< 1 kg/s]	0.01	0.01	
Major [1 - 50 kg/s]	0.07	0.03	
Massive [> 50 kg/s]	0.3	0.08	

Ignition Probabilities - Specific

Datama siza	To	tal	Immediate		
Release size	Liquid	Gas	Liquid	Gas	
Small	0.01	0.01	0.0035	0.0035	
Medium	0.03	0.07	0.0105	0.0245	
Large	0.08	0.3	0.028	0.105	



b) Calculate the quantity of material that may be released in each failure, estimate the probability of such occurrences.

Release Quantity

Simulations have been carried out using software Phast/Safeti for calculating the damage distance under identified maximum probable and worst-case scenarios. The model has a limitation that it calculates and internally uses the release quantity based on input parameters and provides the damage distances for the scenario modeled. The consequence analysis results are given at Section 10.4 in detail.

Basis for Scenario Selection

Operating Parameters

Potential release rates for a material from containment depend significantly on the initial operating conditions.

Many factors affect the release rate such as the initial pressure and temperature, hole size, hole roughness, hole orientation, gas properties, atmospheric conditions and many others.

Inventory

Inventory is very important commonly used in understanding the relative hazards and short listing of release scenarios. Inventory plays an important role in regard to the potential hazard. Larger the inventory of a vessel or a system, larger the quantity of potential release. A practice commonly used to generate an incident list is to consider potential leaks and major releases from fractures of pipelines and vessels containing sizable inventories.

Range of Incidents

Both the complexity of study and the number of incident outcome cases are affected by the range of initiating events and incidents covered. This not only reflects the inclusion of accidents and / or non-accident-initiated events, but also the size of those events. The following are evaluated in the study:

Scenarios: -

S. No	Isolatable section No.	Isolatable Section	Leak Size
1	1	From battery limit to ROV 0101	Small-25mm
			Medium-100mm
			Large-250mm
			Catastrophic Rupture- 500mm



S. No	Isolatable section No.	Isolatable Section	Leak Size
2	2	From ROV 0101 to MOV-0303 including Pig Launcher, Filter and	Small-25mm
		Metering System at DT	Medium-100mm
			Large-250mm
			Catastrophic Rupture- 500mm
3	3	From MOV-0303 to XV-0501 at SV-1 including LPG Booster pump	Small-25mm
		and and grant of Decease Feature	Medium-100mm
			Large-25mm
			Catastrophic Rupture- 100mm
4	4	From XV-0501 at SV-1 to XV-0511 at SV-2	Small-25mm
			Medium-100mm
			Large-250mm
			Catastrophic Rupture- 500mm
5	5	5 From XV-0511 at SV-2 to XV-0521 at SV-3	Small-25mm
			Medium-100mm
			Large-250mm
			Catastrophic Rupture- 500mm
			Large-250mm
			Catastrophic Rupture- 500mm
6	6	From MOV 0602 to MOV 0901	Small-25mm
			Medium-100mm
			Large-250mm
			Catastrophic Rupture-
			500mm

(c) Evaluate the consequences of such occurrences based on scenarios such as most probable and worst-case events.



Accidental release of LPG can result in possible damage. Immediate ignition could lead to jet fires on immediate ignition and delayed ignition of flammable vapors could result in flash fires with damage confined to within the cloud dimensions or unconfined vapor cloud explosions with blast overpressures covering significant areas. In contrast, fires generally have localized consequences. Fires can be put out or contained in most cases; there are few mitigating actions one can take once a flammable gas or a vapour cloud gets released. The most extensive incidents generally arise consequent upon the release of flammable gases or vapour clouds. In this study, the following Incident outcome cases have been considered as and when applicable:

- Release of LPG for different leak sizes shown in the table above
- Immediate Ignition leading to Jet fires
- Delayed Ignition leading to flash fires and Vapour cloud explosion

Consequence Analysis

Consequence Analysis carried out for maximum probable and worst-case scenarios. The range of incidents includes:

- Failure of the pipeline
- Leakages from the flanges/lines /Valves/Pump Seals
- (d) The combination of consequences and probability will allow the hazards to be ranked in a logical fashion to indicate the zones of important risk. Criteria should then be established by which the quantified level of risk may be considered acceptable to all parties concerned;

QUANTIFICATION OF RISKS - INDIVIDUAL & SOCIETAL

The base frequencies were modified and corrected for each scenario based on the section length, valve/ fittings/ equipment counts, ignition probability and other such parameters to arrive at a more realistic estimation. These were then correlated with population, consequence analysis results estimating Average Individual Risk (AIR). For each section:

- I. The risk of failure (Event Probability) has been estimated taking into consideration the following parameters:
 - Basic Failure Frequency for the event
 - Pipeline Length and number of valves/ PSV, Tapoffs, IJ & other equipment
 - Ignition Probability (the smaller the cloud, the smaller the ignition probability).
- II. Individual Risk per year has been estimated for the operation/ maintenance staff and non operational staff.



Based on the risk analysis study carried out separately, the results are as follows: -

Individual Risk Per annum

The Individual Risk Per Annum (IRPA) is defined as the risk to a particular person working at the Facility throughout the year. Personnel working at the Facility are assumed to be part of 2 "Groups", namely Operations/Maintenance Staff and Non-Operations staff (guard room etc.).

Operations/Maintenance Staff

Non-Operations Staff

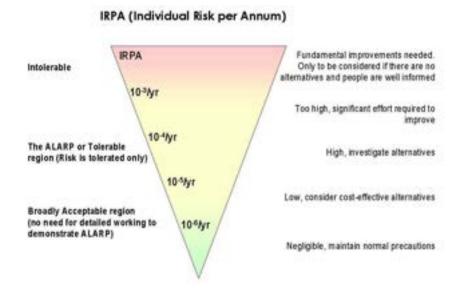
(e) After assessing the risk, the "maximum tolerable criterion" must be defined and above which the risk shall be regarded as intolerable. Whatever be the benefit level must be reduced below this level; -

According to the UK HSE Risk acceptance criteria the risk will be in the ALARP region if in the range of 1e-04 to 1e-06 per year and below 1e-06 per year the risk will be in the broadly acceptable region.

- (f) The risk should also be made "as low as reasonably practicable" (ALARP) and least impacting the neighborhood. While conducting the risk analysis, a quantitative determination of risk involves three major steps: -
 - 1. Consequence assessment
 - 2. Probability assessment
 - 3. Risk Calculation



The self explanatory ALARP principle is shown next- it may be noted that ADANI Average Individual Risks are of the tune of 1E-04, which is in the ALARP region for individual risk per annum.



NOTE- a risk of 10 per million per year, or 10⁵/Year, effectively means that any person standing at a point of this level of risk would have a 1 in 100 000 chance of being fatally injured per year.

10.3 CAUSES OF DISASTERS.

The common causes for the above events are tabulated below for reference and the ERDMP has been prepared by the installation to deal with the following emergencies.

Man made	Natural Calamities	Extraneous
Heavy Leakage	Flood	Riots/Civil Disorder/ Mob
Fire	Earth Quake	Terrorism
Explosion	Cyclone	Sabotage
Failure of Critical Control	Outbreak of Disease	Bomb Threat
Systems		
Design deficiency	Excessive Rains	War / Hit by missiles
Unsafe acts	Tsunami	Abduction
In-adequate maintenance		Food Poisoning/
		Water Poisoning

Causes of failure for pipelines:-

When considering the data basis together, one broad conclusion comes out of the statistics, despite some variation caused by dissimilarity in the type of data collected failures occur in roughly equal proportions in three broad categories:



- Failures caused by external mechanical interference
- · Failures caused by corrosion defects
- Failures caused by miscellaneous factors such as pipe material defects, natural hazards or operator error.

Some of these failures are time independent occurrences (e.g. external mechanical interference, earthquakes or overpressure), while others are time dependent (e.g. corrosion and fatigue failures).

10.4 CONSEQUENCES

(1) The consequences of an Incident may be confined within the premises or may spill off-site triggering cascading effects.

The pipeline is proposing to lay 89 km. (approx.) long LPG pipeline starting from Mundra to MithiRohar (MKPL). The proposed Pipeline will supply LPG to GAIL Jamnagar-Loni Pipeline (JLPL) at Mithirohar station and shall have provision of connecting to proposed Kandla-Gorakhpur (KGPL) LPG pipeline via SVs stations. Any major leaks may affect the outside population.

The inbuilt safety systems of ESDV'S valves, section isolation, ROV's, quick closures, etc. also help limiting the consequences of potential accidents to within the premises during the consequential effects to outside the boundary.

(2) The consequences of an Incident are fire explosion, deflagration, blast waves, fast spreading flames, BLEVE, UVCE resulting in direct effects like damage to buildings/property, burns, fatalities. However, an Incident in the neighborhood may sometimes cascade into an on-site emergency. It should be prevented or managed to avoid major emergency.

Using the failure case data developed, the consequence program of the software package, undertakes consequence calculations for each identified failure.

For the flammable materials, the software proceeds to determine the effect zones for the various possible outcomes of such a release. A release can ignite as the result of the event, which causes it, or can ignite close to the source before the flammable cloud has travelled away from the release source. If a release does not ignite in this way, and it is still flammable, it can be ignited at a number of points downwind if its path is such that it goes across (for example) a road, an area where people are present or other ignition sources. The risk analysis must account for all these possible outcomes.

The particular outcome(s) modelled depends on the behaviour of the release and the dilution regimes, which exist. This can be quite complex. The program undertakes these calculations for the selected representative meteorological conditions, which are derived from the annual meteorological conditions in the study area.



Consequence models are used to predict the physical behaviour of hazardous incidents. Important inputs to the Consequence analysis calculations include the weather conditions and the damage criteria, both of which are discussed in the following pages.

Damage Criteria

Heat Radiation

The consequence caused by exposure to heat radiation is a function of:

- The radiation energy onto the human body [kW/m2];
- The exposure duration [sec];
- The protection of the skin tissue (clothed or naked body).

It can be assumed that people would be able to find a cover or a shield against thermal radiation in 30 seconds time. Furthermore, 100% lethality may be assumed for all people suffering from direct contact with flames, such as the pool fire, a flash fire or a jet flame. The effects due to relatively lesser incident radiation intensity are given below.

These values may be compared to commonly encountered heat radiation values:

Effects Due to Incident Radiation Intensity

Incident Radiation – KW/m2	Type of Damage
4.73	Indicative of painful burns and blistering after 20 second exposure (0% lethality)
6.31	Indicative of second degree burns after 20 second exposure (1% fatality)
12.5	Indicative of piloted ignition for susceptible structures (50% fatality)
37.5	Indicative of total asset loss (100% fatality)

Consequence Analysis Results

For the study, the vulnerable distances have been calculated for 0%,1%, 50% and 100% fatality levels. However, the estimated vulnerable area for calculating the fatalities has been corrected / modified based on these distances to project a more accurate fatalities estimation and subsequent risk estimation.



A summary of the Consequence Analysis Results is given below.



Jet Fire results

S. No	Description	Material	Leak Size	(kW/m2)			Incid	lent Heat Ra	diation (kW/	m2)		
				4.73	6.31	12.5	37.5	4.73	6.31	12.5	37.5	
				Dista		eter (We s 5/D)	ather	Distance	e in meter (V	Veather Clas	s 1.5/F)	
1	,	LPG	25 mm	30.8	30.2	29.5		30.5	30	29.5		
	0101		100 mm	106	104	99	94	99	97	92.5	87.5	
			250 mm	238	231	220	207	215	209	194	180	
			500 mm-CR	440	421	399	370	390	372	348	312	
2	FROM ROV 0101 TO MOV	LPG	25 mm	30.8	30.2	29.5		30.5	30	29.5		
	0303		100 mm	106	103	99	94	99	97	92.5	87.5	
				250 mm	238	231	220	206	215	209	194	180
			500 mm-CR	440	421	400	368	390	372	348	312	
3	FROM MOV 0303 TO XV	LPG	25 mm	30.9	30.4	29.5		30.8	30.2	29.5		
	0501 AT SV-1		100 mm	106	104	99	94	99	97	92	87	
			250 mm	239	232	220	208	215	209	194	181	
			500 mm-CR	440	429	398	370	390	372	348	312	
4	FROM XV 0501 AT SV-1	LPG	25 mm	30.9	30.6	29.7		30.9	30.5	29.4		
	TO XV 0511 AT SV-2		100 mm	106	104	99	94	99	97	92	87	
			250 mm	239	231	220	207	215	210	194	181	
			500 mm-CR	440	429	398	370	390	372	348	312	
5	FROM XV-0511 AT SV-2	LPG	25 mm	30.9	30.6	29.7		30.9	30.5	29.4		
	TO XV-0521 AT SV-3		100 mm	106	103	99	94	99	97	92	87	
			250 mm	237	231	220	207	215	210	195	181	
			500 mm-CR	440	428	396	370	390	372	348	312	
6	FROM XV-0521 AT SV-3	LPG	25 mm	30.9	30.7	29.7		30.8	30.5	29.5		



S. No	Description	Material	ial Leak Size	Inc		at Radiat /m2)	tion	Incid	Incident Heat Radiation (kW/m2)			
				4.73	6.31	12.5	37.5	4.73	6.31	12.5	37.5	
				Dista		eter (We s 5/D)	ather	Distance	e in meter (V	Veather Clas	s 1.5/F)	
			100 mm	106	104	99	94	99	97	92	87	
			250 mm	239	231	220	207	215	210	195	181	
			500 mm-CR	440	429	397	370	390	372	348	312	
9	FROM MOV 0602 TO MOV	LPG	25 mm	30.9	30.7	29.5		30.8	30.5	29.5		
	0901		100 mm	106	104	99	94	99	97	92	87	
			250 mm	240	231	220	206	215	210	195	181	
			500 mm-CR	440	429	397	370	390	372	348	312	

Flash Fire Results

S.No	Material	LEL Value	Leak Sizes			Leak Sizes				
										500
			25 mm	100 mm	250 mm	500-CR	25 mm	100 mm	250 mm	mm-CR
			Distance in meter (Weather Class 5/D)		Distance in meter (Weather Class 1.5/F)			s 1.5/F)		
1	LPG	50% LEL-								
		(8824 ppm)	47	162	355	530	72	280	650	1100



S.No	Material	LEL Value		Leak S	izes			Leak S	Sizes	
			25 mm	100 mm	250 mm	500-CR	25 mm	100 mm	250 mm	500 mm-CR
				e in meter (W				e in meter (W		
		100% LEL- (1.765+004)	32	115	250	385	55	210	510	820
2	LPG	50% LEL- (8824 ppm)	47	160	350	530	72	275	649	1080
		100% LEL- (1.765+004)	32	115	250	385	55	205	499	810
3	LPG	50% LEL- (8824 ppm)	48	164	370	700	72	285	720	1600
		100% LEL- (1.765+004)	32	118	260	500	55	212	550	1202
4	LPG	50% LEL- (8824 ppm)	48	165	370	700	72	285	720	1600
		100% LEL- (1.765+004)	32	118	259	500	55	212	550	1202
5	LPG	50% LEL- (8824 ppm)	48	165	370	700	72	285	720	1600
		100% LEL- (1.765+004)	32	118	259	500	55	212	550	1202
6	LPG	50% LEL- (8824 ppm)	48	165	370	700	72	285	720	1600
		100% LEL- (1.765+004)	32	118	259	500	55	212	550	1202
7	LPG	50% LEL- (8824 ppm)	48	165	370	700	72	285	720	1600
		100% LEL- (1.765+004)	32	118	259	500	55	212	550	1202
8	LPG	50% LEL- (8824 ppm)	48	165	370	700	72	285	720	1600
		100% LEL- (1.765+004)	32	118	259	500	55	212	550	1202



Pool Fire Results

S. No	Description	Material	Leak Size	Inci	dent Heat Ra	diation (kW/	m2)	Inc	ident Heat R	adiation (kW/ı	m2)
				4.73	6.31	12.5	37.5	4	6.31	12.5	37.5
				Distan	ce in meter (\	Neather Clas	ss 5/D)	Distan	Distance in meter (Weather Class 1.5/F)		
1	From Battery Limit to ROV	Battery Limit to ROV LPG	25 mm	5.6	5.7	7.15		15.1	13.6	10.5	5.9
	0101		100 mm	65	59	46.8	29	66	57.5	43	23.5
			250 mm	144	129	101	65	137	121	91	51
			500 mm-CR	209	188	148	95	201	179	132	74
2	FROM ROV 0101 TO MOV	LPG	25 mm	5.6	5.7	7.15		15	13.6	10.5	5.9
	0303		100mm	65	59	46.9	29	66	57.5	43	23.5
			250 mm	144	129	101	65	137	122	92	51
			500 mm-CR	180	164	128	83	390	372	348	312
3	FROM MOV 0303 TO XV	LPG	25 mm					14.5	13.2	10.1	5.8
	0501 AT SV-1		100 mm	68	61	48.2	31	65	58.5	44	23.5
			250 mm	146	132	103	67	137	124	94	51
			500 mm-CR	256	228	179	112	242	218	160	90
4	FROM XV 0501 AT SV-1	LPG	25 mm					14.5	13.2	10.1	5.8
	TO XV 0511 AT SV-2		100 mm	67	60.5	48.2	31	65	58.5	44	23.5
			250 mm	145	132	104	67	137	124	94	51
			500mm-CR	255	228	180	115	245	218	162	90
5	FROM XV-0511 AT SV-2	LPG	25 mm					14.5	13.1	10.1	5.8
	TO XV-0521 AT SV-3		100 mm	67	60.5	48.2	31	65	58	43.5	23.5
			250 mm	145	132	103	67	138	124	93	48.5
			500mm-CR	255	228	180	115	242	218	160	90
6	FROM XV-0521 AT SV-3	LPG	25 mm					14.5	13.1	10.1	5.8
			100 mm	67	60.5	48.2	31	65	58	43.5	23.5
			250 mm	145	132	104	67	138	124	94	51
			500 mm-CR	255	228	180	115	242	218	160	90
9	FROM MOV 0602 TO MOV	LPG	25 mm					14.5	13.1	10.1	5.8
	0901		100 mm	67	60.5	48.2	31	65	58	43.5	23.5
			250 mm	145	132	104	67	138	124	94	51
			500 mm-CR	180	163	128	83	175	158	119	68



The Phast/Safeti Software has been used for the consequence analysis.

Following observations have been made based on analysis of data presented in the above table:

- From the F-N Curve, it is seen that the risks are within the "ALARP" Region band- this indicates that no further "specific" risk reduction options need to be implemented (existing risk reduction measures need to be sustained)
- Individual Risks to personnel at the site are in the region of 1e-004 to 1e-009 which is within the ALARP region.



EMERGENCY MITIGATION MEASURES (Reference Regulation 11)

After determining the risk level, the following actions shall be required for mitigation of emergency: -

11.1 BASIC REQUIREMENT OF ERDMP

Basic requirement needs to be assessed prior to development of ERDMP as per the details provided in Schedule-III.

SCHEDULE III: BASIC REQUIREMENTS OF ERDMP

Item	Reference
Location Plan with 2 Km surrounding area	Available (Sample attached as Annexure – V)
Site Plan	Available (Sample Site Plan attached as Annexure VI)
Mfg. process and PFD	Mfg. Process and process flow diagrams have been given at Chapter 13 (B)
MSDS	Provided – Annexure I
Emergency contact nos	Provided – Refer Annexure III
Pipeline route map	Refer Annexure
Tel directory of tech support services	Provided – Refer Annexure III
Security threat plan	Provided – Refer Chapter 30



11.2 RESOURE MOBILISATION.

Resource mobilisation shall include manpower requirement, fire fighting materials, appliances or equipment, safety equipment, communication facilities, transport, list of emergency drugs and appliances, etc. (Schedule-IV).

Schedule-IV (Refer regulation11.2)

Resource Mobilization (Men & Equipment)

Name of the Shift	Maximum	Worker at a		
	Male	Female	Total	In "Workers" include all
General Shift – G	30	0	30	Employees, Contract
Shift - A	13	0	13	Workers, Trainees,
Shift - B	5	0	5	Apprentices, etc.
Shift - C	13	0	13	
Total Shifts:	61	0	61	

First Person to be contacted in case of emergency:

Name of the shift	Name &	Place of	Phone No.		
	Designatio	Availability	Mobile	In Factory	Residence
(A),(B),(C) Shifts	Control Room	Control Room office	6358947461	02838- 666727	-

2	FIRE -FIGHTING APPLIANCES/ EQUIPMENT/ CHEMICALS	Appropriate and adequate	
	Fire Tenders/ Fire fighting engines	equipment and	2 nos.
	Water storage capacity	facilities	1500KL+1500K
	Fire Hoses	available in line with the	12 NOS.
	Jet/Fog/Spray Nozzles	requirements of	5 NOS.
	Foam Branch	OISD - 169-	4
	Jumbo Jet Nozzles	kindly refer	2 NOS.
	Foam Compound (KL)	Annex-II	0.016 (1600 Ltr.)

3	SAFETY EQUIPMENTS	Appropriate and	
	PVC Suit	adequate	



	Compressed air B.A. Set	equipment and	1 Nos.
	Refill Cylinders for B.A. Set	facilities	NA
	Cascade B.A Set	available in line with the	NA
	Fire Proximity Suit	requirements of OISD – 169	1 Nos.
4	COMMUNICATION		Yes
	Walkie-Talkie	Mobile phones available	Yes
	Public Address System Megaphone	No No	
5	TRANSPORT		
	Jeeps	No	
	Cars	Yes	
	Ambulance	Available on call from hospitals on our panel	
	Trucks	No	
	Buses	No	
	Tractors	No	
	Boats	No	
	Mobile Cranes	No	
6	MISCELLANEOUS		
	Ropes (Meters)	No	
	Empty drums	No	
	Buckets	Yes	
	Sand bags	No	
	Dewatering pump	Yes	
	Pneumatic pump	No	
	Photo Camera	Yes	
	Video Camera	Yes	
7	EQUIPMENTS FOR CORPS DISPOSAL		
	Light Metal Stretchers	NA	
	Tarpauline 12' X 12"	NA	



Rop	pe fiber 3/8"	Na	
Buc	ket	Yes	
Ruk	ber gloves	Yes	

8	LIST OF EMERGENCY DRUGS		
	and APPLIANCES		
	Canvas Stretcher	Na	
	Oxygen Cylinder	Na	
	Sterlite Bandages	Yes	
	Cotton Sterilised	Yes	
	Antibiotics	Yes	
	Analgesties	NA	
	Sedatives	NA	
	Tetanus Toxoid	NA	
	Dressing Instruments	Yes	
	Sterilisers	NA	
	Autoclave for sterlising Instruments, dressing	NA	
	B.P. Apparatus	NA	
	Suction Apparatus	NA	
	I.V.Set	NA	
	Antishock drugs	NA	
	Gluco Saline Set	NA	
	Gluco Saline Bottle	NA	

• A dedicated fire and safety team with trained and experienced manpower is available round the clock in to cater to emergency services.



11.3 INCIDENT PREVENTING MEASURES AND PROCEDURES.

The incident prevention measures and procedures at installation or other locations shall include the following: -

(i) Health safety and environment (HSE) policy;

ADANI has laid out a well-defined HSE policy, which has been communicated to all the stakeholders are prominently displayed at installation. ADANI's HSE Policy is replicated on the next page for reference.



EHS Policy

Adani Ports and Special Economic Zone Limited (APSEZL) has an integral Quality, Health, Safety and Environmental (QHSE) procedure as an integral International Standards ISO 9001:2015, ISO 14001:2004, OHSAS 18001:2007, ISO 28000:2007 certifications specifying the requirements for an Integrated Management System (IMS).

The core objective of the APSEZ to improve quality, health, safety and environment in the work place and to achieve zero LTI. Apart from the ISO certification the company has adopted its own Safety Management System (SMS) which is based on the philosophy that safety is primarily line management's responsibility. The SMS is divided into 20 elements, with each element being owned by an element owner who is from the line management at Port. These element owners are accountable for implementation, monitoring and sustenance of their respective element. The lifesaving safety rules are non-negotiable and sacrosanct in nature.

Objective	Course of Action
Establish and maintained standard for safety of the people, process and the assets	Welcome S-H-E audit conducted by good external body so that stack holder's confidence is safeguard
Comply with all rules and regulations on safety occupational health and environment protection	Adopt and promote industry safe practice to avert accident & improve our H-S-E performance
Plan, design, operate and maintained all facilities processes and procedure to secure sustained safety, health and environment protection	Remain committed to be leader in safety occupational health and environment protection through continual improvement
Remain trained equipped & ready for effective and prompt response to accidents and emergencies	Make effort to preserve ecological balance

(ii) Proper layout and inter facility distances (the layout should not have any crisescross movement of men and materials);

The site is approved by PESO, adequate safety distances maintained as per regulations. Copy of dispatch terminal layout of the installation are available with the APSEZ.



(iii) Safety committees with fair participation of Union leaders and workers;

Safety committees have been formed with equal participation from management and workers. The Safety Committee Meetings are conducted on monthly basis.

These Committees are constituted with equal participation of Executives as well as Non-Executives with the approval of the Management. The tenure of Safety Committee is for two years. The Minutes of each meeting are recorded and circulated to all the concerned for the compliances of the same.

.

(iv) Safety audits and inspections shall be carried out with the help of prescribed checklists. The entity shall follow the periodicity and guidelines for inspection as per regulations of Petroleum and Natural Gas Regulatory Board on process / procedure/methodology for ensuring adherence and its protocol for third party confirmatory assessment;

Internal Safety Audit is done on regular intervals by an approved joint technical team through Safety Audit Checklist. External Audit is carried out as per the statutary requirements of the PNGRB guidelines.

(v) Work permit system (including confined space and entry permit);

A well-defined work permit system is in place covering hot work, cold work, working at height, electrical LO/TO, excavation, etc. – Sample work permit copy is attached on the next:



WORK PERMIT

PERMIT TO WORK

adani	PERMIT TO WORK	TYPE:					
		Work Order No).:	Key Sa	Key Safe No.:		
1. Location		W		- 30			
	cetion						
	is	- 72			-		
2. Scope of Work							
W disa incorporate							
3. Site Inspection	0:						
Inspection Carried out	by MAP Name.	Date/	/	Time:/	AM/PI	A.	
Work Area Boundaries	Identified by the following: - Physical B	arriers Warning Tap	. Ц	Verbal 🔲			
4. Precautions Taken To	Achieve Safety From The System						
5. General Safety To Se	Adopted During Work						
						=	
						=	
6. Supporting Informa							
Attachment to be incl	uded with Permit For Work	od Statement No#					
Attachment to be incl JSA/Risk Assessment	uded with Permit For Work Number Meth	od Statement No#				_	
Attachment to be incl JSA/Risk Assessment	uded with Permit For Work	od Statement No#	-				
Attachment to be incl JSA/Risk Assessment Test criteria:	ouded with Permit For Work Number Meth	od Statement No#					
Attachment to be incl JSA/Risk Assessment Test criteria: 7. Person Preparing P	ouded with Permit For Work Number Meth						
Attachment to be incl JSA/Risk Assessment Test criteria: 7. Person Preparing P I certify that work can	ormit be undertaken in accordance with criteri	a listed above.				M/PM	
Attachment to be incl JSA/Risk Assessment Test criteria: 7. Person Preparing P I certify that work con OAP Name	ormit be undertaken in accordance with criteri	a listed above.				M/PM	
Attachment to be incl JSA/Risk Assessment Test criteria: 7. Person Preparing P I certify that work can OAP Name 8. Issue and Receipt of	ormit be undertaken in accordance with criteri Signature	a listed above. Date		Time:_	/A	M/PM	
Attachment to be incl JSA/Risk Assessment Test criteria: 7. Person Preparing P I certify that work con OAP Name 8. Issue and Receipt of I accept that the prec	ormit be undertaken in accordance with criteri Signature of Permit autions specified are implemented and the	a listed above. Date at I have received the above.	//.	Time:	A Safe Key.	M/PM	
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					Back sid	e of PTW					
	TO WORK RANSFER - RENE	WAL LOS	×						1.0		
Person Surrendering Document (MAP)			QAP - Receiving Surrendered Document			Person Receiving Resource Document (MAP)			GAP - Resouring Decument		
Nome	Signature	Time Date	Name	Signature	Time Date	Name	Signature	Time Date	Nome	Signature	Time Dote
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adani	PERMIT TO WORK AUTHORISATION CERTIFICATE	Number: xxx/xxx
	OCP / OAP / EAP / MAP/HV/ EHV/	LV
1. Details of Perso		
Name	Designation	
Site Name and Addre	955:	
2. List of Author	isations *	
The above person is	s hereby authorised to complete the following duties:	:
The preparation Certificate.	, issue, suspension and cancellation of the Company Isolati	on and Sanction to Test
☐ The preparation,	issue, transfer, suspension and cancellation of the Compan	y Permit to Work Form.
☐ To carry out Iso	lation and De-isolation of High Voltage Electrical Equipmen	t up to: KV.
☐ To carry out Iso	lation and De-isolation of Low Voltage Electrical Equipment	E
☐ To carry out Me	chanical Isolation and De-isolation of process plant and and	cillary equipment.
☐ To authorise un	der controlled conditions, work associated with the use of F	Radioactive sources.
☐ To carry out Ga	s Testing Procedures necessary to comply with the Compan	y Procedures.
☐ To carry out dut	ties allocated under or specified in the Company OHS Proce	edures.
To receive PTW plant	STT and carry out/supervise ELECTRICAL/ MECHANICAL m	naintenance work for all areas of
Specify Details:		
Number of duties Aut	horised Level of Authority [Date of Authorisation
Delete those NOT a	ppropriate	

[LV-50 to 440 V; HV-440 to 66 kV, EHV- above 66 kV]



- (vi) Early warning alarm system in dispatch and SV station installation (gas monitoring and detection system, low pressure/high pressure and low/High temperature alarms etc.) and signals are received and recorded in the central control room;
- (vii) in-built safety interlocks system in design such as safety relief valves (SRVs),non-returning valves (NRVs), remote operated valves (ROVs) and other various emergency trip systems in Installations;

Critical safety interlocks exist tripping of LPG pumps, and closing of ROV's/ESDV's.

(viii) Fire protection (preferably automatic) and HSE Management system.

Area of high risk	Protection Facility
Dispatch Terminal	Fire DV system (QBD), Fire & Gas detection system, Fire extinguishers.
Sectionalized Valves	Fire & Gas detection system, Fire extinguishers.

