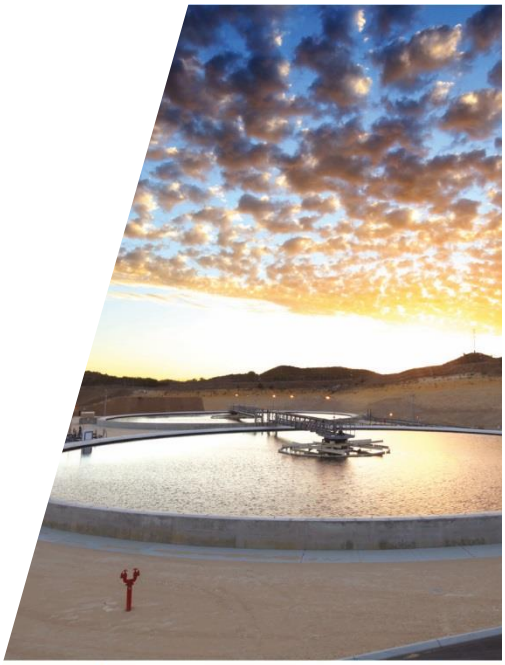

Environmental Assessment Registration Document

11 Brown Avenue
Dartmouth, NS
B3B 1Z7

Envirosystems Incorporated

August 1, 2019

Bridget Tutty
Environmental Assessment Officer
Nova Scotia Environment
1903 Barrington Street
Suite 2085
Halifax, Nova Scotia
B3J 2P8

RE: Envirosystems' Waste Dangerous and Non-Dangerous Goods Temporary Storage Facility at 11 Brown Avenue Environmental Assessment Registration

Dear Ms Tutty:

This letter is to clarify the following points with respect to the Environmental Assessment Registration of the proposed Envirosystems' Waste Dangerous and Non-Dangerous Goods Temporary Storage Facility at 11 Brown Avenue:

- Envirosystems' Facility at 11 Brown Avenue operates on a year-round basis and maintains a full-time office. Hours of operation are Monday to Friday 8:00 am to 5:00 pm. If the volume of waste at the proposed temporary storage facility increases, evening and weekend shifts may be required.
- No public consultation has been carried out prior to Environmental Assessment Registration and no public concerns have been received to date.

Please don't hesitate to contact me for further information regarding this Project.

Regards,

Scott Sangster

Vice President, Environmental Affairs - Eastern Canada
Envirosystems Incorporated
11 Brown Avenue
Dartmouth, Nova Scotia
B3B 1Z7
Email: ssangster@terrapureenv.com
T: 902 481-8052

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1. Introduction

Envirosystems Incorporated (Envirosystems) is seeking Approval for the construction and operation of a waste storage facility for the temporary storage of: 1) Waste Dangerous Goods; and 2) Waste Non-Dangerous Goods at its 11 Brown Avenue site in Burnside Industrial Park, Dartmouth, Nova Scotia. The proposed project qualifies as a Class I undertaking in Schedule A of the Environmental Assessment Regulations under the Nova Scotia *Environment Act*. This Environmental Assessment Registration Document (EARD) fulfills regulatory requirements to initiate the EA process.

1.1 Proponent and Project Information

Proponent Name:
Envirosystems Incorporated
11 Brown Avenue
Dartmouth, Nova Scotia B3B 1Z7

Proponent Contact:
Scott Sangster, CRSP, EP
Vice President,
Environmental Affairs – Eastern Canada
11 Brown Avenue
Dartmouth, Nova Scotia B3B 1Z7
Email: ssangster@terrapureenv.com
T: 902 481-8052

Environmental Consultant Contact:

Peter Oram, P. Geo
Project Manager
peter.oram@ghd.com

Sarah Weston
Project Coordinator
sarah.weston@ghd.com

GHD Limited
120 Western Parkway, Suite 110
Bedford, Nova Scotia B4B 0V2
T: 902 334 1825

Proponent Signature:

Scott Sangster, July 31, 2019
Vice President, Environmental Affairs
Eastern Canada
Envirosystems Incorporated

1.1.1 Project Name

Envirosystems' Waste Dangerous and Non-Dangerous Goods Temporary Storage Facility at 11 Brown Avenue (the Project).

1.1.2 Project Location

The Project is located at 11 Brown Avenue, Dartmouth, Nova Scotia, in the Burnside Industrial Park. The Project site is approximately 4 kilometres (km) northwest from the community of Dartmouth and approximately 5.6 km northwest from the City of Halifax. Under the Dartmouth Municipal Planning Strategy and Land Use By-law, the site is in a General Industrial Zone (I-2). The closest residential development is approximately 1 km to the southeast in Highfield Park, Dartmouth. The associated property information and geographic coordinates for the site are: PID – 40880437; NTS Map: 11D15; Latitude: 44° 41' 45", Longitude: 63° 45' 48" or UTM Zone 20 NAD 83 (CSRS): 4527725E, 4949330N (Figure 1).

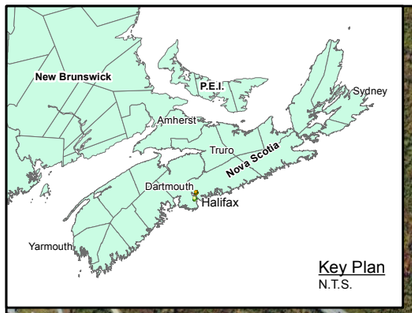
2. Scope of the Undertaking

2.1 Scope of the Undertaking

Envirosystems plans to construct and operate a new waste dangerous and non-dangerous goods temporary storage facility (Storage Facility) at their existing site at 11 Brown Avenue, a fully permitted Used Oil Collection and Storage operation (Approval No. 2001-024626-R10). The existing site is approximately 20,940 square metres (m^2) in size with the proposed facility occupying roughly 1.55% of the site.

The general design concept for the proposed storage facility will be a fabric covered shelter on a concrete pad. The shelter footprint will be approximately 52 ft (15.85 m) x 50 ft (15.24 m) with a storage capacity for approximately 450 45-gallon (205-litre) drums. Storage space will be adequate to allow for separation of material types, access between aisles, and the shelter design includes primary and secondary containment elements. The loading area dimensions will allow an adequate turning radius to facilitate full spill containment by ensuring that loading and unloading occurs on the apron and that any spills would be contained by engineered drainage controls. The proposed location for the storage facility on the existing site is shown in Figure 2.

The proposed operation would store hazardous waste for two to four weeks on average, and no longer than 90 days. The waste containers are not opened, sampled, or processed on site. The annual handling capacity is estimated to be between 5000 and 7000 drums per year. Waste containers will be picked up at customers' sites, unloaded at the facility, and stored in a section of the shelter based on the type of waste. Waste dangerous and non-dangerous goods are subsequently shipped offsite for disposal. Waste types will be segregated in storage and handling to prevent the mixing of incompatible goods if a spill were to occur. Wastes are typically contained in 205 litre (L) drums, 20 L pails, and occasionally 1000 L intermediate bulk container totes.



Key Plan
N.T.S.

