EXTERNAL EMERGENCY PLAN
Public Version

Bellanaboy Bridge Gas Terminal
('Corrib Gas Terminal')

Bellanaboy Bridge
Bellagelly South
Barnatra
Ballina
Co. Mayo

2015

PROMULGATION

The External Emergency Plan for Bellanaboy Bridge Gas Terminal, Bellanaboy Bridge, Bellagelly South, Barnatra, Ballina, developed pursuant to the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006 (SI 74 of 2006) is promulgated on behalf of the Local Competent Authorities by the following:

Date: 18/3/2015

Supt. Joseph McKenna
On behalf of An Garda Síochána, Mayo Division

Date: 11/2/2015

Mr. Pascal Diviney
Emergency Management Officer
On behalf of Health Service Executive West

Date: 11/2/2015

Mr. Tony Shevlin
Senior Assistant Chief Fire Officer
On behalf of Mayo County Council

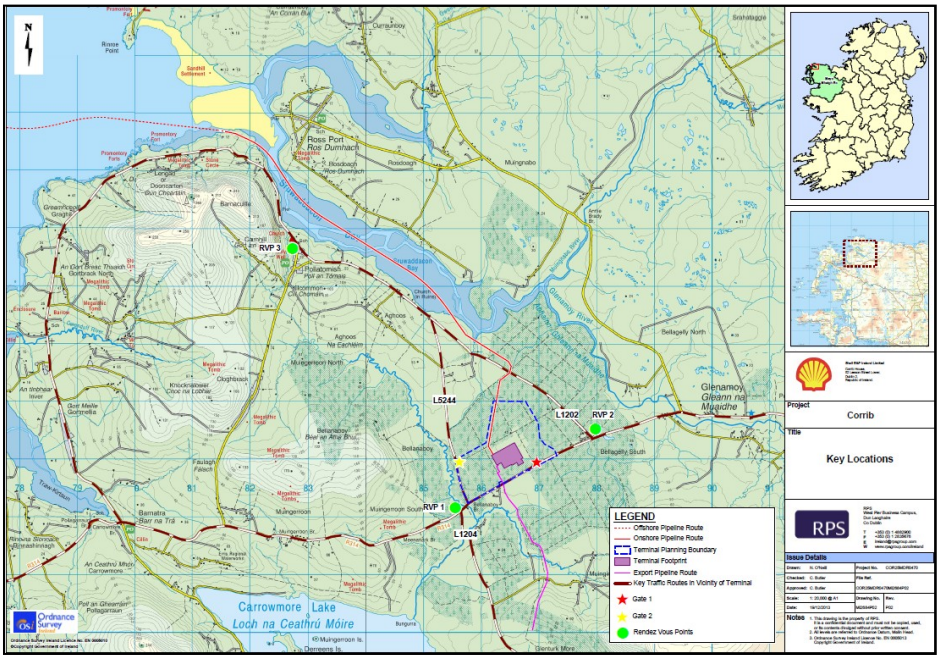
Establishment Key Information	
Name of Facility	'Corrib Gas Terminal' Formally 'The Bellanaboy Bridge Gas Terminal'
Telephone	+353 (0)97 87 300 EMERGENCY ONLY +353 (0)97 87333 for the Control Room
Address	Bellanaboy Bridge, Bellagelly South, Barnatra, Ballina, Co. Mayo
Location	On the R314 from Belmullet to Ballycastle. Refer to Appendix 1, Drawings 1 and 2, showing the location of the site.
Activities undertaken	The terminal receives gas from the Corrib Reservoir via the Corrib Gas Onshore Pipeline which runs from Glengad to Aughoose to the terminal site. On the terminal, liquids are separated from the gas and the gas is pressurised to export quality pressure before being transmitted off site via the Board Gais Networks Pipeline. The main facilities at the terminal are the processing system and the methanol and condensate storage tanks. Refer to Section 3.2 for further information.
Maximum number of people on site	120 during backfeed gas operations *(limited operation during 2014/2015)* 73 during normal operations day shift 18 during weekends and night shift
Hours of operation	The facility operates 24hrs per day 365 days per year. Normal working hours are Monday to Friday 07:00hrs to 17:00hrs.
Access onto the terminal	Main entrance is via the main gate 'Gate 1' from the R314. Alternative access is via 'Gate 2' from the L5244.
Special considerations	The bringing onto site of potential ignition sources is not permitted without consultation with the SEPIL Site Main Controller based in the Control Room.
Quick Reference Location Map	

TABLE OF CONTENTS

APPENDICES

ISSUE OF PLAN & RECORD OF EXERCISES

Record of Issue

This public access version of the External Emergency Plan is intended for broad dissemination. This version of the plan includes the entire External Emergency Plan, except contact details and other security sensitive information. The information omitted has no bearing on the overall plan.

Issue Number	Date	Description
1	March 2015	First issue.

Record of Exercises

Date	Exercise Type	Description
15th July 2014	Tabletop	Tabletop exercise to test and validate the External Emergency Plan.

PUBLICATION & DISTRIBUTION OF PLAN

Publication of Plan

This plan is a controlled document. An up to date version of the plan will be available at the following locations:

- www.mayococo.ie
- Area Managers Office, Health Service Executive, First Floor, St Mary's Headquarters, Castlebar, Co. Mayo.
- Belmullet Garda Station, Fr. Mulhern Crescent, Belmullet, Co. Mayo.
- Mayo Fire Service, Fire Brigade HQ, Humbert Way, Castlebar, Co. Mayo.
- Shell E&P Ireland Limited, 4 Údarás na Gaeltachta, Belmullet, Co. Mayo.

Downloaded or photocopies of the plan are only controlled and guaranteed valid up to and on the date of download or copy.

Distribution of Plan

A copy of this plan is distributed to the following agencies / organisations:

Agency / Organisation	Issued to:
West Region Fire Control (Camp West)	Executive Emergency Communications Officer
Commission for Energy Regulation	Chairperson
Environmental Protection Agency	Director General
Irish Coast Guard	Director
The Office of Public Works	Chairperson

Individual agencies should print sufficient copies for distribution to the relevant personnel within their agency / organisation. The Local Competent Authorities will, as required, update the plan and redistribute to the above list.

ABBREVIATIONS

BBGT	Bellanaboy Bridge Gas Terminal
BLEVE	Boiling Liquid Expanding Vapour Explosion
CAS No.	Chemical Abstracts Service Number
CCTV	Closed Circuit Television
COMAH	Control of Major Accident Hazards
CMT	Crisis Management Team
CRO	Control Room Operator
DM	Duty Manager
EHT	Emergency Holding Tank
EIM	Emergency Incident Manager
ERT	Emergency Response Team
ESD	Emergency Shutdown
ESDV	Emergency Shutdown valve
HPU	Hydraulic Power Unit
HSA	Health & Safety Authority
HSE	Health, Safety and Environmental
HSE	Health Service Executive
ISSOW	Integrated Safe System of Work
IUPAC	International Union of Pure and Applied Chemistry
LRT	Location Response Team
LUP	Land Use Planning
LVI	Landfall Valve Installation
MAH	Major Accident Hazard
MLO	Media Liaison Officer
NEPNA	National Emergency Plan for Nuclear Accidents

OTTU	Onshore Terminal Termination Unit
PFP	Passive Fire Protection
PPE	Personal Protective Equipment
PRA	Principal Response Agency
QA	Quality Assurance
QC	Quality Control
QRA	Quantitative Risk Analysis
RTA	Road Traffic Accident
RVP	Rendezvous Point
SEPIL	Shell Exploration and Production Ireland Limited
SW	Surface Water
TOC	Total Organic Carbon
UI	Upstream International
VCE	Vapour Cloud Explosion
WWTP	Waste Water Treatment Plant

GLOSSARY OF TERMS

Term	Description
Ambulance Loading Point / Area	An area close to the Casualty Clearing Station where casualties are transferred to ambulances for transport to hospital.
Casualty Clearing Station	The area established at site by the Ambulance Service where casualties are collected, triaged, treated and prepared for evacuation.
COMAH Regulations	European Communities (Control Of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 74 of 2006.
Controller of Operations	The person given authority by a principal response agency to control all elements of its activities at and about the site. The officer in command of the initial response of each principal emergency service should be the principal response agency's Controller of Operations until relieved through the agency's pre-determined process.
Cordons	The designated perimeters of an emergency site, with an outer cordon, inner cordon, traffic cordon and a danger area cordon.
Crisis Management Team	A strategic-level management group, which consists of senior managers from within the principal response agency, which is assembled to manage a crisis and deal with issues arising for the agency both during the emergency and the subsequent recovery phase.
Danger Area	An area where there is a definite risk to personnel, over and above that which would normally pertain at emergency operations.
Dangerous Substance	A substance, mixture or preparation listed in Annex I, Part 1 to the Directive or fulfilling the criteria laid down in Annex 1, Part 2 to the Directive and present as a raw material, product, by-product, residue or intermediate, including those substances which it is reasonable to suppose may be generated in the event of an accident. The directive referred to is European Union Directive, Council Directive 96/82/EC as amended by Directive 2003/105/EC.
Emergency Response Centre	Incident Control Point where the SEPIL BBGT Emergency Response Team meet.
Framework for Major Emergency Management	A framework enabling the principal response agencies to prepare for and make a co-ordinated response to major emergencies resulting from events such as fires, transport accidents, hazardous substance incidents and severe weather.
Holding Area	An area at the site, to which resources and personnel, which are not immediately required, are directed to await deployment.

Incident Control Point	The location at the site of the emergency from which organisations control, direct and coordinate their organisation's response to an emergency.
Lead Agency	The principal response agency that is assigned the responsibility and mandate for the co-ordination function.
Local Competent Authorities	An Garda Síochána, the Health Service Executive and the relevant Local Authority as defined by the Control of Major Accident Hazards Involving Dangerous Substances Regulations, SI 74 of 2006.
Major Accident	An occurrence such as a major emission, fire or explosion resulting from uncontrolled developments in the course of the operation of any establishment, leading to a serious danger to human health, or to the environment, whether immediate or delayed, inside or outside the establishment, and involving one or more dangerous substances. (Defined by the Control of Major Accident Hazards Involving Dangerous Substances Regulations, SI 74 of 2006.)
Major Accident Hazard Scenario	This is an undesirable event or sequence of events that could lead to a major accident.
Major Emergency	Any event which, usually with little or no warning, causes or threatens death or injury, serious disruption of essential services, or damage to property, the environment or infrastructure beyond the normal capabilities of the principal emergency services in the area in which the event occurs, and requiring the activation of specific additional procedures to ensure effective, co-ordinated response.
Major Emergency Management	The range of measures taken under the five stages of emergency management, i.e. hazard analysis and risk assessment, mitigation / risk management, planning and preparedness, co-ordinated response and recovery.
Major Emergency Plan	A plan prepared by each of the principal response agencies.
On Site Co-ordinator	The person (Controller of Operations) from the lead agency with the role of co-ordinating the activities of all agencies responding to an emergency.
On-site Co-ordination Group	A group that includes the On-site Co-ordinator, the Controllers of Operations of the principal response agencies, representatives from Shell E&P Ireland Limited and others as appropriate.
On-Site Co-Ordination Point	Specific facility where the On-site Co-ordinator is located and the On-Site Co-ordination Group meet.
Principal Response Agencies (PRA's)	The agencies designated by the Government to respond to Major Emergencies i.e. An Garda Síochána, the Health Service Executive and the Local Authorities.

Rendezvous Point (RVP)	The Rendezvous Point is the location to which all resources responding to the emergency site are directed in the first instance. An Garda Síochána will organize the Rendezvous Point. Other services may have one of their officers present to direct responding vehicles into action or to the Holding Area.
Seveso Sites	Industrial sites that, because of the presence of dangerous substances in sufficient quantities, are regulated under Council Directives 96/86/EC and 2003/105/EC, commonly referred to as the Seveso II Directive. Implementation in Ireland is through the European Communities (Control Of Major Accident Hazards Involving Dangerous Substances) Regulations, SI 74 of 2006 and the Planning and Development Acts 2000-2002 and Regulations 2001-2006.
Specified Area	The Specified Area is the area which is liable to be affected by a major accident at the establishment.
Upper Tier Seveso Establishment	Establishments which hold quantities of dangerous substances above the upper threshold contained in the Council Directive 96/82/EC as amended by Directive 2003/105/EC.

INTRODUCTION

European Union Directive, Council Directive 96/82/EC, as amended by 2003/105/EC, on the Control of Major Accident Hazards applies to industrial establishments where dangerous substances are held in quantities above specified threshold limits.

The aim of the Directive, referred to as Seveso II, is the prevention of major accidents involving dangerous substances and the limitation of the consequences for humans and the environment if such accidents occur.

The Directive, implemented in Ireland under the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006 (COMAH Regulations), requires operators handling dangerous substances above specified thresholds, categorised as Upper Tier Seveso Establishments, to provide safety reports, implement a safety management system and establish internal emergency plans.