All operations controlled through Central Control Room which is blast proof & equipped with smoke detection system. Also, it is equipped with inert gent gas system & ESD system (i.e. Emergency Shut Down system)

We have also special type lighting arrester in each high mast.

All facility as per OISD, CCOE and WBFR guide lines.

Source of Water:

- 1) From P.H.E
- 2) Rain water harvesting (Open fire water tank)

Capacity of Fire tank:

2 water tanks (1500 KL + 1500 KL)

Fire Engine:

- 2 Jocky pumps with capacity of 8.8 kg/cm2
- 2 diesel pumps with capacity of 11 kg/cm2

Other HSE Management activities include:

- Promotion of Safety Leadership
- Inspections and maintenance
- Work Permit Systems



- Accident investigation and reporting (major, minor, etc.)
- Emergency preparedness
- Job knowledge and job Training
- Health and Hygiene control
- Evaluation of safety systems
- Management of change (plant modifications etc.)
- Communications with people and in groups
- CCTV camera strategically positioned to cover all critical areas
- Hooters for alarms
- First aid boxes
- Portable gas detectors provided
- Adequate number of security guards
- PPEs provided
- Flame proof electrical fittings
- Safety Policy displayed
- Rules and responsibilities displayed
- Cautionary boards displayed
- Insulating rubber mats in electrical panel room

Few of the photographs showing the above facilities are given on next page.

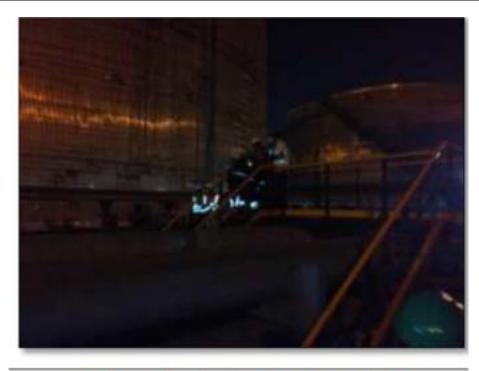




Security team reached at site







Incident Controller reached at site



Emergency Declared by Incident Controller



(ix) Visitor safety briefing including, do's and don'ts in case of emergency including assembly points and escape routes etc.

ADANI's operations under normal conditions do not involve entry of visitors to the process areas. Maintenance personnel visit the process areas only with a valid permit to work. Clear instructions are communicated to all ADANI personnel through training, demonstration and written instructions as part of SOP regarding the do's and don'ts before commencement of any activity.

Refer Chapter-8 for more details on drill for visitors, assembly procedure and do's and don'ts.



Escape Route:

(x) Setting up of safety MIS system and sending Exception reports to the head of organisations or CEO;

Adani has a well-structured Safety Commettee meeting system where site in charge prepares and sends daily/ weekly/ fortnightly and monthly reports to the respective head of the departments. Further, being in gas business, any and every abnormality is given top priority and communication immediately goes in the form of e-mail and call to the concerned person, head of the organizations/CEO.

Sample safety committee meeting report is given below;



OHS-02A-F-02 adani MINUTES OF THE MEETING Date: 27/03/2018 Chairman Name: Mr. R. Vijayan. Committee Name: Liquid Terminal Safety committee VENUE: Liquid Terminal office DATE 27.03.2018 TIME: Start Time: 11:00hrs End Time: hrs_12:30Hrs PRESENT: COULD NOT ATTEND: Mr. R. Vijayan LT Chairman Mr. B. Mary S&W Mr. MANAN Brutt Mr. K.R.Rao - ManagementRepresentative Mr. Mehul Dobariya - ES civil Mr .Bhavin Patel LT Mr. Vichal Mathukiya - Howe Mr. Jignesh Burber LT Mr. Manmaharsinh Janoti - Howe Mr. Anant Patel ES Elec Mr. Mayor Kasundra- LT Mr. Vyomesh Trivedi ES PNU Mr. Fratik -Fire Mr. Sahdevainh Zala - SGT Mr. Amit Yaday ES LT Mr. Jatin Mewada LT Mr. Lakhuram SGT Mr. Umarsinh SGT Mr. Vuomeha Trivedi Mr. Frem Kumar MHS Eng. Mr. Akash vala Mr. Imtiyas MRS Mr. Bhadresh Mehra -LT Mr Landa jogarao (SGT) OFix agenda: refer Appendix-1 of the procedure OHS-028 1. Review status of previous meeting points 2. Allow member to report new safety concern Actions plan Sr. Discussion Points Agreed action Responsibility No. **Target Date** 27/03/2018 Safety video for Near Miss Safety Context Bhushan Safety Man of the Month 1 1) Jatin Mewada-LT 2) Imbyaz M/s MHS Discussed previous Month OHS Feb 2018 -- 73 2 March 2018-57 (as on performance 26/03/18) Previous month accident and NIL 3 investigation Review Planned safety inspection Encl- 6 TLF 6 and PH 6 Jatin Mewada 4 and findings Report Done department safety LEL meter calibrated Bhushan Review 5 equipment item inspection plan and finding status Review Training Plan compliance Basic fire training 2. - March 6 Review previous month department 7 Safety committee MOM status ATR PTW Hot work violation will not HOWE/ all ES Hot work violations Completed. observed in LT area from be tolerated. Penalty will be Informed to 7.1 Contractual workers imposed on contractor contractor. 01/04/2018 Encl Drain cover to be are not Cover are not installed after JM/ES /Howe Continue completion of JOB 7.2 properly covered (Amitsingh) Encl 9 Completed

Adami Group OHS

Effective Date: January 01, 2016



SI. No	Equipment Name	Facil ities Avail able (in nos.)	IT INSPECTION DETAIL AS PER OISD	Frequenc
1	Fire water double hydrant	5	Visual inspection by internal fire team	Monthly
2	Deluge valve	1	Visual inspection by internal fire team	Monthly
3	Water cum Foam Monitor	4	Visual inspection by internal fire team	Monthly
4	CO2 Fire extinguishers with 4.5 Kg	4	Visual inspection by internal fire team	Monthly
5	CO2 Fire extinguishers with 2 Kg	06	Visual inspection by internal fire team	Monthly
6	DCP Fire extinguishers with 9 Kg	10	Visual inspection by internal fire team	Monthly
7	DCP Fire extinguishers with 75 Kg	3	Visual inspection by internal fire team	Monthly
8	Sand Buckets	05	Visual inspection by internal fire team	Monthly



(xii) Check points for incident prevention measures are given at Check list -2.

Filled-in Checklist 2 has been attached at Annexure IV



CHAPTER - 12

EMERGENCY PREPAREDNESS MEASURES

After detailing the prevention measures, preparedness measures to handle the emergency shall be explained in ERDMP document.

12.1 EMERGENCY DRILLS AND MOCK EXERCISES.

(a) To evaluate the thoroughness and effectiveness of an ERDMP, it is necessary to conduct periodic table top exercises full-scale or announced, and unannounced drills. Each site should hold drills on the night shifts, change shifts as well as during the day as mandated under regulation 12.1 (e).

Mock drills on the on-site plans are conducted every quarter and off-site plan once a year involving external agencies.

These drills are planned by the F&S department and several times only the plant incharge is aware of the date and time. Drills have also been conducted on holidays and after office hours to gauge preparedness of the response system

Mock Drill report is attached in Annexure- VII

(b) Drills should present a variety of Emergency scenarios and designed to challenge each segment of the organization. Limited scale drills are useful and should be used by Chief of each Support Service to train his own team. Plans should be made to have periodic mass casualty exercises. These exercises should attempt to simulate as closely as possible a fire, explosion, or toxic agent release and comparison of the prescribed time lines and the actual received.

The range of scenarios includes:

- A) Leakage of LPG from the flanges/ lines/ third party damage between the two SVs station.
- B) Leakges from the LPG pump seal etc.
- (c) The warning system, first aid, evacuation procedures and the definitive treatment procedures should all be tested periodically.

The warning and communication system, first aid and definitive treatment procedures, etc are all tested periodically through mock drills.

- (d) Some of the drills should also include the participation of outside groups and agencies such as police, fire companies, ambulance service, civil defense organizations and mutual aid groups.
 - ➤ Major Mock drills involving external agencies are conducted once in a year as per PNGRB guidelines and their recommendations are complied.



- (e) Mock drill for On site (Level –I or II) and Off site (Level-III) emergency shall be carried once in three months and twelve months respectively in accordance with Typical Mock Drill Reporting format provided in Annexure -3. Entity shall conduct at least one On site emergency exercise of Level-II during a year.
 - ➤ Mock drill on the on-site emergency plan is conducted once in three months and fire drill is conducted every month.
 - ➤ Major Mock drills involving external agencies are conducted once in a year as per PNGRB guidelines and their recommendations are complied.
- (f) it is the responsibility of the concerned District Authority to prepare and keep uptodate an adequate off-site emergency plan detailing as to how emergencies relating to a possible major accident on the site will be dealt with, as per prevailing provisions of Manufacture, Storage and Import of Hazardous Chemical (MSIHC) Rules, 1989 and Disaster Management (DM) Act, 2005, accordingly, entity shall submit the details to the concerned District Authority to conduct the off-site mock drill.

For locations having more than one industry member, the Off-site emergency exercise may be carried out by one industry member by turn in coordination with the concerned District Authority, thus ensuring at least one off-site emergency (Level-III) exercise is conducted at the location every year

The suggested system is being completely followed.

- (g) These mock drills will enable the unit/location to assess the capability of the individual and performance as a group. The frequent discussions and drills will help in eliminating the confusion and shortcomings, if any.
- (h) Each Mock Drill should be recorded with observations and deficiencies within 24 hours. Accordingly, time bound action plan to be prepared for rectifications

Each mock drill conducted is being recorded and observations and deficiencies are prioritized and promptly attended to rectify within 24 hours.

(i) Check Points for mutual aid and mock drills are given at Check list - 3.

Filled in Checklist 3 is attached at Annexure IV

12.2 TRAINING.

- (1) An ERDMP shall be easier to use if training material and general philosophy on emergency prevention and control are kept separate from the working plan.
- (2) (i) Training shall be imparted to all the personnel likely to be involved directly or indirectly to the emergencies including employees, contract workers, transport crew and security personnel.



Regular training is imparted to all ADANI's personnel including employees, contract workers, Drivers and Security Staff etc.



(ii) Contract personnel and contract labourer shall be allowed to start



work only after clearance of attending and passing safety training.

Contract personnel and contract labours are provided safety trainings before starting the work.

Safety & Fire Fighting Training details

			APSEZ	Mundra	Training	Calendar - 2018 -19	9						ad	iani
	List of Training Program	He of Days	Type of Training	Target Participant	Competency	Congetoncy Footest	40		88	-	Date:		fee.	-
1	Blue Ocean Strategy		Classroom	MM 6 MO		Strategic Orientation	0	1 0		Uniquia de	20th			100
2	How to cultivate Strategical Entrepreneurial Mindset	1.1	Classroom	MM, MO 6 MS	Business	Strategic Drientation & Entrepreneurial Mindset				15th - 16th				
3	Strategic Decision Making	1	Classroom	MM, MO B MS		Decision Making		19th					22ne	
٠	Effective Communicational B Listening Skill Enhancement Through NLP	3	Classroom	MM, MD B MS		Communication & Listening	29th							
3	Art Of Delegation & Conflict Management	1	Classroom	MM 8 MO		Collaboration and Teamwork / Communication & Lisbening		7th					25th	
6	Body Language for Leaders	10.1	Classroom	MM		Communication & Listening		277.012	25rd	10000				
7	Business Writing & Reports	10.0	Classroom	MO 8 MS		Communication & Listening		20th		29th				
	Conventional Business English		Classroom	MO 8 MS		Communication & Listening	9		Bth					
2	Corporate Etiquitia	23	Classroom	MOAMS	People	Communication & Listening				27th		29th		
10	LIFA	2	Outdoor	MM 8 MO		Leading Teams. Leadership & Scress management			1210					
11	People Mangement	4	Classroom	MM 6 MO		Leading Teams, Collaboration and Teamwork								2711
12	Team Bonding & Networking	1	Classroom	MM, MD		Collaboration and Teamwork			5th			311	to	
13	Team Building & Team Player Skill	3	Classroom	MO 6 MS		Collaboration and Teamwork:								280
14	Harmony	2	Outsteer	MM 0 MO		Collaboration and Teamwork, Planning & Organizing		22nd - 23nd						
15	High Performance Leadership Execution Training	4	Classroom	MM, MO B MS	People/ Result	Execution Focus, Leading Team, Teamwork & Colleboration.			25th	200	6ch		15th	140
16	Developing Essential Supervisory Skill	-	Classroom	SUP 6 MS		Collaboration and Teamwork, Planning 8 Organizing, Execution Focus, Decision Making.	31st	20th	30th	2nd	28th	9th 0 50th	2nd B Tith	2813
17	Saksham :	2	Outdoor	MM s MO	Business / Result	Strategic Orientation, Performance and Accountability, Execution Focus & Decision Making				101	12th - 13th	18th-		Box - Sch

(3) Refresher training shall be conducted at regular intervals.

Refresher training is conducted at regular intervals.

(4) The basic requirements of Central Motor Vehicles Rules, 1989 pertaining to



dangerous or hazardous goods transport must be complied by the transporters. For this the loading station must conduct training of tank truck crew as per the requirement under Central Motor Vehicles Rules, 1989.

The basic requirements of Central Motor Vehicles Rules, 1989 pertaining to dangerous or hazardous goods transport is compiled by the ADANI and the training program for the tank truck crew is been conducted as per the requirement under Central Motor Vehicles Rules, 1989.

12.3 MUTUAL AID

Since combating major emergencies might be beyond the capability of individual unit, it is essential to have mutual aid arrangements with neighboring industries.

ADANI has a mutual aid agreement with the nearby industries like:

- 1) India Oil Corporation Limited
- 2) Hindustan Petroleum Corporation Limited
- 3) Jindal Saw Limited, (IPU) Village
- 4) Adani Power (Mundra)
- 5) Coastal Gujarat Power Limited
- 6) HPCL, Mittal Pipelines Limited
- 7) GSPC LNG Limited

The Signed Mutual Aid document is attached in ANNEXURE

Consideration shall be given to the following while preparing mutual-aid arrangements:

- (a) Written mutual aid arrangements are to be worked out to facilitate additional help in the event of Level-II emergencies by way of rendering manpower, medical aid or fire fighting equipments, etc.
- (b) The mutual aid arrangement shall be such that the incident controller of the affected installation shall be supported by neighboring industries on call basis for the support services materials and equipments already agreed. Further, all such services deputed by member industry shall work under the command of the site incident controller of the affected installation.
- (c) Mutual aid associations shall conduct regular meetings, develop written plans and test the effectiveness of their plans by holding drills. Drills are essential to establish a pattern for operation, detect weaknesses in communications, transportation and training. Periodic drills also develop experience in handling problems and build confidence in the organization.
- (d) To make the emergency plan a success, the following exchange of



information amongst the member organizations of mutual aid association is considered essential: -

- The types of hazards in each installation and fire fighting measures.
- ❖ The type of equipment, that would be deployed and procedure for making the replenishment.
- Written procedures, which spell out the communication system for help and response. This is also required to get acquainted with operation of different firefighting equipment available at mutual aid members and compatibility for connecting at user's place.
- ❖ Familiarization of topography and drills for access and exit details carried out by mutual aid members.

Note: Incidents involving road transport vehicles carrying petroleum products shall be attended by the nearest installation on request of civil authorities even in absence of mutual aid agreement with the consignor. Failure on the part of such industry, installations shall attract penalty provisions under sub-regulation 8(4) of these regulations. No formal mutual aid agreement in absence of any other industries in the vicinity of our installations.



CHAPTER - 13

RESPONSE PROCEDURES AND MEASURES (Reference Regulation 13)

Containing the consequences of an emergency requires well planned and documented procedures to ensure prompt response and coordination among various task groups. The following response procedures as prevalent in the location shall be carried out:

(A) ZONING AND MAPS.

(i) The zones and maps shall be prepared highlighting the Incident prone areas of the unit so that in case of an emergency it serves as a basis for taking the action. This indicates the size of the area within which human life is seriously endangered by the consequences of incident. This should also indicate the location of assembly points and emergency control rooms. The map should also have marked 24 wind directions to facilitate easy access in case of emergencies.

Consequence analysis results given at Section 10.4 are based on the different leak scenarios. Risk Assessment has been carried out based on the product of consequences and frequency analysis. Layout of the facility is attached in Annex VI.

Details of assembly points and accident-prone area shown in the drawing attached in annexure VIII.

(ii) The entities shall help District Disaster Management Authority (DDMA) in finalizing the full drawn map of installations and nearby areas under their operations having presence of habitats which are vulnerable and sensitive like old age homes, schools, prison, etc.

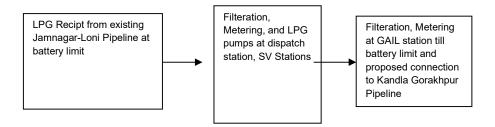
The layout of the facility is attached in Annex VI.

(iii) Wind speed and direction should be recorded with the help of anemometer and declaration of off-site emergencies should be immediately communicated to DDMA.



(B) LAYOUT/FLOW DIAGRAM - Refer Annex- V& VI

Activities of ADANI at a Glance



(C) MANPOWER DATA

The details of manpower deputed on shift basis have been given in order to assess the requirement in case of emergency.

The ADANI management engages 25 nos contactor worker in general shift, 13 workers in A shift, 5 workers in B shift and 13 workers in C shift.

Name of the Shift	Maximum	n Worker at a	time	
	Male	Female	Total	In "Workers" include all
General Shift – G	30	0	30	Employees, Contract
Shift - A	13	0	13	Workers, Trainees
Shift - B	5	0	5	,Apprentices, etc.
Shift - C	13	0	13	
Total Shifts:	61	0	61	

Name of the	Name &	Place of	Phone No.		
shift	Designatio	Availability	Mobile	In Factory	Residence
(A), (B), (C) Shifts	DT Control Room	DT Conttrol Room office	7486903689	02838-666727	-

Note: Check points on ERDMP response measures are given at Check list- 4. Filled-in Checklist 4 is attached at Annexure IV of this ERDMP.

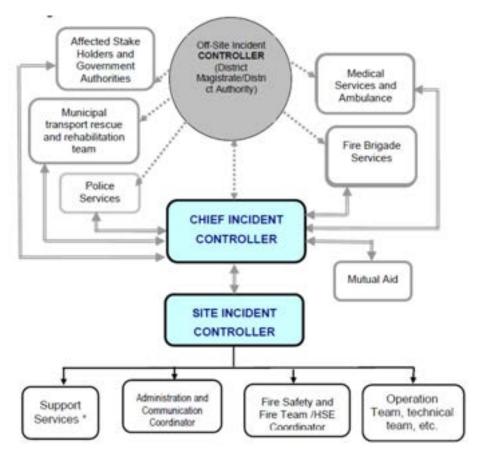


CHAPTER - 14

EMERGENCY ORGANIZATION AND RESPONSIBILITY (Reference Regulation 14)

(1) The ERDMP shall identify the safe transition from normal operation to emergency operations and systematic shut down, if any, and the delegation of authority from operations personnel to emergency response personnel. For this purpose, the plan shall identify an emergency response organization with appropriate lines of authority with succession planning and actuating the response management. Responsibilities for decision making shall be clearly shown in an emergency organization chart. The plan shall identify each responder's position, mission, duties and reporting relationship.

14.1 Organization Chart



Details of the level of emergencies are provided in Chapter 6 of this report.



14.2 Roles & Responsibility

A well chalked out emergency organization has been drawn to effectively manage all types of likely emergencies arising out of ADANI's operations

The emergency roles and responsibilities have been defined in a manner such that it is closest to the person's normal work so as to draw on their core expertise.

14.2.1 Chief Incident Controller (DGM/Terminal Manager)

The Chief Incident Controller (CIC) shall have overall responsibility to protect personnel, site facilities, and the public before, during, and after an emergency or disaster. The CIC shall be present at the main emergency control centre for counsel and overall guidance.

Responsibilities of the Chief Incident Controller shall include the following:-

- a) Preparation, review and updation of the ERDMP as per Check List-5;
- b) Assessment of situation and declaration of emergency;
- c) Mobilization of main coordinators and key personnel;
- d) Activation Emergency Control Centre;
- e) Taking decision on seeking assistance from mutual aid members and external agencies like Police, Fire Brigade, Hospitals etc.;
- f) Continuous review of situation and decide on appropriate response strategy;
- g) Taking stock of casualties and ensure timely medical attention;
- h) Ensuring correct accounting and position of personnel after the emergency;
- i) Ordering evacuation of personnel as and when necessary;
- j) Taking decision in consultation with District Authorities when an Off-site emergency to be declared.

14.2.2 Site Incident Controller (SIC) – Sr. Manager (O)/Sr. Manager(T)

The Site Incident Controller shall be identified by the Chief Incident Controller and will report directly to him. SIC should be nominated by the entity in each shift. Responsibilities of the Chief Incident Controller shall include the following: -

- a) The SIC shall maintain a workable emergency control plan, establish emergency control centers, organize and equip the organization with ERDMP and train the personnel
- b) The SIC shall be capable of making quick decisions and taking full charge;



- c) The SIC shall communicate to the Emergency Control Centre where it can coordinate activities among groups;
- d) The SIC shall be responsible for ensuring that appropriate local and national government authorities are notified, preparation of media statements, obtaining approval from the CIC and releasing such statements once approval received;
- e) The SIC shall also ensure the response to the incidents or the emergencies, as the case may be, is in line with entity procedures, coordinating business continuity or recovery plan from the incident. He must ensure next of kin are notified in a timely manner;
- f) The SIC shall also co-ordinate if any specialist support is required for the above purpose; and
- g) The SIC shall decide on seeking assistance of mutual aid members and external agencies like police, fire brigade, hospital etc.

14.2.3 Administration and Communication Coordinator

Responsibilities of the administration and communication controller shall include the following: -

- a) To coordinate with mutual aid members and other external agencies;
- b) To direct them on arrival of external agencies to respective coordinators at desired locations;
- c) To activate the medical centre and render first aid to the injured. arrange ambulance and coordination with hospitals for prompt medical attention to casualties;
- d) To ensure head counts at assembly points; Security Supervisor would be responsible for assembly points, head count and safe evacuation.
- e) To arrange procurement of spares for fire fighting and additional medicines and drugs;
- f) To mobilize transport to various teams for facilitating the response measures;
- g) To monitor entry and exit of personnel into and out of premises;
- h) To ensure only authorized personnel enter into the premises;
- To regulate the flow of traffic into and out of premises and control the mob outside, if any, with the assistance of the police.
- j) To provide administrative and logistics assistance to various teams; and
- k) To arrange evacuation as directed by the chief incident controller, and in coordination with the civil authorities like police, panchayat/municipal authorities etc.



14.2.4 Fire Safety Coordinator and Fire Team.

Responsibilities of the Fire and Safety Coordinator shall include the following: -

- (a) To activate emergency sirens as per the practiced codes;
- (b) To take charge of all fire fighting and rescue operations and safety matters;
- (c) To ensure that key personnel are called in and to release crew of fire fighting operations as per emergency procedure;
- (d) Assess functioning of his team and communicate with the CIC and or administrative controller for any replenishment or, replacement of manpower or firefighting equipment;
- (e) Direct the fire brigade personnel and mutual aid members to their desired roles as also proper positioning of the manpower and equipment;
- (f) To decide the requirement of mutual aid and instruct fire station, who, in turn will contact mutual aid members;
- (g) To coordinate with outside fire brigades for properly coordinated fire fighting operation
- (h) To ensure that casualties are promptly sent to first aid centre / hospital;
- (i) To arrange requirement of additional fire fighting resources including help from mutual aid partners;
- (j) Ensure empty and loaded trucks are removed to safer area to the extent possible so as not to affect emergency handling operations;
- (k) Continually liaise with the SIC and or CIC and implement the emergency combat strategies as communicated by him; and
- (I) Ensure adequate hydrant pressure in the mains and monitor water level in the reservoir.

Note: Fire chief shall wear identification jackets at the site of disaster so that he can clearly distinguished among fire fighting personnel and is visible from a distance.

14.2.5 Support and Auxiliary Services for Major Installations.

The following additional coordinators (refer 14.2.5.1 up to 14.2.5.4) may be nominated and delegated the specific responsibilities falling under the basic functions of SIC and or CIC: -

- 14.2.5.1 Human Resources and Welfare Services Coordinator GM-HR
- 14.2.5.2 Transport and Logistics Services Coordinator GM HR
- 14.2.5.3 Media and Public Relations Coordinator GM Corporate Communication



14.2.5.4 Operations and Technical Coordinator – HOD Operation

14.2.5.6 Security Coordinator - GM -HR

The Security Coordinator reports to the Chief / Site Incident Controller and is responsible for security of the installation during any incident or emergency situation and for implementing the actions below:

- (a) Obtaining an approved visitor list from the security department or reception for ensuring that personnel on the list are escorted to reception by security staff;
- (b) Maintaining security of the office in the event of an office evacuation;
- (c) Providing office security and assisting authorities in the event of civil unrest or when required organising additional security at the emergency scene;
- (d) Obtaining initial briefing from Chief/Site Incident Controller and providing security information and or status reports to Site Incident Controller during the emergency;
- (e) Assuming responsibility for any task delegated by Chief Incident Controller; and
- (f) Assessing the emergency, identify security specific problems and recommend solutions to Chief Incident Controller.

14.2.5.7 (a) Maintenance of ERDMP Records.

There shall be maintenance of ERDMP records for all kind of emergencies covering near Miss, Level-I, Level-II and Level-III. Organisation shall maintain an Incident Record Register for the above purpose and post-disaster documentation like resources deployed, relief, rehabilitation measures and lesson learned to avoid re-occurrence of any such emergency. Head of HSE or any other designated personnel by the CIC/SIC shall be responsible for maintenance of such records. - All the records are being maintained at the corporate office level.

- (1) A good public relations program is extremely important in an emergency situation. Inquiries will normally be received from the media, government agencies, local organizations and the general public.
- (2) This section of the Response Plan shall include a public relations or media plan. It should identify an Information Officer that is wellequipped and trained in media relations.



(3) Initial releases shall be restricted to statements of facts such as the name of the installation involved, type and quantity of spill, time of spill, and countermeasure actions being taken. All facts must be stated clearly and consistently to everyone.

14.2.5.7 (b) Recorder - Fire & Safety Staff

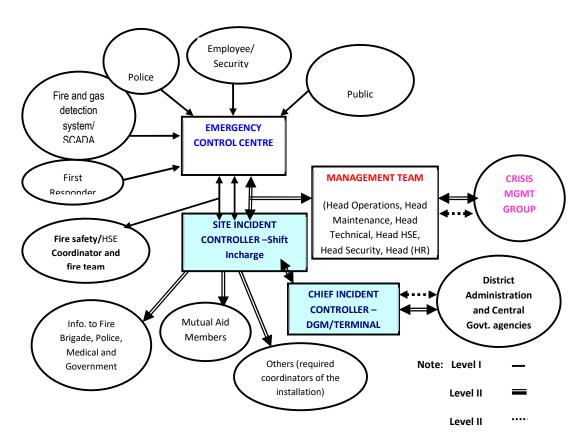
The Recorder responsibility is to maintain an accurate time record of key information received from the incident or emergency location and to record the actions initiated by the site incident controller and for implementing the emergency response actions below:

- (a) To record key incident events/actions on incident status board/ display manually or electronically;
- (b) To maintain essential equipment checklist status;
- (c) To ensure all status and information is up to date and correctly displayed;
- (d) To take all necessary recorded material to the alternate ECC room (DGM (T) room) in the event of emergency in main ECC room;
- (e) To maintain a log book.

14.2.5.8 Communications Services – Corporate Communications

- (1) The Communications Coordinator shall ensure the following actions below:
 - (a) Ensuring the ECC equipment and systems are maintained to a high standard and remain functional throughout the emergency.
 - (b) Ensuring a back-up communication system is available in the event of the ECC Room is not available.
 - (c) Providing quality and diverse communication systems for use in routine and emergency situations.





(2) Flow of Information.

- (a) Control Centre (DT Control Room) shall receive the information form field either in person or from the various systems available in the installation.
- (b) On receipt of information, the control room shift In-charge will actuate the ERDMP and notify the emergency to site incident controller.
- (c) Control room shift in-charge will act as site incident controller till arrival of designated person.
- (d) SIC or CIC depending upon the level of emergency will actuate the ERDMP and inform the concerned authorities as depicted above in the chart.

Emergency organization and response charts showing roles and responsibilities of the emergency responders are given in chapter-6.



14.2.5.9 SIREN CODES

(1) The Emergency siren/s should be located suitably to cover the whole area with the operational control within the installation. These should be tested at least once in a week to keep them in working condition.

An audible emergency alarm (siren) system is located at the site. The siren system is designed so that it can be operated from the ECC. The system is tested regularly. The alarm system conveys to put the staff that an emergency has occurred and that the emergency services should be put in operation etc.

(2) Emergency siren code should be as follows, namely: -

Sr. No.	Type of Emergency	Applicable EAP	Description of Emergency		
1	Level-1	Onlisite	 Pinhole leakage from Piping Failure of gasket resulting in leakage Leakage due to bursting/ LPG propane butane liquid line Instrument tapping failures due to rupture of LPG hoses or swivel joints of body arms LPG , Propane , Butane Pump seal leakages, Loading tanker leakages Escape of liquid/vapour LPG during maintenance/repairs 		
2	Level-2	On site	 LPG, Propane butane storage tank major leaf LPG, propane, butane liquid line instrument tapping failures due to failures caused by corrosion defects, Failures caused by miscellaneous factors such as pipe material defects. 		
3	Level-3	On site-Off site	BLEVE Vapour cloud explosion. Catastrophic Rupture Natural Perils – Earthquake, flood, tsunami Bomb, explosion / Threat		

Emergency Siren

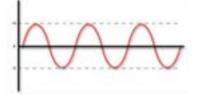
All personnel working in the premises must understand the actions to be taken in case of an emergency:

The signal that will be used as an emergency alarm

- "Fire" Siren 25 sec. "ON"-- 15 Sec. "OFF" (Wailing 3 Times)
- "Disaster" Siren 25 sec. "ON"-- 15 Sec. "OFF" (Wailing 3 Times)

(Thrice after gap of 1 min.)