SITE LOCATION

Source: Google © 2019

0 125 250 375
Meters

Coordinate System:
NAD 1983 CSRS UTM Zone 20N

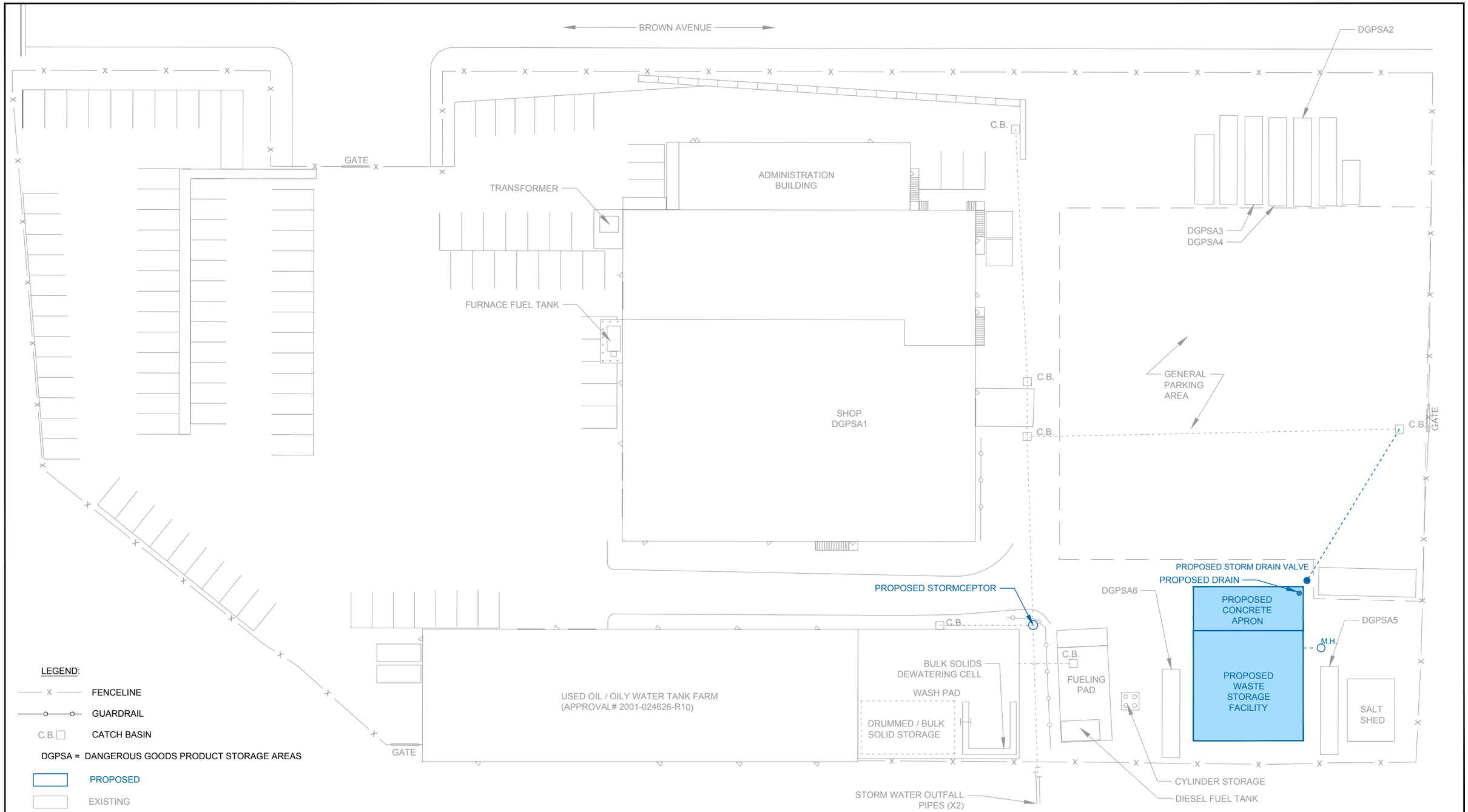
ENVIROSYSTEMS INCORPORATED
11 BROWN AVENUE, DARTMOUTH, NOVA SCOTIA
IMPACT ASSESSMENT AND PERMITTING

11193548-01
Jun 7, 2019

SITE LOCATION

FIGURE 1

GIS File: I:\GIS_DATA\Projects\8-chars\1119----\11193548\11193548-CORR\11193548-Tutty-1\11193548-01(TUTT001)GIS-HX001.mxd



0 5 10 15m

Coordinate System:
UTM ZONE 20 NAD83 (CSRS)

ENVIROSYSTEMS INCORPORATED
11 BROWN AVENUE, DARTMOUTH, NOVA SCOTIA
EXISTING AND PROPOSED FACILITIES

SITE PLAN

11193548-01

Jul 29, 2019

FIGURE 2

CAD File: I:\Drafting\8-chars\11------\1119----\111935--\11193548\11193548-REPORTS\11193548-Rpt-1\11193548-01(001)GN-HX001.dwg

The types of waste materials intended for handling at the site are as follows:

Table 2.1 Potential Material Types for Proposed Temporary Storage of Waste Dangerous and Non-Dangerous Goods

Waste Dangerous Goods (Transportation of Dangerous Goods Classes)	Waste Non-Dangerous Goods
• Class 2 (2.1, 2.2, 2.2 (5.1), 2.3) • Class 3.0 • Class 4 (4.1, 4.2, 4.3) • Class 5 (5.1, 5.2) • Class 6.1 • Class 8.0 • Class 9.0 (except PCBs)	• Used oil as defined by the Used Oil Regulations • Waste hydrocarbon fuels • Used oil filters • Oily rags • Oily sludges • Oily solids • Waste glycols • Floor dry • Oily Debris • Waste waters

Example waste dangerous goods material types may include but are not limited to: Oxidizing Liquids and Solids (Class 5.1), Flammable Debris (Class 4.1), Lab Pack Acids and Bases (Class 8), Lab Pack Organic (Class 3), Lab Pack Oxidizer (Class 5.1), Lab Pack Pesticides (Class 6.1), Mercury (Class 8), Cyanide (Class 6.1), Lab Pack Aerosols (Class 2.1), Lab Pack Isocyanates (Class 6.1), Heavy Metal Sludge (Class 6.1), Parts Wash Solvent (Class 3), Lab Pack Propane (Class 2.1), Lab Pack Water Reactive (Class 4.3), Acids (Class 8), Lean Liquids (Class 3), Calibration Gas Cylinder (Class 2.2), Freon Cylinder (Class 2.2), Caustic Liquids and Solids (Class 8), Fire Extinguishers (Class 2.2), Fluorinated Hydrocarbons (Class 2.2), Perchloroethylene (Class 6.1), Lab Pack Acetylene (Class 2.1), Asbestos (Class 9).

2.2 Purpose and Need for the Undertaking

There is a need for a temporary storage facility for waste dangerous and non-dangerous goods to ensure storage is available for unplanned or short notice local waste pickups for Envirosystems to maintain service level standards with their customer base.

Envirosystems has conducted a gap analysis and determined the potential for increased operational efficiencies and business-case benefits that can result from providing additional capacity for the temporary storage of waste dangerous and non-dangerous goods. The analysis determined that the temporary storage of waste dangerous and non-dangerous goods at the Envirosystems facility at 11 Brown Avenue in Burnside would allow for additional space needed to accept quantities of these goods that would result in increased transportation efficiencies and less overall waste storage prior to out-of-province transport. The construction of a new storage facility will allow for optimized engineered controls, waste segregation, and spill prevention and containment.

Envirosystems wishes to take advantage of these operational and business-case benefits while providing a safe and environmentally-sound facility for the temporary storage of waste dangerous and non-dangerous goods.

2.3 Consideration of Alternatives

Alternatives to an undertaking are defined as functionally different ways of achieving the same end result. However, as a result of the regulatory and operational restrictions on the storage and handling of waste dangerous and non-dangerous goods, and need for a suitable facility and infrastructure and location (i.e., not in a residential neighborhood); the consideration of alternatives is limited for this Project.

With respect to both methods and locations, Envirosystems reviewed potential alternatives. Relevant considerations included the need for a suitable location that aligns with regulatory permitting requirements, has minimal or negligible potential to impact social or natural environments, and is in proximity to relevant markets. Development of the Project on an existing site with existing infrastructure and emergency management measures was also considered an asset. The prospects of finding a new suitable property based on the considerations above is limited. Additionally, Envirosystems currently owns a property in alignment with optimal technical, regulatory, and financial parameters. As such, the procurement of a new property for the proposed Project is not considered as a feasible alternative.

The ‘do nothing’ alternative was also evaluated. The ‘do nothing’ alternative would result in no operational or business-case benefits, and potential negative environmental impacts if there is not enough local capacity to temporarily and safely store waste dangerous and non-dangerous goods en route to a permitted disposal facility. Therefore, compared to the proposed Project, the ‘do nothing’ alternative is not considered as a feasible alternative.

2.4 Scope of the Environmental Assessment

The proposed undertaking qualifies as a Class I undertaking in Schedule A of the Environmental Assessment Regulations under the Nova Scotia *Environment Act*. This EARD fulfills regulatory requirements of the EA registration process.

The *Canadian Environmental Assessment Act*, 2012 (CEAA 2012) does not apply to the proposed undertaking as it is not on the list of activities described in the Regulations Designating Physical Activities under CEAA 2012, and is not located on federal lands.

2.5 Boundaries

The Project is located at 11 Brown Avenue, Dartmouth, Nova Scotia, in the Burnside Industrial Park. The boundaries of the proposed Project and the site are shown in Figure 2.

As depicted in the Site Plan (Figure 2), the new storage facility will be located in the southeast corner of the Site, between the existing salt shed and fueling pad. The proposed fabric shelter is referred on the Site Plan as ‘Proposed Waste Storage Facility’ and the unloading and loading area is referred to as the ‘Proposed Concrete Apron’.

2.6 Valued Component Selection

The selection of Valued Environmental Components (VECs) was based on input from the Proponent, stakeholders, and regulatory agencies, the professional judgment of GHD, and the potential interactions between the proposed Project and the surrounding physical and ecological environment. The scoping and selection of VECs is detailed in Table 5.1 in Section 5.2.

2.7 Regulatory Framework

The EA process in Nova Scotia is stipulated by Part IV of the *Environment Act*, 1995 and is set out in the Environmental Assessment Regulations. Section 31 of the Regulations lists the activities that are included in Schedule A, which are classified as either Class I or Class II Undertakings.

As per Section 31. E, of the Environmental Assessment Regulations, “A facility for storing, processing, treating or disposing of waste dangerous goods that were not produced at that facility” is subject to an EA as a Class I Undertaking. As such, this Project will undergo an EA as a Class I Undertaking.

