

7 May 2020

To,
The Secretary,
Petroleum and Natural Gas Regulatory Board,
World Trade Centre,
Babar Road,
New Delhi – 110001

Subject: Views/Comments on proposed Amendments in PNGRB (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP)) Regulations, 2010.

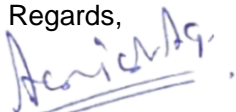
Ref: Public Notice dated 17 February 2020
Public Notice dated 2 March 2020
Public Notice dated 12 March 2020
Public Notice dated 13 April 2020

Respected Madam,

In reference to the said public notices, our point wise views/comments on the proposed amendments are attached as Annexure 1.

Submitted for your kind consideration please.

Regards,



Ashish Agarwal
Deputy Manager – (Legal & Compliance)



Registered office

306, Plot H-1, Garg Tower, Netaji Subhash
Place, Pitampura, New Delhi - 110034, India
CIN: U11102DL2018PTC333212



THINK Gas Distribution Private Limited

Unit No. 202, 2nd Floor, Tower B, World
Trade Tower, Sector 16, Noida - 201301,
Uttar Pradesh, India



+91 120 4040400



info@think-gas.com



www.think-gas.com

**Proposed Amendments in the PNGRB ((Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP))
Regulations, 2010**

Annexure – 1:

SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
1	2 (f)	“disaster” means an occurrence of such magnitude as to create a situation in which the normal patterns of life within an industrial complex are suddenly disrupted and in certain cases affecting the neighborhood seriously with the result that the people are plunged into helplessness and suffering and may need food, shelter, clothing, medical attention protection and other life sustaining requirements;	"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.	Ok
2	2 (l)	“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;	“incident recording system” means a system containing complete information pertaining to all incidents including near misses.	1. Does it include Unsafe Acts & Conditions as well? 2. Should all Unsafe Acts, Conditions, Near Misses & High Potential incidents including those in Level I, II & III be reported to the board quarterly?
3	2 (n)	“leak” means release or discharge of a dangerous chemicals or substances or material into the environment;	“leak” means release or discharge of a hazardous chemical(s) or substances or material in any state into the environment	Is there a quantity that is defined for the quantum of leak that is to be reported?
4	2(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;	“mutual aid group” means an industrial mutual aid group in which participating industries as a community shall assist each other in case of emergency. Mutual aid agreement 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; (12.3)	Ok
5	2 (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;	“off site emergency” means an emergency that takes place in an installation or site 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;	Ok

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6	2 (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;	“risk assessment” means the 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.	The Risk Assessment should mean a) Quantitative Risk Assessment including Location Specific Individual Risk and Individual Specific Individual Risk, Dispersion Modelling and First, Second & Third degree burn contours. b) Qualitative Risk Assessment including the Risk & Opportunities, Aspects & Impacts affecting people, asset, environment, reputation and business continuity. This should include calculating Risk Rating Scores out of Likelihood & Severity and generating a Risk Matrix.
7	2 (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;	“risk management” means the programme that embraces all administrative and operational programmes that are designed to reduce or manage the risk of undesired event 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;	Apart from the proposed amendment, all mitigating measures that should bring the risk to ALARP Region.
8	2 (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;	“transport emergency (TREM) card” means a card containing details about the nature of hazards, protective devices, emergency 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;	Ok
9	3 (c)	liquid petroleum product pipeline;	petroleum and petroleum product pipeline	Ok
	3 (d)	(d) commercial petroleum storage facilities, gas storage facilities and terminals including LNG terminals;	(d) petroleum storage facilities including POL depot, installations and terminals; (e) Natural gas storage facilities including LNG terminals;	Ok
10	3 (g)	dispensing stations and POL retail outlets	retail outlets dispensing like Petroleum, Auto LPG, LNG, CNG etc.	Ok