Bellanaboy Bridge Gas Terminal is classified as an Upper Tier Seveso Establishment.

In accordance with the COMAH Regulations, this External Emergency Plan has been prepared by the Local Competent Authorities (An Garda Síochána, the Health Services Executive and Mayo County Council) in consultation with the Operator (Shell E&P Ireland Limited).

The purpose of this plan is to ensure the protection of people and the environment through agreed procedures for the effective and co-ordinated response in the event of a major accident / incident or an uncontrolled event which could be reasonably expected to lead to a major accident at the Bellanaboy Bridge Gas Terminal (BBGT).

This plan should be read and implemented in conjunction with:

- The Bellanaboy Bridge Gas Terminal Emergency Response Plan (Doc. No. COR-52-SH-0037) (referred to hereafter as SEPIL Internal Emergency Response Plan).
  Note that the plan currently in operation was issued in July 2014 (Revision 3).
- The Major Emergency Plans of:
  - An Garda Síochána, Mayo Division
  - Health Service Executive West
  - Mayo County Council

In accordance with the COMAH Regulations, this plan will be reviewed and tested as often as circumstances require, but at a minimum, every 3 years. Any changes at the Bellanaboy Bridge Gas Terminal which would warrant an update to this plan will be notified by the SEPIL Operations HSE Manager to the Health & Safety Authority and the Local Competent Authorities.

The scope of this plan relates to emergency events associated with the BBGT only. Emergency response provisions for the Corrib Gas Onshore Pipeline are covered under the Corrib Gas Onshore Pipeline External Emergency Response Plan (Doc. No. COR-52-SH-0039b).

Section 1 ACTIVATION AND STAND DOWN

1.1 When will the Plan be Activated?

This plan will be activated immediately when:

- A major accident occurs[1] or an uncontrolled event occurs which could be reasonably expected to lead to a major accident.
  and / or
- An incident occurs which is beyond the normal capabilities of the SEPIL Location Response Team and / or is a major incident which requires external emergency services support.

A major accident is an occurrence (such as a major emission, fire or explosion) resulting from uncontrolled developments in the course of the operation of Bellanaboy Bridge Gas Terminal, leading to serious danger to human health or the environment, immediate, or delayed, inside or outside the establishment, and involving one or more dangerous substances held on-site.

A dangerous substance is defined by the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006 as a substance, mixture or preparation —

(a) Listed in Annex I, Part 1 to the Council Directive 96/82/EC as amended by Directive 2003/105/EC, or

(b) Fulfilling the criteria laid down in Annex 1, Part 2 to the Council Directive 96/82/EC as amended by Directive 2003/105/EC and present as a raw material, product, by-product, residue or intermediate, including those substances which it is reasonable to suppose may be generated in the event of an accident.

Refer to Appendix 2 for Safety Data Sheets for the COMAH dangerous substances present on the terminal and refer to Appendix 3 for information on the physical, toxicological and chemical characteristics of these substances.

1.2 Who can Activate the Plan?

This plan can be activated by any of the following duty personnel:

- The SEPIL Location Response Team (LRT) Site Main Controller located at the BBGT.
- The SEPIL Emergency Response Team (ERT) Emergency Incident Manager.

This plan can also be activated by the responding emergency services if it appears that a major accident / incident has occurred at the establishment and SEPIL personnel have not activated it.

[1] The term 'major accident' is used to reflect its usage and definition in the European Communities (Control of Major Accident Hazards Involving Dangerous Substances) Regulations 2006. Note that a "major accident" at a Seveso Upper Tier establishment may not necessarily be of sufficient impact on the capabilities of the emergency services as to require the declaration of a Major Emergency under the Framework for Major Emergency Management.

[Each principal response agency has a Major Emergency Plan for their agency that can be activated by an Authorised Officer in the event that an accident / incident at the BBGT escalates into a major emergency under the Framework for Major Emergency Management.]

Upon activation of this plan, the emergency services and SEPIL will implement their key actions as outlined in Sections 2 of this plan.

1.3 Activating the Plan

How will the plan be activated?
The Control Room Operator (CRO), a representative of SEPIL, will make a 999 or 112 telephone call to alert the emergency services.

What information will be provided?
The Control Room Operator (CRO) will report the incident and notify the emergency services of activation of this plan by providing the following information:

CONTACTING THE EMERGENCY SERVICES

RESPONSIBILITY OF THE CONTROL ROOM OPERATOR (CRO)

1. Contact the emergency services by dialling **999 / 112**.
2. Request the operator to be put through to the emergency service required.
   (Remember, the operator who answers the phone is NOT a member of the emergency services.)
3. When speaking to the Emergency Services Operator provide the following information:

   a. This is ***"state name and position"***.

   b. I work for Shell E&P Ireland Limited on the **Corrib Gas Terminal***, **Belmullet, Co. Mayo** which is an Upper Tier Seveso Site.

   c. I wish to inform you that ***"state the type of accident / incident"*** has occurred / is imminent at "***state exact location***".

   d. I confirm that I am activating the External Emergency Plan for the site.

   e. I am providing details of the incident using the ETHANE format.

E	Exact Location	Be as specific as possible
T	Type of Incident	Fire, explosion, chemical incident, etc.
H	Hazards	Current and potential
A	Access	From which direction to approach and **to which Rendezvous Point**
N	Number of casualties	Including type and severity of injuries
E	Emergency Services	Present and required

   f. Have you all the information you require?

4. If more than one emergency service is required, the CRO will:
   - After finishing with the first emergency service required, WAIT ON THE LINE to speak to the 999 Operator again by asking "OPERATOR ARE YOU THERE?"
   - Request to be put through to the next emergency service required.
   - Repeat Step 3 above.
5. It is the responsibility of the CRO to verify they have contacted EACH of the emergency services required.
6. For any follow up with additional information relevant to the Fire Service or Mayo County Council, contact West Region Fire Control (Camp West) on 094 9034748.

* The official name of the facility is the 'Bellanaboy Bridge Gas Terminal', however in order to prevent any confusion during the Emergency Response effort the term 'Corrib Gas Terminal' will be used.

1.4 Immediate Actions to be Taken upon Activation of the Plan

- SEPIL will sound a site wide evacuation siren which will indicate that the terminal must be evacuated.
- Personnel will proceed to their muster points as detailed in the SEPIL Internal Emergency Response Plan.
- The On-site Control Room Building will act as the SEPIL Emergency Response Centre for the SEPIL Location Response Team (LRT).
- The SEPIL LRT will carry out immediate emergency response actions as detailed in the SEPIL Internal Emergency Response Plan i.e. shut down the plant if required and blow down if necessary.
- The responding Emergency Services will have been directed to the appropriate Rendezvous Point (RVP 1 or RVP 2). It is anticipated that the first Fire Service response vehicle will proceed onto the terminal, park at the rear of the Control Room and the Incident Commander will speak directly to the SEPIL LRT Team Leader (Site Main Controller), who will provide an update of the situation and the plan for control of the situation.
- The Incident Commander will liaise with the responding agencies at the Initial On-site Co-ordination Point and request additional assistance to the scene as required.

1.5 Standing down the Plan

The decision to stand down this plan will be taken by the Controller of Operations of the lead principal response agency, in consultation with the Controllers of Operations of the other PRA's and the SEPIL Site Main Controller.

Where a Major Emergency has been declared under the Framework for Major Emergency Management, the decision to stand down the incident will be taken by the On-site Co-ordinator in consultation with the Controllers of Operations of the other PRA's and the Local Co-ordination Group.

Section 2 KEY ACTIONS

In the event of activation of this plan, SEPIL and each principal response agency will implement key actions as outlined below.

2.1 Key Actions of An Garda Síochána

1. Consider the need to declare a Major Emergency under the Framework for Major Emergency Management and activate the Garda Divisional Major Emergency Plan, if deemed necessary.

2. Mobilise resources through Belmullet Garda Station and the Divisional Communications Centre in accordance with the pre-determined attendance.

3. Establish communications with the other principal response agencies and SEPIL. Meet the Controllers of Operations of the other PRA's at the Initial On-site Co-ordination Point.

4. Obtain information regarding the incident from SEPIL and the other principal response agencies as appropriate.

5. Establish and maintain Traffic Cordon Points as detailed in the Site Arrangements for Responding Emergency Services at the Bellanaboy Bridge Gas Terminal. Refer to Appendix 4.

6. Establish and maintain the traffic management system within the Inner Traffic Cordon and Outer Traffic Cordon. Refer to Appendix 4.

7. Ensure the free passage of emergency response vehicles into and out of the BBGT and prevent congestion at and around the site.

8. Advise on evacuation, where applicable.

9. Identify and request additional required resources.

10. Inform the public, as necessary, on the advice of the principal response agencies, of actual or potential dangers arising from the incident and of traffic management cordons and restrictions.

11. Notify the Garda Media Liaison Officer of the incident. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other PRA's and the Communications Advisor from SEPIL.

12. Establish and maintain communications with the other principal response agencies at the designated Holding Area.

13. Manage a traffic parking system for emergency response vehicles at the designated Holding Area (aligned to the designated Rendezvous Point).

14. Make appropriate arrangements, to convey key personnel to the site in a safe and expeditious manner.

15. Preserve the site or incident location, if deemed necessary.

16. Provide technical and forensic examination assistance.

17. Brief the Coroner for North Mayo in the event of any fatality and undertake the requisite investigation on their behalf including the preservation and collection of relevant evidence.

18. Maintain essential Garda services during the incident.

2.2 Key Actions of the Health Service Executive West / National Ambulance Service (West)

1. Consider the need to declare a Major Emergency under the Framework for Major Emergency Management and activate the HSE Major Emergency Plan, if deemed necessary.

2. The Ambulance Service will execute Ambulance Service Standing Orders for the site of a Major Emergency. In particular, the senior HSE Ambulance Officer at the site will report to Ambulance Control using METHANE or ETHANE, as appropriate.

3. Mobilise and dispatch resources in accordance with the pre-determined attendance.

4. Establish communications with the other principal response agencies and SEPIL. Meet the Controllers of Operations of the other PRA's at the Initial On-site Co-ordination Point.

5. Obtain information regarding the incident from SEPIL and the other principal response agencies as appropriate.

6. Alert nearest receiving hospital.

7. Provide relevant information to responding units as it becomes available.

8. Provide all responding staff with information pertaining to health and safety, the Danger Area and the requirement for personal protective equipment.

9. Identify a safe approach route for ambulances and direct responding units to the designated Rendezvous Point.

10. Obtain safety data on the chemicals involved in the incident.

11. Provide specialist public health and environmental health advice when required.

12. In consultation with other Controllers of Operation, agree locations for decontamination, Casualty Clearing Station, Ambulance Loading Point, Body Holding Area and Helicopter Landing Point, as appropriate.

13. Identify and request additional required resources.

14. Notify the HSE Media Liaison Officer of the incident. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other principal response agencies and the Communications Advisor from SEPIL.

15. Jointly agree the public information process with the other principal response agencies and SEPIL in respect of types of casualties, dispatch of casualties to hospitals, etc.

16. Alert adjoining Ambulance Control Centres and liaise with other HSE services if required.

17. Continually update Ambulance Control with information on the status of the incident, numbers, etc.

2.3 Key Actions of Mayo County Council

1. Consider the need to declare a Major Emergency under the Framework for Major Emergency Management and activate the Mayo County Council Major Emergency Plan, if deemed necessary.

2. Establish communications with the other principal response agencies and SEPIL. Meet the Controllers of Operations of the other PRA's at the Initial On-site Co-ordination Point.

3. Obtain information regarding the incident from SEPIL and the other principal response agencies as appropriate.

4. Mobilise resources and equipment as deemed necessary.

5. Notify Mayo County Councils Media Liaison Officer of the incident. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other principal response agencies and the Communications Advisor from SEPIL.

6. Seek advice and assistance where necessary from relevant sections within Mayo County Council; inter alia, the Environment Section.

7. Establish liaison with relevant external agencies, where applicable.

8. Continue to operate and maintain normal infrastructure in the county.

9. Provide appropriate support, assistance and advice to SEPIL and to those affected.

2.4 Key Actions of Mayo Fire Service

1. Mobilise resources through West Region Fire Control (Camp West) in accordance with the pre-determined attendance.

2. Consider the need to declare a Major Emergency under the Framework for Major Emergency Management and activate the Mayo County Council Major Emergency Plan, if deemed necessary.

3. The first Fire Service vehicle in attendance will proceed to the Administration Building via Gate 1 and meet with security staff from the terminal. Depending on the situation, the Incident Commander may proceed to the rear of the Control Room Building.

   Other responding vehicles will report to the designated Rendezvous Point. At the Rendezvous Point, resources will be directed to the site or Holding Area as required.