"All Clear" Siren – 2 Minutes (Continuous siren)





- (a) ALL CLEAR: Straight run siren for two minutes.
- (b) TEST: Straight run siren for two minutes at frequency at least once a week
- (c) Public address system should be provided with message.

CHAPTER - 15

INFRASTRUCTURE (Reference Regulation 15)

- 15.1 EMERGENCY CONTROL CENTERS (ECC).
 - (1) Each installation shall have the provision of ECC preferably with a backup arrangement.
 - (a) The ECC shall be away from potential hazards and provide maximum safety to personnel and equipment.
 - (b) Preference should be given to a non-combustible building of either steel frame or reinforced concrete construction.
 - (c) The ECC should have at least two exits and adequate ventilation
 - (2) Following certain basic supplies and dedicated equipment shall be made available at the ECC.
 - (a) A copy of the ERDMP Available
 - (b) Maps and diagrams showing buildings, roads, underground fire mains, important hazardous material and process lines, drainage trenches, and utilities such as steam, water, natural gas and electricity are required. -Available
 - (c) Aerial photographs, if possible, and maps showing the site, adjacent industries, the surrounding community, high-ways, rivers, etc., help determine how the disaster may affect the community so that the proper people can be notified, adequate roadblocks established, and the civil authorities advised Available
 - (d) Names, addresses, and telephone numbers of employees Available
 - (e) Names, addresses, and telephone numbers of off-site groups and organizations that might have to be contacted should be available. All telephone lists should be reviewed for accuracy on a scheduled basis and updated, as necessary Available
 - (f) Dedicated and reliable communication equipment should be provided at the ECC. Enough telephones to serve the organization for calls both on-and



- off-the-site. Two-way radio equipment shall be provided to maintain continuity of communications when other means fail and also provides an excellent way of keeping in contact with field activities Available
- (g) All ECC should have emergency lights so that operations can continue in the event of power failure Available
- (h) Facilities for recording the sequence of events should be provided to assist in investigating causes, evaluating performance, and preparing reports. This can range from a pan board, logbook to a tape recorder with a person assigned to record pertinent information – Available
- (i) ECC should also have dedicated computer with LAN/ internet facility to access the installation data and also it should have the latest and updated soft copies of all standard operating practices (SOP) etc Available

ECC room also has emergency equipments such as Gas Detectors, Fire Extinguishers, Helmets, Safety Shoes, SCBA, Siren, First Aid Box etc.

Key Personnel Contact No.

EM	ERGENCY CONTACT	NO. OF ADANI POR	T SEZ FIRE SERVICES	5		
Company Name	Location/Person	Land Line No	Mobile No	Designation		
APSEZ	Mr Shivaraman LVC		9884869471	Head OHS&F		
APSEZ	Mr. Rakesh Chaturvedi	02838-255857	70690 83035	AGM- Fire		
APSEZ	Mr. Ratnadip Trivedi	02838-255917	9879203595	Asso. Manger Fire Services		
APSEZ	Fire Contol Room	02838 - 255801	9879114996	Fire control room		
EMERGENCY CONTACT NO. OF MUTUAL AID MEMBERS FIRE SERVICES						
CGPL	Mr. Pramod Kumar		9099006459	Head Fire and Safety		
	Mr Rohit		9099995749	Safety		
	Mr Anil Datar		9687660359	Deputy Genera Manger		
APL	IVII AIIII Datai		9087000339	(Head Safety 8 Fire)		
APL	Mr. Suyog Gauttame		9727657109	Manager/Fire services		
	APL Mundra - Fire	02838-266321	9687660225	Shift in Charge Fire		
	Mr Girish Kumar		9005958965	Deputy Genera Manger		
HAIDAL	IVII GII ISII KUITIAI		3003336365	(Head Safety 8 Fire)		
JINDAL	Mr Dipak Kumar		9687678052	Safety & Fire		
	Shift in Charge- Fire		9925150220	Shift in Charge Fire		



HMEL HPCL	Mr Partha Chakrvaborty Mangesh Choudhary M R Chauhan Surabh bhatt Satosh kumar	Ext - 6300	9899600434 9099052934 9727747288 9920173377 9687606093 967210211	Deputy General Manger Executive/Fire Shift LFM Terminal incharge Manager HSSE MNM(Safety)
IOCL	Fate kumar		9041069414	Officer HSE
	EMERGENCY CONTA	ACT NO. OF DISTRIC	T AUTHORITIES	
		Bhuj		
Dist. Colle	ector	02832 - 299080	9978406213	
Bhuj		02832 - 299080	02838-222590	
EN	MERGENCY CONTAC	T NO. OF MUNICIPA	AL CORPORATION	
Emergency R	•		9925977795	Mr. Narendra Gadhavi
Center(Gand	dhidam)		9825572188	(ERC in Charge)
Gandhidham N	agar Palika	02836 - 321610		Fire Control room
Anjar Nagai	r Palika	02836 - 242565		Fire Control room
		Kandla		
Kandla Port Tru	ust, Kandla	02836 - 270176 / 178	9825227041	Fire Chief
IFFCO, Ka	ındla	02836 - 270352	9979026415	
Kandla Free Trad	e Zone (SEZ)	02836 - 252232	9375312955	Fire Officer
	l	Industries-Anjar		
Anjar	-	02836 - 242565		
Welspun Gujar	rat (Anjar)	02836 - 664000	9979880452	GM-Fire Service
Welspun Indi	a (Anjar)	02836-661000,	9925822211	SM-Fire Services
	Ind	ustries-Samakhyali		
GAIL, Sama	akhyali		9825006541	Fire Chief
GAIL, Sama	khvali	1	9228003673	Control room

15.2 ASSEMBLY POINTS.

- (1) There should be pre-designated areas in safe zone as per quantitative risk assessment, where the personnel like workers, staff, contractor workers etc. not involved in emergency operations (as per ERDMP) shall assemble in case of an emergency.
- (2) Depending on the location of the emergency, the assembly point can vary. For each potential hazardous zone, a specific assembly point shall be identified and clearly marked on the zones or maps.
- (3) The assembly point should be clearly marked with directional display board along the route. Route should be well lighted with florescent marking.



(4) During an emergency, pre-designated persons would take charge of this point and take the roll call of the people reporting. Provisions should be made for assembly points, communication and headcount facilities at assembly points, and personnel to control the movement of assembled employees.

People those who have not been assigned any work during the period of incident, like contract workers, visitors etc. will be taken to assembly point. Care will be taken so that it does not hamper the movement if traffic or nay other help from outside Parties.

Details of assembly points and accident-prone area are shown in the drawing attached in annexure VIII.



CHAPTER - 16

DECLARATION OF ON-SITE AND OFF-SITE EMERGENCIES (Reference Regulation 16)

- (1) An emergency starts as a small incident, which may become a major incident with passage of time. At the initial stages, the emergency organisation chart shall be put into action. If the incident goes beyond control the on-site emergency plan will be actuated by the chief incident controller at the appropriate stage as considered necessary.
- (2) During idle shift or holidays (When No operating personnel are present, the security or other trained) personnel will combat the incident as per the ERDMP organisation chart and at the same time inform various emergency controllers for guidance and control the situation
- (3) When emergency becomes catastrophic and evacuation beyond the plant premises is considered necessary by the chief incident controller, the situation will be handed over to district authority for implementing the offsite emergency plan.
- (4) The management of emergency henceforth has to be controlled by the district crisis management group under the supervision of the District Collector/DDMA.
- (5) In addition to preparation of on-site emergency plan, furnishing relevant information to the district authorities for the preparation of off-site emergency plan is a statutory responsibility of the occupier of every industry handling hazardous substance.



CHAPTER - 17

RESOURCES FOR CONTROLLING EMERGENCY (Reference Regulation 17)

- (1) To meet all possible emergencies, installation has to provide a number of systems and resources based on the risk level as identified above in addition to requirements under the Factories Act, 1948 and other statutory regulations applicable to the installation.
 - Proper layout and inter facility distance All the sites are approved by PESO, adequate safety distances maintained as per regulations. Copy of layout available at ECR.
 - II. Safety committee Safety committees have been formed with equal participation from management and workers.
 - IV. Internal Safety Audit is done on quarterly basis by an Approved joint technical team with a through Safety Audit Checklist, External Audit once in three years by external agencies.
 - V. Work permit System A well-defined work permit system is in place covering hot work, cold work, working at height, electrical LO/TO, excavation, evaluating, Confined space, radiography, height work, excavation, critical crane and rigging etc. The permits are issued by concerned authority and monitoring is done by all the concerned.
 - VI. Early warning alarm system Alarms (siren) along have been provided in the plant near the vulnerable locations in the plants and ESD provided in the ECR.
 - VII. In-built safety interlocks Several inbuilt safety interlocks have been provided in the design including high-pressure trip, low-pressure trip, vent for depressurization etc.
- (2) The available emergency control systems and facilities within the installation shall be as under: -
 - (a) Fire and gas detection system- Available
 - (b) Fire protection system (Active and Passive) Available

The fire protection network consist of a closed loop fire hydrant system maintained at 7kg/sq. cm for water pressure by automatic jockey pump sets and MV spray system at various sheds handling LPG. The entire system is designed according to the OISD guidelines.

(c) Fire fighting systems- Available

1	Fire water storage tank	2X1500 KL
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2	Fire water pumps(Diesel)	2X400 KI/hr
3	Jockey pumps	2X 416 Kl/hr maintains the pressure at 7 kg/sq.cm
4	Storage Protection	Sprinkler, Blower to be switched on for dispersion of accumulated vapours
5	Fire extinguisher	As per OISD-117
6	Hydrants and monitors	As per OISD-116&144

- (d) Ambulance facility in house, if not available then should be available on urgent call basis.- one car is available round the clock for transferring affected person. In case of emergency this can be pressed into the service for transferring patients. Ambulance and cars are to be hired from external sources.
- (e) Rescue facilities and personal protective equipments (PPEs) Rescue facilities in place and all necessary PPE's available at the plant.
- (f) First aid and medical facilities round the clock with availability of minimum one nurse (24X7) and doctor in the first aid room- Available
- (g) Communication facilities- Communication facilities available in the ECR.
- (h) **Escape route and evacuation zones** Emergency evacuation plan available with clearly identified evacuation zones
- (i) Emergency shutdown system- Emergency push button/ manual call point are installed at critical area such as near LPG pump house, ECR, security cabins etc. to shut down all the rotating equipments (hence all the operations) by stopping the control power except area lighting and to activate the siren. It also operates the master ROV that closes all the other ROVs.
- (3) Required resources shall be suitably incorporated into the plan. Number and type shall be as per the relevant code, standards and best practices in the industry. This section shall also identify sources of local assistance including telephone numbers and names of contacts for:
 - (a) Fire departments
 - (b) Police
 - (c) Municipal and provincial agencies
 - (d) Hospitals



- (e) Doctors
- (f) Other relevant company facilities
- (g) Mutual aid organizations
- (h) Co-operatives
- (i) Transport services
- (j) Safety and monitoring equipment suppliers
- (k) Spill response and/or cleanup services



SAFETY EQUIPMENTS/FIRE FIGHTING FACILITY

ITEM DESCRIPTION	NOS.
Fire water tanks	2X1500 KI
Fire Engines	2X683 kl/hr
Fire extinguisher	20
DCP Type -75 kg	3
DCP- 50 kg	NA
DCP type- 9 kg	9
CO2 Type- 4.5 kg	02
CO2 Type 2 kg	06
Dry Chemical Powder	125kg
Foam (AFFF)	1600 Lit
Foam Compound Trolley	-
Foam Compound Stalls (at vulnerable points)	1600 lit
Water Sprinklers for processing area	150 nos.
Sand Buckets	5
Double Headed Water hydrants	5
Water Monitors	4
Fire Hose Reels including spares	NA
Fire Hose Boxes	5
Jet Nozzles including spares	5
Foam cum water Nozzles (diffuser)	4
Safety shoes	50
Safety Helmets	53
Safety belts	2
Flame Proof Torch	3



ITEM DESCRIPTION	NOS.
Breathing Apparatus	1
Fire Proximity suit, boot, Helmet, Gloves	2
Water Jel Blanket	03
Electric siren	01
Hand operated siren	02
Public Addressing System	0
First Aid Boxes	03
Stretchers	-
Cryogenic suits	-

Contact no of Civil Authorities

Sr. No	Description	Name & Phone No.
1	District Magistrate (Kutchh)	Smt. Remya Mohan,IAS-+91 2832 250020
2	APSEZ (Chairman)	Mr. Gautam Adani +91-79-26565555
3	ADM	Shri Kuldipsinh Jhala-912832 250650
4	Deputy Labour Commissioner,	Dr. DC Baxi-079-23257510 Mrs.S.P Modi- 0723257538
5	Electricity Supply	09925446744
6	Post Office (Mundra S.O)	02838-222140
7	Telephone Exchange	+912838222501

Contact no of Police Department

S. No	Police station Name	Phn. No.	
1	Gandhidham A Div	02836-258100	
2	Gandhidham B Div	02836-233752	
3	Gandhidham Womens – Div	02836-260830	
4	Adesar	02806-267880	
5	Dudhai	02836-287232	
6	Samkhiyari	02837-283542	
7	Bhachau	02837-224036	
8	Kandla	02836-270999	
9	Khadir	9825084590	
10	Anjar	02836-242517	

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11	Adipur	02836-260615
12	Lakadiya	02837-273332
13	Rapar	02830-220013
14	Bhuj- A Division	02832-253050
15	Bhuj- B Division	02832-253150
16	Bhuj – Womens Division	02832-226366
17	Mankuva	02832-275254
18	Paddhar	02832-270111
19	Khavda	02803-268225
20	Mundra	02838-222121
21	Mundra Marine	02838-224077
22	Mandvi	02834-223008
23	Mandvi Marine	02834-223358
24	Gadhshisha	02834-282257
25	Nakhatrana	02835-222133
26	Nirona	02835-277729
27	Dayapar	02839-233333
28	Kothara	02831-282233
29	Vayor	02831-285335
30	Naliya	02831-222122
31	Narayan Sarovar	02839-266610
32	Jakho	02831-287233
33	Jakho Marine	02831-287258
34	Nara	02839-265133

Contact No of Fire Services

Sr.No.	District Fire Station	Phone No.	Fax
1	Fire Station Bhuj	02832 299080	224404
		9925170506	
2	Fire Station Mandavi	02834 223010	231680
3	Fire Station Bhachau	02837 224028	224028
4	Fire Station Gandhidham	02836 226573	233288
		8511184600	
5	Fire Station Rapar	02830 220011	220011
6	Fire Station Anjar	02836 242544	240325
		99255 69999	242909
7	Fire Station Kandal Port, Kandla	02836 270176	02836 270176
		98252 27041	
8	Fire Station Control Room Adani Port Mundra	02838 289440	289200
		9825019121	

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		8980015455	
	Fire Station IFFCO Kandla	02836 270352	02026 270642
9		99790 26415	02836 270642
10	Fire Station F.O.C.T. Kandla	02836 270987	270814
10		8980018340	2/0814
	Fire Station Control Room	02837 293235	
11	GAIL(India) Lakadia (Bhachau)	9228003673	
11		84696 98323	
		02837 293009	
12	Emergency Response Center	98255 72188	
	Gandhidham	90233 /2100	

Contact No of Medical Services

Name	Address	Ph.No
Adani Hospital Mundra Pvt.	Old Port Road, Near Samudra Township, Mundra, Gujarat 370421	02838 619 555
Mundra Institute Of Medical Science(MIMS)	Baroi Rd, Mahavir Nagar, Mahesh Nagar, Mundra, Gujarat 370421	084014 00500
Sorathiya Hospital	Suraj Nagar, ashutosh 1, Baroi road Near mahavir Super Market, Mundra, Gujarat 370421	075738 34701
Geeta Hospital Mundra	3,Ambe Nagar, Nr. Ganjanad Complex,, Gundala Road, Baroi-Mundra (Kutch), Mundra, Gujarat 370421	078743 81551
Jency Heart and Care Hospital	Poonam arcade, Taluka panchayat, Mundra - Gandhidham Road, Baroi Rd, Seven day hotel, Mundra, Gujarat 370421	095583 10606
Aarti Multispeciality Hospital	8,9 - Diamond society, Opp. Umiya Nagar, Gundala Road, Mundra, Gujarat 370421	075676 82238
Spandan children hospital	292, Sector 1/A, Near Kutch Uday Office, kutch - 370210	9978558839
Matru sparsh hospital	358/A/5/1, Viram Complex, Varsamedi Naka Road, Anjar, Kutch – 370110	9879506778
Railway hospital	Rlwy Colony, Gandhidham, Anjar, Kutch - 370110, Nr Gandhidham Chowk	2836238891
Vardaan hospital	Yogeshwar Nagar, Anjar, Kutch – 370110	2836240868



Near by Industry Contact no:

Industry	Address	Phone No.
Kandla Agro & Chemicals Pvt Ltd	Bharapar Survey No.52/1,52/2, Kandla, Gujarat 370203	099788 12345
Oriental Carbon and Chemicals Ltd	Part of Revenue Survey No 141 Paiki of Mouje Taluka Mundra, Mundra, Gujarat 370421	092280 14107
Adani Wilmar Limited	Way To, Way to Adani Wilmar, Mundra, Gujarat 370405	
SKAPS INDUSTRIES (I) PVT. LTD. SEZ DIV.	Mundra, Gujarat 370405	
Gujarat Credo Alumina Chemicals Pvt. Ltd. (GCACPL)	Mundra, Gujarat 370405	
Kutch Chemical Industries Ltd.	Padana, Gujarat 370240	
Johnson Matthew Chemicals India Pvt Ltd	Pragpar Mundra Port Hwy, Mundra, Gujarat 370405	

(4) Installations shall also determine type of resources such as equipment, personnel, technology, expertise, etc. provided by the respective governments under different conditions.

Being a well-known private firm, ADANI works in close coordination with different Government departments and may have access to different information available with the different response agencies the information exchange is through periodical updates from either side.

(5) Check Points for availability of resources-internal/external are given at Check list-6.

Refer Annexure IV for filled-in Checklist 6



CHAPTER - 18

DEMOGRAPHIC INFORMATION (Reference Regulation 18)

ERDMP shall be prepared based on the following information: -

- (a) neighboring population in a 2km radius- 15000
- (b) housing colonies of industries
- (c) Sensitive institutions such as schools, hospitals, religious establishments, and old aged homes, etc.
 - C1 -Neighbouring industries, Installation, Pipelines etc.
- (d) cattle and livestock
- (e) flora and fauna

This ERDMP developed based on the consideration the above points

Adani Ports and Special Economic Zone Limited (APSEZ) is India's largest private multiport operator. It is a part of the Adani Group, an integrated infrastructure corporation. The company (earlier known as Mundra Port & Special Economic Zone Ltd.) changed its name to Adani Ports and Special Economic Zone Limited on January 6, 2012. The Mundra SEZ is the largest port-led operational and notified multi-product SEZ in India that offers land bank for large scale industries for manufacturing set-up based upon cluster-based development for various industries.

APSEZ has undertaken mangrove afforestation activities to the tune of 2885 Ha (as of August 2016) with a survival rate of over 85%. In 2016, the company announced that all ports and townships are being prepared to run on 100% renewable energy- a mix of solar and wind.

The company commenced operations at Mundra Port and currently operates 10 ports in India comprising 45 berths and 14 terminals across 6 states

Since 2013, Mundra Port is India's largest private commercial port and it hosts world's largest coal import terminal. Mundra Port is known to introduce technological advancements that lead to high level of automation in order to enhance speed and efficiency for cargo handling.

Up to August 2016, around 20,000 ships had docked Mundra without a single-accident representing the high safety standards implemented by the port authorities. Mundra Port has two single-point mooring (SPM) facilities to evacuate crude oil on the high seas. Efforts to build a new container terminal in Mundra in partnership with French shipping giant CMA Terminals are underway.

Mundra Port is a deep-water, all-weather, berthing on arrival port in the Gulf of Kutch. With 26 berths and dedicated terminals for different cargo and commodity types, it has an annual capacity to handle 231 MMT cargo. The port is connected to National Highway (NH) network through State Highways 48 via Anjar and SH-6. It has a privately developed rail network of 69 km connecting Adipur to Mundra port, which in-turn provides nationwide connectivity. It is capable of berthing fully loaded capesize vessels, VLCC and ULCC. It handles dry bulk, break bulk, project cargo, liquid, containers, automobiles and crude.



Flora

List of FLoral Species Found in Study Area

Sr. No.	Local Name	Botanical Name	Family
Α	Tress and Shrubs		
1	Achi	Tamarix dioica	Tamaricaceae
2	Amli	Tamarindus indica	Caesalpiniacea
3	Ankol	Alangium salvifolium	Alangiaceae
4	Aval or Avar	Cassia auriculate	Caesalpiniaceae
5.	Baval	Acacia nilotica	Mimosaceae
6.	Bordi	Zizyphus mauritiana	Rhamnaceae
7.	Cheni bor	Zizyphus numularia	Rhamnaceae
8.	Chatri bawal	Acacia planofrons	Mimosaceae
9.	Dhraman	Grewia tiliaefolia	Tiliaceae
10.	Dumro	Capparis gradis	Cappar indaceae
11.	Gongad (Kanjo)	Xeromphis uliginosa	Rubiaceae
12.	Gangeti	Grewia tenax	Tiliaceae
13.	Gorad	Acacia Senegal	Mimosaceae
14.	Gugal	Commiphora mukul	Burseraceae
15.	Gundi	Cordia dichotoma	Ehret iaceae
16.	Ingoria	Balanites aegyptia	Simarubaceae
17.	Kalo Sarsado	Albizia Tebbeck	Mimosaceae
18.	Kanthar	Capparis sepiaria	Papilionaceae
19.	Kantharo Thar	Euphorbia nivulia	Euphorbiaceae
20.	Karamdi	Carissa carandus	Apocynaceae
21.	Kasid	Cassia siamea	Caesalpiniaceae
22.	Kathgundi	Cardia monica	Ehretiaceae
23.	Kerdo	Capparis aphylla	Cappar idaceae
24.	Khair	Acacia catechu	Mimosaceae
25.	Khakro	Butea monoperma	Papilionaceae
26.	Khijdo	Prosopis cineraria	Mimosaceae
27.	Khip	Leptadenia spartium	Asclepiadaceae
28.	Kundher	Premna obtusifolia	Verbenaceae
29.	Luo or Lue	Grewia villosa	Tiliaceae
30.	Luno	Suaeda fruticose	Chinopodiaceae
31.	Limdo	Azadirachta indica	Meliaceae
32.	Madith	Dichrostachye cinerea	Mimosaeae
33.	Mindhol	Xeromphis spinosa	Rubiaceae
34.	Moto akdo	Callotropis gigantia	Asclepiadaceae
35.	Peepal	Ficus tseila	Moraceae
36.	Ron	Soyamida febrifuga	Meliaceae

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Sr. No.	Local Name	Botanical Name	Family
Α	Tress and Shrubs		
37.	Rohido	Tecomella undulata	Bignoniaceae
38.	Sandasado	Delonix elata	Caesalpiniaceae
39.	Saruguva	Moringa oleifera	Moringaceae
40.	Sarasado	Albizia oderatissima	Mimosaceae
41.	Saru	Casuarina equisitifolia	Casuarinaceae
42.	Sissoo	Dalbergia sisoo	Caesalpiniaceae
43.	Tad	Borassus flabellifer	Arecaceae
44.	Tal Bavdi	Acacia jacquemontii	Mimosaceae
45.	Umra	Ficus glomerate	Moraceae
46.	Vad	Ficus benghalensia	Moraceae

Fauna & Wildlife

Common Wild animals, birds and reptiles were found to harbour most commonly.

Common W	Common Wild Animals		
Panther	Panthera pardus		
Wild Ass	Equus heminonus		
Chinkara	Gazella gazelle		
Wild boar	Sus scrofa		
Hyaena	Hyaena hyaena		
Jackal	Canis aureus		
Fox	Vulpes bengalensis		
Wolf	Canis lupus		
Hare	Lepus nigricollis		
Wild cut	Felis chaus		
Porcupine	Hystrix indica		
Mongoose	Herpestes edwardsi		
Nilgai	Boselaphus tragocamelus		

Common Birds			
Flamingo	Phoenicopterus roseus		
Ghorad	The great Indian bustard		
Saras Crane	Grus spp.		
Common Crane	Grus grus		
Peacock/Peafowl	Pavo cristatus		
Patridges	Francolinus spp.		
Jungle fowls	Gallus spp.		
Sandgrouse	Petrocks spp.		
Ibis (Glossy)	Plegadis falcinellus		
Pelicans	Pelecanus onocrotalus		

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Common Birds		
Little Egret	Egretta egretta	
Backdrongo	Dicruru adsimitis	
Baya	Plocerus philippinus	
Babbler	Turdodides caudatus	
Kingfisher	Alcedo atthis	
Dove	Streptopelia spp.	

Common Reptiles			
Spiny tailed lizard	Uromastyx hardwickii		
Monitor lizard	Varanus bengalensis		
Starred tortoise	Geochelone elegans		
Dhaman	Ptyas mucosus		
Sand snake	Psammophis condanorus		
Blind snake	Typhlina brathina		

Socio-economic Environment

There are in all 68 villages in the study area all of which are in Kutch district. 48 of these villages are in Mundra taluka, 16 in Anjar taluka and 4 in Mandvi taluka. The distance and direction of these villages wrt the proposed project site is given as under:

S. No.	Village Name	Distance, km	Direction
	ANJARTALUKA		
	0.5 - 3 km		
1	Valadiya Bitta (East)	0.7	NE
2	Kumbhariya	0.7	NE
3	Valadiya Bitta (West)	0.8	NE
4	Nagavaladiya	3	ENE
	3 - 7 km		
1	Devaliya	4	NE
2	Bhuvad	5.4	NE
3	Mindiyala	6	NE
4	Mathak	5.8	ENE
5	Vira	6.1	ENE
	7 - 10 km		
1	Chandroda	7.7	NE
2	Khedoi	7.8	NE

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S. No.	Village Name	Distance, km	Direction
3	Mathda	9.6	NE
S.	Village Name	Dis	Direction
4	Shinay	10	NE
5	Vidi	10	NE
6	Sanghad	7.3	ENE
7	Chandrapar	7.7	ENE
	MUNDRA TALUKA		
	< 0.5 km		
1	Bharudiya	0	NE
2	Raga	0	NE
3	Vadala	0.5	NE
4	Goersama	0	ENE
5	Luni	0	ENE
6	Shiracha	0	W
7	Navinal	0.3	W
8	Tunda	0.5	W
9	Jarpara	0.5	WNW
	0.5 - 3 km		
1	Gundala	1.4	NNE
2	Ratadiya	2.7	NNE
3	Baroi	0.6	NE
4	Shekhadiya	1	NE
5	Mokha	1.6	NE
6	Sadau	1.8	NE
7	Chhasra	2.3	NE
8	Pavdiara	0.8	ENE
9	Bhadresar	2.5	ENE
10	Hatdi	3	ENE
11	Kandagara Mota	1.5	W
12	Dhrab	1.8	WNW
13	Borana	2.7	NW
14	Pratappar	2.8	NW
	3 - 7 km		
1	Mota Kapaya	5	N
2	Viraniya	5.2	N
3	Lakhapar	5.7	N
4	Toda	5.8	N
5	Kundrodi	3.2	NNE
6	Mangra	3.3	NNE

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S. No.	Village Name	Distance, km	Direction
S.	Village Name	Dis	Direction
7	Bagda	5.1	NNE
8	Bhorara	6.4	NNE
9	Vovar	3.1	NE
10	Kukadsar	5.2	ENE
11	Kuvay	5.9	ENE
12	Nani Bhujpar	3.3	WNW
13	Khakhar Moti	4	WNW
14	Deshalpar	5	WNW
15	Moti Bhujpar	4	NW
16	Bochda	3.5	NNW
17	Samagoga	6.7	NNW
	7 - 10 km		
1	Kandagara Nana	7.2	N
2	Paragpar	7.2	N
3	Patri	8.8	N
4	Fachariya	7.8	NNE
5	Vagura	7.9	NNE
6	Gelda	9	NW
7	Depa	9.5	NW
8	Baraya	8.8	NNW
	MANDVI TALUKA		
	3 - 7 km		
1	Tragadi	5	W
2	Mota Bhadiya	5.9	W
3	Nani Khakhar	6	WNW
	7 - 10 km		
1	Bidada	9	WNW

Population

Population Details in Study Area

S.No.	Village Name	No. of Household	Total Population	Total Male	Total Female	Population <06 yrs	Male <06 yrs	Female <06 yrs
1	Vidi	478	2184	1148	1036	420	212	208
2	Mindiyala	324	1631	794	837	222	107	115
3	Mathda	332	1575	782	793	294	155	139
4	Kumbhariya	90	401	196	205	60	33	27
5	Bhuvad	412	1986	997	989	342	166	176
6	Chandroda	446	2024	1022	1002	385	214	171
7	Valadiya Bitta (East)	193	822	401	421	110	61	49

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		No. of	Total	Total	Total	Population	Male	Female
S.No.	Village Name	Household	Population	Male	Female	<06 yrs	<06 yrs	<06 yrs
8	Mathak	439	1925	995	930	318	185	133
9	Patri	491	2148	1110	1038	350	188	162
10	Vagura	224	921	466	455	143	74	69
11	Fachariya	78	307	157	150	49	23	26
12	Bagda	159	649	309	340	125	58	67
13	Kundrodi	198	868	428	440	131	63	68
14	Depa	82	378	192	186	69	43	26
15	Ratadiya	250	1250	637	613	169	89	80
16	Lakhapar	230	1093	552	541	200	102	98
17	Gelda	179	918	457	461	153	70	83
	Kandagara							
18	Mota	454	2306	1150	1156	353	174	179
19	Pragpar	141	598	298	300	101	58	43
20	Toda	121	595	312	283	96	52	44
21	Luni	480	2666	1362	1304	501	262	239
22	Mota Kapaya	339	1506	779	727	244	124	120
23	Moti Bhujpar	1188	5952	2942	3010	983	492	491
24	Nani Bhujpar	126	717	370	347	101	60	41
25	Mangra	143	757	389	368	118	51	67
26	Shekhadiya	121	715	362	353	168	93	75
27	Tunda	241	1207	607	600	237	119	118
28	Navinal	241	1146	598	548	238	131	107
29	Borana	63	339	164	175	59	25	34
30	Baroi	590	2741	1396	1345	484	245	239
31	Goersama	137	727	388	339	112	61	51
32	Vadala	405	1751	861	890	282	143	139
33	Pavdiara	30	200	107	93	27	13	14
34	Bhadresar	663	3516	1776	1740	553	284	269
35	Hatdi	139	625	340	285	126	70	56

Educational Institutes of Kutchh district

The main schools are Saint. Mary's School (kandla), A.P. Vidhyalay School (Kandla), Moulana Azad Primary School and Sunni Madresa (Kandla), Tharmal Primary School, SRK Institute of Social Sciences (Anjar, Kutchh district), Kairali English School (Gandhidham, Gujarat). Govt. School, Mundra. Colleges include Shri S. D. Shethiya College of Education, HJD Institute of Technical Education and Research, Swamibapa Mahila College, HJD Science College, PTC College, Dada Dukhayal College of Education, Rajabhai Patel College of Commerce and Economics etc.