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11	3 (h)	(h) transportation of petroleum products by road;	(h) transportation of petroleum products, LNG, CNG etc by road;	Ok
12	4.1	<p>The scope shall cover –</p> <p>(i) the identification of emergencies;</p> <p>(ii) the mitigation measures that attempt to reduce and eliminate the risk or disaster;</p> <p>(iii) the preparedness that to develop plans for actions when disaster or emergencies occur;</p> <p>(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 non-governmental agencies;</p> <p>(v) the post disaster recovery with aim to restore the affected area to its original conditions;</p>	<p>The scope shall cover –</p> <p>(i) the identification of probable emergency scenarios;</p> <p>(ii) the mitigation measures that attempt to reduce and eliminate impact on people, assets and environment</p> <p>(iii) the preparedness of emergency plans for action when disaster or emergency occur;</p> <p>(iv) the responses that mobilize the necessary emergency services including responders like fire service, police service, medical service including ambulance, government as well as non-governmental agencies;</p> <p>(v) the post incident/ accident/ disaster recovery with aim to restore the affected area to its original conditions to the extent possible; (RIL, MRPL & IOCL)</p>	<ol style="list-style-type: none"> 1. Identification of Scenario Specific Emergency Response plans, for that first identify various scenarios and develop the Emergency Response Plans to mitigate those scenarios. 2. Mitigating Measures to bring the damage to impact on people, asset, environment, reputation to an ALARP level. 3. Preparedness of Emergency Plans with respect to ERDMP covering force majeure as well. 4. Ok 5. Ok
13	4.2	<p>It is intended to apply these regulations –</p> <p>(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;</p> <p>(b) to manage an emergency and not to use ERDMP just as reference material for training and shall be made applicable -</p> <p>(i) to prevent casualties - both on-site and off-site;</p> <p>(ii) to reduce damage to property, machinery, public and environment;</p>	<p>It is intended to apply these regulations –</p> <p>(a) to develop a concise and informative ERDMP to enable the entity to mitigate the emergency as quickly as possible</p> <p>(b) to prevent escalation of event- both on-site and off-site;</p> <p>(c) to minimize impact on people;</p> <p>(d) to reduce damage to property, machinery and environment;</p> <p>(e) 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;</p> <p>(f) to provide an incident management organogram with clear missions and lines of authority (incident command system, field supervision, unified command);</p> <p>(g) to ensure an orderly and timely decision-making and response process (notification, standard operating procedures);</p> <p>(h) to maintain good public relations;</p>	<p>In addition to the proposed amendment each entity must keep certain minimum emergency response equipment and PPE which shall be shared during the Mutual Aid requirements.</p>

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14		<p>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.</p>	<p>1. 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. However, follwong methodology should be adopted in cases of Cross Country Pipelines, City Gas Distribution Networks, Retails Outlets, Road Transporation,ERDMP document</p> <p>2. The entity should prepare a single ERDMP document of a Cross Country Pipeline (As per PNGRB Authorization). However, location/installation specific information will be made available in detailed/ details in the document.</p> <p>3) The entity shall formulate Emergency Plan for Constructions/Projects in accordance with the guidelines (Refer Annexure 2), duly approved by Occupier. For Constructions/Projects in existing installations, the existing ERDMP document should either cover or be modified as per Annexure 2.</p> <p>4) Entities owning Retail outlets (ROs) shall identified 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 etc.) and prepare typical ERDMP in accordance with these regulations for implementation across all ROs of same format and ensure compliance.</p> <p>5) For road transporation, entity shall identify the routes, prepare typical ERDMP and share the same with various stakeholders as per caluse 28.</p>	Ok

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SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
15	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.	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.	Ok
16	8 (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.	The Board shall monitor the compliance of ERDMP either directly or indirectly by accredited third party through separate regulations on third party conformity assessment.	Ok
		Add	(2) The Board of the entity shall appoint one of its directors, within ninety days of these regulations come into force, to be responsible for ensuring compliance to these regulations .	Ok
17	8 (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.	(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 PNGRB Act, 2006.	Any deviation or shortfall would get prompted during the third-party audits by entities identified by PNGRB. In case of any deviation or shortfall not identified by the authorized third party auditors a minimum time frame should be given to the company to close the points. Simultaneously, penal action should be taken against the third party.