4. Establish communications with the other principal response agencies and SEPIL at the Initial Incident Control Point.

5. The Incident Commander will obtain information from SEPIL regarding the incident and request safety data on the chemicals involved in the incident.

6. The Incident Commander will conduct a dynamic risk assessment for the incident and determine what resources are initially required.

7. Establish and confirm cordons.

8. Advise on evacuation, where applicable.

9. Identify and request additional required resources.

10. Identify potential contamination by fire run-off water.

11. Notify Mayo County Councils Media Liaison Officer of the incident. If lead agency, the Media Liaison Officer should establish contact with the Media Liaison Officers from the other principal response agencies and the Communications Advisor from SEPIL.

12. Establish liaison with relevant external agencies, where applicable.

2.5 Key Actions of SEPIL

Key Actions of Site Main Controller

1. Ensure the activation section (Section 1.3) of this plan is complete.
2. Initiate the BBGT Emergency Response Management System.
3. Establish communications with the principal response agencies.
4. Ensure local residents have been informed via the Shell Notification System.
5. Inform the relevant regulators as required. (Contact details arecontained in the BBGT Emergency Response Management System Document.)

Key Actions of Control Room Operator (CRO)

1. Contact the required emergency services and confirm to the Site Main Controller that this has been completed.
2. Ensure the designated Rendezvous Point is identified and communicated to the emergency services (Refer to Section 7.2 of plan).

Section 3 SITE DETAILS

3.1 Location of the BBGT

The Bellanaboy Bridge Gas Terminal is part of a larger asset which includes the Shell E&P Ireland Limited Corrib Gas Onshore Pipeline, Landfall Valve Installation, Offshore Pipeline and Subsea Facilities.

Refer to Appendix 1, Drawings 1 and 2, showing the location of the site. Figure 3.1 also shows the location of the site and the key access routes and rendezvous points.*.

The defined 'establishment' under the COMAH Regulations, as applied to the Bellanaboy Bridge Gas Terminal, is the double contained security fencing around the terminal footprint and not the Shell E&P Ireland Limited landholding which extends around the terminal site.

* Note that RVP 3 is not associated with the terminal emergency response arrangements. RVP 3 is associated with onshore pipeline emergencies only.

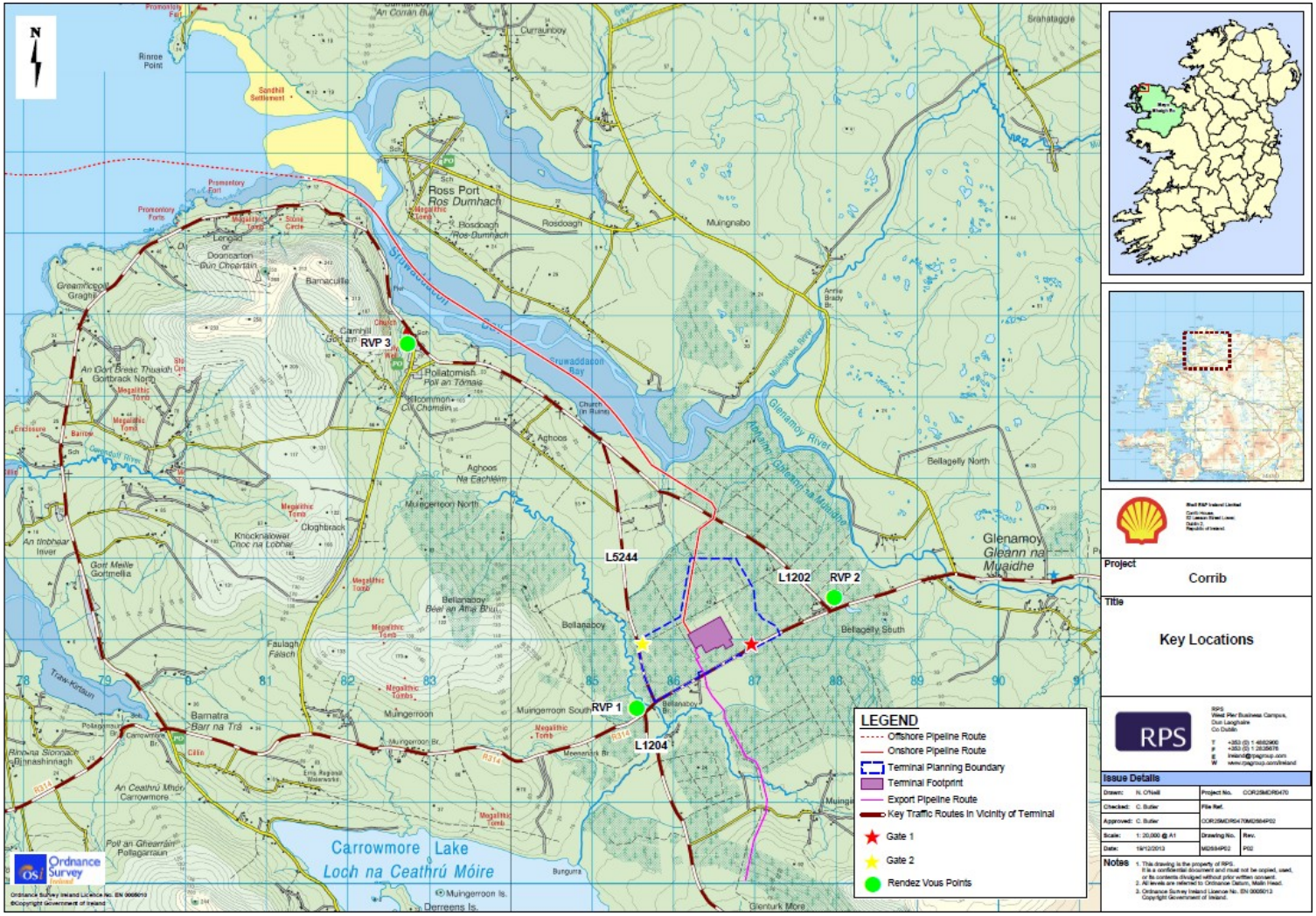


Figure 3.1 Location of the BBGT and Key Emergency Response Locations

3.2 Layout of the BBGT

A general layout of the Bellanaboy Bridge Gas Terminal Footprint area ('establishment') is presented in Figure 3.2.

Figure 3.2 Overview of the Terminal

3.3 Specified Area

The COMAH Regulations define the specified area as the area which is liable to be affected by a major accident at the establishment.

The Health & Safety Authorities (HSA's) Land Use Planning (LUP) guidance document, 'Policy and Approach of the Health and Safety Authority to COMAH Risk-based Land-use Planning (Including Detailed Implementation by Sector), 19 March 2010' describes the approach which the Authority uses when determining the specified area around an establishment. This states that the specified area is based on the outer fatality risk zone of 1×10^{-7} per year.

The specified area for the establishment was determined using a Quantitative Risk Assessment (QRA). Refer to Appendix 1, Drawing 3, showing the specified area.

3.4 Further Explanation of the Setting of the Specified Area

The specified area is based on the outer fatality risk zone of 1×10^{-7} per year in accordance with HSA guidance. The 1×10^{-7} contour represents the total annual risk from the hazardous activities on the terminal and all reasonably foreseeable potential incidents involving ignited releases of flammable material.

The incidents considered in generating the contour include all types of incidents which are typically associated with ignited releases of flammable materials, i.e. vapour cloud explosion, jet fire, pool fire and flash fire. The contours associated with higher levels of risk are presented in the Figure 3.3.

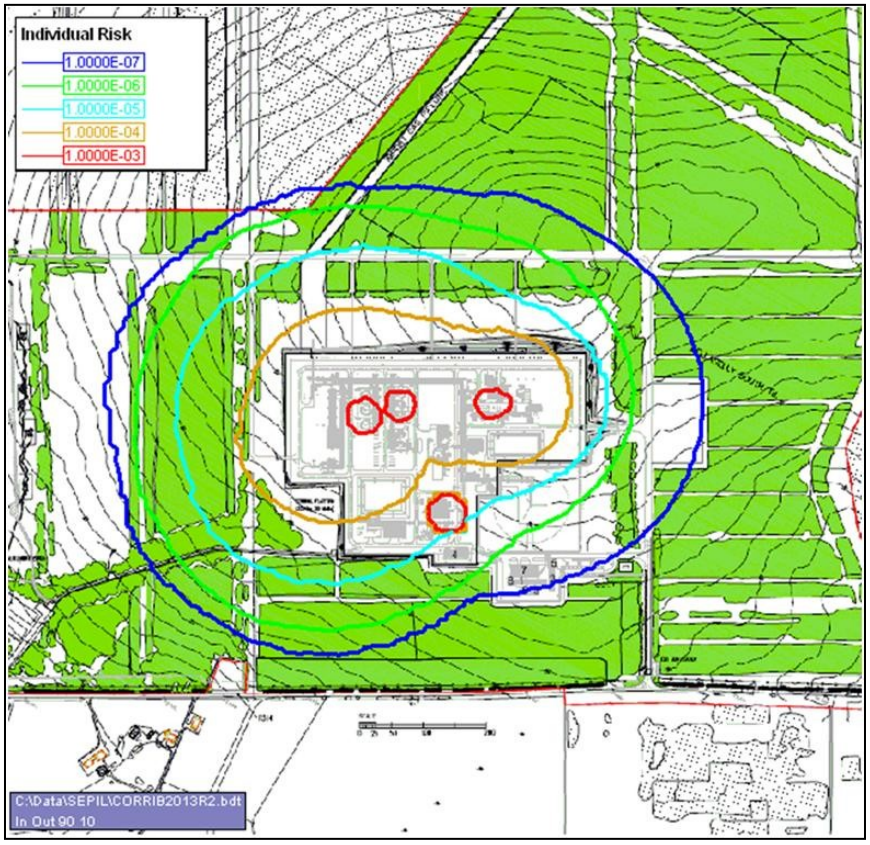


Figure 3.3 Location Specific Individual Risk of Fatality (per year) for Specified Exposure (Persons spending 90% of time Indoors / 10% of time Outdoors)

Explanation of 1×10^{-7}

It is assumed that the hypothetical person spends 90% of their time indoors and 10% of their time outdoors 24 hours per day, 365 days per year (based on a Commission for Energy Regulation requirement which represents the amount of time the hypothetical person would spend indoors).

A hypothetical individual, permanently located at any point on the 1×10^{-7} contour, spending 90% of their time indoors and 10% of their time outdoors, for a period of 10 million years (i.e. 10^7 years), would be expected to be fatally injured once in that 10 million year period. (This is the same as having a frequency of being fatally injured of $1x10^{-7}$ per year).

How 1×10^{-7} was calculated?

The 1×10^{-7} contour was calculated by Quantitative Risk Assessment. The QRA calculates the risk associated with a set of potentially dangerous events (such as fires) ranging from 'very small' to 'very large'. In simple terms, 'risk' may be regarded as the product of frequency and consequence (i.e. frequency multiplied by consequence).

Risk = Frequency x Consequences

The frequency of a 'very large' event with a very large consequence is significantly smaller than that of a 'very small' event with a very small consequence, i.e. it is less likely to have very large events compared to very small events. The frequencies are calculated from historical incident data sets, which record details of the number of releases over a period of operation, the release size and equipment population.

The consequences are calculated using mathematical models incorporating equations which account for the physics of the release and determine the extent of a range of potentially damaging effects such as overpressure due to explosions and thermal radiation from fires. The models used to calculate the consequences are widely recognised and are either based on, or validated against, experimental observations.

How is the risk at a particular point due to each event calculated?

This is achieved by multiplying the event frequency by the likelihood of that point being within the consequence distance (accounting for direction of release) and the likelihood of a person being fatally injured by that event. The risk due to each event is summed to derive a total risk which is then used to generate the individual risk contours.

Therefore, the QRA calculates the risk by multiplying the effects of the consequences (very small to very large) and their corresponding frequencies.

Section 4 DANGEROUS SUBSTANCES

4.1 Dangerous Substances and their Location

This plan has been prepared to respond to a major accident or an uncontrolled event which could be reasonably expected to lead to a major accident involving certain dangerous substances present on the Bellanaboy Bridge Gas Terminal.

The main (>1 tonne) COMAH dangerous substances present on the terminal are listed in Table 4.1 and the main process vessels are listed in Table 4.2.

SEPIL will provide all necessary information to the emergency services concerning any hazardous substance involved in an incident upon arrival on-site (i.e. Safety Data Sheets, Chemical Risk Assessments (COSHH Assessments)).

Refer to Appendix 2 for Safety Data Sheets for the COMAH dangerous substances present on the terminal and to Appendix 3 for information the physical, toxicological and chemical characteristics of these substances.