CHAPTER - 19

MEDICAL FACILITIES (Reference Regulation 19)

First Aid Box

First aid boxes have been provided, at Administration Building, security gate and laboratory to take care of first aid in case of any injury.

First Aid Training

There is a group of employees who have been taken advance training in first aid. The first aid facilities provided at the site are only for the purpose of immediate first aid and are not sufficient in case of a major emergency.

Mutual Aid scheme

Most of the industry at Mundra Sez has built up extensive medical facilities. Due to this there is significant mutual medical aid program, though ADANI is in agreement with IOCL, HPCL etc.

Medical facilities available outside the terminal

The range of medical facilities available in the city is very wide and all major hospital have specialized units for a wide variety of ailments and medical conditions.

List of Hospitals with Contact No.

Name	Address	Ph.No
Adani Hospital Mundra Pvt.	Old Port Road, Near Samudra Township, Mundra, Gujarat 370421	02838 619 555
Mundra Institute Of Medical Science(MIMS)	Baroi Rd, Mahavir Nagar, Mahesh Nagar, Mundra, Gujarat 370421	084014 00500
Sorathiya Hospital	Suraj Nagar, ashutosh 1, Baroi road Near mahavir Super Market, Mundra, Gujarat 370421	075738 34701
Geeta Hospital Mundra	3,Ambe Nagar, Nr. Ganjanad Complex,, Gundala Road, Baroi- Mundra (Kutch), Mundra, Gujarat 370421	078743 81551
Jency Heart and Care Hospital	Poonam arcade, Taluka panchayat, Mundra - Gandhidham Road, Baroi Rd, Seven day hotel, Mundra, Gujarat 370421	095583 10606
Aarti Multispeciality Hospital	8,9 - Diamond society, Opp. Umiya Nagar, Gundala Road, Mundra, Gujarat 370421	075676 82238
Spandan children hospital	292, Sector 1/A, Near Kutch Uday Office, kutch - 370210	9978558839
Matru sparsh hospital	358/A/5/1, Viram Complex, Varsamedi Naka Road, Anjar, Kutch – 370110	9879506778
Railway hospital	Rlwy Colony, Gandhidham, Anjar, Kutch - 370110, Nr Gandhidham Chowk	2836238891
Vardaan hospital	Yogeshwar Nagar, Anjar, Kutch – 370110	2836240868



Arrangement for transferring affected persons to hospitals

The affected person will be transferred to the above hospitals in case of emergencies



CHAPTER - 20

EVACUATION (Reference Regulation 20)

- (1) Planning and training on evacuation techniques are important in preventing injuries. Evacuation of local communities or people near the site may be prudent depending on the situation and down-wind dispersion information etc. Although this action will normally be initiated and handled by district authorities, the affected installation shall help to implement such evacuation.
- (2) This evacuation plan shall also consider:
 - (a) Basis for recommending on-site or off-site actions
 - (b) Authorize person for area or site evacuation
 - (c) Mode of communication
 - (d) Training in locating exits from buildings, areas and the site
 - (e) Location of escape equipment
 - (f) Provisions for flashlights or other supplemental lighting
 - (g) Which areas can function as safe area?
 - (h) Moving crosswind from gas or fume releases, etc.
 - (i) Provision of food and drinking water at assembly point and transfer point.
- (3) Vehicles with Public Address system or Portable PA system or Megaphone as per requirements of the installation should be available for announcement in case of emergency

CHAPTER - 21

INFORMATION TO PUBLIC (Reference Regulation 21)

- (1) The safety measures to be taken in the event of an emergency shall be made known to the general public who are likely to be affected.
- (2) For the purpose, use of Dos' and Don'ts' shall be prepared and furnished to the Crisis management Group. Display boards carrying do's and don'ts should be located outside the gate as well as in the neighboring colonies and other habitat areas in the immediate vicinity.

21.1.1 ADANI and the Community

As per the rule 41-B (4) of the Factories Act and Rule 15 of the MSIHC rules, the safety measures to be taken in the event of an emergency shall be made known to the general public who are likely to be affected. ADANI recognized the importance of community



goodwill, and being a public sector undertaking, would endeavor to make maximum information available to the public regarding safety as applicable in its terminal.

21.1.2 Details of the ADANI Warning system

The community is notified about the significance of the siren and emergency warning system (emergency, all clear etc.) so that the wrong interpretation is not made. The siren operation is a wailing sound for emergency and a continuous tone for all clear. The system tested weekly basis.

21.1.3 COMMUNITY ACTIONS IN THE EVENT OF EMERGENCY

The emergency that is likely to affect the community close-by would be either a gas leakage or gas leakage followed by fire. Certain emergencies are likely to extend beyond ADANI fenced premises and therefore fall under the management control of the relevant district authorities; hence, the district offsite plan would come into effect.

The community is advised to follow the course of action as instructed by the relevant district offsite controller based on ADANI technical inputs. The main actions for emergency are discussed below. As the community is by and large not specifically trained in fighting gas emergencies, it is generally advised that they restrict themselves to evacuation efforts to safeguard their lives and those of close ones. Rescue and emergency control operations would be taken up by trained personnel.

21.1.4 Gas Fire

In the event of noticing a large-scale fire close-by originating from the installation, the community would need to carry out certain actions as described below.

- It must be realized that saving of human life has to get priority in comparison to any salvage of any valuable asset.
- The instructions from the district emergency control center should be followed and the suggested actions taken.
- Need for evacuation would be decided by the district emergency post- however, one may decide to evacuate earlier if conditions demand.
- As gas fires develop and spread quickly, all out efforts should be made to contain the spread of leakage/fire quickly and restrict further damage due to fire. Immediate actions would include:
- Enveloping the fire, if possible, with a water spray or a suitable smothering agent such as CO2 or DCP, if available (e.g. Small establishments).
- Identify and arrange for water supply for cooling clothes, building, doors, providing
 water screens etc. in areas that could be vulnerable to fire damage. Water should
 NOT be wasted in irrelevant areas as its presence could be vital.



- All persons in the danger zone, particularly small children and elderly persons should be evacuated and necessary help provided.
- In case safe shelters have been identified, persons may assemble there based on instructions from the ECC.

21.1.5 Gas leakage without fire

- Ignition hazards should be removed by extinguishing fires and naked lights, gas burners, cigarettes/ bidis, chulas, switching off electrical equipment. Ensure that static charge is not generated in the gas vapour cloud- solid jets of water into the cloud should be avoided.
- Direct people to move away (at least 200 m from the cloud) if possible.
- Vehicles plying close to the area must be halted. Vehicles should not be driven away but abandoned at the spot to avoid ignition hazards.
- Public may help by providing access and approach to district fire brigade and ensuring that there is no hindrance to fire fighting personnel. Fire fighting may be left to trained personnel.
- Move away from the cloud (best is usually in perpendicular) and listen closely for instructions from the authorities regarding where to escape to. Remember that cloud dispersion depends on wind conditions, which may change, hence rescue / evacuation effort may be changed during the course of the emergency.
- In case indoors, open all windows to increase ventilation and hence prevent build up of vapour cloud.
- In case trapped within the cloud, escape calmly through the shortest path (usually crosswind).
- Make preparations for emergency actions in case of cloud ignition (water etc.).

These actions may be different in case of different scale of emergency- instructions/ warnings etc. from the district authorities in charge of rescue, evacuation etc. should be followed.

21.1.3 TIPS FOR HANDLING THE PUBLIC

For the purpose, a list shall be made as to how the public should react to the emergency and furnished to the Local Crisis Group (LCG) formed under the "Rules and Emergency Planning, Preparedness and Response for Chemical Accidents Rules, 1996" for the dissemination to public. Where LCG is not available, the list shall be furnished to local authority or the relevant DCG.

Public Relations in Emergency Situations



Planning Goal:

Preparations for keeping the public informed of continuing developments via newspaper and broadcast media while minimizing rumors, conflicting reports, confusion and unnecessary interference with the activities of key response personnel – and while also coordinating media relation efforts with those of other agencies or parties to the response.

Action Items :

- Designate one specific individual and an alternate press officer.
- Compile a list of telephone numbers of local radio and television station personnel who can initiate special "on-air" announcements.
- Provide designated press officers with secretarial support, photocopy machines and a means of communications with the on-site chief controller.
- Select a site, preferably but not necessarily near the emergency control centre, where the press can convene and be briefed by the press officer team. This site should ideally have telephones, electrical outlets, restrooms and other facilities that media personnel may require.
- Ensure that key emergency response personnel understand the need to relay the up-to-date "status reports" to press officers on a regular basis.

Discussion:

The public needs to be informed accurately and rapidly as to what is happening during an emergency situation. Significant incidents might result in a large number of reporters arriving on scene and attempting to interview anybody and everybody. The above action items will help reduce the confusion, facilitate information transfer, reduce problems that might be otherwise caused by a lack of organization and reduce the incidence of unfounded rumors.

Things to Do :

- Accommodate media as much as possible; make the news available to them.
- Schedule news conference and avoid written releases.
- Be direct and specific.
- Always, always tell the truth, don't hedge.
- Hold public hearings at least twice during a weeklong event and invite press.
- Have news conferences immediately after any meeting from which the media or public have been barred.
- Ensure that the team of press officers is in contact with the emergency control centre at all times.
- If safety permits, allow the media to take pictures of the accident site.



Things NOT to Do

- Do not permit arguments among public officials or press officials from different organizations in front of the press. Do, however, permit statements of dissenting opinions.
- Avoid giving gut opinions or conjecturing.
- Do not be evasive. If the answer to a question is not known, refer the question to someone who has the appropriate answer.
- Do not be critical in a personnel manner; i.e. avoid personal remarks about other people at the accident scene.
- Do not be philosophical. These kinds of discussions are extremely susceptible to being quoted out of context.
- Do not make off the record statements. They may end up in print with later retractions buried in the backs.
- Avoid friendly chats with media people. Casual comments may appear in print.
- Avoid bad or foul language.
- Do not hide from the media. They can sense this and form an unfavorable opinion of the press officer(s) as a credible source of news.
- Do not answer questions beyond personal knowledge or expertise.
- Do not permit the media persons to attend emergency response team meetings. These are likely to be technical meetings with lively discussions that may last forever if people are performing rather than dealing with the problem at hand.



CHAPTER - 22

ROLES AND RESPONSIBILITIES OF STAKEHOLDERS INCLUDING EXTERNAL AGENCIES (Reference Regulation 22)

- (1) Role and responsibilities of stakeholders including external agencies such as District Authority, police, fire service, revenue department, health department, pollution control board, National Disaster Response Force (NDRF) and State Disaster Response Force (SDRF).
- (2) For roles and responsibilities of above stakeholders and responders, primarily district collector as Head of emergency operation and other authorities under his charge including external agencies, has been defined in Schedule–V. These roles and responsibilities are generally in line with National Disaster Management Guidelines on Chemical Disasters, April, 2007, brought out by National Disaster Management Authority.

Schedule – V (Refer Regulation 22.0)

The important Roles and Responsibilities of Various Stakeholders

a) Oil and Gas Installations and Areas (Mentioned in Regulation 3).

The above-mentioned Installation in Regulation 3 should provide necessary information to Mutual Aid Association, District Authority, Police and Fire Services.

- i) List of Hazardous Chemical and Systems which have potential to cause danger to Human, Environment and Property.
- ii) On-Site Emergency Plan and Periodic Mock Drill.

The above entities should support authorities in mitigation, rescue and rehabilitation, with resources identified and agreed with the authorities in advance. Such areas shall be included in Off-Site Emergency Plans.

- b) The District Authority is responsible for the Off-Site emergency plan and it shall be equipped with up-to-date Major Accident Hazard units, website, control room etc., with provisions for monitoring the level of preparedness at all times. Regular meetings of various stakeholders of Chemical Disaster Management will be conducted by district administration/District Disaster Management Authority to review the preparedness of Chemical Disaster Management.
- c) **The Police** will be an important component of all disaster management plans as they will be associated with investigation of incidents/disasters. Police take



overall charge of the Off-Site situation until the arrival of the district collector or its representative at the scene.

- d) The Fire Services are one of the first responders and shall be adequately trained and equipped to handle chemical emergencies. Fire services are to acquire a thorough knowledge of likely hazards at the incident site and the emergency control measures required to contain it.
- e) In a chemical emergency, the **Revenue Department** shall coordinate with other agencies for evacuation, establishment of shelters and provision of food, etc.
- f) When required for evacuation purposes in a chemical emergency, the **Department of Transport** should made transport promptly available.
- g) The role of civil society and private sector in the Off-Site plan shall be defined.
- h) The Health Department needs to assure that all victims get immediate medical attention on the site as well as at the hospitals/health-care facility where they are shifted. In addition, the department needs to network all the health-care.

Roles and responsibilities of the external agencies have been adopted from the Offsite Emergency Management Plan of Gujarat. The plan was developed based on the National Disaster Management Guidelines on Chemical Disasters and MHSIC rules. The roles of emergency teams are given next:-

EMERGENCY RESPONSE TEAMS AND ROLES

22.1 OVERALL EMERGENCY MANAGEMENT STRUCTURE

The District Collector (DC) is the overall in charge for planning, execution, and coordination of off-site emergency management activities as per the MSIHC Rules. DC has constituted the District Crisis Groups (DCG) for Kutchh (focal point- Kuthh). For incidents originating at district, the ADM in charge of the district would be the focal point and the pocket Emergency Management Plan would come into effect.

The LCG would consist of task-specific coordinators who in-turn formulate and mobilize requisite number of action teams to provide emergency response. The DC is also required to communicate with state, national and international emergency agencies for information and support on response strategies.



22.2 COMPOSITION & FUNCTION OF DISTRICT CRISIS GROUP

Composition

District Crisis Group has been constituted for Kutchh District, in line with the guidelines given in Chemical Accident (CA), Emergency Response and Preparedness Rules 1996.

Functions

The DCG is the apex body in the district to deal with major chemical accidents and to provide expert guidance for appropriately handling them. As per CA Rules, 1996, the DCG will:

- assist in the preparation of the District Off-site Emergency Plan
- review all the on-site emergency plans prepared by the occupiers of respective MAH installations as inputs for the preparation of the District Off-site Emergency Plan
- assist the district administration in the management of chemical accidents at a site lying within the district
- continuously monitor every chemical accident
- ensure continuous information flow from the District to the Center and State Crisis
 Groups regarding accident situation and mitigation efforts
- conduct at-least one full scale mock-drill of a chemical accident at a site each year and forward a report of the strengths and weaknesses of the plan to the state crisis group
- meet every 45 days and send a report to the State Crisis Group

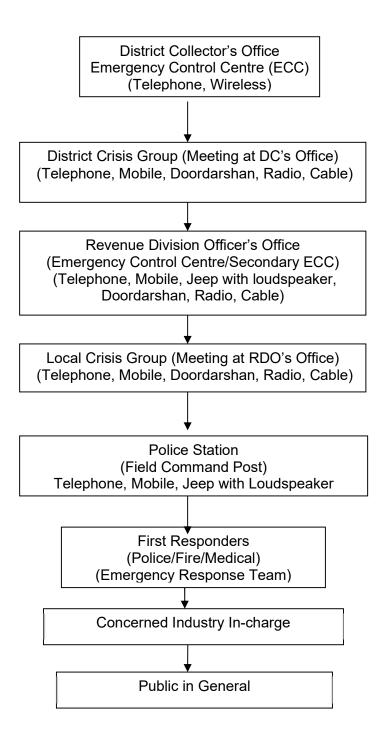
22.3 COMPOSITION & FUNCTION OF LOCAL CRISIS GROUP

Composition

Local Crisis Groups (LCGs) are being constituted for different regions of the District, in line with the guidelines given in CA rules 1996. The suggestive composition of the LCG is given next. The contact numbers of suggested members of LCG (latest constitution and members and to be kept updated periodically) are to be filled. The interaction and overall flow/ organogram are given below;



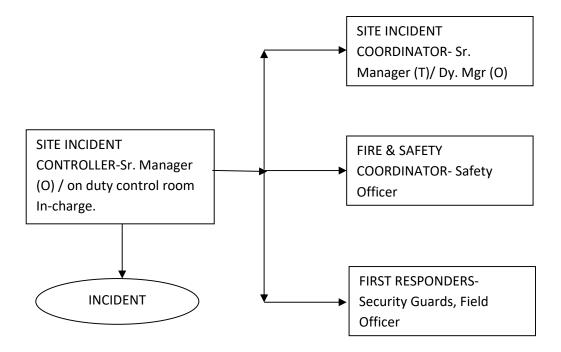
The main Emergency Control Centre is the District Collector's Office at District Headquarters



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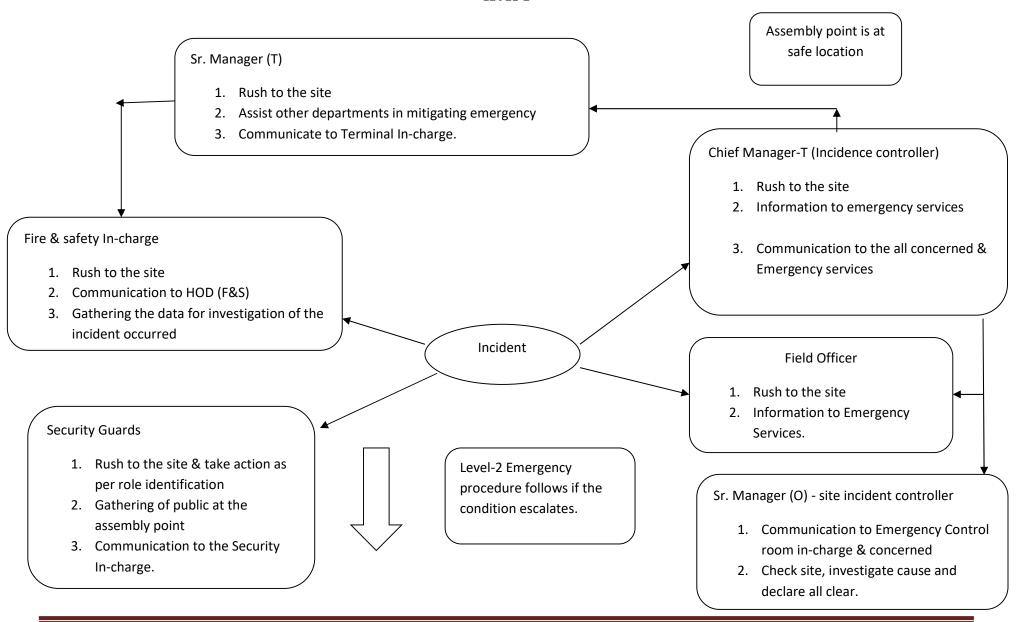
EMERGENCY HANDLING & RESPONSIBILITY FOR LEVEL -1





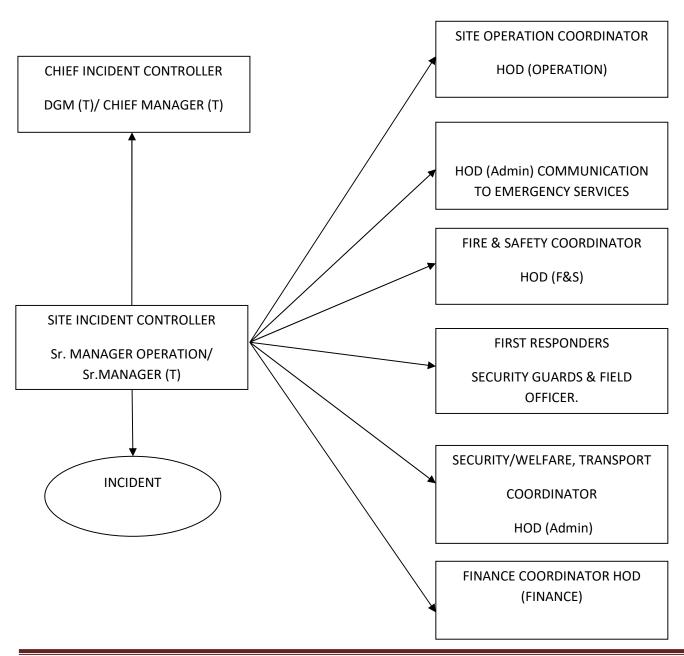
ERDMP COMMUNICATION CHART WITH ROLES AND RESPONSIBILITIES

LEVEL-1





EMERGENCY HANDLING & RESPONSIBILITY FOR LEVEL -2





ERDMP COMMUNICATION CHART WITH ROLES AND RESPONSIBILITY

LEVEL-2

For Level-2 ECC will be the command center

Terminal In-charge (Media and PR Representative).

(Corporate communication: Pass on information if required to media/press in coordination with Chief Executive Officer)

Incidence Controller/Shift In-charge: (Level 1 Emergency escalates to Level-2) - Communication will be done as marked through respective dept. representative

coordinator

Incident

Finance Coordinator HOD- Nominate representative at site & arrange financial aid for emergent requirement of chief

HOD (Admin) coordinator- Rush to ECC to assist chief coordinator. Depute representative to help the affected employees. Arrange for ambulance. Communicate with factory inspector (if required)

Dy. Gen Mgr (T)/ Chief Mgr (T): Rush to ECC (Emergency control centre) and take charge of chief coordinator, taking regular updates from fields. Inform and update to CEO

Fire and safety Coordinator (HOD F&S)

- Rush to the incident site
- Mobilize his team and Assist district authority

Site Incident Coordinator (Control room incharge till arrival of HOD operations)

- Rush to the incident site along with his team
- After clearance of emergency, check site & give all clear for normal operation.

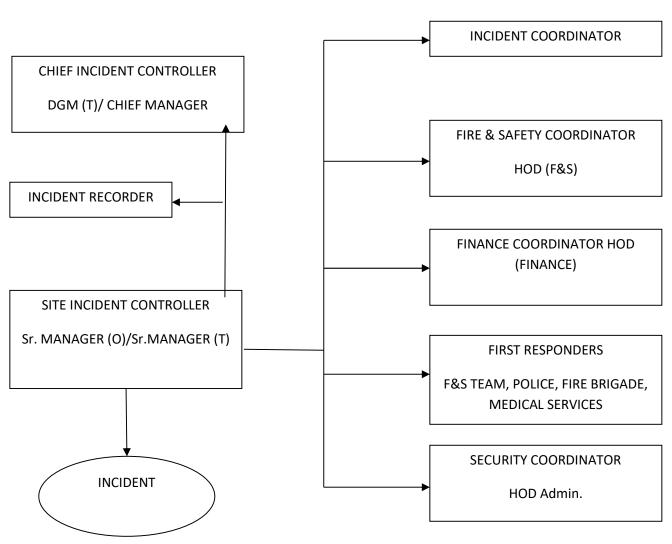
Finance officer: Rush to the site, Assist other departments & extend all possible help to injured staff in coordination with HR coordinator

Level-3 Emergency procedure follows if the condition escalates



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EMERGENCY HANDLING & RESPONSIBILITY FOR LEVEL -3





ERDMP COMMUNICATION CHART WITH ROLES AND RESPONSIBILITY

LEVEL-3- Authority for declaring level-3 emergency is with Chief Coordinator (DGM-T) and in his absence Chief Terminal Manager

Controller at Incident site

Controller at ECC

For Assisting Disaster Management Groups HODs (Fire & Safety, Instrumentation, Sr.Mgr. (Operations) and Representatives of Finance, Mech& Civil will rush to site and Coordinate. DGM-T, Chief Mgr.(T), Incident controller- for information to CCOE, PNGRB etc

CHIEF COORDINATOR (CC): DGM-T will be the Chief Coordinator

CC will arrange all necessary support/arrangements to control emergency & help to injured and their family members. Inform and update CEO about the incident. CEO will update to Chairman

CHEIF COORDINATOR (CC):

Depending upon the site condition.
Chief Coordinator may station his
team at Emergency Control Centre.



Functions

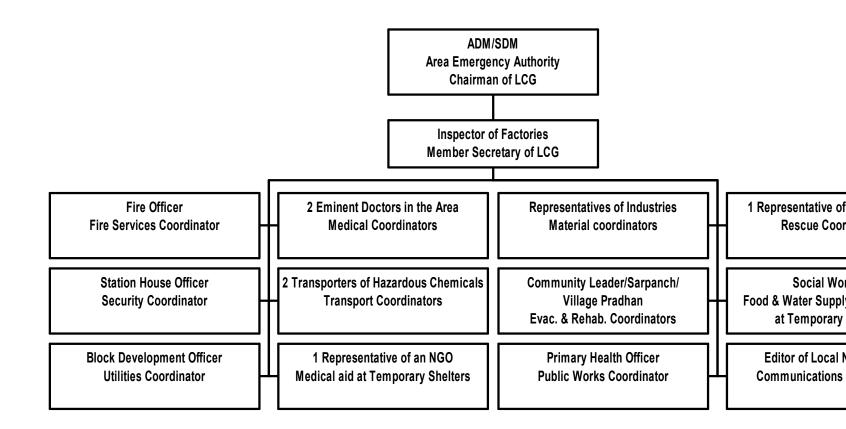
The LCG is an apex body in the industrial pocket to deal with major chemical accidents and coordinate efforts in emergency planning, preparedness and their mitigation. As per CA Rules, 1996, the LCG will:

- Update local level emergency plan for the industrial pocket.
- Ensure dove-tailing of local emergency plan with District Off-site Emergency Plan.
- Train personnel involved in chemical accident management.
- Educate the population likely to be affected in a chemical accident about the remedies and existing preparedness in the area.
- Conduct at-least one full scale mock-drill of a chemical accident at a site every six months and forward the report to the DCG.
- Respond to all public inquiries on the subject.
- Meet every month and forward a copy of the proceedings to the DCG.

The LCG is also responsible for providing information regarding possible chemical accident at a site in the industrial pocket and other related information to the public on request. It will also assist the MAH units in the industrial pocket in taking appropriate steps to inform persons likely to be affected by a chemical accident. The MAH installations in the industrial pocket will assist and facilitate the functioning of LCG.



EMERGENCY ORGANISATION OF THE AREA LOCAL CRISIS GROUP (LCG)





22.4 EMERGENCY RESPONSE TEAMS

The most important requirement during an emergency situation is well-coordinated efforts for effective management and control. This calls for identification of personnel and resources that will be involved in each function of emergency planning such as fire fighting, medical management, rescue and combat, evacuation communication, etc.