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18	8 (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.	To be deleted	Ok
19	10.1(1)	(d) check points for hazard identification are given at Check list-1.	(d) Refer check points for hazard identification are given at Check list-1.	Ok
20		The second step of the ERDMP process is to determine the risk of an incident associated with each hazard.	The second step is to determine the risk of an incident associated with each hazard.	Ok
21		(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;	(d) the combination of consequences and probability will allow the risks to be ranked in a logical fashion to indicate the zones of important risk.	The product of probability and consequence will give a Risk Rating Score where the risk would be classified as catastrophic, severe, major, minor & slight.

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22	10.2	(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;	To be removed.	Ok
23		(f) the risk should also be made "as low as reasonably practicable" (ALARP) and least impacting the neighbourhood. While conducting the risk analysis, a quantitative determination of risk involves three major steps:-	the risk should also be made "as low as reasonably practicable" (ALARP) and least impacting the neighbourhood. While conducting the risk analysis, a quantitative determination of risk should be categorized in three regions as below:	Ok
24	10.4	(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.	(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.	Add Jet Fire & Pool Fire also in the consequence.
25	11.2	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).	Resource mobilisation shall include manpower requirement, fire fighting materials, appliances or equipment, safety equipment, communication facilities, transport, list of emergency drugs and appliances, temporary shelters etc. (Schedule-IV)	Ok

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26	11.3	Incident preventing measures and procedures	Health, Safety and Environment Management	Ok
27		The incident prevention measures and procedures at installation or other locations shall include the following:-	The entity shall have an effective Health, Safety and Environment Management System in place to ensure safety during operation and emergencies. This shall include the following:-	Ok
28		(ii) proper layout and inter facility distances (the layout should not have any criss-cross movement of men and materials);	(ii) proper layout and inter facility distances	Ok
29		(iii) safety committees with fair participation of Union leaders and workers;	(iii) safety committees with fair participation of workers;	Ok
30		(v) work permit system (including confined space and entry permit);	(v) work permit system	Ok
31		(vi) early warning alarm system in the installation (gas monitoring system, heat detection, high level alarms, low pressure/high pressure alarms etc.) especially in the vicinity of storage tanks, filling station, delivery points and along with periphery with the indication in the central control room;	(vi) early warning alarm system in the installation (gas monitoring system, heat/smoke detection, high level alarms, low pressure/high pressure alarms etc.) especially in the vicinity of storage tanks, filling station, delivery points and along with periphery with the indication in the central control room;	Ok
32		(viii) fire protection (preferably automatic) and HSE Management system;	(viii) fire protection (preferably automatic)	Ok
33		(ix) drill for visitors including assembly procedure and escape route, do's and don'ts written instructions before entry, etc;	(ix) Visitor safety briefing including, do's and don'ts in case of emergency including assembly points and escape routes etc.	Ok

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34	12.1	(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.	(b) Drills should present a variety of Emergency scenarios and designed to challenge each segment of the organization. Limited scale drills (functional drills) are useful and may be used by Chief of each Support Service to train their own team.	Ok
35		(d) Some of the drills should also include the participation of outside groups and agencies such as police, fire companies, ambulance service, civil defence organizations and mutual aid groups.	(d) Some of the drills should also include the participation of outside groups and agencies such as police, fire services, ambulance service, civil defence organizations and mutual aid members/groups.	Ok
36		(e) Testing and mock drills for onsite emergency plan shall be carried once in three months and for offsite emergency plan twelve months.	(e) Mock drill for On site (Level –I /II) and Off site (Level-III) emergency shall be carried once in three months and twelve months respectively. Entity shall conduct as least one On site emergency exercise of Level II during the year.	The Mock Drill frequency for On site Level II is contradicting in the proposed amendment. It should be made half yearly.
37		(f) For other installations, the mock drill shall be carried out once a year. However, for locations having more than one industry member, the annual mock drill can be carried out by one industry member in turn, thus ensuring one mock drill in every year at the location.	(f) For locations having more than one industry member, the Off site emergency exercise can be carried out by one industry member by turn in coordination with District Authority, thus ensuring at least one mock drill in every year at the location.	Ok
38		(h) Each Mock Drill should be recorded with observations and deficiencies to be rectified within 24 hours.	(h) Each Mock Drill should be recorded with observations and deficiencies within 24 hours. Accordingly, time bound action plan to be prepared for rectifications.	Ok
39	12.2	(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.	(2) (i) Training on Emergency Preparedness and Response 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.	Ok