Table 4.1 Main COMAH Dangerous Substances Present on the BBGT (i.e. > 1 tonne)

Substance	Class	CAS No. / IUPAC	Physical Form	Quantity tonne	Roof type	Fire fighting system
Raw Methanol (40% aqueous methanol) Tanks T-4001 A/B/C		67-56-1	Liquid	2562 (880m^3)	Fixed roof with internal floating roof	Automatic local foam monitors / internal foam pourers/external water deluge for cooling. Activated locally or remotely from Control Room.
Product Methanol T-4002 A/B		67-56-1	Liquid	787 (488m^3)	Fixed roof with internal floating roof	Automatic local foam monitors / internal foam pourers/external water deluge for cooling. Activated locally or remotely from Control Room.
Condensate stabilised (petroleum product) Tanks T-3001 A/B		64741-47-5	Liquid	711 (221m^3)	Fixed roof with internal floating roof	Automatic local foam monitors / internal foam pourers/external water deluge for cooling. Activated locally or remotely from Control Room.
Diesel		68334-30-5	Liquid	66	Fixed roof	Local fire water hydrants / portable foam units.
Hydrocarbon gas (natural gas)		68410-63-9	Gas	49	In process stream	Automatic local water monitors for cooling / local fire water hydrants for additional cooling.
Unstabilised condensate		68919-39-1	Liquid	48	In process stream	Automatic local water monitors for cooling / local fire water hydrants for additional cooling / portable foam units.
PURASPEC TM Absorbent 5158		SDS for Puraspec 5158 used (includes CAS no's 1317-40-4, 12069-69-1, 12122-17-7 and 1344-28-1)	Solid	15	N/A	-
Odorant (80% Tert butyl mercaptan (TBM), 20% Dimethyl sulphide (DMS))		SDS for Product Code 16410 used (includes CAS no's 75-66-1 and 75-18-3)	Liquid	9	N/A	Local fire water hydrants.
Corrosion Inhibitor (Corroless, Corton CK352 & KI302C)		SDS for Corroless EINECS No. 221-516-4, Cortron Product Code CK352 (includes CAS no's 64742-94-5 and 91-20-3) and KI302C (includes CAS no's 7632-00-0 and 1303-96-4) used	Liquid	4	N/A	-
Transformer lubricant (Nynas Nytro and Nytro Lyra X)		SDSs for Nynas Nytro (includes CAS no's 64742-53-6 and 128-37-0) and Nytro Lyra X (includes CAS no's 64742-53-6, 72623-87-1, 64742-55-8, 64742-54-7 and 128-37-0) used	Liquid	4	N/A	-
Oxygen Scavenger (DEHA)		3710-84-7	Liquid	2	N/A	-

Note: The classification of the substances as detailed in the above table are taken directly from the SDS's and may be conservative when compared to the COMAH classification of the substance. Refer to Appendix 2 for Safety Data Sheets for the COMAH dangerous substances present on the terminal.

Table 4.2 Main Process Vessels on the BBGT

Tag no.	Vessel	Size	Operating Capacity (m^3)	Min/Max[2] Operating Pressure (barg)	Operating Temp (°C)	Purpose / content
D-1001	Pig receiver	20" NB/4500mm and 24" NB/3240 mm	-	0/85	2/15	Import Gas
D-1002	Slug catcher		260	16/85	3/16	Import Gas
	• Piping 24"	Length 814.3m/ OD 610mm				
	• Donut 42"	Length 71.7m/ OD 1067mm				
	• Boot 42"	Length 20.1m/ OD 1067mm				
	• 12" Gas offtake	Length 60.9m/ OD 324mm				
D-1003	Inlet separator	Length 1720 mm/ ID X 4500mm T/T	10.46	56/85	-8/2	Import Gas
N-1001	Feed gas mercury removal bed	2400 mm ID X 2500mm T/T	8.96	6.2/84	2/15	Import Gas
D-2009A/B	Sales Gas Compressor Suction KO Drum	2815 mm ID X 4590mm T/T	28.57	3.8/70	-20.2/11	Export Gas
K-2002A/B	Sales Gas Compressor		1.34	Suction: 61.9/65.4Discharge: 89.6	-6.9/1.4	Export Gas
D-2003	Gas Export (Metering & Launcher)	26" NB/610mm and 30" NB/4572 mm	59	85	1/ 35	Export Gas
D-2010	Cold Separator	1800 mm ID X 4400mm T/T	11.2	4.7/66.3	-32.6/-10	Export Gas
D-3001	MP Flash Drum & Boot	1600 mm ID X 6400mm T/T – Boot 800 mm ID X 1250mm T/T	13.50	5.5	2/35	Condensate
D-3002	LP Flash Drum	1400 mm ID X 4000mm T/T	6.16	1.2	114	Condensate
N-3001	Mercury Removal Bed	1700 mm ID X 8250mm T/T	18.73	3.1	35	Condensate
D-3003A/B	LP Gas Compressor suction KO drum	500 mm ID X 3000mm T/T	1.18	6.3	35	Condensate
K-3001A/B	LP Gas Compressor		0.2	Suction=0.9 Discharge=7.2	Suction=113 Discharge=160	Condensate
T-3001A	Condensate Storage Tank	10000 mm ID X 10400mm Height	221	2.82m head	Ambient	Condensate
T-3001B	Condensate Storage Tank	10000 mm ID X 10400mm Height	221	2.82m head	Ambient	Condensate
T-3002	Off- Spec Condensate Storage Tank	10000 mm ID X 10400mm Height	413	5.26m head	Ambient	Condensate

[2] A single figure represents the maximum operating pressure.

Tag no.	Vessel	Size	Operating Capacity (m^3)	Min/Max[2] Operating Pressure (barg)	Operating Temp (°C)	Purpose / content
D-4001	Methanol Flash Drum	2900 mm ID X 9750 mm T/T	64.4	3.5	11	Methanol
D-4002	Methanol Reflux Drum	1100 mm ID X 3300 mm T/T	3.14	0.07	45	Methanol
D-4003	Methanol Still Feed Coalescer	1000 mm ID X 4000 mm T/T	3.14	4.5	64.5	Methanol
C-4001	Methanol Still	1220 mm ID X 26985 mm T/T	31.55	0.35 (top) 0.55 (Bottom)	71(top) 113 (Bottom)	Methanol
T-4001 A/B/C	Raw Methanol Storage Tank	13500mm ID x 10000 mm H	880	6.15 m head	Ambient	Raw Methanol
T-4002 A/B	Product Methanol Storage Tank	8400mm ID x 10000 mm H	488	8.80 m head	Ambient	Product Methanol

4.2 Behaviour of Dangerous Substances during Major Accidents

The hazardous substances present on-site can be grouped according to their behaviour in a major accident:

- Gases that burn
- Liquids that burn
- Substances that disperse and pollute

The behaviour of each of the categories of substance in a major accident is outlined in the following sections.

4.2.1 Gases that Burn

The Corrib hydrocarbon gas contained in the offshore and onshore pipeline, at the LVI and in the process equipment at the terminal belongs to this category of substance. Unstabilised condensate in these facilities will, if released, generate hydrocarbon vapour which behaves in a similar way to flammable gases.

The flammable gas will burn if it encounters an ignition source and if there is sufficient air or oxygen present to support combustion.

Immediate ignition of a gas release at pressure results in a jet fire giving rise to radiated heat. The jet fire shape is determined by the momentum of the release, which results in a narrow, long flame of high intensity. If the flame impinges on equipment such as, vessels, structures or pipework, it can cause significant damage and possibly escalation of the event. The thermal radiation effects of a jet fire can cause injuries or fatalities to personnel and damage to equipment located some distance away from the flame.

Catastrophic vessel and large pipeline failures result in fuel rich gas clouds which, if ignited, will burn as a fireball, with a diameter and duration dependent on the amount of gas involved but typically tens of metres in diameter and several seconds in duration for large releases. Injuries, fatalities and damage can occur due to engulfment in the fire or exposure to high levels of thermal radiation outside the fireball.

If ignition is delayed, released gas will disperse downwind and mix with air. Well mixed gas-air clouds burn more efficiently and quickly, resulting in a flash fire rather than a fireball. Typically the ignition is at the edge of the gas cloud and the cloud quickly burns back towards the leak source where, if the release is still ongoing, the fire continues as a jet fire (for momentum-driven gas releases) or pool fire (for gas clouds which have evaporated from a liquid release). The flash fire itself is relatively short lived, and the consequences are dominated by fatality to people engulfed in the fire itself as opposed to thermal radiation effects outside the fire envelope.

Vapour Cloud Explosions (VCE's) can result when well mixed gas clouds are ignited in the presence of confinement or congestion. The confinement encourages the flame front to accelerate as it passes through the flammable mixture, creating intense heat and overpressure by compressing the air in front of the flame. The level of overpressure generated depends on the volume of the gas and air mixture, the properties of the flammable material and the degree of confinement, congestion and venting. Overpressure can result in injuries, fatalities or equipment damage, either directly or via generation of projectiles.

4.2.2 Liquids that Burn

Unstabilised condensate, stabilised condensate, product and raw methanol belong to this category of dangerous substance. These materials are stored on site as liquids, either in atmospheric or pressurised conditions.

Catastrophic process vessel failures can result in rapid evaporation of a large quantity of the released liquid. If ignition occurs, the 'flashed' vapour and entrained liquid droplets form a fireball as described above.

High momentum liquid releases (e.g. through a small orifice) may involve atomisation of liquid droplets which, if ignited, could result in a jet fire as described above. Heavier droplets will rain out into a pool.

Catastrophic failure of an atmospheric storage tank can result in a release of liquid with high momentum, resulting in conditions in which some liquid could overtop the bund wall. In most cases however, liquid releases are of relatively low momentum, and a pool will develop over a horizontal surface, contained by topography, bunds, etc. Ignition will result in a pool fire. Pool fires can be well ventilated (fuel-controlled) if burning in the open air, but may become under-ventilated (ventilation-controlled) if located in a confined area (e.g. within a tank).

Pool fires tend to have lower flame temperatures and produce lower levels of thermal radiation than jet fires, and therefore, have a lower potential for causing rapid structural failure. A pool fire can, however, produce large volumes of smoke, with under-ventilated pool fires producing more smoke than well ventilated pool fires. Methanol pool fires are an exception; methanol evaporates very rapidly and the short lived pool fires burn cleanly, almost invisibly, with very little smoke.

Boiling Liquid Expanding Vapour Explosions (BLEVE's) occur when substances which are normally gas at atmospheric pressure and temperature are stored as a liquid under pressure, and their storage vessel is subjected to prolonged flame impingement. The internal vessel temperature rises, liquid evaporates, and the internal pressure rises. Eventually the liquid level may fall below the location of flame impingement on the outside of the vessel, at which point the internal surface of the vessel wall is no longer in contact with liquid, acting as a heat sink, the wall temperature increases rapidly, the wall weakens and fails due to the force of the internal pressure. The contents of the vessel suddenly experience a massive reduction in pressure (to atmospheric conditions) and so a significant proportion of the remaining liquid flashes instantaneously to vapour and the gas expands violently, carrying any remaining liquid as droplets and rupturing the vessel.

The physical effects from a BLEVE can include overpressure caused by the rapid gas expansion and sections of the ruptured vessel forming missiles which can travel several hundred metres. However, if the material in the vessel is flammable, the most significant consequences are those of flame impingement / engulfment and thermal radiation from the resulting fireball.

The unstabilised condensate would be expected to rapidly evaporate should a condensate-containing pressure vessel (e.g. slugcatcher) be subjected to prolonged flame impingement. Failure of the process vessels resulting in a fireball is therefore included in the terminal's QRA. These failures are included as a sensitivity to the QRA base case, as the mitigation measures at the terminal would be expected to reduce the likelihood of this event to a low frequency, and the time between the initial failure which caused the flame impingement, and the subsequent process vessel failure due to the flame impingement, would give people sufficient time to escape to a place of safety.

4.2.3 Substances that Disperse and Pollute

Unignited Substances that Present a Risk to Human Health

Unignited gases and liquids can cause harm to people who are exposed to them, for example by contact with skin, inhalation or ingestion. Owing to the low toxic content of the well fluid, unignited releases of the hydrocarbon gas or liquid condensate pose little or no toxic hazard to people.

Another hazard from unignited releases of hydrocarbon gas is asphyxiation. This also applies to unignited release of liquid condensate, but specifically for the hydrocarbon vapour that could evolve from such releases. Asphyxiation from unignited releases of hydrocarbon gas or liquid condensate is unlikely. The hydrocarbon gas / vapours would be lighter than air and thus more buoyant, rising into the atmosphere.

For unignited releases at the terminal, safety measures are in place (e.g. isolation, blowdown, shutdown) which will limit the amount of hydrocarbon released and thus the size and concentration of any cloud that may form. Also, the communications systems (e.g. alarms, radios) will be used to direct people away from releases and any clouds that could form.

The potential harm to people, both immediate and delayed, from the substances held at the terminal are listed in Appendix 3. Such substances are stored and handled in strict accordance with the instructions on their Safety Data Sheet (SDS), personnel receive appropriate training and wear the necessary Personal Protective Equipment (PPE).