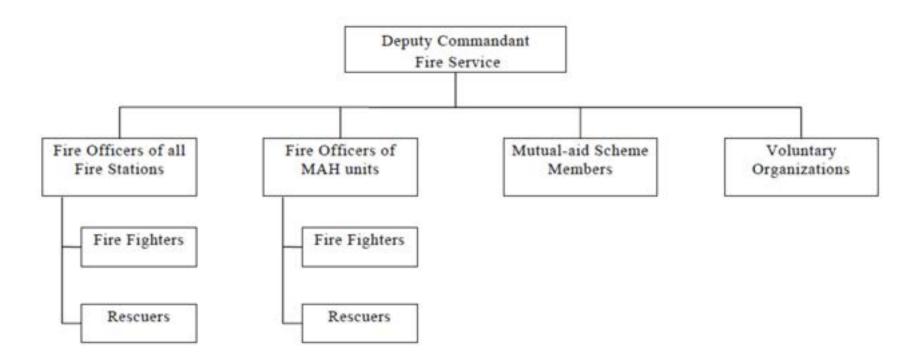
Special teams need to be constituted for the following activities:

- Fire Fighting functions
- Medical management
- Technical functions
- Security functions
- Communication functions
- Welfare functions
- Rescue functions

The charts for these are given next;

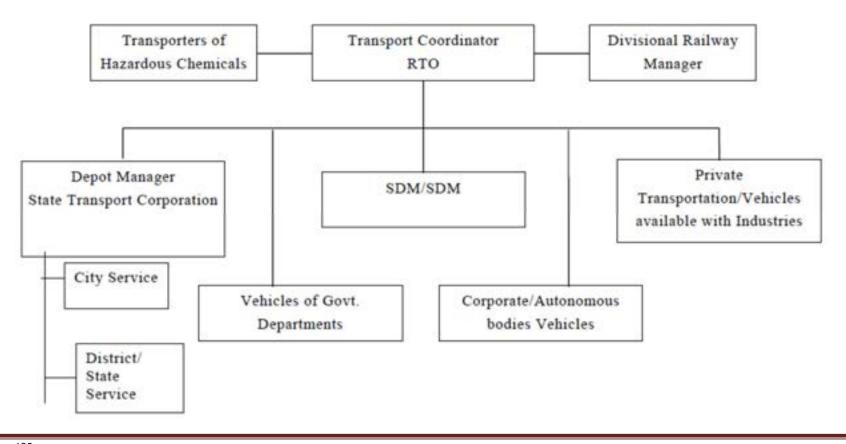


Emergency Action Group Fire





Emergency Action Group Transport



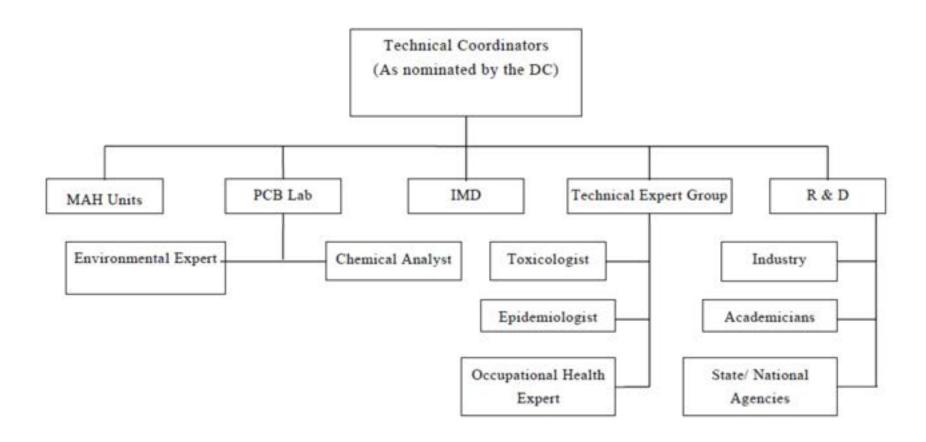
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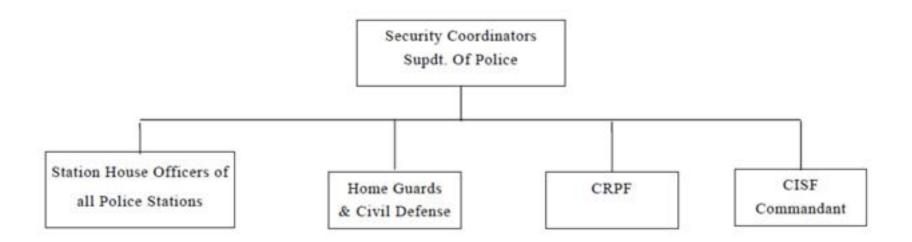


Emergency Action Group Technical



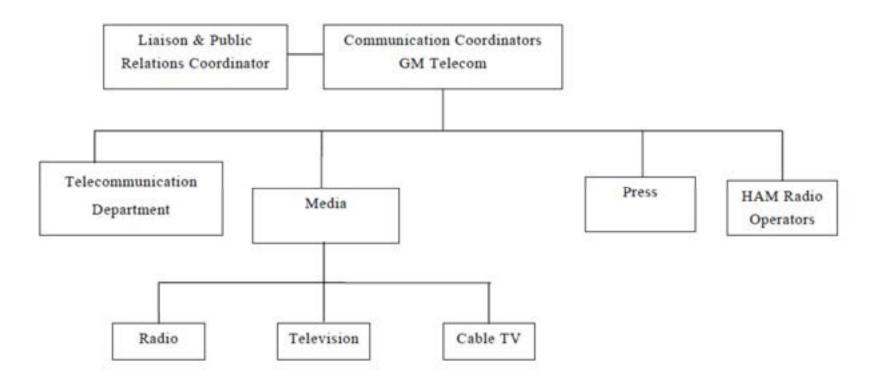


Emergency Action Group- Security





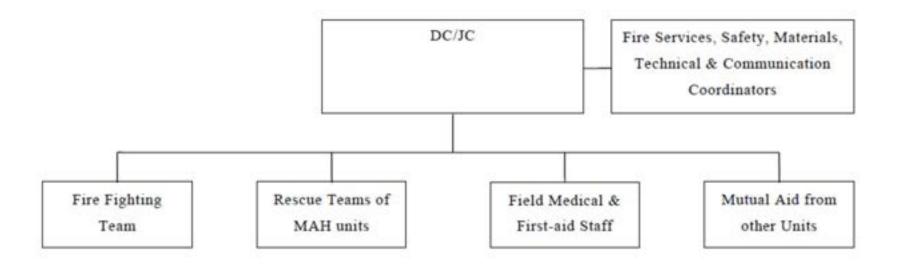
Emergency Action Group -Communications





Emergency Action Group -Welfare

EMERGENCY ACTION GROUP - RESCUE & COMBAT





22.2.5 Role of the Police and Evacuation Authorities

The overall control of an emergency is normally assumed by the police, with a senior officer designated as Emergency Co-ordinating officer (ECO).

Formal duties of the police during an emergency include protecting life and property and controlling traffic movements to maintain law and order, to remove mischief mongers and law breakers.

Their functions include controlling bystanders, evacuating the places badly affected or likely to be affected, to shift the evacuated people to safe assembly points and to rehabilitate them after the disaster is over and safe signal is given. They have to identify the dead and deal with casualties and inform relatives of dead or injured.

Necessary vehicles, wireless or mobile phones and instruments for quick communications shall be maintained and used as per need. A list of all police control points shall be maintained. All details should be inserted in it and it shall be kept upto date and handy. The help of utility and engineering team may be taken, if necessary for the purpose of making the area clean, removing any structure, incidental work for evacuation and rehabilitation, use of water, power, heavy machinery etc.

Police station and Chowkies

All police stations, outposts and the control points including highway petrol (control) points shall be included in the plan. It shall be maintained at all such points and at the residencies of all members for inter communication and help. The police may revise it and keep up to date.

POLICE STATIONS OF MUNDRA WITH PHONE NUMBERS

S. No	Police station Name	Phn. No.
1	Gandhidham A Div	02836-258100
2	Gandhidham B Div	02836-233752
3	Gandhidham Womens – Div	02836-260830
4	Adesar	02806-267880
5	Dudhai	02836-287232
6	Samkhiyari	02837-283542
7	Bhachau	02837-224036
8	Kandla	02836-270999
9	Khadir	9825084590
10	Anjar	02836-242517



S. No	Police station Name	Phn. No.
11	Adipur	02836-260615
12	Lakadiya	02837-273332
13	Rapar	02830-220013
14	Bhuj- A Division	02832-253050
15	Bhuj- B Division	02832-253150
16	Bhuj – Womens Division	02832-226366
17	Mankuva	02832-275254
18	Paddhar	02832-270111
19	Khavda	02803-268225
20	Mundra	02838-222121
21	Mundra Marine	02838-224077
22	Mandvi	02834-223008
23	Mandvi Marine	02834-223358
24	Gadhshisha	02834-282257
25	Nakhatrana	02835-222133
26	Nirona	02835-277729
27	Dayapar	02839-233333
28	Kothara	02831-282233
29	Vayor	02831-285335
30	Naliya	02831-222122
31	Narayan Sarovar	02839-266610
32	Jakho	02831-287233
33	Jakho Marine	02831-287258
34	Nara	02839-265133

22.2.6 Role of the Health Authorities

Health authorities have a vital role to play following a major accident, and they should form an integral part of the plan. For major fires, injuries will be the result of the effects of thermal radiation to a varying degree and the knowledge and experience to handle this in all but extreme cases may be generally available in most hospitals. Health authorities consist of doctors for medical help to the injured persons because of the disaster. Functions and duties of the health authorities are:

- 1. To give medical help to all injured as early as possible.
- 2. Civil Surgeon is the secretary, who will organize his team. He may take help from the District Health Officer (DHO) and other surgeons, consultants and experts.



- On receiving information from the collector of the ECO to rush to the spot, he
 will immediately inform his team and will proceed with all necessary equipment,
 medicines etc. as early as possible. The collector or ECO shall simultaneously
 inform DHO and he will also start similarly.
- 4. First aid and possible treatment shall be given on the spot or at some convenient place or to shelter or assembly points and the patients may be advised to shift to the hospitals for further treatment. Ambulance vehicles shall be kept ready and used for this purpose.
- 5. All efforts shall be on war basis to save maximum lives and to treat maximum injuries. The team incharge shall employ sufficient doctors, equipment etc. for this purpose.
- 6. All members shall increase their knowledge to treat health hazards due to various chemicals.
- 7. Continuity of treatment shall be maintained till the disaster is controlled and the flow of injured is stopped.
- 8. Sick and injured persons kept at assembly points shall also be treated for medical help.

Major offsite incidents are likely to require medical equipment and facilities additional to those available locally and a medical 'mutual aid' scheme should exist to enable the assistance of neighboring authorities to be obtained in the event of an emergency. A list of doctors, hospitals, health centers, blood banks, ambulance centers, antidotes and vehicles will be maintained for ready reference by the health authorities.

A list of major hospitals in the districts along the pipeline alignment is given in the following tables:

Name	Address	Ph. No
Adani Hospital Mundra Pvt.	Old Port Road, Near Samudra Township, Mundra, Gujarat 370421	02838 619 555
Mundra Institute Of Medical Science(MIMS)	Baroi Rd, Mahavir Nagar, Mahesh Nagar, Mundra, Gujarat 370421	084014 00500
Sorathiya Hospital	Suraj Nagar, ashutosh 1, Baroi road Near mahavir Super Market, Mundra, Gujarat 370421	075738 34701
Geeta Hospital Mundra	3,Ambe Nagar, Nr. Ganjanad Complex,, Gundala Road, Baroi-Mundra (Kutch), Mundra, Gujarat 370421	078743 81551



Name	Address	Ph. No
Jency Heart and	Poonam arcade, Taluka panchayat, Mundra -	095583
Care Hospital	Gandhidham Road, Baroi Rd, Seven day hotel, Mundra, Gujarat 370421	10606
Aarti Multispeciality Hospital	8,9 - Diamond society, Opp. Umiya Nagar, Gundala Road, Mundra, Gujarat 370421	075676 82238
Chandan shildren	202 Sector 1/A Near Kutch Liday Office kutch	9978558839
Spandan children hospital	292, Sector 1/A, Near Kutch Uday Office, kutch - 370210	997000009
Matru sparsh hospital	358/A/5/1, Viram Complex, Varsamedi Naka Road, Anjar, Kutch – 370110	9879506778
Railway hospital	Rlwy Colony, Gandhidham, Anjar, Kutch - 370110, Nr Gandhidham Chowk	2836238891
Vardaan hospital	Yogeshwar Nagar, Anjar, Kutch – 370110	2836240868



REPORTING OF THE INCIDENT (Reference Regulation 23)

- All incidents covered under Minor Incident and Near Misses should be maintained by the entity for inspection in the format as specified in Schedule-VI. 'Major' Incident shall be reported to the PNGRB in the format specified and placed at Schedule-VI. The above report should be submitted within 48 hours after occurrence of the incidents. However, First Information Report (FIR) on 'Major' Incident shall be intimated to PNGRB through telephone, email or SMS immediately or but not later than 4 hours of occurrence.
- 2) An incident shall be treated as 'Major' if any of the following occurs;
 - (a) Fire for more than 15 minutes
 - (b) Explosion / blowout
 - (c) Fatal incident.
 - (d) loss above Rs. 20.0 Lac
 - (e) Cumulative man hours lost more than 500 hrs.
 - (f) Plant shutdown / outage due to the incident
 - (a) Level-III incident
- (3) Detailed investigation report of all 'Major' incidents shall be submitted to the Board within 30 days of occurrence along with time bound mitigation plan of recommendations, made during the investigation. In case, any incident subsequently leads to fatality, assessed loss of above Rs. 20 Lac and cumulative man hours lost more than 500 hours. Such incidents shall also be reported as major incidents immediately in prescribed format as placed in schedule-VI.
- (4) Quarterly report consisting of Summary of Major (including detailed Investigation Report) and Minor incidents and Near Misses (only numbers.) shall be sent to the Board within 30 days of the end of every quarter.

Incident reporting done as per requirements under the rules. All incident records maintained at the F&S office.



INCIDENT INVESTIGATION REPORT FORMAT

(Adopted completely from Schedule VI of the ERDMP Regulations)

				Date -
INCIDENT INVI	EST	IGATIO	N REPORT	
1.Organisation			2.Sector	
3.Location			4.Incident Sr. No.	
5.Date of Incident			6.Time of Incident	
			8.Report - Preliminary	
7.Major / Minor / Near miss			/ Final	
			10.Duration of Fire -	
9.Fire / Incident			Hrs. / Min.	
11. Typ of Incident with loss of life / Injury / Fire	/ Exp	losion / Blow	out / Electrocution / Fall	
from Height / Inhalation of Gas / Driving / Slip /	Trip /	Others		
12. Location of Incident (Name of Plant / Unit /	Area	/ Facility / Ta	nk Farm/ Gantry / Road	
/ Parking Area etc.)			-	
13. Whether Plant Shutdown / Caused outage				
Of the facility? Yes / No				
14.Fatalities nos.		Employees =		c)Others =
15.Injuries nos.		Employees =		c)Others =
16.Man Hours Lost		Employees =		c)Others =
17. Direct Loss due to the Incident (Rs. In Lace	s).Lo	ss to Equipm	ent / Machinery as per	
Insurance claim etc.				
18.Indirect Losses : Through put / Production Lo				
19.Status of the Facility : Construction / Commi	ssion	ing / Operati	on / Shutting down /	
Turn around, Machine / Start up / any other				
20.Brief description of the Incident Including pos	st Inc	ident Measu	res .(Attach detail in	
separate sheet)				
21. Whether similar Incident has occurred in pa			ation, If yes, give brief	
description of the incident and attach details in				
22. Whether Internal Investigation has been cor	mplet	ted. If no. like	ly date by which it will	
be completed.			II. DNODD	
23. Whether Internal Investigation report (Major	Incid	dent) has bee	en submitted to PNGRB.	
If no, likely date by which it will be submitted.				
24.Cause of Incident (Tick the most relevant				
cause preferably one, maximum two)		1) 1) -	Allain n DDEa	
A).Deviation from Procedure			t Using PPEs	
B).Lack of Job Knowledge			uipment failure	
C).Lack of Supervision			oor design / Layout etc.	
D).Improper Inspection			adequate Facility	
E).Improper Maintenance			oor Housekeeping	
F).Improper Material Handling			atural Calamity	
G).Negligent Driving			ilferage / Sabotage	
H).Careless Walking / Climbing etc.	F: . I		ny other(give details)	
25.Cause of Leakage - Oil ,Gas or Chemical (T	ICK C			
A) Wold look from aguisments / Lines		'	eakage due to Improper	
A).Weld leak from equipments / Lines	-		ation	
D) Look from florida alcadata		,	eak due to improper	
B).Leak from flange, gland etc.	\dashv		tenance	
C) Look from rotory ogginment			ormal Operation -	
C).Leak from rotary equipment D).Metallurgical Failure			ing /Draining	
D).Metallurgical Fallure		п).A	ny other	



26.Cause of Ignition leading to Fire (Tick only one cause) A).Near to Hot work B).Near to Furnace / Flare etc. C).Auto Ignition D).Loose electrical connection E).Near to Hot surface 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by: (Tick the most relevant point preferably one , maximum two) F).Personal Protective A).Better Supervision		
A).Near to Hot work B).Near to Furnace / Flare etc. C).Auto Ignition D).Loose electrical connection E).Near to Hot surface J).Any other (Pyrophoric e 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective		
B).Near to Furnace / Flare etc. C).Auto Ignition D).Loose electrical connection E).Near to Hot surface J).Any other (Pyrophoric e 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective		
B).Near to Furnace / Flare etc. C).Auto Ignition D).Loose electrical connection E).Near to Hot surface 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective		
C).Auto Ignition D).Loose electrical connection E).Near to Hot surface J).Any other (Pyrophoric e 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective		
D).Loose electrical connection E).Near to Hot surface J).Any other (Pyrophoric e 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective		
E).Near to Hot surface 27. Was the Incident Avoidable? Yes / No 28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective		
27. Was the Incident Avoidable? Yes / No 28. The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F). Personal Protective		
28.The Incident could have been avoided by the use of / or by : (Tick the most relevant point preferably one , maximum two) F).Personal Protective	ny other (Pyrophoric etc.)	
(Tick the most relevant point preferably one , maximum two) F).Personal Protective		
F).Personal Protective		
A).Better Supervision Equipments		
B).Adhering to specified operating procedure G).Better Equipment		
C).Imparting Training H).Management Control		
I).Adhering to specified		
D).Giving adequate time to do the activity maintenance Procedure		
J).Adhering to specified		
Inspection / Testing		
E).Adhering to the work permit system Procedures		
K).Any other information :		
29. Is Investigation report required to be submitted to PNGRB? Yes / No		
As per PNGRB Regulations (ERDMP - 2010, an Incident shall be treated as Major	if any of the	
following occurs : Yes / No		
a).Fire more than 15 minutes		
b).Explosion		
c).Fatal Incident		
d).Loss above Rs.5.0 lacs		
e).Cumulative man hours lost more than 500hrs		
f).Plant shutdown / Outage due to the Incident		

Name & Signature of Investigating Person

General Manager (Fire & Safety) Factory Manager / Occupier



ACTION AFTER REPORTING OF INCIDENT BY THE ENTITY (Reference Regulation 24)

- (1) After reporting of the incidents to Board, Nodal officer of the Board (head of Technical Standards the specifications and safety group) shall have responsibility of informing all the Members of the Board and shall coordinate with appropriate level in National Disaster Management Authority (NDMA) till normalization of the situation.
- (2) All Major Incidents shall be investigated by the entity through an enquiry committee comprising experts not directly associated with the incident to identify the lapses, shortcomings, establish the causes which establishes the failure and suggest remedial measures to prevent the recurrence of such incident etc. and submit its report to the Board within 30 days of the incident.
- (3) Following incidents shall also be investigated by an enquiry committee constituted by the Board.
 - Explosion / blast.
 - Fires involving fatality or major fires.
 - Pipeline leakages in petroleum, petroleum product or natural gas pipelines as decided by the Board and
 - Any other incident as decided by the Board.
- (4) Terms of reference for the enquiry committee shall include:
 - identify the lapses / shortcomings;
 - establish the root cause (s) of failure;
 - suggest improvements / remedial measures to prevent the recurrence of such incidents;
- (5) Such enquiry committee shall submit the preliminary report within a week and thereafter, the final report to the Board within 30 days of constitution.
- (6) The entity shall take necessary measures to prevent the recurrence of such incidents, and forward the action taken report to be the part of the report of such enquiry committee duly vetted by the board of Directors of the entity to the Board



TERMINATION OF EMERGENCY (Reference Regulation 25)

- (1) Termination activities should concentrate on giving accurate information to people who need it most especially employees, neighborhood, District Authorities engaged in offsite emergencies, and should begin as soon as the emergency phase of the operation is completed.
- (2) The termination of emergency shall be declared through siren as per the Siren Code defined by industry in case of Level- I and II. For Level-III termination of emergency shall be declared by District Authority through appropriate.

Chief Incident Controller is the nodal person responsible for declaring the termination of emergency. The level wise details are reflected from the charts is given in Chapter-6.



EMERGENCY RECOVERY PROCEDURES (Reference Regulation 26)

- (1) After the emergency, the following activities need to be carried out in detail.
 - a) Information to statutory authorities.
 - b) Incident investigation.
 - c) Damage assessment.
 - d) Salvage of products, de-contamination, clean-up and restoration.
 - e) A detailed report shall be prepared based on the entire experience of the incident, including restorations, limitations and lessons learnt.
 - f) Ambient air monitoring at the site as well as 5 km radius of the installation by State Pollution Control Board to determine the contamination level affecting health.

26.1 Emergency Recovery Procedures

As mentioned earlier, an emergency has pre-planning and post emergency phases. Restoration of normalcy following an incident is a very important activity and confidence building measures with the community post accident are extremely vital in overcoming the demoralization that occurs due to an incident of large proportion.

Once the situation at site has been brought under control and it is ensured that there is no emission of gas to the atmosphere, no possibility of re-ignition etc. and an ALL CLEAR indication is available; post emergency actions come into effect.

26.1.1 STRUCTURAL INSPECTIONS AFTER FIRES OR EXPLOSIONS

Action: Technical Coordinator

A major explosion could damage or destroy numerous buildings and any nearby structures and other objects. In the same way, large fires can have major effects over a vast area. In either case, residents of partially damaged buildings will want to know if the structures are safe to occupy while they await repairs. Questions pertaining to the safety of highway or bridges must be resolved quickly to avoid traffic complications.

It is important to note that inspection personnel may require special precautions (i.e., protective gear) in addition to normal safety equipment in those cases where the structure may still be contaminated by hazardous residues/smoldering fires.



Fire and safety coordinators shall be responsible for inspecting the structural integrity of damaged buildings, bridges, or other structures in the aftermath of a fire or explosion.

26.1.2 POST - INCIDENT TESTING FOR RELAPSE

Action: Safety Coordinator

This covers site inspections and confirmation that no fires exist that can again relapse into an emergency. The fire & safety coordinator shall undertake to equipment, structures and facilities for possible relapse and smoldering fires.

26.1.3 WASTE DISPOSAL

Action: Safety Coordinator

It may become necessary for public authorities to undertake disposal of hazardous wastes. This requires knowledge of the "Hazardous Waste (Management, Handling and Transboundary Movement) Rules under the Environment Protection Act, 1986 of the Ministry of Environment Forests & Climate Change, Govt. of India, and the location of approved and authorized disposal sites and the proper procedures for transporting and transferring wastes to these sites. Local governments should seek assistance from the state department of environment. These departments will have considered such problems in their own statewide or regional emergency response plans. The items unfit for human consumption will also form part of the Hazardous waste, which needs to be disposed off in accordance with the above mentioned rules. The Regional Officer of the PCB should decide the strategy.

Post Emergency Activities

Activity	Responsibility
Check the Station for possible secondary effect of	Technical experts
delayed relapse.	
Restoration of water, electricity and gas supplies	Utilities coordinator
Arrange for transportation	Transportation coordinator
Restoration of law and order in the affected areas	Security coordinator
Hold press conference	Public Relations Coordinator
Hold public meetings for answering their queries	PR coordinator in association
	with concerned officials
Arrange for providing interim relief to the affected	District Collector
people	
Undertake accident investigation and	Technical coordinator
documentation	



Arrange further relief to the affected people based	District Collector
on claim applications	
Plan updating, if so required	F&S and HSE Deptt.
Provide training to community and staff	F&S and HSE Deptt.

26.1.4 UPDATING OF THE PLAN

Mock drills activating the Emergency Preparedness Plan would be conducted periodically for ensuring its efficiency during emergency as well as for refinement and updating. The above drills based on the plan will help achieve the following objectives:

- ⇒ To familiarize emergency response personnel with their roles and duties to be performed.
- ⇒ To ensure the efficiency of the emergency response mechanism.
- ⇒ To check the coordination of reactions and response of emergency service.
- ⇒ To gain experience and confidence.

These mock drills will enable the organization to assess the capability of the individual and performance as a group. The frequent discussion and drills will help in eliminating the confusions / shortcomings if any.

The Works Incident Controller is responsible for evaluating the effectiveness of the Disaster Management Plan. The evaluation will help to identify the loopholes and to assess the response, capability of the location. A regular review of the plan (at least once a year) should be carried out to update the information or to incorporate the results of the mock drills. However, essential information like change in names / addresses / telephone numbers of the persons / members detailed in the plan shall be updated as and when the change comes to notice through amendments to the Plan.

(2) Check points on ERDMP recovery measures as given at Check list-7.

Filled-in checklist 7 is attached



ERDMP FOR PIPELINE CARRYING PETROLEUM PRODUCTS AND RETAILS OUTLETS (Reference Regulation 27)

1) ERDMP for pipelines carrying petroleum products should follow modern methods of surveillance of Pipeline and take guidance from all the aspects of Disaster Management Plan mentioned in the ERDMP. Schedule–VII should be referred, which is in line with Chemical Disaster by National Disaster Management Authority

Schedule –VII

(Refer Regulation 27.0)

ERDMP for pipelines carrying petroleum products

Pipelines are assuming importance as a means of transport of hazardous substances. Crude oil, its derivatives and natural gas are among the main substances transported by pipelines.

The Guidelines, therefore, comprise:

- Creation and maintaining an administrative framework to facilitate the development of a safe and environmentally sound transportation infrastructure, including pipelines for hazardous substances.
- ii) The pipeline operator has the primary responsibility for the safety of the systems and for taking measures to prevent incidents and to limit their consequences for human health and the environment.
- iii) Pipelines for the transport of hazardous substances will be designed and operated so as to prevent any uncontrolled release into the environment.
- iv) Risk assessment methods should be used in evaluating pipeline integrity and impact on human health and the environment.
- v) Land-use planning considerations will be taken into account both in the routing of new pipelines (e.g. to limit proximity to populated areas and water catchment areas to the extent possible), and in decisions concerning proposals for new developments/building in the vicinity of existing pipelines.
- vi) Pipeline operators and the authorities responsible for pipelines shall review and, if necessary, develop and implement systems to reduce third-party interference, which is a cause of incident including their effects.
- vii) National legislation shall be clear, enforceable and consistent to facilitate safe transport and international cooperation.
- viii) Competent authorities should ensure that pipeline operators:



- (a) Draw up emergency plans.
- (b) Provide the authorities designated for that purpose with the necessary information to enable them to draw up Off-Site emergency plans.
- (c) Emergency plans shall be coordinated between pipeline operators and competent authorities, as well as with fire brigades and other disaster control units.
- ix) Pipelines shall be designed, constructed and operated in accordance with recognised national and international codes, standards and guidelines, notified by the Board.
- x) Consideration will be given to the impact on the safety of a pipeline such as design and stress factors, quality of material, wall thickness, and depth of burial, external impact protection, markings, route selection and monitoring.
- xi) The safety of the pipelines shall be demonstrated through a suitable risk assessment procedure including the worst case scenario and including breakdowns and external additional loads.
- xii) The pipeline operator shall draw up a Pipeline Management System (PMS) to ensure that it is properly implemented. The PMS shall be designed to guarantee a high level of protection of human health and the environment. The following issues shall be addressed by the ¹[pipeline management system].
 - (a) The pipeline will be inspected and maintained regularly. Only reliable trained staff or qualified contractors may carry our maintenance work on a pipeline. Third party conformatory assessment bodies should inspect the pipeline at regular intervals as far as required by the Board. These inspections are to cover in particular the proper condition of the pipeline and the functioning of the equipment ensuring pipeline safety.
 - (b) Organization ability, roles and responsibilities, identification and evaluation of hazards, operational control, and management of change, planning for emergencies, monitoring performance, audit and review shall be duly addressed in the Pipeline Management System.
- 2) ERDMP for retail outlets should take care of all aspects mentioned in ERDMP and shall also refer to OISD STD- 225

¹ Subs. by Cl. (27) of Reg. 2, ibid. (w.e.f. 17.09.2020).



ERDMP FOR ROAD TRANSPORTATION (Reference Regulation 28)

The road transport of Petroleum product has significant presence and needs special attention. Complete details of treatment for handling emergency arising out of road transportations have been provided below:

28.1 Resource mobilization for road transport emergency

Resource mobilization for road transport emergency shall be as per the Schedule-VIII. Filled in Schedule VIII is given below:

SCHEDULE -VIII

(Refer Regulation <u>-28.1</u>)

Resource Mobilization for Road Transportation Emergencies

A. <u>In-PlantResources</u>

Following items should be available at the Plant in adequate quantity / nos.

Mechanical Equipment:

- 1. Gaskets (Carbon Asbestos Filled) NA
- 2. Studs and bolts. Available
- 3. Teflon tapes. Available
- 4. $\frac{1}{2}$ " / $\frac{3}{4}$ " crowbar (1 m long) Available
- 5. Spade / blind flange Available
- 6. Rope (Manila / Jute) Available
- 7. Spark arrestors. Available
- 8. 1" tapered wooden pegs. NA
- 9. Chopper Available
- 10. Spare fan belt for tank lorry with P.T.O. unit **Available**
- 11. Wind sock Available
- 12. M-Seal / epoxy-base cold-welding compound. Available
- 13. Wooden slippers Available
- 14. Teflon-taped spanners, wrenches Available
- 15. Spark-proof wrenches hammer and tools. Available
- 16. Barricading masts and ropes / tapes Available
- 17. Hoses Available
- 18. Chain pulley blocks and stay pipes Available
- 19. Small valve keys for operating valves in the tank truck Available



Electrical Equipment:

- Gas Explosive-meter Available
- 2. Flame-proof torches Available
- 3. Earthing wires (10 m long) with crocodile clips Available

Personnel Protective Equipment:

- Gloves:
 - i) Rubber gloves Available
 - ii) Low Temperature Gloves NA
 - iii) Industrial gloves (with leather lining) Available
 - iv) Canvas gloves Available
- 2. Face shields Available
- 3. Ear muff / ear plugs Available

Other Safety Items:

- 1. 1 roll of gunny / hessian cloth (about 10 mts. long) NA
- 2. First aid box (containing water gel compounds) Available
- 3. Soap Available
- 4. Blanket Available
- Water Gel Blanket Available
- Breathing Apparatus (With spare filled cylinder and Canister gas masks) -Available
- 7. Fire proximity suit Available

Fire Fighting Equipment:

- 1. Portable Dry Chemical Powder Fire Extinguishers Available
- 2. Fire-water Hoses Available
- 3. Triple Purpose diffuser nozzle for use with fire hoses. **Available**

Communication Equipment:

- 1. Hand operated sirens Available
- 2. Whistles Available
- 3. Megaphone, Mobile Phones, VHF sets. Available

Traffic Control Equipment:

- Red lights (Battery operated) for traffic diversion Traffic cones with reflectors available
- 2. Area maps Available
- 3. Diversion Boards NA



B. <u>ExternalResources</u>:

Particulars	Name	Address	Ph. No.	Any C	Other
1. Fire Station	Refer section	n 22.2.4			
2. Ambulance	Refer section	n 22.2.6 and a	lso CATS		
3. Hospitals	Refer Section	on 22.2.6			
4. Police Station	Refer section 22.2.5				
5. Drug Stores	24 hours Me	edicine shops a	attached at hos	oitals liste	d at
6.District	Refer Annex	kure III			
Administration /					
Collector					
7. Availability of	Information	available with I	Delhi Disaster N	Manageme	ent
Cranes	Authority				
8. Local PWD / CPWD water	Information	available with I	Delhi Disaster N	Manageme	ent
supplies, sand, morum,	Authority				
vehicles etc.					
9. Local Army, Navy, Air	Information	available with I	Delhi Disaster N	/Janageme	ent
Force authorities	Authority				
10. Any major industry nearby	No significa	nt major indust	ry in NCT Delh	İ	

C. <u>Identification of Communication Resources</u>:

Particulars	Name	Address	Ph. No.	Any Other	
				Info.	
1. Public Address	NA				
System					
2. Retail Outlets	NA	NA			
3. Railway Station	Available	Available with Railway Authorities			
4. Power Houses	Informatio	Information available with Govt. of NCT delhi			
5. Civil Authorities	NA	NA			
6. Voluntary Agencies	Informatio	Information available with Delhi Disaster Management			
7. Local All India Radio	Informatio	Information available with Delhi Disaster Management			
/ Doordarshan/ other	Authority	Authority			
channels					



- (a) In order to handle Emergencies, which may arise due to incident involving Petroleum Product Transportation, it is required that a comprehensive Emergency Management Plan is readily available with the industry as well as with other related authorities all along the routes. The ERDMP should be clearly understood by its users so that the emergencies can be handled in a systematic manner with minimum response time in accordance with the prescribed procedure.
- (b) Copies of the ERDMP shall be made available by the Industry to all the field locations i.e. Installations, POL Depots, Terminals / Installations, Refineries, Gas Processing Plants, Dispatch units of etc., the concerned District Administration, Police Stations and Fire Brigades en-route and within vicinity of specified tank truck routes, oil industry sales personnel of concerned area as may be required.
- (c) Location specific availability of Emergency Response Vehicle shall be mentioned in the ERDMP.