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40		(ii) Contract personnel and contract labourer shall be allowed to start work only after clearance of attending and passing safety training.	(ii) Contract personnel and contract labourer shall be allowed to start work only after clearance of attending and validation of safety training.	Ok
41	12.3	Since combating major emergencies might be beyond the capability of individual unit, it is essential to have mutual aid arrangements with neighboring industries. Consideration shall be given to the following while preparing mutual aid arrangements:-	Since combating major emergencies might be beyond the capability of individual unit/ facility/ entity /site, it is essential to have mutual aid arrangements with neighboring industries. Consideration shall be given to the following while preparing mutual aid arrangements:-	Ok
42		(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.	Written mutual aid arrangements are to be worked out to facilitate additional help in the event of Level-II and Level-III emergencies by way of rendering manpower, medical aid or fire fighting equipments, etc.	For level II and level III emergencies, the mutual aid tie-up must be done with the local fire brigade as well.
43	13.a	(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.	To be removed	Ok
44	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.	(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 for 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.	Ok

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45		(a) to promptly control problems as they develop at the scene.	(a) to promptly act before, after and during the incident.	Ok
46	14.2	(e) In setting up the organization, the need for round-the-clock coverage shall be essential. Shift personnel must be prepared to take charge of the emergency control functions or emergency shutdown of system, if need be, until responsible personnel arrive at the site of emergency. The organization should have an alternate arrangement for each function.	(e) In setting up the organization, the need for round-the-clock coverage shall be essential. Shift personnel must be prepared to take charge of the emergency control functions or emergency shutdown of system, if need be, until responsible personnel arrive at the site of emergency. The organization should have an alternate arrangement for each role.	Ok
47	14.2	Roles and Responsibilities	Typical Roles and Responsibilities (To be modified as per organizational structure)	Ok
48	14.2.1	Responsibilities of the Chief Incident Controller shall include the following:-	Responsibilities of the Chief Incident Controller shall include but not limited to the following:-	Ok
49		(e) taking decision on seeking assistance from mutual aid members and external agencies like Police, Fire Brigade, Hospitals etc.;	(e) taking decision on seeking assistance from mutual aid members and external agencies like Police, Fire Brigade, Hospitals etc. in consultation with SIC.	Ok
50		Responsibilities of the Chief Incident Controller shall include the following:-	Responsibilities of the Site Incident Controller shall include but not limited to the following:-	Ok
51		(b) The SIC shall be capable of making quick decisions and taking full charge;	(b) The SIC shall be empowered of taking quick decisions and take full charge;	Ok
52	14.2.2	(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;	(d) The SIC shall be responsible for ensuring that appropriate local and national government authorities for notification, preparation of media statements, obtaining approval from the CIC and releasing such statements once approval received;	Ok
53		(e) He must ensure next of kin are notified in a timely manner;	(e) SIC must ensure next of kin are notified in a timely manner	Ok
54			To be added: The SIC shall ensure all personnel of emergency response team are trained for assigned roles during emergency.	Ok