This EARD fulfills regulatory requirements to initiate the EA process for a Class I undertaking. Section 4 of this document describes the mandatory consultation requirements that will occur upon official registration of this Project. Should the EA be approved by the Minister of Environment, an application for an Industrial Approval will be initiated for this Project as per Division V of the Activities Designation Regulations and pursuant to Part V of the *Environment Act*.

In addition this Project will be planned and carried out in accordance with the Dangerous Goods Management Regulations made under Section 84 of the *Environment Act*, which indicate specific requirements for storage, storage facilities and contingency plans.

3. Description of the Undertaking

3.1 Project Background

3.1.1 Site History

The Site has been operated by Envirosystems as a waste transfer station since the facility was constructed in 1994. The western half of the Shop Building (Figure 2) was previously used as a waste oil processing plant (1994 to 1998). The eastern half of the Shop Building was previously used as a waste chemical processing plant (1994 to 1998).

3.1.2 Operational Regime

Envirosystems is a leading provider of industrial and environmental services including hydro blasting services, vacuum truck services, industrial cleaning and industrial waste management. Envirosystems has an extensive list of equipment to service local industry including vacuum trucks, tractors, trailers, service vehicles, high pressure wash units (up to 40,000 psi), boilers, loaders, deck trucks, pumps, forklifts, tankers, as well as all necessary tools, fittings, meters, rescue equipment, lighting and air movers (fans). The permanent operators, technicians and managers work in a project team structure designed to facilitate a customized approach to clients’ needs. The Brown

Avenue Facility contains three main operational service groups – Industrial Cleaning, Projects, Chemical Cleaning, and Emergency Response.

Industrial Cleaning Services

Envirosystems' large fleet of vacuum units is able to handle a full range of dry, solid, and liquid material. The highly trained, professional drivers and equipment operators provide day to day vacuum services, on a scheduled basis for large projects, or on an emergency response basis. The diverse fleet of vacuum units includes Wet/Dry Units, Wet Units, Vacuum Tankers, Combination Units, Flushing Units, and Hydro Excavation.

Envirosystems offers high-pressure services that are among the most comprehensive in the industry which utilizes specialized robotic equipment to provide innovative high pressure cleaning, pumping, cutting, and lancing.

Project Services

Envirosystems offers environmental and specialized contracting services throughout Atlantic Canada. The diverse team can provide a wide range of specialized and turnkey services, including project management, civil construction, civil excavation, hydro dam maintenance, structural maintenance, tank demolition, specialized demolition, site remediation, onsite water treatment, petroleum tank removals, petroleum tank installations, dredging, and dewatering.

Chemical Cleaning Services

Chemical cleaning services include: acid and caustic flushes, vapor phase cleaning, solvent and detergent cleaning, line purging and drying, pickling and passivation, foam cleaning, dry ice blasting, and custom cleaning methods. The specialized equipment includes chemical circulation units with built in pumps, heaters, and surge tanks, also standalone heat exchangers, filter pots, strainers, gamma jets, and temporary piping.

Emergency Response

Envirosystems Emergency Response (ER) is a 24/7, 365-day-a-year centralized service focused on containing, cleaning up and minimizing the potential health and environmental effects of hazardous materials and chemicals.

ER services are performed in accordance with applicable federal, provincial and local regulation regarding the removal, storage, handling and disposal of all released materials.

3.1.3 Existing and Proposed Site Processes

Existing Facility and Operations

Envirosystems operations at present consist of the collection, storage, classification, and consolidation of waste oils and oily waters, and the consolidation and bulking/drumming of residual solids from those processes. Other on-site activities consist of warehousing (which includes the storage of products that meet the definition of a dangerous goods in Nova Scotia) and vehicle maintenance and offices. The consolidated waste oils and oily waters are shipped off-site for treatment at an approved facility. The bulked/drummed solids are also shipped off-site. No waste treatment or disposal is performed on-Site. The facility is fully permitted and operational as a Used

Oil Collection and Storage operation, under Approval No. 2001-024626-R10, effective December 31 2010, expiring December 31, 2020. Renewal for this Approval will be sought in 2020. Storage areas associated with these operations are outlined in Figure 2.

Proposed Facility

The dimensions proposed for the new Storage Facility at Brown Avenue will be approximately 52 ft (15.85 m) by 50 ft (15.24 m) with a storage capacity for approximately 450 drums, along with a loading apron that will measure approximately 52 ft (15.85 m) by 20 ft (6.1 m).

It should be noted that although storage capacity is being created, transport efficiency would be improved, full transport loads are anticipated, and accordingly no significant increase in truck traffic is expected. The proposed increase in capacity is necessary for Envirosystems to ensure storage is available for unplanned or short notice local waste pickups and maintain service level standards with Envirosystem's customer base.

The general design concept for the proposed facility will be a fabric covered shelter on a concrete pad, including adequate storage spacing to separate material types and allow for access between aisles, as well as secondary containment elements, and a loading area with an adequate turning radius to facilitate full spill containment by ensuring that loading and unloading occurs on the apron and that any spills would be contained by engineered drainage controls. The proposed location for the facility is shown in Figure 2.

Proposed Operations

The proposed operation would store waste dangerous and non-dangerous goods for two to four weeks on average, and no longer than 90 days. The wastes are not opened, sampled, or processed on site. The annual handling capacity is estimated to be between 5000 and 7000 drums per year. Waste dangerous and non-dangerous goods are picked up at customer sites and unloaded from the collection trucks into the Storage Facility, and then subsequently shipped off-site for disposal. Wastes are typically contained in 205 Litre (L) drums, 20 L pails, and occasionally 1000 L intermediate bulk container totes.

The types of materials intended for handling at the site are outlined in Section 2.1.

3.1.4 Site Preparation

Due to the industrial nature of the site, the relatively light-duty nature of construction for the proposed fabric shelter, and the proposed location at an existing facility; minimal site preparation is required. Existing equipment stored on site will be moved to allow for excavation and construction of the building. Silt fences will be installed to contain site erosion and eliminate off-site sediment transport. Drainage swales will be constructed and hay bales placed accordingly to prevent site erosion and sediment transport in the event of heavy precipitation. Filter fabric will be placed over catch basin covers.

3.1.5 Construction

Foundation and construction of proposed Storage Facility

The shelter footprint will be excavated to an adequate subgrade level. The substrate will be either prepared or replaced to ensure that the material is well-compacted and will not damage the interstitial liner. The substrate will be graded to a common point sump.

Forms will be completed for footings and concrete will be poured to form the footing/frost wall. An interstitial liner will be installed and anchored to the frost wall. Drainage, base, and insulation layers will be installed as required, and the concrete will be formed, reinforced and poured, as the foundational slab (shelter floor).

The shelter frame itself will be anchored to the footing/frost wall, on which the fabric shelter will be assembled. An example of the proposed shelter type is shown in Photo 1. The square footage of the proposed shelter will be approximately 52 ft (15.85 m) by 50 ft (15.24 m).

Photo 1 – Fabric Building Type

The interstitial layer will direct any potential contaminant leakage to a sump that will act as an observation point. In the event of a spill or leakage, cleanup can occur through this sump.

Level One spill containment controls within the shelter include containment berms around the interior foundation perimeter, as well as a portable containment berm that will facilitate spill segregation between waste types. Containment capacity will equal a minimum 10% of the total aggregate storage volume 450 barrels plus the largest individual tote at 1000 L for an overall containment capacity of 10225 L. Preliminary design estimates demonstrate that storage capacity will be approximately 2-3.5 times greater than the minimum requirement.

Level Two spill containment controls within the shelter footprint include a sub-slab secondary containment interstitial liner, anchored to footer/frost wall, with a minimal containment capacity equal to 10% of the total aggregate storage volume as outlined above. Preliminary design estimates demonstrate that storage capacity will be approximately 11 times greater than the minimum requirement. The sump will be designed to function as an observation point for visual inspection for leakage.

Construction of proposed Storage Facility Loading/Unloading Shelter Apron

The concrete slab will be poured on the substrate and will include a polystyrene liner for frost protection and a concrete spill containment berm around its perimeter. The containment capacity will equal a minimum 10% of the total aggregate storage volume of the largest potential transport vehicle (53 ft flatbed trailer) plus the largest container volume as outlined above. Preliminary design estimates demonstrate that storage capacity will be approximately 1.5 - 3 times greater than the minimum requirement. The loading area dimensions will allow an adequate turning radius to facilitate full spill containment by ensuring that loading and unloading occurs on the apron and that

any spills would be contained by engineered drainage controls. The pad will incorporate a drain and piping network to convey rainwater to the existing storm drainage system on site. The piping network will also include a valve that will isolate flow from the storm system during loading and unloading.

3.1.6 Facility Maintenance

The proposed storage shelter fits into the existing facility's maintenance and monitoring program. Emergency response and management protocols for the specific addition will be built into existing plans for the facility. Response plans are discussed in further detail in Section 3.2.

3.1.7 Emissions and Effluents

No emissions or effluents from the new facility are anticipated with the exception of a those released by an accident or malfunction that could lead to a spill emergency. Section 3.2 outlines emergency response and contingency measures.