28.2 TREM Card (Specific to Road Transportation)

TREM Card format including sample as per details shown in **Schedule-IX** and Route Map shall be provided to the Tank Truck Crew which should be referred in case of an emergency. TREM CARD of LPG is given on the next page.



28.3 Role of External Agencies for Road Transportation Emergency

It is expected that the following roles shall be performed by various agencies defined:

28.3.1 Fire Brigade

On receipt of information from any source on incident of tank truck, fire brigade may contact nearest installation and police station. After assessing the situation, it may:

- (a) Rush fire tender to the incident site with all necessary fire fighting equipments;
- (b) Prepare a contingency plan for removal of tank truck, if not leaking, in consultation with installation personnel;
- (c) Dispersal of vapours by water spray away from inhabited area, in case of leakage. Extinguish the fire, in case leakage source cannot be stopped;
- (d) Allow the fire to burn under controlled conditions if isolation is not possible in case of gaseous fuels;
- (e) Save human lives and salvage material from incident affected truck;
- (f) Liaise with fire brigade in the adjoining town for additional help, if necessary;
- (g) Arrange water through municipal water tanker or any other source;

In addition to the above, the Schedule-V shall be followed.

28.3.2 Role of Police

On receipt of information, police may take the following actions as per Schedule-V derived from the National Disaster Management Guidelines Chemical Disasters (Industrial), April, 2007. However, the following points may also be taken care by the police authority:

- (a) Stop the traffic from both ends of the road.
- (b) Warn the people living in adjacent area for stopping all fire, smoking, evacuation to safe places, if necessary.
- (c) Contact nearest district police headquarters and giving the situation report.
- (d) Evacuate personnel from the area, if required.
- (e) Extend help in removal of injured personnel to the nearest first- aid centre /hospital, contacting highway patrol, completing legal formalities in case of any casualty.

In addition to the above, the Schedule-V shall be followed



28.3.3 District Administration

On receipt of information, District Administration may take the following actions as per Schedule-V derived from the National Disaster Management Guidelines Chemical Disasters (Industrial), April, 2007. However,

On receipt of information, following actions should be taken care:-

- (a) To keep watch on the overall situation.
- (b) Rush ambulance to the incident site if casualties are reported.
- (c) Direct cranes or any other such equipment to carry out rescue operations.
- (d) Issue warning messages to people through public address system, if evacuation is required.
- (e) Arrange emergency vehicles for evacuation purposes.
- (f) Give direction to hospitals having burns injury ward for readiness to receive patient in case of incident involving fire.
- (g) Provide basic amenities, e.g., water, electricity, food and shelter to the affected people as required.

In addition to the above, the Schedule-V shall be followed

CHAPTER - 29

INTEGRATION OF THE ERDMP WITH THE NATIONAL DISASTER MANAGEMENT PLAN (NDMP) (Reference Regulation 29)

29.1 NATIONAL DISASTER MANAGEMENT PLAN (NDMP)

- (1) On 23 December 2005, the Government of India took a definite step towards NDMP by enacting the NDMP ACT, 2005. The NDMP Act, 2005 is a Paradigm Shift from a response and relief- centric approach to a proactive and comprehensive mindset towards NDMP covering all aspects from prevention, mitigation, preparedness to rehabilitation, reconstruction and recovery.
- (2) Similar to National Authority at the Centre, the State Government is to establish a State Disaster Management Authority for the State. The State Authority is to be headed by the Chief Minister of the State as the Chairperson. Every State Government, in turn, is to establish a District Disaster Management Authority for every district in the State with the

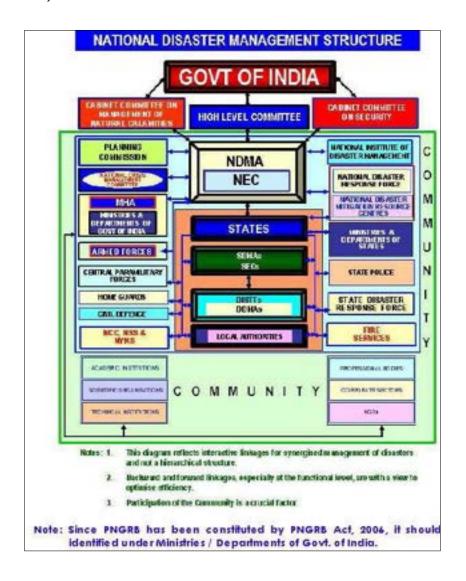


District Collector as the Chairperson. –Gujarat Disaster Management Authority has been constituted and is functional. Each district in turn also has a district crisis group headed by Deputy Commissioner.

- (3) The Central Government is empowered to take further measures as it deems fit for the purpose of disaster management like deployment of naval, military and air forces, other armed forces of the Union or any other civilian personnel as may be required for the purposes of this NDMP Act. Government of India is empowered to establish institutions for research, training, and developmental programmes in the field of disaster management as per this Act.
- (4) The national vision is to build a safer and disaster resilient India by developing a holistic, proactive, multi-disaster and technology driven strategy for NDMP. This will be achieved through a culture of prevention, mitigation and preparedness to reduce the impact of disasters on people. The entire process will centre stage the community and will be provided momentum and sustenance through the collective efforts of all government agencies supported by Non-Governmental Organisations (NGOs).



(5) National Disaster management Structure showing the interactive linkage among various agencies for synergised management of disaster is given below;





29.2 Integration of ERDMP with NDMP

This ERDMP document has been developed taking into account all possible inputs on the subjects from various stake holders. Efforts have also been made to synergize this with the document on National Disaster Management Guide (Chemical Disasters) Industrial brought out by National Disaster Management Authority.



SECURITY THREAT PLAN (Reference Regulation 30)

Detailed action plan on security breach or threat including bomb threat shall be prepared by entity and mock drill shall be carried out against various scenarios, at least once in a year

Bomb Threat

In case of Bomb threat, the Security officer shall take necessary action like corresponding with concern authorities (SP) etc. he will take necessary action in line with security manual / guide line. The details guide line / Manual is not reflected here as it is confidential and concerns internal security matters. However the outline procedure is as below.

- Action to be taken by receiver of bomb threat call on phone.
- Identification of places to be searched.
- · Use of bomb search check list.
- Listing of clues that would help indicate places of concealment of explosive device.
- Action if bomb is discovered.
- Equipment to be kept ready at all places.
- Type and shape of explosive devices found.
- · Bomb threat check list.
- Recommendation step in the event of bomb threat.
- · Basic rules for the bomb search.

Annexure – 8



महाराष्ट्र MAHARASHTRA

① 2022 ①

28AA 598394



THIS ADDENDUM TO THE SERVICE AGREEMENT is made on this 31st December 2022

BETWEEN

Adani Ports And Special Economic Zone Limited, a Company Incorporated under the Indian Companies Act, 1956 and having its Registered Office at having CIN No. L63090GJ1998PLC034182 and its Registered Office at Adani Corporate House Shantigram S G Highway P.O. Ahmedabad-382421 and its port office situated at Adani Port, Navinal Island Mundra -370421 District Kutch, Gujarat (here in after referred to as "First party/APSEZL", which expression shall, unless repugnant to the context or meaning thereof, mean and include its legal representatives, administrators, executors, successors & permitted assigns) represented herein by its duly constituted attorney Mr. Paresh Gohil (GM - APSEZ Mundra & Tuna Ports) who is authorized to do so by position he holds at/of the First Part.

AND

Ambuja Cements Limited, a Company incorporated under the Indian Companies Act, 1956, having CIN No. L26942GJ1981PLC004717 Its Registered Office at Adami Corporate House, Shantigram, Near Vaishnav Devi Circle, S. G. Highway Khodiyar, Ahmedabad – 382421,





07 DEC 2022 जोडपत्र-2/Annexure -जालील शिवका प्रतिज्ञापत्रा व्यतिरिवत वापरण्यात येणा-या मुद्रांकावर उमटवावा/ (Except affidavit, this seal put for all documents)

मुद्रांक विकी नोंदवही अनुकर्माक (Serial No/Date) दस्ताचा प्रकार	AGREEMENT
(Name of Document) 3) दश्त नॉदमी करणार आहेत व	
(Whether it is to be registered) 4) मिळकतीचे केन्यात वर्णन	Yes/No
5) मुद्रांक विकर्त घेणा—याथे नाव (Stamp Pur DEC)	AMBUJA CEMENTS LIMITED GEOCYCLE THANE, MAHARASHTRA STATE
6) Bed orrected to a quet (Uthrough Deputies Name, Address & Signature) Purchaser Sd/-	प सही Gaurav Kushwah
 दुस—या पक्षकाराचे नाव (Name of the other party) 	CLIENT
s) मुद्रांक षुट्क रक्कम (Stamp Duty Amount)	00/
णरवानावारक / मुद्रांक विकेस्य परवाना क्रमांक जुना क्रमांव (नविन परवाना क्रमांक – सी. एच. डी. पाटील-कृदी र मयुरेष बिरिकंग, टॅमीनाका, ठ	- 06/2003 - 1201015) प्रायपिंग ऑण्ड कम्प्युटर सेंटर
	रोदी केला त्यांनी त्याच कारणसाठी मुद्रीक खरेदी केल्यापासून ह सही
	V

Gujarat, having its division as "geoclean" that provides specialized services for thermal destruction or recovery of energy from hazardous/ non Hazardous waste material in cement kilns (hereinafter referred to as the "Second Party/ACL" which expression shall, unless repugnant to the context, mean and include its successors and assigns) represented herein by its duly constituted attorney Moumita Chakraborty (Head - Geoclean) who is authorized to do so by position she holds at/of the Other Part.

APSEZL and ACL shall be collectively addressed as "the parties" and individually as "Party" hereinafter in this Addendum.

WHEREAS, a Service Agreement (herein after known as "Agreement"), was entered into between APSEZL & ACL on 20th May 2020 for co-processing of (i) Contaminated Cotton Waste, (ii) Pig Waste, (iii) ETP sludge, all Hazardous and (iv) Sorted MSW – Non hazardous, in nature as per HOWM Rules 2016 (herein after referred as "Waste materials") as mentioned in Annexure A of the Agreement, to ACL's Ambuja Nagar Cement Plant valid till 31st December 2022 from the date of signing and execution;

AND WHEREAS, upon expiry of the validity of the Agreement, both Parties discussed and agreed to extend the validity of the agreement for next **Five years**;

AND WHEREAS, to record and give effect to their mutual understanding, APSEZL and ACL, have decided to execute this Addendum (Addendum No. 1) to the Agreement;

NOW IT IS HEREBY MUTUALLY AGREED BY AND BETWEEN APSEZL AND ACL AS FOLLOWS: 1. Definitions and Effective Date

1.1 Definitions

Unless otherwise defined in this Addendum (No. 1), capitalized words and expressions used in this Addendum shall have the meaning specified in the Agreement.

1.2 Effective Date

This Addendum to the Agreement shall become effective from 31st December 2022 after signing and execution and will be valid for next Five years, i.e. till 31st December 2027.

- Annexure D Quantity & Delivery Schedule and K Health & safety Policy of ACL attached herewith this Addendum No. 1 shall replace the same from the Agreement.
- Except as expressly modified and mentioned above in this Addendum No. 1, all other terms and conditions of the Agreement remain unchanged and are hereby ratified and confirmed.
- 4. On execution hereof, this Addendum (No. 1) shall form an integral part of the Agreement.

MUNDRA



ANNEXURE D

Quantity & Delivery Schedule

First Party, during the term of the agreement, shall deliver the following quantities of Waste Material to ACL's Cement Plant on yearly basis.

Contaminated Cotton Waste: 250 MTPA

Pig Waste: 25 MTPA ETP Sludge: 20 MTPA Sorted MSW: 550 MTPA

First Party, during the term of the agreement, shall deliver the Waste Material to the Second Party's Cement Plant on monthly basis as per the mutually agreed delivery schedule. The delivery schedule of the month will be prepared by the party's through mutual consent and will be finalized before 20th of the earlier month.

In case of any change or modification required in the agreed monthly delivery schedule of a particular month by either party, the same shall be brought to the notice of other party at least seven days in advance or as mutually agreed.







Group Policy on "Occupational Health & Safety"

We at Ambuja Cements Limited (Ambuja), firmly believe that Occupational Health & Safety (OHS) is an integral part of our activities, policies, processes, and business operations and are committed to provide safe and healthy workplace across our operating locations, to our employees, relevant stakeholders, and nearby communities to achieve our OHS vision "To be Globally admired OH&S Leader in the Infrastructure space".

Ambuja recognizes that OHSS and the overall wellbeing of its people is vital to its success and growth aspirations. It is our conviction to promote "Culture of Care" so that every activity is performed in a safe manner which facilitates continual growth and sustainability of our businesses. This is envisioned in our business theme "Growth with Goodness".

To meet our commitment, we shall endeavour to:

- Integrate Occupational Health & Safety aspects in every business decision we make and
 in every activity we perform. Leaders at all levels, demonstrate their personal
 commitment to OHBS to promote Principle of Prevention of unsafe situations by
 integrating requirements from design & engineering stage to operation and
 maintenance.
- Work with fundamental belief that all injuries and Occupational illness can and must be prevented. Working safely is a condition of employment to meet our goal of "Zero Harm".
- Comply and exceed applicable legal and regulatory OH8S requirements and set highest standards for positive safety compliance, wherever we operate.
- Develop skills, knowledge, competence and build capability by engaging employees, business partners and service providers through appropriate education and training to help them work safely. Influence our business partners in enhancing their OHSS standards.
- Ensure safe place to work by identifying, assessing and reducing risks & vulnerabilities
 to as low as reasonably practicable by applying hierarchy of controls for process,
 machinery, infrastructure and human behaviour and prevent any potential emergency
 situations.
- Conduct regular audits and facilitate assurance of OH&S programs and take timely action on findings to integrate learnings ensuring continued compliance to safety management system requirements.
- Proactively report all incidents, investigate root causes and ensure lessons learnt are shared and deployed across the company.
- Set OHBS objectives and targets, metrics as indicators of excellence, monitor progress and continually improve performance. Provide adequate resources to ensure continual improvement of OHBS management and performance.

We shall communicate this policy to all our employees, business partners and customers to emphasize their responsibilities and accountabilities for safe performance and thereby establish a renewed commitment towards consultative and participative processes.

Any violation or breach of this policy shall be dealt with procedures framed by the company from time to time. The policy shall be reviewed periodically for its suitability & relevance to our operations and updated as deemed necessary.

Page 2 of 2



ANNEXURE K - HEALTH & SAFETY POLICY OF ACL

Ambuja Cements Limited Occupational Health and Safety Policy

*The Ambuja Cements Limited's OHS policy is in alignment with Adani Group's OHS policy





IN WITNESS WHEREOF the Parties hereto have hereunto set and subscribed their respective hands and seals on the day, month and year first above-written.

Adani Ports And Special Economic Zone Limited, by the hand of its authorized signatory,

in the presence of:

PARESH GOHEL

1. Signature of Witness 1,

Bhagwat Swarep Sherrma.
(Name of Witness 1)

2. Signature of Witness 2,

Dhanesh Tank (Name of Witness 2)

SIGNED AND DELIVERED for and on behalf of

Ambuja Cements Limited, by the hand of its authorized signatory,

in the presence of:

MOUMETA CHAKRABORTY

Signature of Witness 1

PAURAV KUSHWAHA (Name of Witness 1)

2. J. M. Musey Signature of Witness 2,

(Name of Witness 2)

Annexure – 9



Certificate

Standard: Zero Waste to Landfill Management System

(ZWTL MS 2020)

Certificate Holder: Adani Ports and Special Economic Zone Limited

Mundra Port, Kutch - 370421,

Gujarat, India

Scope: **Providing Port Facilities for Import and Export of**

Bulk, Break Bulk, Liquid and Containerized Cargo,

its Storage and RORO Operation for Export of

Vehicles

Proof has been furnished by means of an audit that the Requirements of ZWTL MS 2020 are met, with the

achievement of waste diversion rate of above 99%

Validity: This certificate is valid from 01-06-2021 until 31-05-2024

Subject to satisfactory annual surveillance audits.

Certificate No. TUV/ZWLMS/2021/Adani Ports/0501

New Delhi, 01-06-2021

TÜV Rheinland India Pvt. Ltd. Office 610, 6rd Floor, iThum Tower, A-40, Sector-62, Noida- 201301, India

Annexure – 10



તા. ૬ એપ્રિલ, ૨૦૨૩

પ્રતિ. જિલ્લા કલેકટર શ્રી. કલેકટર કચેરી, ભુજ, કચ્છ.

વિષય: અદાણી પોર્ટસ એન્ડ સ્પેશિયલ છકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા. કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઈપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજુરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કર્માંક ને 11-9/2023-IA.III, પમી એપ્રિલ ૨૦૨૩

માનનીય સાહેબ શ્રી,

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે 'રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એવ.પી.જી. પાઇપલાઇનના વિકાસ' માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર કમાંક ને 11-9/2023-IA.III, તા. પમી એપ્રિલ, ર૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરકુ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકવ અમો આપની કયેરી ને આપશ્રી ની જાણ હેતુ અને આપની કયેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે,

આપની વિશ્વાસ

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ વતી, અધિકૃત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકવ

Adani Ports and Special Economic Zone Ltd Adani House, PO Box No. 1 Mundra, Kutch 370 421 Guiarat, India

CIN: L63090GJ1998PLC034182

Fax +91 2838 25 51110 info@adanl.com www.adanl.com

Registered Office: Adani Corporate House, Shantigram, Nr. Valshno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Gujarat, India

Tel +91 2838 25 5000



Ports and Logistics

તા. ૬ એપ્રિલ, ૨૦૨૩

પ્રતિ. નાયબ વન સંરક્ષક અધિકારીશ્રી. કચ્છ ફોરેસ્ટ સર્કલ (કચ્છ પૂર્વ), ભુજ, કચ્છ.

વિષય: અદાશી પોર્ટસ એન્ડ સ્પેશિયલ છકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા. કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એવ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કમાંક નં 11-9/2023-IA.III, પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી.

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર કમાંક નં 11-9/2023-IA.III, તા. પમી એપ્રિલ, ૨૦૨૩ ના રોજ કોસ્ટલ રેગ્યુવેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરફ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કયેરી ને આપશ્રી ની જાણ હેતુ અને આપની કચેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે.

Opning આપનો વિશ્વાસ

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ છકોનોમિક ઝોન લિમિટેડ વતી, અધિકૃત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકવ

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Ports and Logistics

તા. ૬ એપ્રિવ, ૨૦૨૩

પ્રતિ, જનરલ મેનેજર શ્રી. જિલ્લા ઉદ્યોગ કેન્દ્ર કચેરી. ભુજ, કચ્છ.

વિષય: અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કમાંક ને 11-9/2023-IA.III, પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી.

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે 'રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ' માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર કમાંક ને 11-9/2023-IA.III, તા. પમી એપ્રિલ, ર૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરકુ કોસ્ટવ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કચેરી ને આપશ્રી ની જાણ હેતુ અને આપની કચેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે,

આપનો વિશ્વાસુ

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ છકોનોમિક ઝોન વિમિટેડ વતી, અધિકૃત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકવ

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તા. ૬ એપ્રિલ. ૨૦૨૩

પ્રતિ, રેન્જ ફોરેસ્ટ અધિકારીશ્રી, રેન્જ ફોરેસ્ટ કપેરી, મુન્દ્રા, કચ્છ.

વિષય: અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા. કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિંડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કમાંક ને 11-9/2023-IA.III, પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી.

સવિનય સાથે જણાવવાનું કે, મે. અંદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઈપલાઈનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર ક્રમાંક નં 11-9/2023-IA.III, તા. પમી એપ્રિલ, રેબ્સ્ટેડ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરહુ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કયેરી ને આપશ્રી ની જાણ હેતુ અને આપની કયેરીમાં ૩૦ દિવસ સધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે.

આપનો વિશ્વાસ

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ વતી, અધિકત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકલ

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તા. દ એપ્રિલ, ૨૦૨૩

પ્રતિ. પાદેશિક અધિકારી શ્રી. પાદેશિક કર્યેરી - કચ્છ (પૂર્વ), ગજરાત પ્રદૂષણ નિયંત્રણ બોર્ડ, ગાંધીધામ, કચ્છ.

વિષય: અદાસી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર ક્રમાંક ને 11-9/2023-IA.III. પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી.

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર કમાંક ને 11-9/2023-IA.III, તા. પમી એપ્રિલ, ર૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરહ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કચેરી ને આપશ્રી ની જાણ હેતુ અને આપની કચેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે.

આપનો વિશ્વાસુ 📈 🗡

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ છકોનોમિક ઝોન લિમિટેડ વતી, અધિકત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકલ

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તા. ૬ એપ્રિલ, ૨૦૨૩

પ્રતિ, સબ ડીસ્ટ્રીકટ મેજિસ્ટ્રેટ શ્રી, SDM કચેરી, મુન્દ્રા, કચ્છ.

વિષય: અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કમાંક ને 11-9/2023-IA.III, પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી.

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર ક્રમાંક નં 11-9/2023-IA.III, તા. પમી એપ્રિલ, ર૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરહુ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કચેરી ને આપશ્રી ની જાણ હેતુ અને આપની કચેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે,

આપની વિશ્વાસ

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ વતી, અધિકૃત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકલ

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તા દ એપ્રિલ ૨૦૨૩

પ્રતિ. મામલતદાર શ્રી, મામલતદાર કચેરી, મુન્દ્રા, કચ્છ.

વિષય: અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કમાંક ને 11-9/2023-IA.III, પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી,

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઈનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર ક્રમાંક નં 11-9/2023-IA.III, તા. પમી એપ્રિલ, ર૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરહુ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કચેરી ને આપશ્રી ની જાણ હેતુ અને આપની કચેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે,

આપની વિશ્વાસ.

dl.

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ વતી, અધિકૃત અધિકારી

બ્રિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકલ

Adani Ports and Special Economic Zone Ltd Adani House,

PO Box No. 1 Mundra, Kutch 370 421 Gujarat, India

CIN: L63090GJ1998PLC034182

Tel +91 2838 25 5000 Fax +91 2838 25 51110 info@adani.com www.adani.com



તા. ૬ એપ્રિલ, ૨૦૨૩

પ્રતિ, તાલુકા વિકાસ અધિકારી શ્રી, તાલુકા વિકાસ અધિકારી કયેરી, મુન્દ્રા, કચ્છ.

વિષય: અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા અપાયેલ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની જાણકારી બાબતે

સંદર્ભ: પત્ર કમાંક ને 11-9/2023-IA.III. પમી એપ્રિલ, ૨૦૨૩

માનનીય સાહેબ શ્રી,

સવિનય સાથે જણાવવાનું કે, મે. અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ દ્વારા મુન્દ્રા, કચ્છ (ગુજરાત) ખાતે "રોડ, રેઇલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાઇપલાઇનના વિકાસ" માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાયુ પરિવર્તન મંત્રાલય દ્વારા પત્ર કમાંક ને 11-9/2023નA.III, તા. પમી એપ્રિલ, ર૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી આપવામાં આવેલ છે.

સદરહુ કોસ્ટલ રેગ્યુલેશન ઝોન (સીઆરઝેડ) મંજૂરી ની નકલ અમો આપની કયેરી ને આપશ્રી ની જાણ હેતુ અને આપની કયેરીમાં ૩૦ દિવસ સુધી પ્રદર્શન માં રાખવા હેતુ પાઠવીએ છીએ.

આપના સહકારની અપેક્ષા સાથે,

આપનો વિશ્વાસ,

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ વતી, અધિકત અધિકારી

બિડાણ: ઉપરોક્ત સંદર્ભવાળી સીઆરઝેડ મંજૂરી ની નકલ

क्रिका २३ वर्षाच्य अस्तुन ताबुधा पंचायत अस्त्री मुहरा-अवन

> Adani Ports and Special Economic Zone Ltd Adani House, PO Box No. 1 Mundra, Kutch 370 421 Gujarat, India CIN: L63090GJ1998PLC034182

Tel +91 2838 25 5000 Fax +91 2838 25 51110 info@adani.com www.adani.com

Annexure – 11

Date: 23-12-2022

WESTERN RAILWAY - VADODARA DIVISION TRIMMING AND CUTTING OF

Tenders for and on behalf of The Presiden Inducers for and on behalf of the President of India are invited by Divisional Railway Manager (Electrical Tr.D) Western Railway, Pratapnagar, Vadodara-390 094 for the following works. <u>Sr. No.1</u>: Tender No. EL/TRD/Tender/23-24/01 Name of Work: Trimming and cutting of tree branches infitinging safety clearance from branches infringing safety clearance from OHE in the electrified territory of Vadodara Division. Approximate Cost of the work (In Rs.): ₹ 18,47,730/- Earnest money to (In Rs.): ₹ 18.47,730/- Earnest money to be deposited (In Rs.): ₹ 37,000/- Cost of Tender document and Completion period: Free of cost Completion Period 18 months. Tender scheduled on: Tender closing date 08-05-2023 and time of closing at 15:00 hrs. on the same date. Web page particulars and notice for location where complete details can be seen & address of the office and www.ireps.gov.in Divisional Railway Manager (Electrical Tr.D), Western Railway, Pratapnagar, Vadodara-390 004.

TREE BRANCHE

WESTERN RAILWAY - VADODARA DIVISION

SIGNALLING WORK IN CONNECTION ender Notice No. S&T/BRC/22-23/08/SIG-F Date: 06-04-2023 Sr.DSTE/Vadodara acting for and on pehalf of The President of India invites BRC 22-23 08 SIG-R. Bidders will be able to submit their original/revised bids

upto closing date and time only, Manual offers are not allowed against this tender and any such manual offer received shall be ignored. (1) Name of the Work with its location: Signalling Work in connection with engineering work of Surat-Vadodara Section : Elimination of level crossing No. 233 at km 392/2-4 between station Makarpura-Vishwamitr by providing four lane Road Over Bridge. (2) Approximate cost of the work: ₹ 33,97,707.98 (3) EMD: ₹ 68,000.00 (4) Date and time for submission of eender and opening of e-tender: 05-05 2023 @ 15:00 Hours and 05-05-2023 @ 15:30 Hours. **(5) Webside particulars** and notice for location where ete details can be seen http://www.ireps.gov.in Senio Engineer, 2nd Floor, Annex Building, DRM's Office, Western Railway, Pratapnagar, Vadodara-390 004. BRC-313

दिनांक : १०.०४.२०२३

क्रमांक:- एकाउंट/निविदा/2022-23/4106

NIB Code PWD2223A4933

कार्यवार यू.बी.एन. संख्या निमानुसार हैं।

2 PWD2223WSOB19815

3 PWD2223WSOB19816

DIPR/C/5090/2023

अधीक्षण अभियन्त

सा.नि.वि. वृत्त बारां

WSC2324WSOB00003

WSC2324WSOB00004

वाटरशेड सेल कम डाटा मेन

अधीक्षण अभियंता एवं परियोजना प्रबन्ध

हस्ता./

करने की तारीख

पर्यंत सायंकाळी ५.०० वाजेपर्यंत राहील.

सही/-प्रशासक तथा मुख्याधिकारी चिपळूण नगर परिषद

दिनांक: 27.03.2023

(कपिल वर्मा

अधीक्षण अभियन्त

सा.नि.वि. वृत सिरोर्ह

🕰 फेर ई-जाहीर निविदा (तिसरी मागणी)

कार्यालयाचे नाव : विपळुण नगर परिषदं ता. विपळुण, जि. रत्नागिरी

ई-निविदा मागविणारी सूचना क्र. ०७ सन २०२३-२४

चिपळूण नगर परिषदेकडील ई-निविदा सूचना क्रमांक ०७ सन २०२३-

२४ अन्वये चिपळ्ण नगर परिषद हद्दीतील वैशिष्ट्यपूर्ण अनुदान अंतर्गत

०१ विकास कामाची फेर ई-निविदा ब-१ नमुन्यातील ई-निविदा प्रणालीद्वारे

ई-निविदा (तिसरी मागणी) मागविण्यात येत आहेत. सदर निविदाबाबतचा

#--(+,,///)% #-!&!*+)"'.)\$& या संकेतस्थळावर **दिनांक**

११.०४.२०२३ रोजीपासून पाहावयास उपलब्ध करून देण्यात आलेली

आहे. निविदा सादर करण्याची अंतिम तारीख दिनांक २०.०४.२०२३ रोजी

कार्यालय अधीक्षण अभियन्ता सार्वजनिक निर्माण विभाग वृत, सिरोही

निविदा सूचना संख्या 11/2022-23

राजस्थान के राज्यपाल महोदय की ओर से **विभिन्न सड़क निर्माण कार्य** के लिए उपयुक्त श्रेणी के सार्वजनिव

निर्माण विभाग राजस्थान में पंजीकृत संवेदकों एवं राज्य सरकार/केन्द्र सरकार के अधिकृत संगठनों/केन्द्रीय लोक निर्माण विभाग/डाक एवं दुरसंचार विभाग/रेल्वे इत्यादित में पंजीकृत संवेदकों, जो कि राजस्थान सरकार के उपयुक

श्रेणी के संवेदकों के समकक्ष हो, से कार्यों हेत ई-टेण्डरिंग के माध्यम से निर्धारित प्रपत्र में प्राप्त की जावेंगी।

निविदा से सम्बन्धित विवरण वेब साईट <u>www.dipr.rajasthan.gov.in</u>, http://sppp.rajasthan.gov.ir

हस्ताक्षर के माध्यम से वेबसाईट पर http://eproc.rajasthan.gov.in पर रजिस्टर्ड करवाना आवश्यक है

http://eproc.rajasthan.gov.in पर देखा जा सकता है। सम्पूर्ण निविदा प्रक्रिय http://eproc.rajasthan.gov.in पर ऑनलाईन सम्पादित की जायेगी। इच्छुक संवेदकों को अपने डिजिटल

24 अप्रैल 2023 सायं 6:00 बजे तक

ऑनलाईन निविदा आवेदन डाउनलोड एवं अपलोड | 05 अप्रैल 2023 प्रातः 9:30 बजे से

तपशील, अटी व शर्ती महाराष्ट्र शासनाचे

कार्यालय अधीक्षण अभियन्ता, सार्वजनिक निर्माण विभाग, वृत्त बारां क्रमांकः ३६८५ दिनांकः 24/03/2023

निविदा सूचना संख्या 13/2022-23

राजस्थान के राज्यपाल महोदय की ओर से बजट घोषणा 2023-24 के अन्तर्गत सडक निर्माण कार . उपयुक्त श्रेणी में सार्वजनिक निर्माण विभाग राजस्थान में पंजीकृत संवेदकों एवं राज्य सरकार/केन्द्र सरकार के अधिकृत संगठनों/केन्द्रीय लोक निर्माण विभाग/डाक एवम् दूर संचार विभाग/रेल्वे इत्यादि में पंजीकृत संवेदकों, जो कि राजस्थान सरकार के एए श्रेणी के संवेदकों के समकक्ष हो, से निर्धारित प्रपत्र में ई-प्रोक्युरमेन्ट प्रक्रिया से ऑन लाईन निविदा आमंत्रित की जाती हैं। निविदा से सम्बन्धित विवरण वेब साईट http://dipr.rajasthan.gov.in http://pwd.rajasthan.gov.in http://eproc.rajasthan.gov.in पर देखा जा सकता है। यू.बी.एन. संख्या निम्नानुसार है।

इच्छुक संवेदकों को अपने डिजिटल हस्ताक्षर के माध्यम से वेब साईट http://eproc.rajasthan.gov.ir

Office of the SE & PM, WCDC, Zila Parishad Dausa

NOTICE INVITING BID
NIT No. 01/2023-24, 02/2023-24 & 03/2023-24
Bids for NRM Works under Atal Bhujal Scheme in Block Baswa, Dausa & Nanga Rajawatan, District Dausa of estimated value INR of Each Projects as below table, are inivted from interested bidders. Other particulars of the bid may be visited on the

rocurement portal (https://eproc.rajasthan.gov.in or https://sppp.rajasthan.gov.in/)

Dausa

Name of Block Estimated Value

15951863

पर रजिस्टर्ड होना आवश्यक है।

DIPR/C/5094/2023

File No. (1)/WCD/DAU/ABJY/2023-24/3780

NIB No.