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55	14.2.3	Responsibilities of the administration and communication controller shall include the following:-	Responsibilities of the administration and communication coordinator shall include the following:-	Ok
56		(b) to direct them on arrival of external agencies to respective coordinators at desired locations;	(b) to direct on arrival of external agencies to SIC.	Ok
57	14.2.4		To be added: to advise CIC on mobilization of mutual aid and to arrange requirement of additional firefighting resources including help from mutual aid members.	Ok
58		(e) direct the fire brigade personnel and mutual aid members to their desired roles as also proper positioning of the manpower and equipment;	(f) Guide the external fire brigade personnel and mutual aid members to their desired roles as also proper positioning of the manpower and equipment	Ok
59		(f) to decide the requirement of mutual aid and instruct fire station, who, in turn will contact mutual aid members;	To be deleted.	
60		(g) to coordinate with outside fire brigades for properly coordinated fire fighting operation;	(g) to coordinate with external fire brigades for properly coordinated fire fighting operation.	All the mutual aid members and external fire brigade must work in sync with SIC
61		(i) to arrange requirement of additional fire fighting resources including help from mutual aid partners;	To be deleted.	
62		(j) ensure empty and loaded trucks are removed to safer area to the extent possible so as not to affect emergency handling operations;	(j) ensure empty and loaded vehicles are removed to safer area to the extent possible so as not to affect emergency handling operations.	Ok
63		(l) ensure adequate hydrant pressure in the mains and monitor water level in the reservoir.	(l) ensure adequate fire water pressure in the mains and monitor water level in the reservoir.	There is no provision of Fire Water Ring Mains to be provided in the City Gate Stations. It must be clearly mentioned whether it is required or not.

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SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
64		14.2.5.7 (a) Maintenance of ERDMP Records.	14.2.5.7 (a) Maintenance of Incident Records	Ok
65	14.2.5.7	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.	There shall be a system to maintain the records for of all kind of incidents / emergencies including near Misses. Organisation shall maintain an Incident Recording System 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	Ok
66	14.2.5.8	(c) Control room shift in-charge will act as site incident controller till arrival of designated person.	(c) Shift in-charge will act as site incident controller till arrival of designated person.	Ok
67	14.2.5.9	(2) Emergency siren code should be as follows, namely: - (a) Emergency Level-I: A wailing siren for two minutes. (b) Emergency Level-II and III: Same type of siren as in case of Level – I and II but the same will be sounded for three times at the interval of one minutes i.e.(wailing siren 2min + gap 1 min + wailing siren 2min + gap 1min + wailing siren 2min) total duration of Disaster siren to be eight minutes.	(a) Emergency Level I – The siren code for Level I shall be decided by Untity depending upon the size and complexity of installation. (b) Emergency Level II - A wailing siren for two minutes (c) Emergency Level III - Same type of siren as in case of Level II but the same will be sounded for three times at the interval of one minutes i.e.(wailing siren 2min + gap 1 min + wailing siren 2min + gap 1min + wailing siren 2min) total duration of Disaster siren to be eight minutes (ALL)	For Level I, portable sirens can be used. The range of the siren in KMs must be mentioned in the regulation for all levels.
68	15.1	15.1 Emergency control centers (ECC).	Emergency Control Centers (ECC)	
69		All ECC should have emergency lights so that operations can continue in the event of power failure.	All ECC should have emergency power back up and emergency light with DC source so that operations can continue in the event of power failure.	Ok
70	15.2	(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.	(1) There should be pre-designated areas in safe zone as per Consequence Analysis of the major scenarios , where the personnel like workers, staff, contractor workers etc. not involved in emergency operations (as per ERDMP) shall assemble in case of an emergency.	Ok