3.1.8 Monitoring and Management

The observation sump point of the shelter and the storm drainage outfall on the perimeter of the property will be regularly monitored. The outfall contents will be sampled on a quarterly basis to ensure compliance with criteria and guidelines as prescribed by Nova Scotia Environment (NSE) such as the CCME Canadian Water Quality Guidelines for the Protection of Aquatic Life or the Nova Scotia Tier 1 Environmental Quality Standards (EQS).

3.1.9 Project Schedule

With receipt of an EA Approval and Industrial Approval to operate and building permit, the shelter construction will commence and take approximately one month to complete. The anticipated schedule is shown in Table 3.1. Operation of the proposed storage facility is anticipated to commence in December 2019.

Table 3.1 Anticipated Approval and Construction Schedule

	September 2019	October 2019	November 2019	December 2019
EA Approval				
Industrial Application Approval				
Construction				
Initiation of Operation				

The anticipated timelines reflect information known at this time and are subject to change.

3.1.10 Decommissioning

The proposed facility is intended for long-term operation based on ongoing favourable market conditions. A decommissioning and reclamation plan will be prepared with NSE according to applicable regulations should operations cease permanently. The facility will be appropriately decontaminated and potentially removed along with any necessary site remediation. These activities will proceed in coordination with operation and/or decommissioning activities on the site as a whole.

3.2 Environmental Management

3.2.1 Environmental Controls

The key environmental controls are primary and secondary spill containment methods and infrastructure as outlined in Section 3.1.5. Should any spill or leakage occur either in the shelter or on the loading/unloading apron, it will be contained within the containment structures and cleaned and disposed of appropriately. As Envirosystems provides emergency response services professionally to their client base that are focused on containing, cleaning up, and minimizing the potential health and environmental effects of hazardous materials and chemicals; the site is well-equipped with staff and equipment to manage potential spills effectively. Should any spill or leakage occur, the material will be removed from primary or secondary containment within the apron or the shelter and be removed and disposed of in accordance with all applicable handling regulations.

Spills and leaks typically can be handled with trained personnel and spill response equipment from onsite inventory such as shovels, floor dry, rags/wipes, etc., cleaning up the material released and packaging the recovered material in an empty drum. Leaking containers may be repacked in new drums or overpacked. For larger spills and clean up, on site vacuum truck and mobile wash equipment may be utilized to recover the product and wash down the affected area. The recovered product and resultant wash water will be offloaded into the existing onsite tank storage, if non-hazardous, or decanted into 1000-L IBC totes or 205-L drums, if hazardous. All wastes, including spill clean-up wastes, shall be transported to appropriate and approved final disposal sites.

The observation sump point of the shelter and the storm drainage outfall on the perimeter of the property will be regularly monitored. A Stormceptor will be located immediately upstream of the outfall and will prevent stormwater and potential spill contaminants from being discharged into the environment. The outfall contents will be sampled on a quarterly basis to ensure compliance with criteria and guidelines as prescribed by NSE.

3.2.2 Emergency Response

An emergency response is required if any of the following occur:

- A leak or spill
- Fire or explosion
- Serious injury or loss of life
- Major H2S release

Appropriate emergency procedures must be initiated immediately after discovery that an emergency exists. The emergency response process is outlined in the contingency plan (Emergency Response Plan).

3.2.3 Contingency Plan

As discussed in Section 3.2.1, the proposed Project has a number of environmental controls including the primary and secondary spill containment methods and infrastructure as outlined in Section 3.1.5. With these controls in place and Envirosystems' highly trained emergency response staff, an accidental spill or leakage would be dealt with safely, efficiently and effectively. Notwithstanding that, a robust contingency plan is currently in place for the site, which will be updated during the Industrial Approval application to reflect specific procedures of addressing potential accidents or malfunctions related to the handling and storage waste dangerous and non-dangerous goods on this site.

The updated contingency plan would satisfy the requirements of the Dangerous Goods Management Regulations, which states that all storage facilities of waste dangerous goods that have a capacity of 2000 L of shall have a contingency plan in plan. The plan is to cover fires or other emergencies, and the discharges, emissions, escapes, leaks, or spills of waste dangerous good.

The current contingency plan covers minor and major spills and fires. The plan identifies the tasks that would be completed by the Operator, Site Emergency Coordinator, Operations Supervisor and the Response Team for each potential incident. The plan also clearly describes the training and practice drills that occur so that if the contingency plan needs to be implemented the staff are aware how to do so. Staff would be trained and made aware of new protocols associated with new storage facility and the associated updates to the contingency plan. The contingency plan is included as Appendix A. Note: Envirosystems Incorporated is currently undergoing a legal transition to ownership by Terrapure Environmental. As such, the contingency plan reflects the Terrapure name, but the legal Proponent of this Project is Envirosystems Incorporated.

4. Public and Mi'kmaq Consultation

Additional Consultation will be conducted as per the requirements for a Class 1 Undertaking outlined in Nova Scotia's Guideline for EAs[1].

Copies of the EA Registration Document will be provided to government agencies and Mi'kmaq for review. Hard copies of the EA Registration Document will be made available for public review at the Bedford Public Library and the Alderney Gate Public Library.

A notice of registration will be published in two newspapers to notify the public of the registration and where they can review the EA Registration Document. The notice will invite the public to submit comments in writing to the NS EA Branch.

[1] Nova Scotia Environment, February 2001. A Proponent's Guide to Environmental Assessment. Last revised September 2017.

On June 10, 2019 Project notification letters were sent by email to the following Mi'kmaq communities and organizations:

- Millbrook First Nation
- Sipeknakatik First Nation
- Kwilmu'kw Maw-klusuaqn Negotiation Office (KMKNO)
- Native Council of Nova Scotia

The Project notification letters described the purpose and need for the undertaking and the proposed facility and operations, including the typical types of materials that will be handled at the site.

To date only Millbrook First Nation has responded and Chief Gerald Gloade has indicated that they are not interested in being consulted for this Project.

5. Valued Component and Effects Management

5.1 Selection of Valued Components

The selection of Valued Components (VC) is based on input from the Proponent, stakeholders, and regulatory agencies, the professional judgment of GHD, and potential interactions between the proposed Project and the surrounding physical and biological environment.

5.2 Effects Analysis Methods

The analysis of potential VCs evaluates the possible effects of the project, as well as associated potential malfunctions or accidents, with regard to each component. The following table outlines the scoping and analysis of these components and factors and determination of relevant VCs.

Table 5.1 Determination of Valued Environmental Components

Component	Scoping	Valued Environmental Component (VEC)		
		YES	NO	Rational
Physical Environment				
Geology	The proposed Project is not anticipated to have interactions with or effects on the site's current geology. Disturbance to the substrate (fill) is surficial with an approximate depth of 4 feet (1.2 m)		X	Not a VEC; no anticipated potential interactions with or effects on geology.
Surface Water Resources	The proposed project could potentially interact with surface water resources in the incident of leakage or spill during loading/unloading or temporary storage. Primary and secondary containment measures of the proposed Storage Facility are detailed in Section 3.1.5, Environmental management measures in Section 3.2, and accidents and malfunctions in Section 6. Potential environmental effects are described in Section 5.3.	X		VEC due to potential interaction with surface water through storm drainage system; potential effects on surface water quality.
Groundwater Resources	The proposed Project is not anticipated to have interactions with or effects on groundwater resources. In the incident of leakage or spill during loading/unloading or temporary storage, primary and secondary containment areas inside and the storage shelter and as part of the loading/unloading apron would contain the spill to a minimum 10% of the total aggregate storage volume.		X	Not a VEC; no anticipated potential interactions or effects between the Project and groundwater resources.
Atmospheric and Air Quality	Envirosystems' existing Brown Avenue site is situated in a General Industrial Zone (I-2) under the Dartmouth Municipal Planning Strategy and Land Use By-law. The closest residential development is approximately 1 km to the southeast in Highfield Park. The proposed Project is not anticipated to interact with or cause potential effects to the atmospheric or air quality.		X	Not a VEC; no anticipated potential interactions with or effects on the atmospheric environment or air quality.
Biological Environment				
Flora and Fauna	The existing site is located in a developed industrial area, which is comprised of gravel and paved areas, existing buildings, and is surrounded by a chain link fence. As the proposed Project will occur on the existing site, which is enclosed, and in an area that does not contain natural habitat environments; there are no potential anticipated interactions or effects between for the Project and flora or fauna. Therefore, no disturbance to flor or fauna are anticipated.		X	Not a VEC; no anticipated potential interactions with or effects on flora or fauna.
Terrestrial and Aquatic Habitat (including wetlands)	The existing site is located in a developed industrial area, which is comprised of gravel and paved areas, and existing buildings. As the proposed Project will occur on the existing site where there is a void of terrestrial and aquatic habitat there are no potential anticipated interactions or effects between for the Project and terrestrial and aquatic habitats. Therefore, no disturbance to or loss of terrestrial and aquatic habitat is feasible or anticipated.		X	Not a VEC; no anticipated potential interactions with or effects on terrestrial or aquatic habitat.
Socioeconomic Environment				
Archaeological and Cultural Resources	The existing site is located in a highly disturbed and developed industrial area. The Site is comprised of gravel and paved areas and existing buildings. Due to past disturbance at the Site the potential for Archaeological and Cultural Resources is not anticipated.		X	Not a VEC; no anticipated potential interactions with or effects on archaeological or cultural resources are anticipated.
Transportation	The addition of this waste dangerous and non-dangerous goods storage shelter would improve transport efficiency between Envirosystems and Terrapure operations. As such, no significant increase in truck traffic is expected. Brown Avenue is located in a General Industrial Zone in Burnside where a minimal increase in truck traffic to this specific site through addition of the storage shelter would have negligible impact.		X	Not a VEC; no significant increase in truck traffic is expected, and based on the industrial setting potential impacts are considered negligible.
Noise	The existing Brown Avenue site is situated in a developed industrial area that is separated from residential areas and sensitive land uses. The new facility will not generate increased noise levels or differing sounds from existing operations. The closest residential development is approximately 1 km to the southeast in Highfield Park. Noise associated with the construction and operation of the proposed storage facility will be similar to the current operations occurring at the Brown Avenue site. Further, as the closest sensitive receptor is approximately 1 km from the site no significant noise effects are anticipated.		X	Not a VEC; variation of noise levels during construction and operation compared to current operation noise levels insignificant. The nearest sensitive receptor is approximately 1 km from the site. As such, potential impacts are considered negligible.