Nitrogen and carbon dioxide (CO_2) are both used at the terminal. Nitrogen is used for purging and blanketing and CO_2 is used for fire suppression in the turbine enclosures. Both of these gases have the potential to cause asphyxiation if personnel are exposed to them in confined spaces, or are overcome / injured and unable to evacuate from the area.

Substances with Dangerous to the Environment Classification

A number of the substances present at the terminal are classified as dangerous to the environment; however, they are mostly present in small quantities which reduces the risk of a significant impact occurring if released to the environment.

The potentially harmful substances handled in the largest quantities are hydrocarbon gas, diesel, methanol, stabilised and unstabilised condensate and odorant. These substances can be dangerous to the environment should they reach waterways or wildlife, either because they are directly toxic or because they can interfere with the oxygen content of the water for example.

Equipment and systems are designed firstly, to prevent accidental spills, and then to contain any such releases in bunds and drainage systems, thereby preventing them from extending off-site.

Gases may also have an environmental impact. For example, releases of hydrocarbon gas, condensate vapour, methanol vapour and carbon dioxide have the potential to contribute to global warming. However, these impacts do not constitute major accident scenarios in the context of the COMAH Regulations.

The major environmental hazards at the terminal are associated with the following scenarios involving loss of containment of dangerous substances:

- Natural gas to air
- Condensate (stabilised or unstabilised) to water, air or ground
- Diesel to water or ground
- Methanol (raw or product) to water, air or ground
- Odorant to water, air or ground

The major environmental hazards are summarised in Table 4.3.

Table 4.3 Major Environmental Hazards

Major Environmental Hazard Scenario
Release of condensate from process areas to the SW2 drainage system
Release of condensate from storage to the SW2 drainage system
Release of diesel from storage to the SW2 drainage system
Release of condensate from process areas to ground
Release of diesel from storage to ground
Release of methanol from storage to ground
Release of odorant from storage to ground
Release of natural gas to air

4.2.4.1 Details of Measures to Protect the Environment

The potential impact of the dangerous substances on the environment has been fully examined in more detail in the risk assessments contained in the Safety Report for the BBGT. The conclusion of these risk assessments states that for each of the identified major environmental hazards, there is no potential for significant environmental impact from these major accident scenarios due to the measures in place at the BBGT.

Refer to Table 4.4 for environmental mitigation measures in place at the BBGT.

Table 4.4 Controls and Mitigation Measures for Major Environmental Hazards

Major Environmental Hazard Scenario	CAS Number	Managing the risk – controls etc	Residual potential for significant environmental impact when controls are taken into account
Release of condensate from process areas to the SW2 drainage system.	64741-47-5	• Primary containment is provided by the pipework systems which were designed for the substances handled and which are subject to regular inspection and maintenance. • Secondary containment is provided by the kerbed hardstanding areas beneath the process areas that drain to the Treated Surface water drainage system. These areas are routinely inspected and maintained. • The combination of the above should ensure that condensate does not enter the SW2 drainage system. • The uncontaminated surface water drainage system is routed via the EHT and there are TOC/TC analysers in-line connected to an automatic isolation valve on the EHT which will allow the contents of the EHT to be transferred to the Treated Surface Water drainage system for processing through the Waste Water Treatment plant. • The groundwater perimeter drainage system is routed to Manhole 26 and there is a TOC/TC analyser in-line to alarm and the ability to manually isolate the manhole from the Settlement Ponds. • In the event of a major accident involving the release of condensate from this area to ground / the uncontaminated drainage system, the SEPIL Internal Emergency Response Plan would be initiated and measures taken to isolate drainage systems, recover condensate and remediate any contaminated ground as necessary.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.
Release of condensate from storage to the SW2 drainage system.	64741-47-5	• Primary containment is provided by the bulk storage tanks which were designed for the substances to be stored and which are subject to regular inspection and maintenance. • Secondary containment is provided by the bunded area which is the subject of regular inspection and maintenance. • The combination of the above should ensure that condensate does not enter the SW2 drainage system. • The remainder of the controls for the SW2 drainage system are as described above.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.
Release of diesel from storage to the SW2 drainage system.	68334-30-5	• Primary containment is provided by the bulk storage tanks which were designed for the substances to be stored and which are subject to regular inspection and maintenance.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.

Major Environmental Hazard Scenario	CAS Number	Managing the risk – controls etc	Residual potential for significant environmental impact when controls are taken into account
		• Secondary containment is provided by the bunded area which is the subject of regular inspection and maintenance. • The combination of the above should ensure that condensate does not enter the SW2 drainage system. • The remainder of the controls for the SW2 drainage system are as described above.	
Release of condensate from process areas to ground.	64741-47-5	• Primary containment is provided by the bulk storage tanks which were designed for the substances to be stored and which are subject to regular inspection and maintenance. • Secondary containment is provided by the bunded area which is the subject of regular inspection and maintenance. • The combination of the above should ensure that condensate does not enter the ground. • In the event of a major accident involving the release of condensate from this area to ground / the uncontaminated drainage system the SEPIL Internal Emergency Response Plan would be initiated and measures taken to isolate drainage systems, recover condensate and remediate any contaminated ground as necessary.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.
Release of diesel from storage to ground.	68334-30-5	• As above for condensate storage.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.
Release of methanol from storage to ground.	67-56-1	• As above for condensate storage.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.
Release of odorant from storage to ground.	SDS for Product Code 16410 used (includes CAS no's 75-66-1 and 75-18-3)	• As above for condensate storage.	Due to the measures in place it is considered that there is no potential for significant environmental impact to result from this major accident scenario.
Release of natural gas to air.	68410-63-9	• In the event of a major accident resulting in the release of natural gas the ESD system will isolate the incoming gas supply to minimise the loss. • Any natural gas lost to the environment will be readily dispersed in the atmosphere especially as natural gas is lighter than air.	Due to the dispersion that will occur it is considered that there is no potential for significant environmental impact to result from this major accident scenario.

Section 5 MAJOR ACCIDENT HAZARDS

5.1 Major Accident Hazard Scenarios

A Major Accident Hazard Scenario is an undesirable event or sequence of events that could lead to a major accident. There are no off-site or domino effects associated with any of the major hazard scenarios associated with the terminal.

The major accident hazard scenarios are as follows:

1. Unignited release of unstabilised condensate from process vessels or pipework. Includes releases from slugcatcher, separation, compressor suction drums and coolers.
2. Ignited release of unstabilised condensate from the terminals process vessels or pipework. Includes releases from slugcatcher, separation, compressor suction drums and coolers.
3. Unignited or ignited stabilised condensate release from storage tanks T-3001A, T-3001B and T-3002 (offspec condensate) or associated pipework.
4. Unignited stabilised condensate release during road tanker loading e.g. as a result of operator / driver error, connection or hose failure, or overfilling.
5. Ignited stabilised condensate release during road tanker loading.
6. Unignited hydrocarbon gas release from process equipment or pipework. Includes releases from import pipeline within the establishment, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system, compressors.
7. Ignited hydrocarbon gas release at the terminal from process equipment or pipework. Includes releases from import pipeline, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system and compressors.
8. Ignited diesel release from storage (main tank or local day tanks for emergency generator & fire water pumps) or from diesel release during vehicle refuelling.
9. Accumulation of explosive gases (hydrogen in UPS battery room or chlorination package).
10. Fire caused by electrostatic discharge (e.g. during vehicle refuelling, diesel delivery, condensate loading, bulk material transfer).
11. Exposure to insufficient oxygen atmosphere or accumulation of toxic gas during confined space entry (storage vessels / tanks, sumps).
12. Spurious release of CO_2 deluge in confined space (gas turbine enclosures), use of fire extinguishers in confined space, use of medical gases in confined space.
13. Fire following a release of methanol from LVI pipework / umbilical.

14. Fire following loss of containment of methanol from process equipment, pipework or storage at the BBGT. Includes releases from methanol regeneration, injection, OTTU, storage tanks, road tanker delivery.

There are additional risks on the BBGT which could result in serious injury or disability, but not usually a fatality, or do not fall under the classification of major accident hazards under the COMAH Regulations. Examples include:

- Injuries from pressurised releases of liquid or gas, or other sudden releases of energy
- Injuries from chemicals or hot or cold surfaces or liquids e.g. burns, irritation
- Exposure to exhaust fumes
- Injuries from use of hand tools or machinery
- Contact with electricity
- Driving on site
- Work at height
- Injuries from exposure to noise or vibration
- Illnesses such as viruses, hepatitis, tuberculosis and injuries arising from use of alcohol and drugs

Refer to Table 5.1 for the key emergency response actions associated with the major accident hazard scenarios and refer to Table 5.2 for the potential escalation effects which should be considered.

5.2 Fire Fighting Philosophy

The design intent across the facility in areas other than 'bulk storage / tanker loading' is that fire detection, emergency shutdown and blowdown constitutes the protection mechanism. Fire water monitors are present in the process areas for equipment cooling purposes and not fighting a fire associated with process equipment per se.

There are five types of fires associated with the terminal:

1. Hydrocarbon Gas related
2. Bulk liquid storage tank fires
3. Building fires
4. Forest fires
5. Other minor fires

5.2.1 Hydrocarbon Gas Related Fires

For any fires associated with the terminal process, the automatic systems will activate initiating a shutdown of the system and blowdown of the hydrocarbon inventory on the terminal if required.

The application of water to the affected area will be for cooling purposes only and will be from the terminal automatic fire fighting systems. The requirement for any additional cooling will be assessed on a case by case basis and will be carried out using the terminal fire water ring main fire hydrants. Hydrocarbon gas related fires will be permitted to burn out until the source of fuel has dissipated.

5.2.2 Bulk Liquid Storage Tank Fires

For storage tank fires in the Condensate and Methanol tanks, the internal foam deluge systems will activate automatically. External cooling with water will also be activated either locally or remotely from the Control Room. For any pool fires in the tank bunding, the application of additional fire fight foam will be from the automatic foam monitors located adjacent to these tanks. Overflow from the tanks is diverted to the Fire Water Retention Pond to prevent migration over the bund wall into groundwater.

For all other bulk storage tanks, the fire fighting approach will be on a case by case basis e.g. diesel tanks.

5.2.3 Building Fires

Fires in any of the buildings on-site will be fought in the normal approach by the Fire Service.

5.2.4 Forest Fires

SEPIL have an internal protocol for dealing with forest fires both inside and outside the SEPIL landholding. The approach is to monitor the potential for the migration of embers onto the terminal site, erect fire screens using the on-site fire hydrants and shutdown and blowdown if necessary.

5.2.5 Other Minor Fires

Other minor fires (e.g. fires in the waste compound) will be dealt with in the normal manner by the Fire Service, however, the on-site Location Response Team may deal with this type of fires in addition to calling for Fire Service support.

Table 5.1 Key Emergency Response Actions Associated with the Major Accident Hazard Scenarios

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
1. Unignited release of unstabilised condensate from process vessels or pipework. Includes releases from slugcatcher, separation, compressor suction drums and coolers.	68919-39-1	Vapour cloud Spill	**Vapour cloud:** Natural cloud dispersion. Restriction of access to the affected area. Restrictions on potential ignition sources. **Spill containment**: Spill containment is via on-site drainage system. See catchment area drawing (Appendix 1, Drawing 13) for drainage arrangements and key actions for CRO to take to isolate drains.
2. Ignited release of unstabilised condensate from the terminal's process vessels or pipework. Includes releases from slugcatcher, separation, compressor suction drums and coolers.	68919-39-1	Pool fire, jet fire	**Fire fighting approach**: Ignited jet fires would be permitted to burn out, primary mitigation is isolation & blowdown of the system. Automatic, remote or local activation of foam monitors where provided for pool fire suppression. Supplementary fire fighting measures which may be considered: • Automatic, remote or local activation of fire water monitors for cooling of adjacent equipment if required • Additional cooling of process equipment via the use of local fire hydrants if required.
3. Unignited or ignited stabilised condensate release from storage tanks T-3001A, T-3001B and T-3002 (offspec condensate) or associated pipework.	64741-47-5	Ignited release would lead to a pool fire	**Fire fighting approach**: Internal tank fire suppression. Each tank has internal foam pourers; these have surfaces pourers which dispense aqueous film-forming alcohol resistant foam onto the internal floating roof. Supplementary fire fighting measures which may be considered for internal tank fires: • Each tank has manual local or manual remote operated water deluge systems for cooling purposes. • If necessary additional cooling via the use of fire water from local fire hydrants. • Pool fire suppression. • Manual remote activation from the Control Room or local manual activation of external foam monitors for bund pool fire suppression. **Spill containment:** Spill containment is via bunding arrangements and on-site drainage system. See catchment area drawing (Appendix 1, Drawing 13) for drainage arrangements and key actions for CRO to take to isolate drains.