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SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
71	16	(2) During idle shift or holidays, the security 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.	(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.	There should be some identified training centers for such trainings for security personnel and others.
72		(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 off-site emergency plan.	(3) When situation 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 off-site emergency plan.	Ok
73	17.0 (2)	(b) fire protection system (Active and Passive)	(b) fire protection and fire fighting system (Active and Passive)	Fire Prevention, Fire Protection & Fire Fighting system.
74		(c) fire fighting systems	To be deleted.	
75		(f) first aid and medical facilities round the clock with availability of minimum one nurse (24X7) and doctor in the first aid room.	e) first aid facilities f) medical facilities in house ,or a tie-up with near by hospital/ health center	Provision of visiting doctors fortnightly to be added.
76	18	ERDMP shall be prepared based on the following information: - (a) neighboring population in a 5 km radius (b) housing colonies of industries (c) sensitive institutions such as schools, hospitals, religious establishments and old aged homes, etc.	ERDMP shall be prepared based on the following information: - (a) neighboring population in a 2 km radius or as per consequence analysis, whichever is higher (b) housing colonies of industries (c) neighboring industries, installations, pipelines etc. (d) sensitive institutions such as schools, hospitals, religious establishments and old aged homes, etc. (e) cattle and livestock (f) flora and fauna	Ok
77	20	(3) Portable mobile vehicle for announcement should be available in the emergency.	(3) Vehicle with Public Address System for announcement should be available in the emergency.	Ok
78	21	(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 neighbouring colonies and other habitat areas in the immediate vicinity.	Display boards containing do's and don'ts should be located outside the gate as well as in the neighbouring colonies and other habitat areas in the immediate vicinity.	Ok

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Regulations, 2010**

SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
79	23	1) All incidents covered under Level-I should be maintained by the entity for inspection whenever called for inspection and Level-II and Level-III shall be reported to the Board in the format specified and placed at Schedule-VI including near miss incident. The above report should be submitted within 48 hours after occurrence of the incidents or any other reason triggering major incident.	To be revised in view of Incident Reporting Catergorization.	Ok
80	23	2) Investigation report of all major incidents shall be submitted to the Board. 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. 10.0 Lac (e) cumulative man hours lost more than 500 hrs. (f) plant shutdown / outage due to the incident (g) Level-III incident	1) 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. 2) '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. 3) Detailed investigation report of all 'Major' incidents shall be submitted to PNGRB within 30 days of occurrence along with time bound mitigation plan of recommendations, made during the investigation. 3) All incidents covered under Minor Incident and Near Misses should be maintained by the entity for inspection in specified format of Schedule-VI. 4) Quarterly report consisting Summary of Major (including detailed Investigation Report) & Minor incidents and Near Misses (Only Nos.) shall be sent to PNGRB within 30 days of end of quarter.	a) The Plant Shutdown/outage due to incident must remain. We can add the number of hours like it can be 24 hours. If, the outage in beyond 24 hrs, then it is to be considered a major and reported. b) The minor incidents must be defined and whether these Unsafe Acts & Unsafe Conditions must also be reported, or we should report only First Aid cases, Medical Treatment cases, Restricted Workday cases as well. c) The classification of incidents should be Slight, Minor, Major, Severe & Catastrophic.

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Regulations, 2010**

SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
81	28.1.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.	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. 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.	Ok
82	30	(1) With increase in terrorist activities towards the end of 20th century and installations having, significant role in national economy, sabotage and bomb threats to such installation should also be considered in the disaster management plan. Such as high level of alertness measures, strengthening security measures by security gadgets mechanical and electronic security gadgets. In any of such situation, city police/ administration should be informed immediately and their help should be sought. (2) Emergency Action in case of Bomb Threat : (a) The persons inside the Plant should be evacuated as soon as possible. (b) All the vehicles in the plant premises should be evacuated to safer places. (c) Plant personnel should contact district authorities immediately. (d) Any new or doubtful thing should not be touched. (e) All pipeline and tank valves should be closed and all the operations inside the Bottling Plant should be stopped. (f) In case of fire, firefighting equipments shall be operated and city fire brigade should be called immediately during emergency.	A detailed action plan on security breach/ threat including bomb threat shall be prepared by each installation and periodic mock drill shall be carried out against various scenarios.	Ok