5.3 Valued Component - Surface Water Resources

Due to the limited scope of the Project and its proposed location on an existing industrial site, surface water resources was the only VC identified to have potential interaction with the proposed Project activities. The potential effects to surface water resources, described below, were determined and considered using existing knowledge, and professional judgment.

Potential Effects

As shown in the Site Plan (Figure 2) the stormwater outfall pipes are located at the south side of the Site, west of the fueling pad. The loading and unloading concrete pad will have a drain and piping network to convey rainwater to the existing storm drainage system on site to the stormwater outfall pipes. In the case of an incident of leakage or spill during loading/unloading or temporary storage there is the potential for impacts to surface water resources.

Proposed Mitigation and Monitoring

The piping network will include a valve that will isolate flow from the storm system during loading and unloading. During loading and unloading the valve will always be closed in case of a leakage or spill to prevent contaminated water from flowing into the storm drainage system. If a spill were to occur, it would be cleaned up before the valve was opened again and water was allowed to flow into the drainage system.

With respect to potential spill or leakage from the storage shelter, primary and secondary containment capacity will each equal a minimum 10% of the total aggregate storage volume as outlined above.

A Stormceptor will be located immediately upstream of the outfall will prevent stormwater and potential spill contaminants from being discharged into the environment. As outlined in Section 3.1.8, the observation sump point of the shelter and the storm drainage outfall on the perimeter of the property will be regularly monitored. The outfall contents will be sampled on a quarterly basis to ensure compliance with criteria and guidelines as prescribed by NSE. As such, any spill or leakage would be detected in short enough timeframe to allow for timely and effective clean up.

Although no significant potential effects to surface water resources are anticipated, mitigation measures will be implemented to reduce the potential of an accidental spill or leakage. An example possible mitigation would include routinely inspecting equipment and infrastructure to make sure it is maintained and in good working order. In addition, the environmental controls will be inspected and tested to make sure they are properly functioning.

Should a spill occur the contingency plan discussed in Section 3.2.3 will be implemented to ensure effective and immediate cleanup of the spill.

Net Effects

Based on preventative, containment, monitoring, and mitigation measures as described above, significant potential effects to surface water resources are not anticipated as a result of this Project.

5.4 Summary

The proposed Project could potentially interact with surface water resources in the event of a spill or leakage if it infiltrated the storm drainage system which discharges into the environment. However, extensive primary and secondary spill containment measures as outlined in Sections 3.1.5 and 3.2, along with professional capacity in emergency response and spill containment indicate that: (i) spill or leakage is highly unlikely; (ii) that it would be detected and contained right away; and, (iii) there would be minimal potential environmental impacts.

6. Accidents and Malfunctions

The existing site and its operations have robust emergency response and contingency plans with respect to accidents and malfunctions. Spill containment measures and experienced staff with thorough training significantly reduce the likelihood of accidents and malfunctions on this site. Spill containment measures have focused on areas where spills or leakages are likely to occur in the shelter and in the loading/unloading area. Fire, spill, and medical response plans are in place to address potential accidents or malfunctions that may arise from existing operations, and will be amended during the IA application to include any specifics necessary for effective management of the proposed storage and operations.

7. Other Approvals Required

As stated in Section 2.4, this Project qualifies as a Class 1 Undertaking pursuant to the Nova Scotia Environment Act and Environmental Assessment Regulations. As well, it has been confirmed that the *Canadian Environmental Assessment Act*, 2012 (CEAA 2012) does not apply to this Project.

Other relevant provincial regulations include the Activities Designation Regulations, which require an Industrial Approval from Nova Scotia Environment for operation of the proposed Project. This Project will be planned and carried out in accordance with the Dangerous Goods Management Regulations made under Section 84 of the *Environment Act*, which indicate specific requirements for storage, storage facilities and contingency plans.

A building permit will be required from Halifax Regional Municipality as per the Nova Scotia Building Code Regulations made under Section 4 of the *Building Code Act.* A building permit application will be completed and submitted along with required number of copies of the proposed Site Plan and detailed construction plans.

8. Funding

No public or government funding is involved in the execution of this undertaking. All costs will be borne by Envirosystems Incorporated.

9. Additional Information

No additional information is included for consideration on this project.

Appendix A

Contingency Plan

Emergency Response Plan

Terrapure Environmental

Brown Service Centre

11 Brown Ave

Dartmouth, NS B3B 1Z7

Originated by: Taber Burn

Approval			Distribution		
Required*		**Signature**	**Copy #**		****
-	VP EHS		Original	Environmental, Health & Safety Management System Manual (EHSMS)	x
-	EHS Manager		1		
-	EHS Advisor		2		
x	Branch Manager				
-	Operations Supervisor				
-					
-					
-					

Reviewed and released for implementation in the branch.

Representative: _____ Date: _____

The holder of each manual is responsible for keeping the manual updated with that latest issues of specifications / procedures

*** Functions requiring approval are denoted by "x". Functions not requiring approval are denoted by "-".**

**** Associates who are document holders are identified by "x". Those who are not document holders are identified by "-".**

Amendment Sheet

Amendment Description	Rev #	By	Page #	Issue Date	Comments

Table of Contents

1. INTRODUCTION

This Emergency Response Plan provides operating guidelines to meet those foreseeable emergencies which may arise during the operation of the Brown facility in Dartmouth, Nova Scotia.

The objectives of the Emergency Response Plan is to enable Terrapure Environmental, owner/operator of the facility, to respond to all emergency situations, and to minimize Terrapure Environmental exposure to loss and any impact on the environment from such situations. The objective will be met by providing for:

1. The safety of employees, contractors, visitors, customers, and the public
2. Continued security of the facility
3. An effective incident reporting system
4. Minimizing damage to the environment
5. Identify what emergency situations are likely to occur
6. Reduce disruption and confusion created by emergencies
7. Minimize the time and effort to regain control
8. Minimize the potential for injury or other types of losses
9. Prevent fatalities and injuries
10. Reduce damage to buildings and equipment
11. Accelerating the resumption of normal operation
12. Determine the appropriate response
13. Establish communication channels both inter-company and extra-company
14. Identify jurisdictions
15. Reduce recovery time
16. Reduce time to affect remedial plans
17. Keep public confidence.

2. BROWN FACILITY DETAILS

Facility Address

Terrapure Environmental
Brown Waste Service Centre
11 Brown Ave
Dartmouth NS B3B 1Z7

Telephone: (902) 481-8008
Contact: Taber Burn - Branch Manager

Operations Office Address

Terrapure Environmental
Dartmouth Corporate Office
11 Brown Ave
Dartmouth NS B3B 1Z7

Telephone: (902) 481-8008
Contact: Taber Burn – Branch Manager
Ashlee Hanratty – Safety Advisor Nova Scotia

Head Office Address

Terrapure Environmental
1100 Burloak Drive, Suite 500
Burlington, Ontario, L7L 6B2

Telephone: (800) 263-8602
Contact: Michael Jovanovic – Vice President Environmental Affairs
Grant Dunham – Senior Health and Safety Manager

3. LOCAL AUTHORITIES

The RCMP can respond to the Brown facility within 5 to 15 minutes for incidents involving death, sabotage, fire or explosion, or criminal offences.

The Ambulance in Dartmouth can respond to the Brown facility within 5 to 15 minutes. Dartmouth can provide three (3) ambulances. They can provide advanced life support for transfer to the hospital in Dartmouth or Halifax.