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
4. Unignited stabilised condensate release during road tanker loading e.g. as a result of operator/driver error, connection or hose failure, or overfilling.	64741-47-5	Spill	**Spill containment:** Spill containment is via on-site drainage system. See catchment area drawing (Appendix 1, Drawing 13) for drainage arrangements and key actions for CRO to take to isolate drains.
5. Ignited stabilised condensate release during road tanker loading.	64741-47-5	Ignited release would lead to a pool fire	**Fire fighting approach**: Tanker loading / unloading bay has automatic or manual remote operated water deluge system for cooling purposes. Portable foam monitors for pool fire suppression. Supplementary fire fighting measures which may be considered: • Each methanol and condensate storage tank has manual local or manual remote operated water deluge systems for cooling purposes if necessary.
6. Unignited hydrocarbon gas release from process equipment or pipework. Includes releases from import pipeline within the establishment, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system, compressors.	68410-63-9	Gas release to atmosphere	**Fire fighting approach**: Primary mitigation is isolation & blowdown of the system. Natural cloud dispersion. Restriction of access to the affected area. Restrictions on potential ignition sources.
7. Ignited hydrocarbon gas release at the terminal from process equipment or pipework. Includes releases from import pipeline, slugcatcher, separation, gas treatment, metering, flare system, fuel gas system and compressors.	68410-63-9	Cloud/jet fire or explosion	**Fire fighting approach**: Primary mitigation is isolation & blowdown of the system. Natural cloud dispersion. Restriction of access to the affected area. Restrictions on potential ignition sources. Supplementary fire fighting measures which may be considered: • Automatic, remote or local activation of fire water monitors for cooling of adjacent equipment if required. • Additional cooling of process equipment via the use of local fire hydrants if required.
8. Ignited diesel release from storage (main tank or local day tanks for emergency generator & fire water pumps) or from diesel release during vehicle refuelling.	68334-30-5	Pool fire	**Fire fighting approach**: Use of local fire hydrants with mobile foam units if necessary. Diesel is not formally regarded as 'flammable'. Note 3 to Part 2 of the COMAH Regulations defines flammable as flash point >21°C and less than or equal to 55°C. Diesel at the terminal will have a minimum flash point of 56°C. **Spill containment:** Spill containment is via bunding arrangements and on-site drainage system. See catchment area drawing (Appendix 1, Drawing 13) for drainage arrangements and key actions for CRO to take to isolate drains.
9. Accumulation of explosive gases (hydrogen in UPS	-	Fire/explosion	**Fire fighting approach**:

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
battery room or chlorination package) .			Use of local fire hydrants for water application. The UPS batteries are sealed and designed for continuous service, and the system is configured to charge correctly. The battery room is ventilated and failure of the ventilation system will result in battery charging being stopped. Furthermore, accumulation of sufficient amounts of hydrogen in the battery room to cause an explosion would require years of overcharging as the volumes would be extremely small.
10. Fire caused by electrostatic discharge (e.g. during vehicle refuelling, diesel delivery, condensate loading, bulk material transfer).	Diesel 68334-30-5 Condensate 64741-47-5	Pool fire	**Fire fighting approach**: <u>For diesel:</u> Use of local fire hydrants with mobile foam units if necessary. Diesel is not formally regarded as 'flammable'. Note 3 to Part 2 of the COMAH Regulations defines flammable as flash point >21°C and less than or equal to 55°C. Diesel at the terminal will have a minimum flash point of 56°C. <u>For condensate/methanol loading/unloading:</u> Tanker loading/unloading bay has automatic or manual remote operated water deluge system for cooling purposes; Portable foam monitors for pool fire suppression. Supplementary fire fighting measures which may be considered: • Each methanol and condensate storage tank has manual local or manual remote operated water deluge systems for cooling purposes if necessary **Spill containment:** Spill containment is via bunding arrangements and on-site drainage system. See catchment area drawing (Appendix 1, Drawing 13) for drainage arrangements and key actions for CRO to take to isolate drains.
11. Exposure to insufficient oxygen atmosphere or accumulation of toxic gas during confined space entry (storage vessels/tanks, sumps).	-	Personal injury	Search and rescue as per normal Emergency Services protocols.
12. Spurious release of CO_2 deluge in confined space (gas turbine enclosures), use of fire extinguishers in confined space, use of medical gases in confined space.	-	Personal injury	Search and rescue as per normal Emergency Services protocols.
13. Fire following a release of methanol from LVI pipework /from umbilical.	67-56-1	Pool Fires	**Fire fighting approach:** Methanol burns clear. Approach determined by assessment of circuit television (CCTV) monitoring, section of umbilical on BBGT is buried.
14. Fire following loss of containment of methanol from process equipment, pipework or storage at BBGT.	67-56-1	Pool Fires	**Fire fighting approach**: Methanol burns clear.

Major Accident Hazard Scenario	CAS Number	Effect	Emergency Response Approach
Includes releases from methanol regeneration, injection, OTTU, storage tanks, road tanker delivery.			Approach determined by assessment of circuit television (CCTV) monitoring and infrared flame detection that alarms in the CCR. <u>Methanol storage tanks:</u> Internal tank fire suppression. Each tank has internal foam pourers; these have surfaces pourers which dispense aqueous film-forming alcohol resistant foam onto the internal floating roof. Supplementary fire fighting measures which may be considered for internal tank fires: • Each tank has manual local or manual remote operated water deluge systems for cooling purposes. • If necessary additional cooling via the use of fire water from local fire hydrants. • Pool fire suppression. • Manual remote activation from the Control Room or local manual activation of external foam monitors for bund pool fire suppression. <u>For methanol off-loading:</u> Tanker loading/unloading bay has automatic or manual remote operated water deluge system for cooling purposes. Portable foam monitors for pool fire suppression. Supplementary fire fighting measures which may be considered: • Each methanol and condensate storage tank has manual local or manual remote operated water deluge systems for cooling purposes if necessary. <u>Process areas:</u> Ignited jet fires would be permitted to burn out, primary mitigation is isolation & blowdown of the system. Supplementary fire fighting measures which may be considered: • Automatic, remote or local activation of fire water monitors for cooling of adjacent equipment if required. • Additional cooling of process equipment via the use of local fire hydrants if required. **Spill containment:** Spill containment is via bunding arrangements and on-site drainage system. See catchment area drawing (Appendix 1, Drawing 13) for drainage arrangements and key actions for CRO to take to isolate drains.

Table 5.2 Potential for Fire / Explosion Escalation from One Area to Another

N/A denotes the potential for escalation is not a credible risk due to the distances involved.

Fire originating from:	Potential for escalation to:					
	Gas Inlet/Export Line	**Slugcatcher**	**Process Area**	**Tank Farm**	**OTTU/HPU**	**LER 1 / Admin Building / Control Room**
Gas receiving / slugcatcher	Unburied pipeline protected by jet fire resistant Passive Fire Protection (J30 PFP). ESDV 1001, 1002, blast protected to 0.5barg and jet fire resistant for 15 minutes minimum. ESDV 1013 is fire rated.	25-75mm jet fire from pig receiver or slugcatcher could impinge on slugcatcher trestles, this may result in self-escalation only, also noting that there are multiple trestles in place. Basis of safety is gas/fire detection and ESD followed by blowdown. PFP is purely an asset protection consideration. Overpressures not expected to cause escalation due to blast protection of BDVs and ESDVs.	n/a	50-75 mm leak from slug catcher/ blowdown valve platform could reach raw methanol tanks but escalation not possible assuming successful isolation. Overpressures capable of rupturing tanks not expected.	OTTU protected from jet fire by 3m high reinforced concrete wall with cantilevered roof. Significant overpressure not anticipated. The HPU is protected on the south and east sides of the skid by a wall to prevent flame impingement.	n/a
Process area	n/a	n/a	50mm jet fire could reach adjacent equipment and piperacking, extending from the gas processing side into the methanol distillation column process area. However, isolation due to fire or gas detection and blowdown will reduce pressure relatively quickly, reducing jet fire momentum, intensity and duration. Jet fire from inlet separation could reach the adjacent piperack/valve platform and ESDV 1006 (which is protected for 10 minutes jet fire impingement). Asset protection issue only.	Acceptable risk of escalation from jet fire due to separation distance (93m). Tolerable risk of escalation from overpressure.	OTTU is also a significant distance from the process area.	Blast overpressure generated in the process area will impact this area. LER 1 built to withstand 300mbar. Control room built to withstand 250mbarg. The Administration building is not blast rated but the QRA indicates that the frequency with which it may be impacted by overpressure from a VCE is less than $1x10^{-4}$ per year. Failure of LER 1 building due to overpressures exceeding blast rating will not impact on ESD system – ESDVs are fail closed. BDVs are fail last position and pneumatically operated with back up air reservoirs blast rated to 500mbarg (via Darchem jacket and firebox).

Fire originating from:	Potential for escalation to:					
	Gas Inlet/Export Line	**Slugcatcher**	**Process Area**	**Tank Farm**	**OTTU/HPU**	**LER 1 / Admin Building / Control Room**
Sales gas metering and export	Unburied export pipeline protected by PFP. ESDV 2015, 2016 blast protected to 0.5barg and jet fire resistant for 15 minutes minimum.	25 -75mm jet fire could impinge on slugcatcher trestles. Basis of safety is gas/fire detection and ESD followed by blowdown. ESD and blowdown prioritises the slugcatcher due to larger inventory (i.e. blowdown Zone 6 over Zone 1). No significant escalation issue. Impingement on slugcatcher trestles is an asset protection issue.	n/a	75 mm jet fire will not reach tank farm.	n/a	n/a
Condensate and methanol bulk storage and loading / unloading	n/a	Pool fire escalation to slugcatcher negligible risk.	Pool fire escalation to process area negligible risk.	-	n/a	n/a
Waste Water Treatment Plant (WWTP)	n/a	n/a	n/a	n/a	n/a	n/a
Administration / control building and laboratory	n/a	n/a	n/a	n/a	n/a	n/a
Firewater pump house and pond	n/a	n/a	n/a	n/a	n/a	n/a
Power generation and utilities	n/a	n/a	n/a	n/a	n/a	n/a
Flare and LER1	n/a	n/a	n/a	n/a	n/a	n/a
Piperack	n/a	n/a	Escalation not expected - ESDVs are fail closed; site blowdown philosophy.	n/a	n/a	n/a

Section 6 MANAGEMENT OF EMERGENCY RESPONSE

6.1 Command, Control and Co-ordination of Response

The phrases command, control and co-ordination are used to describe the hierarchy of relationships and to establish decision-making arrangements.

Command Meaning the process of directing the operations of all or part of a particular service (or group of services), by giving direct orders.

Control Meaning the process of influencing the activity of a service or group of services, by setting tasks, objectives or targets, but without the authority to give direct orders.

Co-ordinate Meaning to bring the different elements of a complex activity or organisation into an efficient relationship through a negotiated process. In an emergency context this may include the mandate / authority to make certain decisions in pre-defined areas, where a normal consensual approach does not appear to meet the needs of an emergency situation.

Co-operate Meaning to work together towards the same end.

Collaborate Meaning to work jointly on an activity.

6.2 Command and Control Arrangements on Location

This section deals with command and control arrangements within individual services of the principal response agencies, or other services responding to an emergency. It requires that:

- Each PRA exercises command over its own resources in accordance with its normal command structure, command systems and arrangements.
- Each PRA should exercise control over:
  - Its own services operating at the site and
  - Other services (other than the other PRA's) which it mobilises to the site.
- The lead agency should exercise control over the services provided by any SEPIL personnel.

6.3 Co-ordination Arrangements

In international best practice, the co-ordination of the efforts of all services is recognised as a vital element in successful response to emergencies. One of the key objectives is to set out the arrangements and facilities for effective co-ordination of the individual response efforts of the principal response agencies to emergencies, so that the combined result is greater than the sum of their individual efforts.

The key to achieving this objective is to recognise co-ordination of response as a specific function in emergency management.

6.4 The Lead Agency Concept

The lead agency should be identified and assigned the responsibility and mandate for the co-ordination function in local emergencies. One of the three principal response agencies will be designated as the lead agency for any emergency and thereby assume responsibility for leading co-ordination. In general, therefore, while the responsibility for co-ordination may be shared, in any given situation responsibility for leading co-operation belongs specifically to one of the PRA's. The lead agency has both the responsibility and mandate for the co-ordination function.