WSC2324A000

WSC2324A0003

DIPR/C/5184/2023

Adani Ports and Special Economic Zone Limited

PUBLIC NOTICE

This is to bring to the public notice that M/s. Adani Ports and Special Economic Zone Limited (APSEZ) Regd. office at Adani Corporate House, Shantigram, Near Vaishno Dev Circle, S.G. Highway, Khodiyar, Ahmedabad-382421, Gujaral has been accorded CRZ Clearance for Development of Road, Rail, Utility Corridor and LPG Pipeline by M/s. Adani Ports and Special Economic Zone Limited @ Mundra, Kutch District (Gujarat) vide file no. 11-9/2023-IA.III, dated 5th April, 2023 by the Ministry of Environment, Forest & Climate Change (MoEF&CC), Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 (Gol). A copy of the above mentioned clearance letter is available with Gujarat Coasta Zone Management Authority and Gujarat Pollution Contro Board. This may also be seen on the website of Ministry of Environment, Forest & Climate Change (MoEF&CC) at https://parivesh.nic.in/ and on website of M/s. Adani Ports and

AHMEDABAD MUNICIPAL CORPORATION **DRAINAGE PROJECT E-Tender Notice / 2023-2024**

Construction of SPS at Vastral ward of East Zone of AMC Area. (Tender Cost:- Rs.15.49 Cr.)

Detail and Tender available on	www.nprocure.com
Technical Bid Opening	Date:- 03/05/2023 at 17:00 Hrs.
Physical Submission upto	Date:- 03/05/2023 up to 16:00 Hrs.
Online Submission upto	Date:- 01/05/2023 up to 18:00 Hrs.



MADHYA GUJARAT VIJ COMPANY LIMITED Baroda City Circle, Navlakhi Compund, Baroda-390001 Website: www.mgvcl.com E&P Dept-GoG: http://guj-epd.gov.in

Sealed tenders are invited for (1) Providing paver blocks around RMU plinths in Vasna store of Lalbaug division under Baroda City Circle (2) Purchase of Heat Shrinkable Type (i) Straight through joints (ii) Indoor and Outdoor tennination kit for 95.185 & 240 mm2 XLPE Cable Confirming to IS: 13573 with latest amendment, if any. (3) Providing store room for IT section and misc civil work in Meter testing lab at Navlakhi compound under Baroda city circle (4) ARC For HT LT TC (ERECTION & maintenance) under Laxmipura S/D. (5) ARC For underground cable laying work under GOTRI S/D.

Superintending Engineer (O&M) Baroda City Circle Note: Be in touch with our MGVCL website & n-procure website till opening of the tender.

S	Narmada Water Kalp	nment of Gujarat Resource, Water Supply & sar Department er Notice No.01 of 2023-24
1	Name of Work:- (Work as per detail Notice)	Total 4 (Four)
2	Estimated cost:	Rs.46.73 Lakh
3	Last date of Online Tender Submission	Dt:- 17/04/2023 Upto 16.00 hrs.
4		kecutive Engineer, Anand Irrigation esh Chowkadi Anand. Phone No.

02692-262044, Fax No. 02692-262282 Further details Tender Notice & Tedner Document can be seen at www.nprocure.com & www.statetenders.gujarat.gov.in (INF/ANAND/39/23-24)

WESTERN RAILWAY - VADODARA

GATI SHAKTI VISHWAVIDYALAYA

Lalbaug, Vadodara, Gujarat 390004

INVITATION OF BIDS

Ref: No GSV/MESS/2023 Date: 08.04.2023 Gati Shakti Vishwavidyalaya invites proposals/bid on GeM for the following Services.

No.	Tender Ref No.	Tender Title	Date & Time of Opening Bids
1	GEM/2023/B/3335612	Mess and Canteen Services	Opening 26.04.2023
2	GEM/2023/B/3323741	Manpower Outsourcing Services	Opening 18.04.2023

For details, visit our website www.gsv.ac.in. Interested and experienced agencies are invited to bid on GeM using the above

tender reference number.

Regarding CRZ Clearance for Development of Road. Rail. Utility Corridor and LPG Pipeline @ Mundra, Kutch (Gujarat)

Special Economic Zone Ltd. at https://www.adaniports.com. Downloads

GUJARAT URJA VIKAS NIGAM LIMITED CIN U40109GJ2004SGC045195

ISO 9001 -2015 Certified Company Sardar Patel Vidyut Bhavan, Racecourse, Vadodara 390007 PBX: (0265) 2310582-86, www.guvnl.com

PUBLIC NOTICE

GUVNL has filed IA No. 02 of 2023 in Petition No. 2098 of 2022 before the Hon'ble Gujarat Electricity Regulatory Commission (GERC) seeking to amend the Petition No.2098 of 2022 for approval of deviations from the Guidelines issued by Central Government for procurement of power through Tariff based Competitive Bidding Process from Grid connected Renewable Energy Sources, i.e. Wind, Solar and Wind-Solar Hybrid Projects and for approval of revised bid documents for carrying out bidding process for procurement of power from Hybrid Power Projects having RE generation with co-located or multi-located Energy Storage Systems. The stakeholders / objectors may file their objections / suggestions in the matter to the Secretary, Gujarat Electricity Regulatory Commission, 6th Floor, GIFT ONE, Road 5C, Zone 5, GIFT City, and Gandhinagar - 382355 in five copies along with affidavit in support of their submissions with a copy to GUVNL within 21 days from the date of issuance of this public notice. The public hearing before the Hon'ble GERC is scheduled on 08.05.2023 at 11:30 A.M. The petition along with IA is uploaded on www.guvnl.com.

General Manager (RE)

GUJARAT STATE NARMADA WATER RESOURCES, WATER SUPPLY AND KALPSAR DEPARTMENT E Tender Notice No 10 of 2023-24

On behalf of Governor of Gujarat, Executive Engineer, Damanganga Canal Investigation Division, Valsad Invites E-Tender for the following works of Valsad & Dharampur Taluka of Valsad District in B-1 Tender Form, from Registred contractor in "E-1/E-2" Class and Above for Civil work in Government of Guiarat (1) Reparing of Existing Parnera Pardi Check Dam on local kotar near village Panera PArdi, Ta. & Dist. Valsad. Est.Cost Rs.3.96 Lakh

(2) Restoration & Strengthening of Existing Pipalbarda checkdam on local kotar (Tributory of Man River) near village Pipalbarda, Ta. Dharampur, Dist. Valsad. Est. Cost. Rs. 3.88 Lakh

(3) Restoration & Strengthening of Existing Jamaliya checkdam on local kotar (Tributory of Man River) near village Jamaliya, Ta. Dharampur, Dist. Valsad. Est. Cost. Rs. 7.89 Lakh

(4) Restoration & Strengthening of Existing Khadki-2 (Holi Faliyu) checkdam on local kotar (Tributory of Man River) near village Khadki, Ta. Dharampur, Dist. Valsad. Est. Cost. Rs. 4.23 Lakh (5) Restoration & Strengthening of Existing Avadha-1 and Avadha-2 checkdam on local kotar (Tributory of Man River) near village

Avadha, Ta. Dharampur, Dist. Valsad. Est. Cost Rs. 10.74 Lakh. (6) Restoration & Strengthening of Existing Bhavada Checkdam on Tan River near village Dhavada and Savarmal Checkdam on local kotar (Tributory of Man River) near village Savamnal, Ta.Dharainpur, Dist. Valsad. Est. Cost Rs.26.05 Lakh.

(7) Restoration & Strengthening of Existing Checkdam of Hanmatmal, Pandavkhada, and Ambosi on local kotar (Tributory of Man River) near village Hanmatmal, Pandavkhada, and Ambosi Ta. Dharampur, Dist. Valsad. Est. Cost Rs.33.88 Lakh.

(8) Restoration & Strengthening of Existing Sajnibarda-1 and Sajnibarda-2 (sutharpada Faliya) checkdam on local kotar (Tributory of Man River) near village Sajnibarda Ta.Dharampur,

Dist. Valsad. Est. Cost Rs.9.05 Lakh. (9) Last date/Time for receipt of online tender - Up to Date 20/04/2023 Time up to 18.00 Hrs.

(10) Last Date of submission of Physical Document By R.P.A.D/Speed Post/Courier is 27/04/2023 Time up to 18.00 Hrs. (11) All Documents mentioned in detailed Tender Notice required to be submitted on line & Physical both. If any of the documents not submitted by the bidder the bid of the said bidder will not be considered or accepted.

(12) Address

(1) Executive Engineer, Damanganga Canal Inv. Division Damanganga Bhavan, 2nd Floor, Valsad Phone No.(02632) 254503 Fax No.(02632) 253308

(8) Further details can be seen at office notice board & web site. www.nwr.nprocure.com /www.statetenders.gujarat.gov.in

INF/Valsad/14/2023

COFFEE BOARD

Ministry of Commerce & Industry, (Govt.of India) No.1, Dr. B.R. Ambedkar Veedhi, Bengaluru-560 001. No. CB/136th ICC/2023-24/155 Dated: 10.04.2023

EXPRESSION OF INTEREST

Coffee Board is a Statutory Organizaton under the Ministry of Commerce & Industry, Government of India. The organization is in the process of making arrangements for hosting the 5th World Coffee Conference (WCC) and concurrent sessions of 136th International Coffee Council (ICC) in Bengaluru, Karnataka from 24th to 29th September 2023 The event comprises of conferences and high-level official meetings attended by around 2000 foreign delegates from 80 countries.

The organization is looking for 'Interpreters' for live interpretation or the deliberations of ICC/WCC in four languages viz. English, French Portuguese and Spanish. The service shall be provided as per the standard prescribed by International Association on Conference Interpreters. The interested firms/institutions may post their details along with experience in providing interpretation to Deputy Director [(Extn./Admn.(i/c)], Coffee Board, Bengaluru either electronically to icc.wcc.tender@gmail.com or by post. Last date for receipt of expression of interest is 20.04.2023 by 3.00 PM

Sd/-

Deputy Director (Extn./Admn.(i/c), Coffee Board.

WESTERN RAILWAY - VADODARA DIVISION

Tender Notice No. S&T/BRC/22-23/34/SIG-R

VARIOUS SIGNALLING WORKS IN CONNECTION WITH ENGINEERING WORK

Sr.DSTE/Vadodara acting for and on behalf of The President of India invites E-Tenders against Tender No. SandT_BRC_22-23_34_SIG-R. Bidders will be able to E-tenders against tender No. Sand 1_BRC_22-23_34_SIG-R. Bidders will be able to submit their original/revised bids up to closing date and time only. Manual offers are not allowed against this tender and any such manual offer received shall be ignored. (1) Name of the Work with its location: Signalling Work during Engineering Machine Working of Engineering works 1) Vadodara Jn. - Godhra Jn. - TRR(P) -11.020 Tkm, Vadodara Jn. - Geratpur (UP) - TRR(P) -0.545 Tkm & Surat - Vadodara Jn. - TRR(P) -9.033 Tkm 2) Surat - Vadodara Jn. - Godhra Jn. (UP & DN) - TSR(P) -14.517 Tkm 3) Anand Jn. - Godhra Jn. (SL) - TBR - 8.864 Tkm, Vadodara Jn. - Geratpur - TBR - 2.111 Tkm & Surat - Godhra In. - TBR - 9.18 Tkm & Surat -Godhra Jn. - TBR - 10.327 Tkm 4) Anand Jn.- Godhra Jn.-TBR - 9.518 Tkm, Vadodara Jn.- Geratpur - TBR - 16.622 Tkm & Surat - Vadodara Jn.- Godhra Jn.-TBR - 22.663 Tkm (Loop Lines) 5) Vadodara Division - TFR(Liner) -147.404 Tkm & TFR(GRSP) - 196.502 Tkm 6) Vadodara Division - TTR(CS) - 4 sets (1:12-2 sets & 11:8.5 - 2 sets), TTR(TWS) - 12 sets (1:8.5) & Improved SEJs - 52 sets 7) Vadodara Division - Deep Screening of Turnouts - 111 sets (1:12 - 96 sets & 1:8.5 - 15 sets) 8) Repl. Of existing steel girders by PSC slab up to 9.15 m spans of Bridge No. 520 (STBRC), 102 (BRC-GDA) (1 No. of 6:10 m at Bridge 520 and 3 Nos. of 6:10 m span of slab at Bridge 102) and 9) Repl. Of existing steel girders by PSC slab up to 9.15 m spans of Bridge No. 101 (ND-MDSA), 63 (ANND-CBY) (2 No. of 9.15 m and 1 No. of 6.10 m span of slab) (3) Approx. cost of the work: ₹ 63,25,405.11 (3) Earnest Money to be deposit: ₹ 1,26,500.00 (4) Date and time for submission of e-tender and opening of e-tender: 05-05-2023 @ 15:00 Hours and 05-05-2023 @ 15:30 Hours. (5) Web site particular and notice for location where complete details can be seen etc: http:// www.ireps.gov.in Senior Divisional Signal & Telecommunication Engineer, 2nd Floor, Annex Building, DRM's Office, Western Railway, Pratapnagar, Vadodara-390 004 BRC-317

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Area of Land

MINISTRY OF RAILWAYS

[Western Railway) (Construction Organisation)] **NOTIFICATION**

Mumbai, the 3rd April, 2023

S.O.1617(E).- Whereas by the notification of the Government of India in the Ministry of Railways (Railway Board) number S.O. 2087(E), dated 5th May, 2022 published in Gazette of India Extraordinary Part II, section-3, Sub-section (ii), dated 5th May, 2022, (hereinafter referred to as the said notification) under sub-section (1) of section 20A of the Railways Act. 1989 (24 of 1989) (hereinafter referred to as the said Act), the Central Government, has declared its intention to acquire the land specified in the Schedule annexed to the said notification for execution, maintenance. management and operation of Special Railway Project, namely, Rajkot-Kanalus doubling of Broad Gauge single line in District Jamnagar in the State of Gujarat;

And, whereas, the substance of the said notification was published in daily "The Times of India" dated 23rd May, 2022 and "Nobat" dated 13th May, 2022 under sub-section (4) of Section 20A of the said Act;

And, whereas, Nil objection has been received by the Competent Authority;

And, whereas, in pursuance of sub-section (1) of Section 20(E) of the said Act, the Competent Authority has submitted its report to the Central Government;

Now, therefore, upon receipt of the said report of the Competent Authority, and in exercise of the power conferred by sub- section (1) of Section 20(E) of the said Act, the Central Government hereby declares that the lands specified in the Schedule annexed here to shall be acquired for the aforesaid purpose;

And, further, in pursuance of sub-section (2) of Section 20(E) of the said Act, the Central Government hereby declares that on publication of this notification in the Official Gazette, the land specified in the Schedule annexed hereto shall vest absolutely in the Central Government free from all encumbrances.

SCHEDULE

Subject: Brief description of the land to be acquired with or without structure for the Special Railway Project: Rajkot-Kanalus doubling of Broad-Gauge single line in the state of Gujarat.

As per 7/12 Land holder's Name

Name of District : Jamnagar

Survey

Sr.

No.	no.		to be Acquired
			(in Sqm.)
Taluka	a : Lalpur		
Villag	e : Pipli		
1	210	Rajeshbhai Lagdhirbhai Modhvadiya	1418.00
		Vinodbhai Lagdhirbhai Modhvadiya	
		Ritaben Lagdhirbhai Modhvadiva	
2	141	Rambhai Goganbhai Goraniya	857.00
		Visana Arbham Raide	
		Total	2275.00
Taluka	a : Jamnaga	ar (Rural)	
Villag	e: Dodhiya		
1	230	Vanrajsang Bachubha	780.00
		Induba Khumansinh	
		Kishorsinh Khumansinh	
		Narendrasinh Khumansinh	
		Mitalba Khumansinh	
2	181	Dhirubha Raghaji	401.00
3	182	Dhirubha Raghaji 812.00	
4	185	Brijrajsinh Gagubha Jadeja	134.00
		Bharatba Gagubha Jadeja	
		Jayanilaba Gagubha Jadeja w/o Shaktisinh Gohil	
		Chhatrapalsingh Gagubha Jadeja	
5	162	Chandulal Keshu	616.00
		Pravinaben Chandulal Busa	
		Prins Chandulal Busa s.va. Chandulal Keshubhai	
6	161	Hansaba Motubha	89.00
		Jeetuba Motubha	
7	160	Viiaysinh Chandubha Jadeja	232.00
8	141	Ramji Karshan	203.00
		Murji Karshan	
9	145	Ramji Karshan	598.00
		Murji Karshan	
10	147	Babu Alibhai	363.00
11	109	Babu Alibhai	252.00
12	97	Ratubha Bachubha Parmar	183.00
13	672	Jafarali Nathu	140.00
			4000.00

(F.NO. E-Office E-392766-1)

4803.00

FATEH SINGH MEENA, Chief Project Manager-II (Cons.)

Total

Public notice as per sub section 1 and 3 to 5 of section 20(F) of The Railway Act 1989

therefore, from above public notification. it is to inform to all concerned landowners or persons interested for the above said land that for the Rajkot Kanalus Railway broad gauge Doubling Project, a proclamation under section 20 E of the Railway act 1989 has been published as above for acquisition of land of different survey numbers in village Pipli of Taluka Lalpur and Dodhiya of Taluka Jamnagar (Rural) of District Jamnagar.

Therefore, in pursuance of Section 20(F) of the Railway Act 1989, the owners of the land or persons interested are informed that the Compensation claims for the acquired land shown in schedule of above notification (about their Share, area of land, any property attached to it) should be submitted by them personally or through and authorized representative or lawyer to the Prant officer, Jamnagar (Rural), Mahesul Sevasadan, 2nd Floor, Sharu Section Road, Near Police Head Quarter, Jamnagar within 30 days. The said land-owners or persons interested therein shall also furnish the particulars of their Bank Accounts to which they would like their compensation amount to be credited. Objection raised after the time limit will not be considered. The matter of compensation for the objections raised will be subject to legality and the liability to present legal evidence will be on the claimant.

Date: 10/04/2023 INF-JAM-ADVT./19/2023

Prant Officer Jamnagar (Rural)

> Ahmedabad 221

← CMYK

વૃક્ષોનું મહત્વ સમજતા ગામજનોના કારણે ચોતરફ હરિયાળી

જીયાપરની વસ્તી ૧૪૦૦ની સામે વૃક્ષોની સંખ્યા ૩૫૦૦

દરેક ઘર પાસે એક લીમડો અને એક બદામના ઝાડનું વાવેતર કરીને ઉછેર

। આણંદપર । (સંદેશ બ્યુરો)

નખત્રાણા તાલુકાના રળીયામણા ગામથી પ્રસિધ્ધી મેળવેતા જીયાપરની ખાસીયત એ છે કે, આ ગામની કુલ વસ્તી ચોંદસોની છે. તેની સામે વૃક્ષોની સંખ્યા પાંત્રીસો જેટલી છે.

વિનાશક ધરતીકંપની થપાટ ખાધા પછી જીયાપર ગામને બી.એ.પી.એસ. સંસ્થા દ્રારા નવેસરથી ઉભું કરી આપવામાં આવ્યું હતું, ધરતીકંપ પછી તત્કાલીન મુખ્યમંત્રી અને હાલના વડાપ્રધાન નરેન્દ્ર મોદીએ બે વખત આ ગામની મુલાકાત લીધી હતી. આ વેળાએ તેઓએ નારાયણ નગરને લોકોને સમર્પિત કર્યુ હતું. આ ગામની



માનવ વસ્તી ચૌંદસોથી પંદરસોની છે, જયારે વૃક્ષોની સંખ્યા તેના કરતા અઢી ધણી વધારે છે. આ ગામની એક ખાસયીત છે કે દરેક ધર પાસે એક

લીમડો અને એક બદામનું ઝાડ ઉછેરવામાં આવ્યું છે. નારાયણનગરના રસ્તાની બન્ને બાજુ લીમડાના વૃક્ષો જોવા મળી રહયા છે.

શહેરના ગાંધીમાર્કેટ પાસે યોજાયો કાર્યક્રમ ગાંધીધામમાં દેખાવ કરતાં કોંગ્રેસના આગેવાનોની પોલીસે અટકાયત કરી

BHUJ

કોંગ્રેસ દ્વારા સંકલ્પ સપ્તાહ અંતર્ગત વિવિધ કાર્યક્રમો



ગાંધીધામ શહેર-તાલુકા કોંગ્રેસ સમિતિ દ્વારા ગાંધી માર્કેટ ખાતે રાહુલ ગાંધીના સમર્થનમાં સંકલ્પ સત્યાગ્રહ સપ્તાહ અંતર્ગત દેખાવો કરવામાં આવ્યા હતા, આ દરમિયાનમાં પોલીસે આગેવાનો સહિત ૨૦ની અટકાયત કર્યા

બાદ મુક્ત કરી દીધા હતા.

દેખાવના કાર્યક્રમમાં જીલ્લા કોંગ્રેસના પ્રમુખ યજૂવેન્દ્રસિંહ જાડેજા, તાલુકા કોંગ્રેસના પ્રમુખ ગનીભાઈ માંજોઠી, શહેર કોંગ્રેસ પ્રમુખ સંજયભાઈ ગાંધી, પાલિકા વિરોધ પક્ષના નેતા સમીપભાઈ જોશી, ભરતભાઈ સોલંકી સહિતના આગેવાનો અને કાર્યકરો દેખાવમાં જોડાયા હતા.

GUJARAT URJA VIKAS

NIGAM LIMITED

(A HOLDING COMPANY OF SIX SUBSIDIARY COMPANIES)

Sardar Patel Vidyut Bhavan, Racecourse, Vadodara www.guvnl.com CIN U40109GJ2004SGC045195

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अुक्टात ३२७ ४७५३६ीज भावेंद्रींज कोपॉरेशन वि

(भुषशत सरशस्तुं सहस) राजुः स्वीकृतः इसीक नं.१७, पांचमी माध, विधीअल्प्यन, सेकटर-१९,

इदिर कर्ने आमोसीयनी क्रमेरीमां पेसेच व्युटिविकेशन कर्ने सेडिज रेस्ट्राम लेमच युचरात

६-८ेळरींण प्रकृति ब्राश ओनलाशन सार्थी भंजावता आसत

mbe Alten

हेक्टर मोदीस नं : ०५/२०२२-२३

કૃદિર અને ગામોલીગની કચેરીમાં પૈકેષ અફિડિકેશન અને લેડિઝ રેસ્ટફમ તેમજ ગુજરાત

પીલ્યુશન કંદીલ બોર્ડ, ગાંધીનગર ખાતેની દોબોરેટરીમાં આંતરિક સુશોલનની કામગીરી

करवा माटे जा प्रकारनी क्रमशीरी करती पेढीजो पासेबी छ-देन्तर पढलि बास जोनलाइन

खावी मंत्रावकार्य खावे के का क्रमार्थीरी माटे निवत ग्रेमें कने संस्तृत सावित

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બોનલ્યઇન સબમીજનની છેલ્લી તારીખ

हेन्द्रर ही, धान्यनी रहम तथा

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િકિકલ સ્વરૂપે બંધ કવરમાં રજૂ

કરવાની છેલ્લી લાકીખ

લહિતી/૪૫/૨૩-૨૪

Q-સિક મોલીલ -

લ્યુલન કંટ્રેલ એર્ડ, ગાંધીનગર ખાતેની લેબોરેટરીમાં ખાતરિક સુશ્રોભનની કામગીરી માટે

ગાંધીનગર-૩૮૨૦૧૭, ટે તં : ૨૩ ૨૨૩ ७૬૩, ૨૩ ૧૨७૦૬૫

12/04/2023 from 12.00 a.m.

त्या. १९/०४/२०२३ छी. ऋडेर २५१ सियायन

विवासीयां प्रतिश्वा समक्ष दश्मियान

NL03/04/2023. 11:00 sous HVI

WINS COURS WHER ESOS AND JENO SOUP

RAPS BEEF

02/05/2023 till 06.00 p.m.

નળમાંથી ગંદા પાણી વિતરણની પણ ફરિયાદો વ્યાપક બની

ગાંધીધામમાં અનિયમીત પાણી મામલે સત્તાધીશોને ઘેરવા આંદોલનની ચીમકી

ઉનાળાના પ્રારંભ જ વિવિધ વિસ્તારોમાં સમસ્યાના મુદ્દે વિપક્ષના પ્રહાર

હજુ તો ઉનાળાની શરૂઆત થઈ છે ત્યાં જ આદિપુર-ગાંધીધામ નગરપાલિકા વિસ્તારમાં પાણીની મોકાણ શરૂ થઈ ગઈ છે. નલ સે જલને બદલે ગટર કા જલની ફરિયાદો વધી રહી છે. સંકુલ વિસ્તારમાં અનિયમિત પાણી વિતરણ થઈ રહ્યું હોવાની ફરિયાદ વધી રહી છે ત્યારે વિપક્ષ દ્વારા આંદોલનની ચીમકી આપવામાં આવી છે.

વિપક્ષના નેતા સમીપ જોશીએ જણાવ્યું હતું કે, ઉનાળાના દિવસોની શરૂઆત થઈ છે ત્યાં અનેક વિસ્તારમાં અનિયમિત પાણી વિતરણ થઈ રહ્યું છે. વોર્ડ નં.૧૨ના ગુજરાત હાઉસિંગ બોર્ડ, સેક્ટર ૫, સેક્ટર ૭ વિસ્તારના લોકો વોર્ડ નંબર ૩/બી, પ/એ,બી વિસ્તારોમાં પાણીના કારણે લોકો પરેશાન છે. ગાંધીધામ-આદિપુરના અનેક વિસ્તારોમાં નળમાંથી ગટરના પાણીની ફરિયાદો આવી રહી છે તેમ છતાં તંત્ર કુભકર્ણની નિંદ્રામાં પોઢી રહ્યું છે. ગાંધીધામ નગરપાલિકા લોકોને પ્રાથમિક સુવિધા આપવામાં નિષ્ફળ નિવડી છે. રામબાગ વોટરટેંકમાં વીજ વિક્ષેપ કે કોઈ ટેકનીકલ કારણોસર પાણી વિતરણમાં વિક્ષેપ પડે તો સમગ્ર આદિપુર ગાંધીધામનું પાણીનું વિતરણ ખોરવાઈ જાય છે. આમ, આખું શહેર એકમાત્ર રામબાગ વોટર ટેંક

વિતરણ આધારિત છે પરંતુ ગાંધીધામને

વૈકલ્પિક પાણી વિતરણની વ્યવસ્થાના

પ્રાઇવેટ ટેન્કર પર નિર્ભર છે. આદિપુરના ભાગરૂપે શિજ્ઞાય ડેમમાં નર્મદાના પીવાનું પાણી ભરી શહેરમાં પીવાનું પાણી આપવું જોઈએ. જુના સમયમાં ડીપીએ દ્વારા શિણાયથી આદિપુર, ગાંધીધામમાં પાણી પુરવઠા બોર્ડ દ્વારા પાણી વિતરણ થતું હતું. આ બધી જ પાણીની લાઈન આજે પણ ચાલુ કન્ડિશનમાં હયાત હોવાનો દાવો તેઓએ કર્યો છે.

માત્ર રાજકીય ઈચ્છાશક્તિના અભાવે આજે શાસકોની અણઆવડત અને દિર્ધદ્રષ્ટિ વિહોણી નેતાગીરીને કારણે પ્રજા અમૃત કાળમાં પણ પીવાના શુદ્ધ પાણી માટે વલખાં મારી રહી છે. લોકોને પાણી આપો નહીં તો રાજીનામું આપોની લડત ટૂંક સમયમાં કરવામાં આવશે તેવી ચીમકી ઉચ્ચારી છે.

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દીનદયાલ પોર્ટ ઓથોરીટી, કંડલા પોર્ટ ખાતે 'રાષ્ટ્રીય સલામતી સપ્તાહ'ની ઉજવણીનો પ્રારંભ થયો

ભાવેશ મઢવીએ સ્વાગત કરીને અઠવાડિયાનો ધ્યેયસૂત્ર શૂન્ય ઇજા પ્રાપ્ત કરવાનો છે તેમ જણાવ્યું હતું.