The HRM Fire Department can respond to the Brown facility within 5 to 15 minutes. They have one (1) small unit equipped with water and foam power to handle a minor fire. You will have to supply more water if needed (see section 12).

Fire Master in HRM can respond to the Brown facility within 1½ to 2 hours. They have units equipped with some water and foam power to handle any potential incidents. You have to supply more water if needed.

The Dartmouth General Hospital can provide triage and stabilization for injured workers. If necessary they can coordinate transfer of casualties to QEII hospital for advanced medical aid. This would be done by air ambulance or ambulance.

Each Province and Territory, in which Terrapure operates, maintains spill/emergency reporting and poison control emergency numbers. The purpose of the spill/emergency reporting numbers is to alert the appropriate government agency that a spill has occurred. Generally these agencies do not provide emergency response services, but may provide recommendations or advice and can provide inspectors on site to ensure incidents are properly handled. The level of government involvement will vary between jurisdictions. Provincial and Territorial Poison Control Emergency numbers will put the caller in touch with an individual qualified to give advice in the event of poisoning.

The Spill Co-Op is a group of companies and equipment to clean up a major spill.

A driving map showing the route to the facility will be provided to the list below.

- Fire Department
- Ambulance
- Fire Master
- Police / RCMP.

A map showing the local residents has been made up and is available at the facility. (Also in Appendix 2)

The plot plan of the facility is also available at the facility. (Also in Appendix 1)

3.1 EMERGENCY NUMBERS AND STATEMENT

This page is to be posted beside all phones. It lists the emergency phone numbers and gives written instructions on the route to the facility.

EMERGENCY NUMBERS AND STATEMENT

EMERGENCY	911
POISON CENTRE	(902) 428-8161 or 1-800-565-8161
TERRAPURE 24 HOUR	(902) 468-9011

GIVE THIS STATEMENT IN AN EMERGENCY:

THIS IS AN EMERGENCY!

MY NAME IS: (STATE NAME)

THE LOCATION OF THE EMERGENCY IS: TERRAPURE 11 BROWN AVE, DARTMOUTH NS AND THE DIRECTIONS ARE:

THE PROBLEM IS (person hurt, fire, explosion)

WE REQUIRE (air ambulance, ambulance, fire equipment etc.)

THE PHONE NUMBER HERE IS (902) 481-8008

Level 0 incidents – (First Aid) – Call Operations Supervisor/BM
Level 1 incidents – (Medical Treatment) – Call Operations Supervisor/BM
Level 2 incidents – (Restricted Work and /or Lost Time) – Call Operations Supervisor/BM
Level 3 incidents – (Serious Injury/Death) – Call General Manager then make courtesy call to Operations Supervisor/BM

3.2 TERRAPURE MANAGEMENT CONTACTS

Taber Burn	Branch Manager	Office (902) 481-8008 Cell (902) 456-9801
Darren Zwicker	Vice-President - Atlantic	Office (902) 481-8008 Cell (902) 835-8078
Jonathon Chouinard	General Manager	Office (506) 635-5600 Cell (506) 608-4426
Grant Dunham	Senior Health and Safety Manager	Office (902) 481-8008 Cell (902) 835-8078
Scott Sangster	Vice-President, Environmental Affairs – Eastern Canada	Office (902) 481-8008 Cell (902) 222-6172
Darlene Whelan	Health & Safety Manager	Office (709) 834-7350 Cell (902) 237-9558
Ashlee Hanratty	Safety Advisor	Office (902) 481-8008 Cell (902) 718-9313
Jasna Krstic	Environmental Affairs Advisor - Atlantic	Office (902) 481-8008 Cell (902) 802-8007
24 Hour Emergency		(902) 468-9011

3.3 EMERGENCY AUTHORITIES CONTACTS

RCMP	HRM	911
Fire Department	HRM	911
Ambulance	HRM	911
Hospital	HRM	(902) 465-8300
Poison Control Central		(902) 428-8161
NS Environment	Halifax	(902) 424-7773
Department of Transportation	Halifax	(902) 424-2297
NS OH&S	Halifax	1-800-952-2687
Worker Compensation Board	Halifax	1-800-870-3331
Canadian Coast Guard	Halifax	1-800-565-1633

3.4 PROVINCIAL AUTHORITIES CONTACTS

Nova Scotia

Environmental Emergencies	1-800-565-1633
Department of Environment (DOE)	1-877-936-8476
Department of Transportation (DOT)	1-888-432-3233
Emergency Measures Organization (EMO)	1-866-424-5620
Poison Control Centre	1-800-565-8161
WorkSafe NS	1-866-415-8690

Federal Authorities

CANUTEC	(613) 996-6666

CANUTEC is the **Canadian Transport Emergency Centre** operated by Transport Canada to assist emergency response personnel in handling dangerous goods emergencies. This national bilingual advisory centre has the mandate to regulate the handling, offering for transport and the transport of dangerous goods by all modes in order to ensure public safety. CANUTEC has set up a scientific data bank on chemicals manufactured, stored and transported in Canada and is staffed by professional scientists specialized in emergency response and experienced in interpreting technical information and providing advice and recommend actions to be taken and those to avoid in dangerous goods emergencies. CANUTEC staff does not go to the site of an incident. Advice and information are provided by telephone. CANUTEC can also provide communication links with the appropriate industry, government or medical specialists.

4. CONTACT NAMES OF EMPLOYEES AT FACILITY

Employee	Emergency Contact Name	Phone Number	Alternate Contact Name	Phone Number

5. RESIDENCES WITHIN 2 KM RADIUS OF FACILITY (Map – Appendix 2)

5.1 OWNERS OF HOMES AND BUSINESSES AND CONTACT NUMBERS

1. Plant Site ___-___-_____

6. PUBLIC/MEDIA AFFAIRS

The Public Affairs/Media Liaison Contacts for Terrapure are:

Greg Jones – Level 3 Incident
Managing Director Corporate Communications & Community Relations
Office (905) 315-2229
Cell (905) 630-3991
Residence (905) 315-7147

Darren Zwicker
Vice President, Atlantic
Office (902) 481-8008
Cell (902) 802-9765

7. EMERGENCY RESPONSE PROCEDURES INTRODUCTION

Terrapure Environmental policies regarding releases, fire and injury are to limit damage to persons and property to the fullest extent possible. Given these policies, emergencies will be declared if any of the following occur:

- A major leak or spill
- Fire or explosion
- Serious injury or loss of life
- Major H_2S release.

Minor incidents typically involve incidents where no danger exists outside of company or contractor property, and where the situation can be handled entirely by Terrapure personnel.

Major incidents usually involve situations where safe operating control has been lost, resulting in or potentially resulting in fatalities; serious injury to Terrapure personnel, or contractors or the public; serious property damage; serious impacts to the environment; or major impact to surrounding communities. Emergency response plans will require implementation.

Appropriate emergency procedures must be initiated immediately after discovery that an emergency exists.

The main person responsible for dealing with any emergency will be the Site Emergency Coordinator.

In the event that the Site emergency Coordinator is not on duty, the individual discovering the emergency must notify the next available individual on 3.2 Terrapure Management Contact List or Section 8 Crisis Communication.

Level 1 incident typically involves incidents without off-site risk to the public or the environment and where the situation can be handled entirely by Terrapure personnel. Level 1 incidents may include but are not limited to discharges (spills, emissions) which can be cleaned up immediately, property damage ($1,000 – $5,000) including vehicle accidents, public complaints (substantiated), regulatory inspections (minor deficiencies), first aid, near miss Level 1 and regulatory/system non-conformances. Level 1 incidents must be reported to Head Office within 24 hours using the Terrapure incident report form.

Level 2 incidents typically involve situations where there is no immediate danger or significant adverse effect to off-site property or the environment, but the potential exists for the situation to effect property or the environment beyond site limits. Level 2 incidents include spills which are not contained with the potential to have an adverse environmental or public impact, property damage ($5,001 – $50,000) including vehicle accidents (no spill or injury), off-site emissions (public nuisance), regulatory inspections/investigations (major deficiencies), lost time injuries, restricted work injuries, medical treatment injuries and process / operation interruptions ($10,000 – $50,000). Level 2 incidents must be reported to Head Office immediately by telephone or fax.

Level 3 incidents may involve situations where safe operating control has been lost, resulting in or potentially resulting in fatalities, serious injury to Terrapure personnel, contractors or the public, significant property damage, serious impacts to the environment, or impact to surrounding communities. Level 3 incidents may include but are not limited to off-site spills (resulted in adverse environmental impact or public health impact and would typically require the assistance of external agencies), property damage ($50,000+), vehicle accidents (with spill or injury), off-site emissions (public safety input), regulatory inspections/investigations resulting in suspension of operations, lost time injuries, fatalities, major fires or explosions and process/operation interruptions ($50,000+). All level 3 incidents must be reported immediately by telephone and/or fax. In the case of Level 3 incidents, Emergency Response Plans may require implementation.