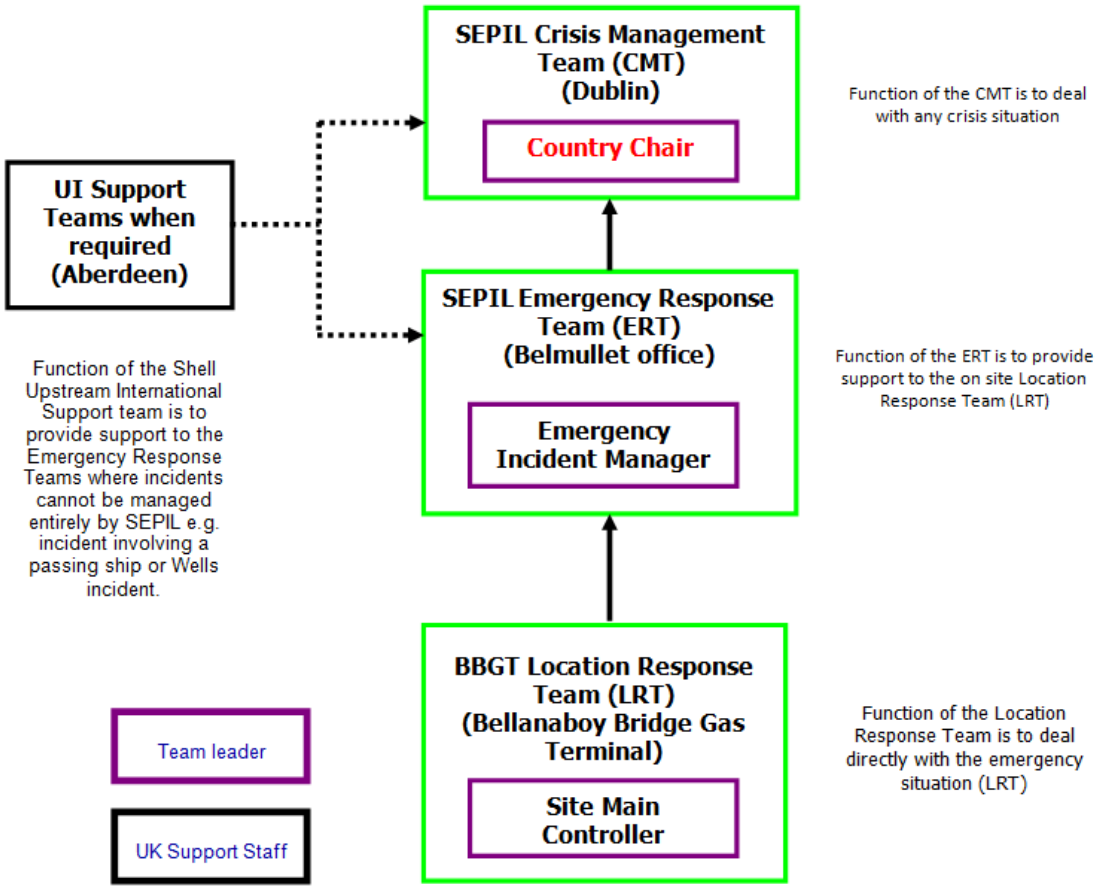
The mechanisms for determining and designating the lead agency in any situation are detailed in the in the Framework for Major Emergency Management.

6.5 Shell E&P Ireland Limited Emergency Response Arrangements

SEPIL Emergency Response Structures

Figure 6.1 details the SEPIL Emergency Response Structure for the terminal. Further details on the roles and responsibilities of the Emergency Response Teams are detailed in the SEPIL Internal Emergency Response Plan.

Figure 6.1 SEPIL Emergency Response Structure



BBGT Emergency Response Team Structure

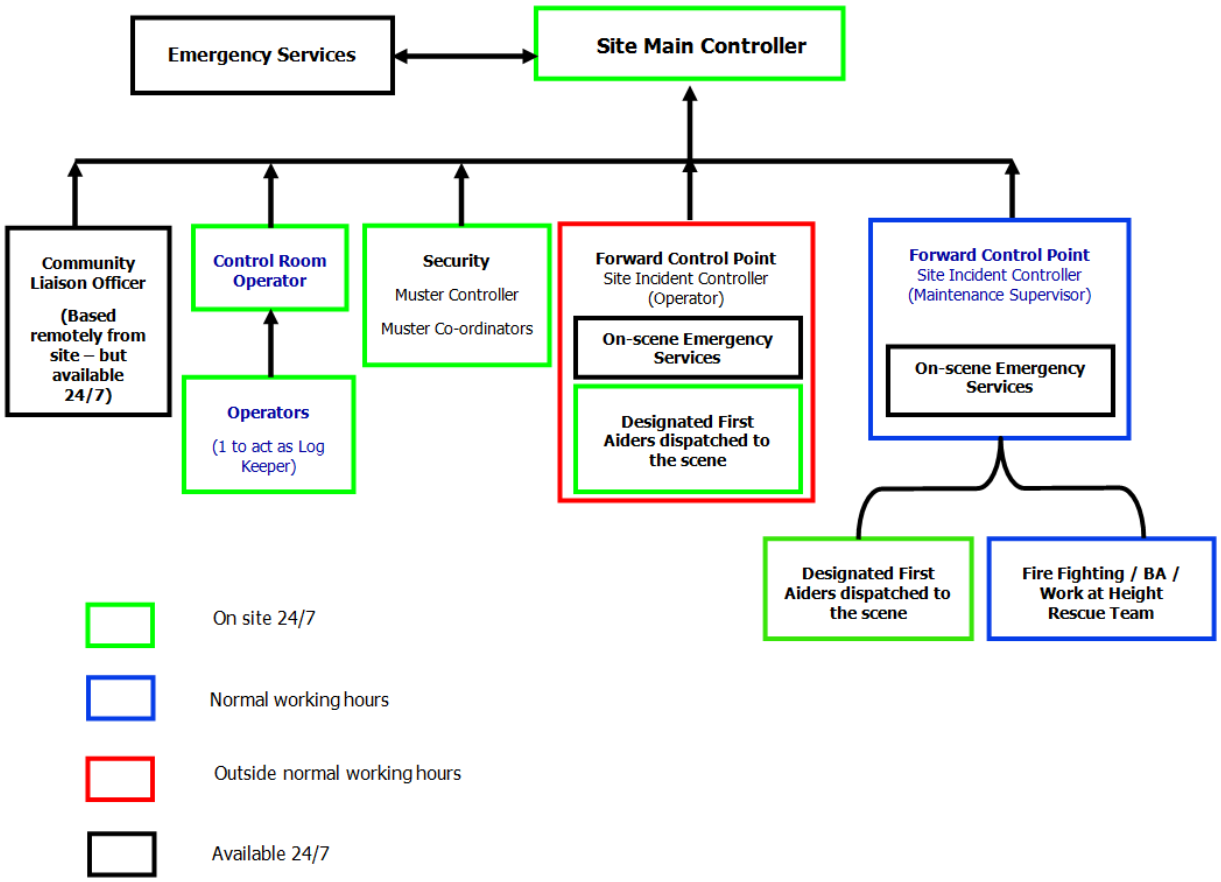
In the event of an emergency situation occurring on the BBGT, the Location Response Team will be mobilised to deal with the situation.

The Location Response Team Leader is called the 'Site Main Controller'. The Site Main Controller will contact the Emergency Incident Manager (SEPIL Emergency Response Team Leader), who will decide whether or not to mobilise the SEPIL Emergency Response Team.

The Site Main Controller will not wait to contact the SEPIL Emergency Incident Manager prior to activating this plan if they believe the plan should be activated.

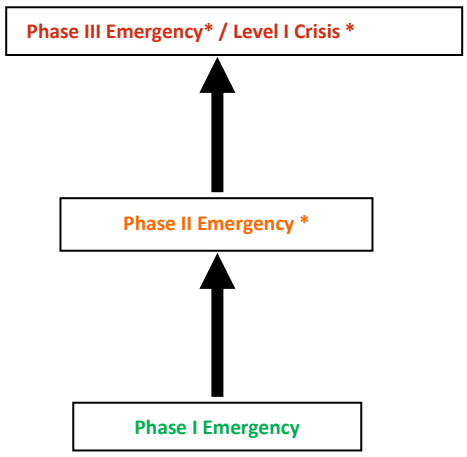
Figure 6.2 details the SEPIL Location Response Team Structure for the terminal.

Figure 6.2 Location Response Team Structure for the BBGT



SEPIL Emergency Response Categories

The following are the defined categories of an emergency in SEPIL:



Local/Asset Crisis
An incident occurs at a local business level that significantly threatens the safety of people, the environment, the company's reputation and SEPIL's ability to continue its business operations.

Local/Asset Emergency
A local incident that requires immediate attention that is not under control and which requires support from SEPIL's Emergency Response Team (ERT) and external emergency services.

Location Emergency
A non-routine situation needing immediate attention and which can be controlled at a location level (e.g. medical, minor fires and oil spills).

***** This plan may be activated by SEPIL when a Phase II or Phase III Emergency / Level I crisis occurs.

The following are actions taken by SEPIL during each level of emergency:

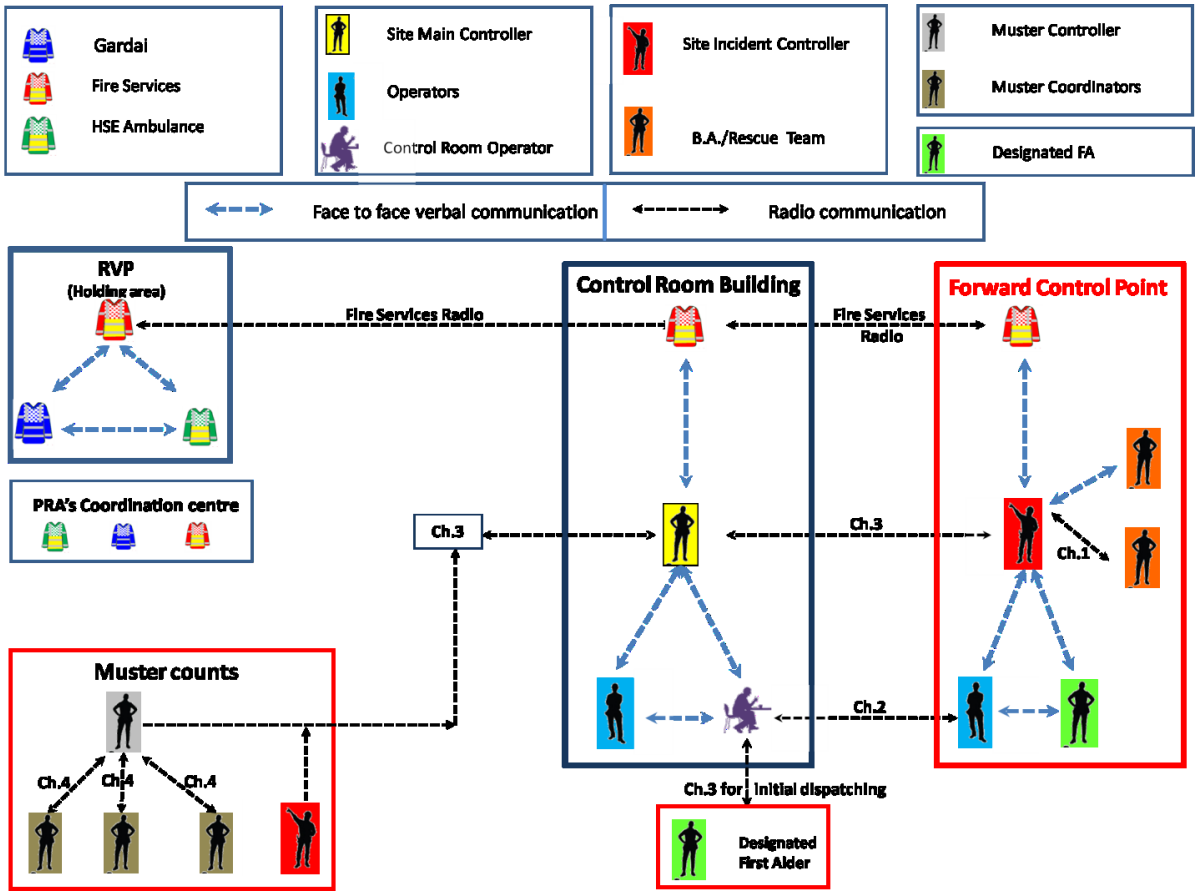
Phase I Emergency	Phase II Emergency *	Phase III Emergency* / Level I Crisis *
• A Location Response Team (LRT) will activate to manage the emergency. • The LRT Leader will notify the SEPIL Emergency Response Team (ERT). • The Emergency Incident Manager (EIM), based on discussion with the LRT Leader, will decide if the emergency should be escalated to a Phase II Emergency. • The LRT Leader is responsible for notifying the most senior SEPIL person with responsibility for the affected emergency location.	• The EIM will mobilise the ERT and inform the SEPIL Duty Manager (DM). • The ERT will support the LRT. • On being notified by the DM, the SEPIL Country Chair will decide if the emergency response needs to be escalated to a crisis response. • The EIM shall follow initial verbal notification by a written incident summary for all events to the DM.	• For such an incident it is likely that a Level 1 Crisis will be declared. • If an asset crisis is called, the Crisis Management Team (CMT) will convene in the Crisis Management Room to manage the crisis aspects of the situation. • The ERT shall continue to support the LRT. • The CMT will support the affected asset and address broader and longer-term public, governmental, reputation and business implications, with executive responsibility for communication with local and national stakeholders.