**Proposed Amendments in the PNGRB ((Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP))
Regulations, 2010**

SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
83	31	(1) Whenever any deviation from this code of practices is required to be implemented, the entity shall seek approval of the Board with mitigation measures proposed to be carried out giving full details and justification for such deviation within 1 month from the date of notification of these regulations.	Whenever any deviation from this code of practices is required to be implemented, the entity shall thereafter take approval from its Board for non-conformities and mitigation measures. The entity's Board approval along with the compliance report, mitigation measures and implementation schedule shall be submitted to the Board within six months.	Ok
84		Note: A copy of ERDMP, duly approved by the Board of Directors of the organisations shall be submitted to the PNGRB.	"A copy of ERDMP, duly approved by the Board of Directors of the organisations shall be submitted to the PNGRB. Further the amendments to ERDMP docuemnt should be approved by the authority which has approved the ERDMP document i.e. entity's Board of Directors.	Ok
85	Sch III	8. Addresses and Telephone Directory of Technical Support Services such as Environmental Laboratories, fire fighting chemical suppliers, public and private consultant associated with emergency handling and Aviation Medical Services, if any.	8. Addresses and Telephone Directory of Professional Emergency Responders, Technical Support Services such as Environmental Laboratories, fire fighting chemical suppliers, public and private consultant associated with emergency handling and Aviation Medical Services, if any.	Ok
86	Sch IV	-	Emergency Response Vehicle and details of temporary shelters are added in checklist under S.No. 5 & 9 respectively.	Ok
87	Sch VI	- Fire for more than 15 minutes - Explosion / Blowout - Fatal Incident. - Loss above Rs. 5.0 Lac. - Cumulative man hours lost more than 500 hrs. - Plant Shutdown / Outage due to the incident	Fire for more than 15 minutes - Explosion / Blowout - Fatal Incident. - Loss above Rs. 5.0 Lac20 Lac. - Cumulative man hours lost more than 500 hrs.	Contradicting with point no. 80 regarding the value of loss as above 20 Lacs.
88	Sch VII	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 Safety Management System.	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 Pipeline Management System.	Ok

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SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
89	Sch VIII	-	A. Gas Explosi Meter under head Electrical Equipment has been shifted in 'Other Safety Items' as Portable Gas Detectors. Barricading Tape in added under Traffic Control Equipment. Nearby NDRF Battalion is added in Section 'B'	Ok
90	Checklist 1	Which of the following procedures or techniques for hazard identification has been used in the terminal/ installation	Which of the following	Ok
91	Checklist 1	Vulnerability Analysis: 15) Whether zones of influence or vulnerable zones are estimated by considering the maximum single storage of hazardous substance and maximum loss scenario. 16) Whether effects of influence on the vulnerable zones are made after considering the population, facilities and environment encompassed inside that zone	To be deleted.	
92		Risk Reduction Measures :21) Whether steps have been considered to reduce risks to the exposed population by increasing safe distances by acquiring property around the facility, if possible	To be deleted.	
93		HAZOP Study	PHA Study	HAZOP is a component of PHA Study, PHA has 14 elements and would be very exhaustive, hence HAZOP Study & QRA would be enough.
94		25) Whether potential means for detection of such events and preventive measures are recommended by the study	To be deleted	
95	Annexure I	Format of MSDS	Introduction of revised format having 16 elements . Attached as Annexure - I.	Ok
96	Annexure 2-		Guidelines for Emergency Response Plan w.r.t Construction/Project activities proposed to be added. Attached as Annexure - II.	Ok

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SN	Clause No.	Clause Description	Proposed Amendment	THINK Gas Comments
97	Annexure 3-		Typical Mock Drill format is proposed to be added to ensure effectiveness of Emergency Response. Attached as Annexure - III .	Ok
Proposed Amendments vide Public Notice dated 12 March 2020				
98	24.6		The entity shall take necessary measures to prevent the recurrence of such incidents, identify the responsible persons for failure as per the assigned roles and responsibilities and forward the action taken report on the report of the enquiry committee duly vetted by the Board of Directors of the entity to the Board.”	Comprehensive ROOT cause Analysis for all Major incidents must be carried out using tools like Bow Tie analysis or Tap root analysis. HSSE alerts must be generated and submitted to board for further circulation across the industry as a part of lessons learnt to prevent recurrence of incidents.