Appropriate emergency procedures must be initiated immediately after discovery that an emergency exists.

7.1 CALL OUT FOR LEVEL 3 INCIDENTS

ERP Call-Out for Level 3 Incidents - Brown

INCIDENT HAPPENS
ERP INITIATED

Facility Personnel

Ops Manager: Nelson McLellan
Cell: (902) 497-4255
Office: (902) 481-8008
Admin Assist: Whitney Dignan (902) 481-8008

Branch Manager: Taber Burn
Cell: (902) 456-9801
Office: (902) 481-8008
Admin Assist: Whitney Dignan (902) 481-8008

General Manager: Jonathan Chouinard
Cell: (506) 608-4426
Office: (506) 635-5600
Admin Assist: Whitney Dignan (902) 481-8008

VP Env. Affairs Eastern Canada: Scott Sangster
Cell: (902) 222-6172
Office: (902) 481-8052
Admin Asst: Whitney Dignan (902) 481-8008

VP Environmental Affairs: Michael Jovanovic
Cell: (905) 570-4285
Office: (905) 315-2666 (Burlington, Ontario)
Admin Asst: Jennifer Paquette (905) 315-2261

Senior Health and Safety Manager: Grant Dunham
Cell: (226) 938-1254
Office: (905) 315-2225
Admin Asst: Jennifer Paquette (905) 315-2261

VP Human Resources/Health & Safety: Stephen Fletcher
Cell: (905) 979-8717
Office: (905) 315-2766
Admin Asst: Jennifer Paquette (905) 315-2261

VP Div: Darren Zwicker
Cell: (902) 802-9765
Admin Asst: Whitney Dignan (902) 481-8008
Other Executives as needed

Operators/Managers: If you do not talk DIRECTLY to the person identified at ANY of the contact numbers listed for them, leave messages, call back and ask for the manager's administrative assistant (listed in each box) and have the administrative assistant track the manager down. Identify that it is a level 3 emergency.

If manager's location is still unknown or you do not talk to them, proceed to the next contact on the list.

NOTE: Calls to others (District Manager, Regional Manager and EHS Advisor, EHS Manager) are **not** part of the official call out list but may be made after. **DO NOT CALL THEM FIRST.**

7.2 SITE EMERGENCY COORDINATOR

The supervisor on site at the time of any emergency is charged with the evaluation and immediate response to rectify the situation or activate the Emergency Response Procedures.

In the event of the Site Emergency Coordinator leaving the site for any reason other than the end of his shift, he must notify the next available individual to assume the responsibilities of Site Emergency Response Coordinator.

The designated Emergency Response Coordinator for this facility is Nelson McLellan, Operations Manager. In the event that this person is not available the Alternate Emergency Response Coordinator will be Mark MacLeod, Operations Manager, Projects and Aaron Hiscock, Operations Supervisor.

Emergency Response Coordinator

Name: Nelson McLellan
Title: Operations Manager, Industrial Services
Office Phone Number: (902) 481-8008
Cell Phone Number: (902) 497-4255

Alternate Emergency Response Coordinator

Name: Mark MacLeod
Title: Operations Manager, Project Services
Office Phone Number: (902) 481-8008
Cell Phone Number: (902) 817-4052

Alternate Emergency Response Coordinator

Name: Aaron Hiscock
Title: Operations Supervisor, Industrial Services
Office Phone Number: (902) 481-8008
Cell Phone Number: (902) 802-5932

7.3 SPILL RESPONSE

7.3.1 MINOR SPILL

The Operators shall:

- Determine if the spill has a high hazard potential (ie. vapour release, chemical reaction)
- Startup equipment and processes if it helps to contain a spill
- Shut down equipment and processes if it is the cause of a spill
- Contain leakage and isolate source
- Contact Site Emergency Coordinator.

The Site Emergency Coordinator shall:

- Take appropriate action in event of an injury or fatality
- (Sections 7.4 or 7.5)
- Organize response team, contain spill and clean up spill
- Confirm the identification and volume of spill
- Contact Authorities (Section 3.3) if required by Appendix 5.

The Operations Supervisor shall:

- Complete Incident Report (Appendix 3)
- Contact management within 24 hours or next working day (Section 3.2)
- Contact authorities within 24 hours or next working day (Section 3.3).

The Response Team shall:

- Don the necessary personal protective equipment
- Contain spill or leak with appropriate equipment (Section 13.2)
- Recover liquids and contain effected debris.

7.3.2 MAJOR SPILL

The Site Emergency Coordinator shall:

- Take appropriate action in the event of an injury or fatality (Section 7.4 or 7.5)
- Organize a response team
- Confirm the identification and volume of the spill
- Contact Operations Supervisor (Section 8.0)
- Proceed with Crisis Communication Schedule (Section 8.0)
- Contact Authorities (Section 3.3) if required by Appendix 5.

The Operations Supervisor shall:

- Continue the Communication Schedule (Section 8.0)
- Notify residents of crisis (Section 5.0 or map in Appendix 2)
- Complete Incident Report (Appendix 3).

The Response Team shall:

- Don the necessary personal protective equipment
- Shut down facility of operating equipment and processes
- Contain the spill or leak if possible with appropriate equipment (Section 13.2 and Appendix 5)
- Recover liquids and contain any affected debris.

7.4 FIRE RESPONSE

7.4.1 MINOR FIRE

Person or Persons shall:

- Shut down equipment in location of fire if possible
- Attempt to extinguish fire with available extinguishers
- If needed call for help from available personnel to help extinguish fire
- Contact Site Emergency Coordinator
- If fire is getting out of control, evacuate.

Note: Do not attempt to extinguish truck containers, vessels or tanks.

The Site Emergency Coordinator shall:

- Assess if authorities are required
- If authorities are required (Section 3.3)
- If needed, organize a response team to extinguish fire
- Take appropriate action in event of an injury or fatality (Section 7.4 or 7.5).

The Operations Supervisor shall:

- Complete Incident Report (Appendix 3)
- Contact management within 24 hours or next work day (Section 3.2)
- Contact authorities within 24 hours or next work day (Section 3.3).

The Response Team shall:

- Don the necessary personal protective equipment
- Get extinguishers to help to bear down on fire.

7.4.2 MAJOR FIRE/EXPLOSION

The Site Emergency Coordinator shall:

- Initiate Evacuation Plan (Section 9.0)
- Take appropriate action in the event of an injury or fatality (Section 7.4 or 7.5)
- Organize a response team
- Contact Authorities (Section 3.3)
- Contact the Operation Supervisor (Section 8.0)
- Proceed with Crisis Communication Schedule (Section 8.0)
- Preserve and protect the accident site until investigations are complete, following the end of the emergency.

The Operations Supervisor shall:

- Continue the Crisis Communication Schedule; (Section 8.0)
- Notify residents of crisis, if required (Section 5.0 or map in Appendix 2)
- Complete Incident Report (Appendix 3).

The Response Team shall:

- Don the necessary personal protective equipment
- Secure area to extent possible
- Shut off power and gas if possible.

7.5 INJURY RESPONSE

7.5.1 MINOR INJURIES

The Injured person shall:

- Report to Site Emergency Coordinator immediately
- Apply first aid as necessary.

The Site Emergency Coordinator shall:

- Help the injured person by applying first aid
- Take injured person to medical help, if necessary.

The Operations Supervisor shall:

- Complete Incident Report (Appendix 3)
- Contact management within 24 hours or next working day (Section 3.2).

7.5.2 MAJOR INJURY

The Site Emergency Coordinator shall:

- Organize a response team
- Contact Authorities (Section 3.3)
- Notify the Operations Supervisor (Section 8.0)
- Contact Crisis Communication Schedule (Section 8.0)
- Ensure unobstructed access for emergency response personnel
- Receive and direct emergency response personnel to the accident site
- Preserve and protect the accident site until investigations are complete.

The Operations Supervisor shall:

- Continue the Crisis Communication Schedule (Section 8.0)
- Notify injured person's family (Section 4.0)
- Complete Incident Report (Appendix 3).

The Response Team shall:

- Don the necessary personal protective equipment and first aid equipment
- Shut down equipment and process in location of injured person or persons
- If required, contain source of leak or extinguish small fire
- Move injured person or persons to safety and start first aid treatment.

7.6 FATALITY

The Site Emergency Coordinator shall:

- Organize a response team
- Contact Authorities (Section 3.3)
- Notify the Operations Supervisor (Section 8.0)
- Contact Crisis Communication Schedule (Section 8.0)
- Preserve and protect the accident site until investigations are complete
- Receive and direct emergency response personnel to the accident site.

The Operations Supervisor shall:

- Continue the Crisis Communication Schedule (Section 8.0)
- Complete Incident Report (Appendix 3).

Note: RCMP notified immediately. RCMP will notify family members.

The Response Team shall:

- Don the necessary personal protective equipment
- Shut down equipment and process in location of fatality
- If required, contain source of leak or extinguish small fire
- Do not move person or persons, if it is not necessary.