6.6 Communicating During an Emergency

During an emergency, the principal response agencies will use their standard means of telecommunications except where advised by SEPIL that only intrinsically safe telecommunication devices should be used e.g. in the event of an un-ignited hydrocarbon release. In these instances, SEPIL will provide intrinsically safe telecommunication devices, which are stored on the BBGT.

Figure 6.3 details the various communication links between the principal response agencies and SEPIL during an emergency.

Figure 6.3 Emergency Response Communications

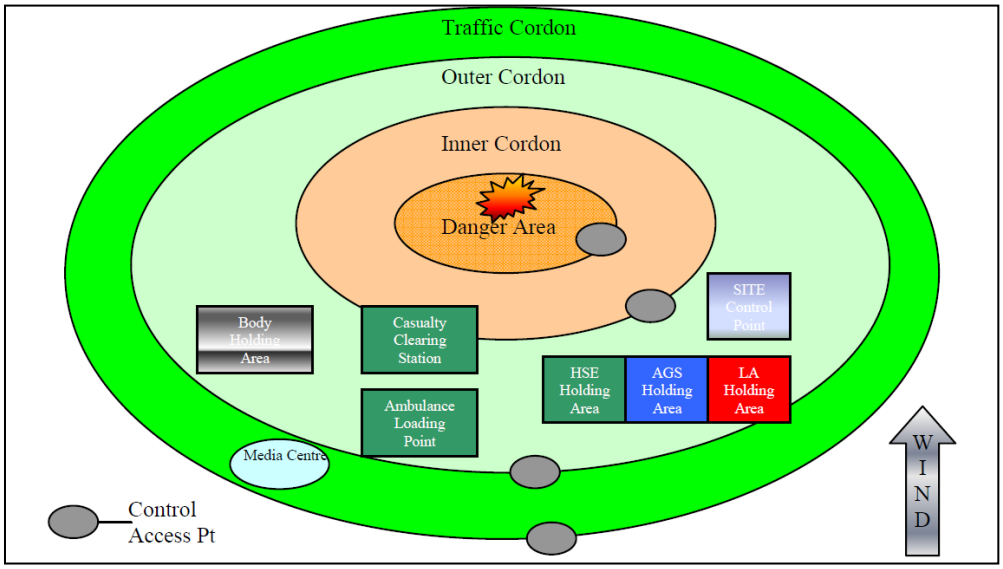


Section 7 SITE MANAGEMENT DETAILS

7.1 Site Management

Figure 7.1 depicts idealised site management arrangements which apply for all emergencies involving principal response agency response. It details the requirements for effective scene management, i.e. establishing rendezvous points, holding areas and cordons, etc.

Figure 7.1 Site Management Diagram



7.2 Rendezvous Point (RVP)

The Rendezvous Point is the location to which all resources responding to the emergency are directed in the first instance (apart from the first Fire Service response vehicle which will proceed onto the terminal and park at the rear of the Control Room).

There are two Rendezvous Points associated with an emergency event at the BBGT. (A third Rendezvous Point, 'RVP 3', is associated with the Corrib Gas Onshore Pipeline and is outside the scope of this plan.)

In the event of an emergency, the SEPIL Control Room Operator, when contacting the emergency services, will direct the responding agency to RVP 1 or RVP 2. The Rendezvous Point will be selected based on the incident details and other factors, including wind direction. For any incident, only one Rendezvous Point will be used.

An Garda Síochána organise the Rendezvous Point. Other agencies may have a Marshalling Officer present to direct responding vehicles to the scene.

Refer to Appendix 1, Drawing 14, showing the locations of the Rendezvous Points associated with the terminal.

Rendezvous Point 1

RVP 1 is located at the lay-by adjacent to the junction of R314 and L1204 (Haulage Road). It is located 1.3 km west of Gate 1 and approximately 6.1km east of Barnatra.

Rendezvous Point 1 (RVP 1)

Rendezvous Point 2

RVP 2 is located at the junction of R314 and L1202. It is located at least 1 km east of the terminal from Gate 1.

Rendezvous Point 2 (RVP 2)

7.3 Holding Area

The Holding Area is the location that resources which are not immediately required at site will wait until requested. An Garda Síochána organise the Holding Area. Other agencies may have a Marshalling Officer present to direct responding vehicles to the scene.

The Holding Area for each Rendezvous Point is as follows:
(The Holding Areas are located in close proximity to their corresponding Rendezvous Point.)

RVP 1: Adjacent to the junction of the R314 and L1204 (Haulage Route), both on the L1204 and R314, as deemed necessary.

RVP 2: Adjacent to the junction of the R314 and L1202, both on the L1202 and the R314, as deemed necessary.

7.4 Initial On-site Co-ordination Point

The On-site Co-ordination Point is the location from which the principal response agencies will control, direct and co-ordinate their organisations response to the emergency. A representative from SEPIL will attend the Initial On-site Co-ordination Point.

The Initial On-site Co-ordination Point is located at the designated Holding Area for the incident. The On-site Co-ordination Point may be repositioned depending on the location, type and duration of the incident.

7.5 Inner Cordon

The inner cordon is defined by the double-fence line around the main terminal site. The cordon will be secured by security staff from the terminal acting under the direction of the lead agency. Persons working inside this area should have appropriate Personnel Protective Equipment (PPE). .

The main Inner Cordon Access Point is located at the BBGT Administration Building. An alternative Inner Cordon Access Point is also available on the east and west side of the terminal double fence line. The access point should be under the control of the lead agency. This point will also be manned by security staff from the terminal.

Refer to Appendix 1, Drawing 15, showing the location of the Inner Cordon Access Points.

7.6 Outer Cordon

The Outer Cordon seals off an extensive area around the site. The area between the Inner Cordon and Outer Condon is used by the principal response agencies to provide support to personnel within the Inner Cordon.

The Outer Cordon Access Points are controlled by An Garda Síochána.

Refer to Appendix 1, Drawing 16, 17 and 20 showing the location of the Outer Cordon Points (An Garda Síochána manning points).

7.7 Traffic Cordons

Traffic cordons have been identified to assist in the control of emergency services vehicles and private motor vehicles in the event of an incident being declared. The purpose of the traffic cordon is to ensure free passage of emergency response vehicles into and out of the site and to prevent congestion at and around the site. An Garda Síochána manage the traffic cordons.

The main traffic cordon is similar to the outer cordon. However, it also includes the L1204 (previously the Haulage Route) which provides access onto the R313. This cordon requires that the junction of the L1204 with the R313 be manned by An Garda Síochána.

An alternative traffic cordon, if required, can be arranged along the R314 leading east from the site through Glenamoy and on into Ballina (junction with the N59). This will require the junction with the R315 at Ballycastle, as well as other locations on the R314 and N59, to be manned by An Garda Síochána.

Refer to Appendix 1, Drawing 18 and 19, showing the location of the Traffic Cordons.

7.8 Helicopter Landing Site

A landing site will be considered based on suitability and availability, following consultation between the National Aeromedical Co-ordination Centre, the helicopter crew and the ground ambulance.

7.9 Site Arrangements for Responding Emergency Services

The Site Arrangements for Responding Emergency Services Document assists the emergency services respond to an incident at the BBGT when this plan is activated. The document outlines the particular site management arrangements, proposed Traffic Cordons and route plans in the event of a response by emergency services.

Refer to Appendix 4 for the Site Arrangements for Responding Emergency Services Document.

7.10 On-Site Co-ordination Centre

If a Major Emergency is declared under the Framework for Major Emergency Management, the On-Site Co-ordination Group may convene at the SEPIL Office in Belmullet (Unit 4, Údarás na Gaeltachta, Belmullet) or at a suitable alternative location.

The Controller of Operations from An Garda Síochána, the Health Service Executive and Mayo County Council, their support staff and representatives from SEPIL will attend. The On-Site Co-ordination Group will be chaired by the lead agency. Specialists and expert advisers may be consulted by the Co-ordination Group.

7.11 Meteorological Information

Meteorological information will be obtained from dialling the 24 hour Weatherdial number on 1550 123 852 (for Connaught). Location specific weather data is also available to the principal response agencies from the BBGT Control Room.

Section 8 INFORMATION TO THE PUBLIC

8.1 How the Public will be informed of an Incident

The public will be informed of an incident via any of the following:

- Local radio broadcasts (National as appropriate)
- Television broadcasts
- Newspapers
- Corrib Gas Website
- RTÉ Aertel
- Dedicated emergency telephone number, when provided by SEPIL
- Local residents impacted may also be notified in person by SEPIL representatives

Residents in the area who have agreed to submit their telephone numbers will receive notification informing them of the status of the situation via the Shell Notification System. The Notification System is a computer based system designed to reach people quickly, at the same time and with a consistent message.

The following information will be released to residents during an incident:

1. Type of incident
2. Location and proximity of the incident to people in the vicinity
3. Actions to take
4. Actions being taken to correct the situation and time period anticipated
5. Contacts for additional information

The 'All Clear' will be notified to the public via the Shell Notification System or via any of the means stated above.

Section 9 WORKING WITH THE MEDIA

9.1 Media Management

Media management shall conform, in general, with the Western Region Emergency Services 'Inter-Agency Public Communication Plan' of September 2012.

The activities of the Media Liaison Officers (MLO's) from each principal response agency and the Communications Advisor from SEPIL should be co-ordinated by the MLO of the lead agency.

Upon activation of this plan, the MLO from the lead agency or the Communications Advisor from SEPIL will initiate contact with the MLO's / Communications Advisor from the other agencies. Initial communications may be via teleconference.

Prior to release to the media, all statements should be approved by the Controller of Operations of the lead agency.

An initial media holding statement should be issued by An Garda Síochána as soon as practicable. Refer to Appendix 5 for a sample media holding statement.

9.2 Co-ordination with the SEPIL Media Strategy

The MLO of the lead agency should maintain liaison with the Communications Advisor from SEPIL to ensure that there is a co-ordinated response to the media, insofar as is appropriate, in the interest of public safety.

Media management by SEPIL will be in accordance with the SEPIL Emergency Response Management System (Doc. No. COR-14-SH-0029).

9.3 Establishing a Media Centre

If a media centre is necessary, the media will be directed to a centre established at a suitable location.

Section 10 RECOVERY

10.1 SEPIL Post Incident Procedures

SEPIL are committed to providing all reasonable support including human resources and materials for the protection, management and clean-up of the environment required as a result of a major accident / incident on-site.

In the event of a major accident / incident, it is likely that the services of contractors and external specialists will be required to assist with the recovery and reinstatement effort.

10.2 Contractors and External Specialists

A waste management contractor is retained by SEPIL to manage, handle and dispose of all waste on-site. This contractor also provides a 24hrs response service with expertise in hazardous waste management and supply of specialist equipment necessary to supplement the site's response arrangements.

Prior to handling or removing any contaminated absorbents or earth, detail of the hazardous properties of any contaminants shall be provided to the relevant contractor.

10.3 Organisations to be Contacted

In the event of an accident related to a Major Accident Hazard Scenario, the SEPIL Site Main Controller, or their delegate, shall, without delay, inform the Health & Safety Authority.

Where required, other relevant external agencies such as the Commission for Energy Regulation, the Environmental Protection Agency and the HSE Public Health Department shall be contacted.

10.4 Post Incident Action by An Garda Síochána

Following an incident, An Garda Síochána shall provide all necessary and appropriate information on the investigations as soon as practicable.

10.5 Post Incident Action by the Health Service Executive

Following an incident, the HSE shall, as applicable in the circumstances, assess the health needs of those affected and consider the scale of immediate and ongoing needs for assistance.

10.6 Post Incident Action by Mayo County Council

Following an incident, Mayo County Council shall, as applicable in the circumstances, provide appropriate support, assistance and advice to SEPIL and to those affected. Mayo County Council may also assist in relevant remedial and restorative works.

10.7 Management of Recovery if a Major Emergency is Declared

Where a Major Emergency under the Framework for Major Emergency Management has been declared, the management of recovery shall conform, in general, with Section 6 of the Framework Document and the Major Emergency Plans of:

- An Garda Síochána, Mayo Division
- Health Service Executive West
- Mayo County Council

10.8 Post Incident Review

In the event that this plan is activated, each principal response agency and SEPIL should carry out an operational debriefing of its involvement in the response and document this debriefing in a report.

A composite report, based on appropriate input from the PRA's and SEPIL's internal reports should be compiled by the initial lead agency for submission, within a reasonable timescale, to the relevant Regional Steering Group. The report should include, inter alia, lessons learned from the incident and inter-agency co-ordination aspects to the response.