ડૉક સેક્ટીના પ્રિયબત શૉએ

કોલાર ખાણ વગેરેનો દ્રષ્ટાંત જણાવ્યું હતું કે, સલામતી સફળતા મેળવવા માટે દરેક વ્યક્તિએ नोडरी विषयङ । धंधाडीय । शैक्षणिङ । औषध विपयार । नाम अदलेख । अन्य] પોતાની આદતોમાં

જડમૂળથી પરિવર્તન કરવો જરૂરી છે. પોર્ટના ઉપાધ્યક્ષ નંદિશ શુકલાએ જણાવ્યું હતું કે પોર્ટે નાણાંકીય વર્ષ ૨૦૨૨/૨૩ દરમ્યાન ૧૩૭.૫૬ મિલિયન પોર્ટના સલામતી અધિકારી મેટ્રિક ટન માલસામાનની અભૂતપૂર્વ હેન્ડલિંગ કરી પ્રથમ સ્થાન જાળવી રાખેલ છે .પોર્ટના અધ્યક્ષ સંજય મહેતાએ જણાવ્યું હતું કે, 'મેરીટાઇમ ઈન્ડિયા વિઝન' આ પ્રસંગે સહાયક નિયામક એટલે કે એમ.આઇ.વી ૨૦૩૦માં એવો આશાવાદ સેવવામાં આવેલ છે કે દરેક પોર્ટ વર્ષ ૨૦૩૦ સુધી ટાંકતા ક્રમિકપણે 'શૂન્ય ઇજા' પોર્ટમાં પરિવર્તિત થઈ જશે. પોર્ટના વરિષ્ઠ ઉપયાતાયાત પ્રબંધક સુદીપ્તો બેનર્જીએ આભારવિધિ કરી હતી. કાર્યક્રમ સ્થળ નજીક પ્રદર્શની

આદિપુરમાં ચિત્ર પ્રદર્શન અને સ્પર્ધા ૫૦ કલાકારોએ તૈયાર કરેલા ૨૮૦થી વધુ ચિત્રોનું પ્રદર્શન લોકોએ નિહાળ્યું

ગોઠવવામાં આવી હતી.



આદિપુરમાં વિવિધ પ્રવૃતિઓ સાથે સંકળાયેલી સિન્ક્રો બકાદમીના કલાગુરુ સોનલ પરમારના માર્ગદર્શન હેઠળ પચાસ જેટલા કલાકાર વિદ્યાર્થીઓના ૨૮૦થી ચિત્રોનું પ્રદર્શન યોજવામાં આવ્યું હતું. પેન્સિલ સ્કેચ, પેન વર્ક, કેનવાસ ઉપર વિવિધતા, વોટર કલર. ઓઈલ પેન્ટ, મંડલા આર્ટ સહિત દરેક પ્રકારમાં ચિત્રો કરી કલાકારોએ પોતાની પ્રતિભા રજૂ કરી હતી. પ્રદર્શન સાથે ત્રણ વયજૂથમાં ચિત્ર સ્પર્ધા પણ યોજવામાં

ઝાવી હતી. દથી ૯ વયજૂથમાંમાં પ્રથમ, દ્વિતીય અને તૃતીય અનુક્રમે દેબાશીષ દત્તા, રૂત્વા હરાની અને મનવિત જૈન, ૧૦થી ૧૩ વયજૂથમાં સાન્વી જૈન, એસ. ઐશ્વર્યા, સાનાયા જોબનપુત્રા અને ૧૪થી ૧૭ વયજૂથમાં પરનીતા સમન્તરાય, જાનવી બારોટ, સાન્યા ખુશાલાનીને વિજેતા ટ્રોફી અને ભાગ લેનાર દરેક સ્પર્ધકને પ્રમાણપત્ર એનાયત કરવામાં આવ્યા હતા. જખાભાઈ આહિર અને સુનીલભાઈ દવેએ ચિત્ર પ્રદર્શન ખુલ્લું મુક્યું હતું. સ્પર્ધામાં નિર્ણાયક તરીકે ચિત્રકાર ડોલી મહેતા રહ્યા હતા. પ્રદર્શન દરમિયાન બહોળી સંખ્યામાં હાજર રહેલા શ્રોતાઓએ નવોદિત ચિત્રકારોને પ્રોત્સાહન આપ્યું હતું. સુકુન થુ કલર - તું રંગ લે દિલ સે શીર્ષક હેઠળ યોજાયેલા આ પ્રદર્શન અને

સ્પર્ધાને સફળ ષરેથી મીની પાવર કન્ટ્રોલર બનાવી બનાવવામાં 40000થી વધુ કમાવો, રીવા ઠક્કર, ઈશા ગજ્જર, અમદાવાદ. 9824728364, નિધિ ઈલા, શ્રાવણી પીઠાની, ઋતુ સોરઠીયા, સાક્ષી પંડ્યા, પૂજા ઠક્કર, મૈત્રી દવે, હેતલ રૂપારેલ, ઉન્નતિ શાકરિયા, હે માાં ગી જે ઠળાઓ જહેમત ઉઠાવી

તાદેવના અંદુર દકારા નાયબ પોલિસ અધિક્ષક, ભુજ વિભાગ, ભુજ દ્વારા પશુ સંરક્ષણ

સુધારો - ૨૦૧૭ હેઠળ કબજે લીધેલ તેવા વાહનો બજાજ ચેતક-૦૩. બજાજ પલ્સર-૦૪, સ્પેલેન્ડર-૦૩, રિક્ષા-૧, જીપ-૦૧, મારુતી સુઝુકી ૮૦૦--૦૧, એક્ટિવા-૦૧ ની જાહેર હરાજી તા. ૧૫/૦૪/૨૦૨૩ ના રોજ કલાક : ૧૧/૦૦ વાગ્યે રાખવામાં આવેલ છે. આ હરાજીમાં રસ ધરાવતા ઈજારદારોએ હરાજીના સમય પહેલા રૂ.૫૦૦૦/- રોકડ ડિપોઝીટ ભર્યાથી હરાજીમાં ભાગ લઈ શકશે. હરાજીની શરતો તથા હરાજી કરવાના વાહન બજાજ ચેતક-૦૩, બજાજ પલ્સર-૦૩, સ્પેલેન્ડર-૧, રિક્ષા-૧, ટાટા જીપ-૧, ભુજ બી ડિવિ. પો.સ્ટે. સ્પેલેન્ડર-૧, ભુજ એ ડિવિ.પો.સ્ટે. ખાતે તથા સ્પેલેન્ડર-૧, બજાજ પલ્સર-૧ એક્ટિવા-૧, મારુતી સુઝુકી ૮૦૦-૧, માનકુવા પો.સ્ટે. ખાતે હોય જે વાહનો ઉપર જણાવેલ પો.સ્ટે. માં જોવા મળશે. નાયબ પોલીસ અધિક્ષકની કચેરીની કચેરી, ભુજ વિભાગ, ભુજ મુકામે વાહનની જાહેર હરરાજી કરવામાં આવશે. વધુ વિગતો માટે કચેરી સમય દરમ્યાન રૂબરૂ અથવા ફોન નં. ૦૨૮૩૨, ૨૫૩૪૦૫ ઉપર સંપર્ક કરવો. હરરાજી મંજૂર કરવી કે નહીં તેના અબાધિત અધિકાર નાયબ પોલીસ

અધિક્ષકશ્રી,ભુજ વિભાગ,ભુજનો રહેશે.

(नामानि-डच्छ-रइ-२०२३)

GETCO -Anjer

Support and Maintenance of Access Control System for Department of Science & Technology, Govt. of Gujarat. For more details visit to: https:/gil.gujarat.gov.in & GeM portal. - Managing Director સંકુલ ઈન્ટીગ્રેટેડ MBA - 5 વર્ષ નો GTU કોર્સ Engagement of Advisor for Information Technology ધો. ૧૨ કોમર્સ ને ઈન્ટીગેટેડ MBA માં સીધો પ્રવેશ ★ ગુજરાત ટેકનોલોજીકલ યુનિવર્સિટી અને AICTE દિલ્હી એપ્રુવ્ડ કોર્સ ★ ત્રણ વર્ષ ને અંતે BBA એપ્લાઈડ મેનેજમેન્ટ ની ડીગ્રી ઈસ્યુ થશે. ★ પાંચ વર્ષ ને અંતે MBA એપ્લાઈડ મેનેજમેન્ટ ની ડીગ્રી ઈસ્થુ થશે. ★ ૨૫ વર્ષ થી કાર્યરત KG થી PG સુધી નું નિવાસી ગર્લ્સ કેમ્પસ શ્રી અમરેલી જિલ્લા લેઉવા પટેલ ચેરીટેબલ ટ્રસ્ટ સુરત સ્થળ:- શ્રીમતિ શાંતાબેન

અદાણી પોર્ટસ એન્ડ સ્પેશિયલ ઇકોનોમિક ઝોન લિમિટેડ મુજા, કર્સ્થ (ગુજરાત) ખાતે રોડ, રેલ, યુટીલીટી કોરિડોર અને એલ.પી.જી. પાર્કપલાઈનના વિકાસ માટે સીઆરગેડ મંજૂરી ભાળતે

જાહેર સૂચના

इतिलब्ध अपेश विक्रतिक संदुव, याउरअद रोड, कमरेवी + क्रोब्स:क्रक्टर-रास्त्रस्य वी रह Ado

આથી જહેર જનતા ને સચિત કરવામાં આવે છે કે મે. અદાણી પોર્ટસ એન્ડ સ્પેણિગલ ઇકોનોમિક ઝોન લિમિટેડ (એપીએસઇઝેડ) રજી. ઓફિસ અદાઇી કોર્પેફિટ કાઉસ માંતિગ્રામ, વૈષ્ણોદેવી સર્કલ નજીક , એસ.જી. હાઇવે , અમદાવાદ- ૩૮૨૪૨૧ (ગુજરાત) ને ગુજરાતના કરછ જિલ્લાના મુન્દ્રા ખાતે શેડ, રેલ, ચુટીલીટી કોર્સ્ડિકેર અને એલ.પી.જી માઈપલાઈનના વિકાસ માટે ભારત સરકારના પર્યાવરણ, વન અને જળવાસુ પરિવર્તન મંત્રાલય , ઇન્દિરા પર્ચાવરણ ભવન , જોર બાગ રોડ , નવી દિલ્હી - ૧૧૦૦૦૩ દ્વારા પત્ર ક્રમાંક નં. 11-9/2023-IA.III, પમી એપ્રિલ, ૨૦૨૩ ના રોજ કોસ્ટલ રેગ્યુલેશન ત્રોન સીઆરટોડ) મંજુરી આપવામાં આવેલ છે. આ મંજુરીપત્રની નકલ ગુજરાત કોસ્ટલ ઝો મેનેજમેન્ટ ઓથોરિટી તથા ગુજરાત મદૂષણ નિયંત્રણ બોર્ડ ખાતે ઉપલબ્ધ છે. આ ઉપરાંત भारत सरहारमां पर्यावरात्र, वन अने क्लवायु परिवर्तन मंत्रावयनी वेजसाईट https://parivesh.nic.in/ તથા મેસર્સ અદાણી પોર્ટસ એન્ડ એસાઝોડ લિમિટેડની वेजसाईट https://www.adaniports.com/Downloads पर पण विपत्रका छे.

શ્રી ખેતીવાડી ઉત્પન્ન બજાર સમિતિ, ભુજ સરદાર પટેલ માર્કેટચાર્ક, સુરલભિટ રોક, **ભુજ-કચ્છ. ૩७०००१ होन नं. २४५९८**९.

टेन्डर नोटिस (ID: पटप०६३)

APMCમાં કેન્ટીન, ગેસ્ટફાઉસ, ગેટ તથા વોલનું રૂ. ૯૭૯૮૩૧૫/-કામ કરાવવાનું છે. A કલાસમાં નોંઘાચેલ કોન્ટ્રાકટર આ ટેન્ડર ભરી શકશે. રસ ઘરાવતા કોન્ટ્રાક્ટરશ્રીઓએ www.nprocure.com ઉપર તા ૧૮-૪-૨૦૨૩ના રોજ સાંજે કઃ૦૦ વાગ્યા સુધી ટેન્ડર ભરવું. ટેન્ડર અંગેના જરૂરી દસ્તાવેજ તેમજ ટેન્ડર ફી રૂ.૨૪૦૦/- તથા EMD રૂ.૯૭૯૮૪/- ના ચેક/ડીડી તા.૨૪-૦૪-૨૦૨૩ સુધીમાં ઉપરોક્ત સરનામે પહોંચતા કરવા. કામની મુદત છ

APMCની ડાયરી છપાવવાની હોઈ રસ ઘરાવતી પાર્ટીઓએ પોતાના ભાવ

દિવસ-૦૭માં ઉપરોક્ત સરનામે બંધ કવરમાં પહોંચતા કરવા. હ્કુભા બી. જાકેજા અજિત એચ. ઠકકર એસ.એસ. બરાડિયા વાઇસ ચેરમેન



ક્રમ જગ્યાનું નામ લાયકાત SIICH ધોરણ કોમ્પ્યુટર ઓપરેટર આઈ.ટી.આઈ એ પ્રેન્ટીસ યોજના ઓકીસ આસીસ્ટન ૧૨ પાસ તથા 8601 સરકારશ્રીના સ્થાનક કાઉસકીપિંગ(મજુર/પદાવાળા) ધારા ધોરણ

મુખ્યમંત્રી એપ્રેન્ટીસ ઘોજના 8601 નગરપાલિકામાં એપ્રેન્ટીસોની ભરતી કરવાની થાય છે.આશી જરૂરી લાયકાત ધરાવતા ઉમેદવારો તા.૧૮/૦૪/૨૦૨૩ સુધીમાં અને ચાલ ઓક્રિસના દિવસોમાં લેખિત અરજ તથા અરજદારની તમામ વિગતો મોબાઈલ નંબર,ઈમેઈલ એડ્રેસ તથા પાસ પોર્ટ સાઈજના બે ફોટા સાથે તથા જરૂરી લાયકાત અંગેના પુરાવાની પ્રમાણિત નકલો સાથે અરજી ચીફ બોકિસર,માંડવી નગરપાલિકા,માંડવી-કચ્છના સરનામે રજીસ્ટર એ.ડી ઘી તા.૧૮/૦૪/૨૦૨૩ સુધી મોકલવાની રહેશે. મોકલી આપવાની રહેશે.

ચીક ઓફિસર માંડવી નગર પાલિકા

dl. 10/04/2023 માંડવી નગર પાલિકા

નામાનિ-કરછ-૩૦-૨૦૨૩)

GEUCO GUJARAT ENERGY TRANSMISSION CORPORATION LIMITED n Circle Office Anjar, 220 kV Anjar als compound on Bhuj Road, Anjar – Kutch – 37011 Tel. (92836) 242656Fax: (92836) 241588E-mail: seanus getco@getryol.com ealed tendens are invited online for various works as under. For details please log on to www.nprocure.com & www.getcoguijarat.com spairing & stub strengthening of 64nos.Tower Locations of 66kv Khavda -Vighakot Ani/CM-1/48M/p-1n-32/2023 line(Indio Pak International border line for Vighakot Subsistion located in border area) under (Online - n code thuj TR Division which approved under R&M Plan-2022-23 Work of Mesh type earthing and reactivation of earthing at 66KV Nakhatrana, 66KV 21/04/2023 Ani/CM-1/R&M/e-Tn-93/2023 Mothala and 66KV Ravagar 5/5 sinder TR Division Nakhatrana sinder TR Circle, A |Online - n code approved under R&M plan 2022-21 Survey, Design, Supply, Installation, Commission and maintenance of Solar PV System for 25/04/2023 Anj/CM-2/e-Tn-34/2023 years as a rooftop at Control Room terrace of 400KV Varsana and 400KV Bhachunda 5/5 (Online - n code) under Anjar and Nakhatrana TR Division under Anjar TR circle ers & specifications may be down loaded from web site https://getco.nprocure.com (for view, download and on GUVNI,/GETCO websites www.gseb.com & www.gstcopujarat.com flor view & download only) . The tender in physical form is to be submitted in single copy only. (The price bid is not to be subm 2. For any discrepancy between online & physical bid, online bid is considered as final Superintending Engineer (TR)

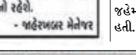
49UR 44800- 82700, રહેવાનું, ખાવાન 9953109265 0040338432 छन्टरनेशनल ગુજરાત એરપોર્ટ નો કરી तेने ३६. ४९,०००/- ज् रांनाम इस वरित-कारिको मुला केरिक ગ્રેજ્યુએટ, अनपढे-ન્દ્ર-મસિલ લહેનો માટે ખાસ કાર 3640 છોકરા- છોકરીઓ, રે૪ કલાકમાં નિકાલ સેવરી 46400- 86900, રહેવાનું, ખાવાનું, બોનસ,





जाद श्याम क्योतिष

વાંચકોએ નોંધ લેવી કે કોઇ પણ જાહેરખબરમાં જણાવેલી માહિતીની સત્થતા બાબતે અમો કોઈ બાંચેધરી આપતા નથી. વાંચકોએ પોતાની રીતે પુરતી थडासणी डरीने योज्य निर्णय । भोठलेम, मुक्योट, छुटाछेडा १७ वर्षेता भेमी-भेमीका संपर्क करो લેવાનો રહેશે. ©9825708798







APSEZL/EnvCell/2023-24/001

Mr. Chiray

Date: 11.04.2023

To.

Deputy Director General of Forest (Central),

Ministry of Environment, Forest and Climate Change (MoEF&CC), Integrated Regional Office (IRO),

Aranya Bhawan, A Wing, Room No. 407 & 409, Near CH 3 Circle, Sector – 10A, Gandhinagar – 382010 (Gujarat).

Sub

: Submission of Newspaper advertisement copy of CRZ Clearance granted to M/s. Adami Ports & Special Economic Zone Limited (APSEZ) for development of "Road, Rail, Utility Corridor and LPG Pipeline at Mundra, Dist. Kutch (Gujarat)"

Ref

: General Condition No. (xiii) of the CRZ Clearance granted vide F. No. 11-9/2023-IA.III dated 5th April, 2023 (Annexure - A)

Dear Sir.

With reference to above cited subject and reference, we would like to bring your attention that Adani Ports & Special Economic Zone Limited (APSEZ) has been accorded CRZ Clearance by MoEF&CC for "Development of "Road, Rail, Utility Corridor and LPG Pipeline at Mundra, Dist. Kutch (Gujarat)" vide F. No. 11-9/2023-IA.III, dated 5th April, 2023 in line with the provisions of CRZ Notification, 2011. Copy of CRZ clearance is enclosed here as Annexure – A.

In line with the General Condition No. (xiii) stipulated in CRZ Clearance, APSEZ has published an advertisement for accorded CRZ clearance in newspaper Sandesh – Page No. 5 (Gujarati language) and Indian Express – Page No. 5 (English language) on 11th April, 2023. Copies of the same are enclosed here as Annexure – B.

This is for your kind information and record purpose please.

Thank you,

Yours Faithfully,

For, Adami Ports and Special Economic Zone Limited

Authorized Signatory

Encl: As above

Adani Ports and Special Economic Zone Ltd Adani House, PO Box No. 1 Mundra, Kutch 370 421 Gujarat, India

CIN: L63090GJ1998PLC034182

Fax +91 2838 25 51110 info@adanl.com www.adanl.com

Tel +91 2838 25 5000



Annexure – 12



Details of Greenbelt Development at APSEZ, Mundra

	Т	otal Green Zone	Detail till Up to	September 2023	3
LOCATION	Area (In Ha.)	Trees (Nos.)	Palm (Nos.)	Shrubs (SQM)	Lawn (SQM)
SV COLONY	72.29	34920.00	7962.00	69696.00	100646.00
PORT & NON SEZ	81.61	149359.00	19220.00	75061.78	62966.38
SEZ	115.70	226120.00	20489.00	220583.60	28162.03
MITAP	2.47	8113.00	33.00	3340.00	4036.00
WEST PORT	104.29	248074.00	66816.00	24112.00	16369.00
AGRI PARK	8.94	17244.00	1332.00	5400.00	2121.44
SOUTH PORT	14.45	27530.00	3470.00	3882.00	3327.26
Samundra Township	58.26	63722.00	11834.00	23908.89	47520.07
Productive Farming (Vadala Farm)	0.00	0.00	0.00	0.00	0.00
TOTAL (APSEZL)	457.99	775082.00	131156.00	425984.27	265148.18
		9062	38.00		•



Details of Mangrove Afforestation done by APSEZ

SI.	Location	District	Area (Ha)	Duration	Species	Implementation agency
1	Mundra Port	Kutch	24	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
2	Mundra Port	Kutch	25	-	Avicennia marina	Dr. Maity, Mangrove consultant of India
3	Luni/Hamirmora (Mundra,)	Kutch	160.8	2007 - 2015	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
4	Kukadsar (Mundra)	Kutch	66.5	2012 - 2014	Avicennia marina	GUIDE, Bhuj
5	Forest Area (Mundra)	Kutch	298	2011 - 2013	Avicennia marina	Forest Dept, Bhuj
6	Jangi Village (Bhachau)	Kutch	50	2012 - 2014	Avicennia marina	GUIDE, Bhuj
7	Jakhau Village (Abdasa)	Kutch	310.6	2007-08 & 2011-13	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GUIDE, Bhuj
8	Sat Saida Bet	Kutch	255	2014-15 & 2016-17	Avicennia marina & Biodiversity	GUIDE, Bhuj
9	Dandi Village	Navsari	800	2006 - 2011	Avicennia marina, Rhizophora mucronata, Ceriops tagal	GEC, Gandhinagar
10	Talaja Village	Bhavnagar	50	2011-12	Avicennia marina	Forest Dept, Talaja
11	Narmada Village	Bhavnagar	250	2014 - 2015	Avicennia marina	GEC, Gandhinagar
12	Malpur Village	Bharuch	200	2012-14	Avicennia marina	SAVE, Ahmedabad
13	Kantiyajal Village	Bharuch	50	2014-15	Avicennia marina	SAVE, Ahmedabad
14	Devla Village	Bharuch	150	210-16	Avicennia marina	SAVE, Ahmedabad
15	Village Tala Talav (Khambhat)	Anand	100	2015 - 2016	Avicennia marina	SAVE, Ahmedabad
16	Village Tala Talav (Khambhat)	Anand	38	2015 - 2016	Avicennia marina	GEC, Gandhinagar
17	Aliya Bet, Village Katpor (Hansot)	Bharuch	62	2017-18	Avicennia marina & Rhizophora spp.	GEC, Gandhinagar
18	Kukadsar- (Bhadeswar- Mundra)	Kutch	250	2021-22	Avicennia marina	Shreeji Enterprise, Amreli
19	Kukadsar- (Bhadeswar- Mundra)	Kutch	750	2022-23	Avicennia marina	Shreeji Enterprise, Amreli
	Total		3890			

Annexure – 13



21st June, 2022

The Member Secretary,

Gujarat Coastal Zone Management Authority, Forests and Environment Department, Government of Gujarat, Block no. 14/8. Sachivalaya, Gandhinagar – 382 010.

Sub: Submission of details sought for CRZ recommendation of proposed Utility Corridor (Road, Rail, Pipeline, HT Line & other utilities) and LPG pipeline at Adani Ports & Special Economic Zone Limited (APSEZ), Mundra Tehsil, Kachchh District, Gujarat.

Ref:

- Our application for CRZ recommendations vide our letter dtd. 21st May, 2018 8 6th November, 2019
- (ii) Technical Committee meeting dtd. 6th August, 2018
- (iii) 19th Technical Committee meeting dtd. 16th February, 2022
- (iv) Our letter dated 5th May, 2022 for submission of hard copies of authorized CRZ maps with report
- (v) Technical Committee meeting dtd. 27th May, 2022
- (vi) 61st GCZMA Committee meeting dtd. 20th June, 2022

Dear Sir.

This has reference to the above stated subject matter and discussion held during the presentation before 61st GCZMA committee meeting dated 20st July, 2022. In this connection, APSEZ would like to submit details on Utility Corridor with respect to construction methodology to be adopted for pile structure and impact on mangrove area.

APSEZ would like to develop utility corridor of 7 Km length and 100 meter width for evacuation of cargo from South port and Mundra port terminal. Out of total utility corridor, only 800 m length *100 m width corridor falls in CRZ I(A) & CRZ IV(B) area and superimposition of the proposed project has been carried out through MoEF&CC approved agency NCSCM, Chennai in line with the CRZ Notification, 2011 and its amendment thereafter.

The utility corridor comprising road, rail, transmission line, pipeline for cargo, water & wastewater, cooling water, waste heat, desalination intake & outfall pipeline, marine intake & outfall pipeline, Conveyor lines, power cables, network cables, etc.)

Break-up of proposed utility corridor and its cross-section is given in Table - A and Figure - A respectively.

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Registered Office: Adami Corporate House, Shantigram, Nr. Vaishno Devi Circle, S.G. Highway, Khodiyar, Ahmedabad – 382421, Gujarat, India

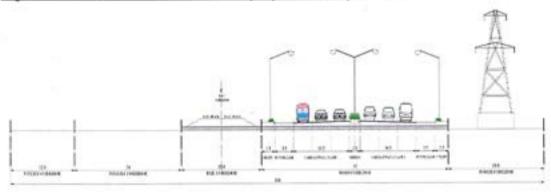
Clark
Forests & Environment Deptt.
Govt. of Gujarat Sachivalaya
New Sachivalaya, Qandhinagar



Table - A: Break-up of proposed utility corridor

S. No.	Type of the Corridor Lane	Proposed width of each corridor (m)
1	Utility corridor	12
2	Pipeline corridor	20
3	Rail corridor	15
4	Road corridor	35
5	Power / HT line corridor	18
	Total width	100

Figure - A: Cross-section 100m Wide proposed utility corridor



CROSS SECTION OF 100M WIDE PROPOSED ROAD , RAIL & UTILITY CORRIDOR

Construction methodology to be adopted in mangrove & mangrove buffer area (CRZ – IA) and Creek area (CRZ – IVB) area:

The construction of utility corridor will be carried out during using "Gantry Girder launching" technique.

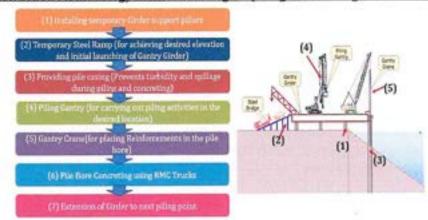
Stepwise construction methodology is presented in Figure - B.

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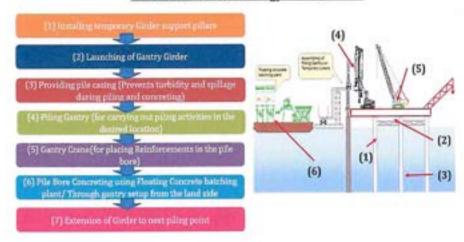


Figure - B: Step-wise construction methodology:

Construction Methodology in Intertidal Region (Mangrove & Mangrove Buffer Area)



Construction Methodology in Creek Area



Photographs showing the construction methodology



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Advantages & Benefits of "Gantry Girder launching" technique:

- ✓ The Gantry girder launching technique utilize less footprint on the ground
- No disturbance to Mangrove areas are envisaged, except pile foot print.
- ✓ Utilized less time when compared to other traditional piling techniques.
- The temporary stress on the avifauna and mangroves dependent species are limited to short period of time.
- Turbidity due to piling in water column is contained since piling activity is carried out within the steel casings.

This advanced methodology is widely used and it will impact minimal footprint on the land / mangroves. Hence, this construction methodology will be adopted to construct the entire utility corridor.

Utility corridor passing through the CRZ area as per mapping carried out by NCSCM, Chennai is shown in Table - B as below.

Proposed Project Activities	CRZ IA	CRZ IB	CRZ III (NDZ)	CRZ III (200 m to 500 m)	CRZ IV B
Proposed HT Power Line	×	-	801.85	*	46.05
(Length in m)	1733.08	355.70	1110.01		396.15
	1601.18	-	418.61		
Proposed Road Corridor	2.19	0.61	0.72		0.22
(Area in Ha)	7.63	0.31	2.80		
Proposed Pipeline	-	0.00	6.03	1.79	*
Corridor (Area in Ha)	0.91	0.33	13.15	2	0.09

At the time of our initial application (Form-1) in May 2018, it was identified that utility corridor falls in approx. 5.87 Ha area of mangrove & mangrove buffer (CRZ – IA). The entire area was considered as area under impact as there was no identification of Gantry Girder launching technique at that time. Google image presented at that time shown in below Figure – C.



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Later on "Gantry Girder Launching" technique explored and accordingly considered as part of our revised application in November 2019. Same was presented during GCZMA sub-committee site visit dtd 15th – 16th July, 2021 and technical committee meeting dtd 16th February 2022 and 27th May 2022.

Due to above advanced construction technology impact on mangrove and mangrove buffer area will be very minimal. Detailed calculation is presented in below **Table - C**.

Component	Unit	Dimension
a. Utility Corridor Length	W	800
b. Utility Corridor Width	W	100
c. Utility Corridor Area	Sq.m.	80000
d. No. of Piles	Nos.	1200
e. Area of one pile	Sq.m.	1.13
f. Area of Total Piles	Ha	0.1356

Considering the worst case scenario, the likely imaped on magrove due to proposed utility corridor will be 0.1356 Ha. However, we undertake that considering the actual execution of work and related contingencies the impact on mangrove area will not increase by more than 0.15 Ha.

As expailned above, there will be above ground construction only and in creek area above high tide level with clear height of 6 to 10 meters as well as sufficient distance between two piles will be maintained to facilitate the movement of fishermen boats. Same has been presented through representative photo impage in **Figure - D**.

Figure - D: Photographs showing Utility corridor





The alignment of this proposed corridor is passing through north-south direction and which will facilitate transfer & availability of adequate sunlight below the width area of proposed corridor. Same has been presented on google earth image in Figure – E.

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Figure - E: Google Image showing direction of Utility Corridor



Considering all above measures it is ensured that there will be sufficient flow of water and sunlight which maintains the growth of mangroves.

We, APSEZ undertake to protect and conserve the mangroves in and around utility corridor during the construction as well as operation phase.

With this submission, we request you to consider our project proposal for the CRZ recommendation further.

Thanking You, Yours Faithfully,

For, Adani Ports and SEZ Limited

Snehal Jariwala

Head - Environment

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