7.7 H_2S ALARM, H_2S OR GAS RELEASE

Upon discovery of release staff is to acknowledge the condition. All persons to take appropriate action and clear work area and proceed to meeting point upwind away from hazardous area.

The Site Emergency Coordinator shall:

- Take appropriate action in the event of an injury or fatality (Section 7.4 or 7.5)
- Organize a response team
- Contact Authorities, if required (Section 3.3)
- Contact Operations Supervisor (Section 8.0)
- Proceed with Crisis Communication Schedule, if required (Section 8.0)
- Protect the accident site until investigations are complete.

The Operations Supervisor shall:

- Continue the Crisis Communication Schedule, if required (Section 8.0)
- Notify residents of crisis, if required (Section 5.0 and map in Appendix 2)
- Complete incident report (Appendix 3).

The Response Team shall:

- Don the necessary personal protective equipment
- Shut down facility of operating equipment and processes, if possible
- Contain source of leak
- Monitor plant site and surrounding area outside of plant site.

7.8 MAJOR PROPERTY DAMAGE

Operator Shall:

- Shut down equipment and processes of effected area, if safe to do so
- Stay clear of effected area
- Contact Site Emergency Coordinator.

The Site Emergency Coordinator shall:

- Take appropriate action in event of an injury or fatality (Section 7.4 or 7.5)
- Organize response team to stabilize effected area to allow for continued
- Operation of facility, if possible
- If not possible, use lockout procedures and cordon off effected area until repair can be made.

The Operations Supervisor shall:

- Complete Incident Report (Appendix 3)
- Contact management within 24 hours or next working day (Section 3.2).

The Response Team shall:

- Don the necessary personal protective equipment
- Help with stabilizing the affected area
- Do lockout procedures and cordon off affected area.

7.9 NATURAL DISASTERS

7.9.1 LIGHTINING STORM

Prepare:

- Shut down equipment and processes.

Action:

- During electrical storm, work activity (i.e. tank washing, tank sampling, etc.) immediately around facility should be temporarily stopped until danger has passed.

7.9.2 TORNADO OR HURRICANE WARNINGS

Prepare:

- Shut down equipment and processes.

Action:

- In the event of a public announced tornado watch, facility staff is to be notified by supervisor
- Work activities to be conducted in recognition of short notice stoppage
- In the event of a public announced tornado warning employee to take cover
- Off duty staff should not go to plant to advise others.

7.9.3 FLOOD

Prepare:

- Secure facility
- Empty out/reduce tanks of oil and fill tanks with water
- Empty sumps and underground tanks
- Secure equipment and office equipment
- Shut off power and gas
- Remove/secure chemical barrels to higher levels
- Build up berm around plant.

Action:

- Close gate and evacuate to safe area.

7.9.4 GRASS/FOREST FIRES

Prepare:

- Contact fire department to protect the plant from the fire
- Secure facility upon warning/alert
- Ensure no open hydrocarbons
- Close hatches
- Shut down equipment and processes
- Cover and protect equipment to extent feasible.

Action:

- Evacuate employees to nearest safe area.

7.9.5 HIGH WINDS, HAIL

Prepare:

- Secure light objects
- Protect equipment.

Action:

- Take cover.

7.10 BOMB THREAT

WHAT TO LISTEN FOR

When a Bomb threat is received, the following should be used:

- The Operations Manager or Lead Hand (if after hours) will most likely be the only person talking to the caller. While talking to the caller, they should record:
  - Time of call
  - Male / Female caller
  - Accent in voice
  - What was said
  - Background noises
  - Why this company is targeted
  - Who is calling
  - Caller upset/joking around
  - What time will the bomb go off
  - Any other specifics that relate to the identification of caller

- Immediately following the call, notify the most senior person on site. If after hours, notify one of the management team members using the table of Emergency Contacts.
- Call 9-1-1 and inform the operator of the situation and the need for the Bomb Squad.
- Activate the nearest emergency plant shutdown button and begin Evacuation Procedures.
- When police and other responding teams arrive, assist them in any way they may require.

8. CRISIS COMMUNICATION SCHEDULE

In the event of an emergency, the Emergency Coordinator must notify the following people. Each person notified will discuss the situation with the person providing notice, and the two will jointly decide if the notification process shall escalate, and who will be responsible for proceeding with further notification.

Taber Burn	Branch Manager	Office (902) 481-8008 Cell (902) 456-9801
Jonathon Chouinard	General Manager	Office (506) 635-5600 Cell (506) 608-4426
Darren Zwicker	Vice-President	Office (902) 481-8008 Cell (902) 835-8078
Scott Sangster	Vice-President, Environmental Affairs	Office (902) 481-8008 Cell (902) 222-6172
Grant Dunham	Senior Health & Safety Manager	Office (905) 315-2225 Cell (226) 938-1254
Darlene Whelan	Health & Safety Manager	Office (709) 834-7350 Cell (902) 237-9558
Ashlee Hanratty	Safety Advisor	Office (902) 481-8008 Cell (902) 718-9313
Jasna Krstic	Environmental Advisor	Office (902) 481-8008 Cell (902) 802-8007

9. EVACUATION PLAN

All employees, customers, visitors, and contractors must immediately leave the work area and report to the facility evacuation meeting point. The office is the first meeting point, but if there is a hazard around the office, then goes to the second meeting point, which is the south main gate. The facility evacuation meeting points are posted. Refer to Plot Plan (Appendix 1). In the event of alarm or announcement of evacuation.

The site Emergency Coordinator shall:

- Take all work permits and visitor sign-in book
- Report to the office or south man gate
- Account for all personnel
- Organize a response team, if required
- Contact authorities, if required; (Section 3.3)
- Proceed with Crisis Communication Schedule, if required; (Section 8.0).

The employees shall:

- Advise all visitors, customers, and contractors of alarm, if possible
- Shut down facility of operating equipment and processes, if possible
- Report to office or south main gate.

No person shall be allowed to return to his or her respective work areas until an “all clear” has been given by the Site Emergency Coordinator.

10. TRAINING AND PRACTICE DRILLS

All employees will receive orientation within one week of hiring and any employee who changes duties will be upgraded immediately. All records of training will be held in the employee's file.

10.1 PERSONNEL TRAINING

All personnel will be trained in the following:

- Standard Operating Procedures (SOP)
- Lock-Out Procedures (LO TO)
- Hazardous Characteristics of the Materials Handled
- WHMIS
- Emergency Response Plan
- Basic First Aid
- Personal Protective Equipment (PPE)
- Transportation of Dangerous Goods Act and Regulations (TDGA&R)
- H_2S Training
- Basic Fire Training
- Confined Space Training.

10.2 PRACTICE DRILLS

A desktop and a simulated exercise shall be conducted at a minimum of twice a year. From these exercises the following evaluation shall be determined:

- Practicality of the plan (structure and organization)
- Adequacy of communication and interaction amount parties
- Emergency equipment effectiveness
- Donning and doffing SABA and SCBA equipment
- Adequacy of first aid and rescue procedures
- Adequacy of emergency personnel response training
- Public Relations skills
- Evacuation and personnel count procedures.

11. PLAN EVALUATION AND UPDATES

Based on actual Incident Reports and practical drills, revisions of the plan will be promulgated, reviewed and implemented. Amendments will be dated, manuals updated and reviewed with personnel.

12. WATER SUPPLY FOR FIRE DEPARTMENT

- A Fire hydrant is located on Brown Avenue, across from the main entrance
- A Fire hydrant is located on Brown Avenue, across from the rear parking area.

13. INVENTORY OF EMERGENCY RESPONSE EQUIPMENT

13.1 FIRE RESPONSE EQUIPMENT

Fire Extinguishers on Site

Inventory	Description				Location		Serial #
Unit #	Size	Type	Class	Mfd/H*	Floor	Area – Shop - Office	#
1	20	DC	ABC	2017	1	shop exit	442673
2	20	DC	ABC	2009	1	shop boiler room	662120
3	20	DC	ABC	2017	1	shop electrical room	99479681
4	20	DC	ABC	2018	1	shop wall by stairs	221088
5	20	DC	ABC	2018	1	shop wall by AED	625444
6	20	DC	ABC	2015	1	shop post	34835707
7	20	DC	ABC	2014	1	shop storage cage	777927
8	20	DC	ABC	2008	1	shop storage cage	790835
9	20	DC	ABC	2016	1	shop wall by vending machine	12351164
10	20	DC	ABC	2015	1	shop wall by exit	91977029
11	20	DC	ABC	2013	1	forklift - entrance	67260
12	20	DC	ABC	2015	1	shop middle (tire rack)	34835711
13	20	DC	ABC	2018	1	shop between bay doors	76801359
14	20	DC	ABC	2015	1	shop middle (post)	91977022
15	20	DC	ABC	2014	1	shop back exit	777928
16	5	DC	ABC	2013	2	upstairs class/lunchroom	365827
17	5	DC	ABC	2014	2	upstairs outside lunch room	190080
18	5	DC	ABC	2014	2	upstairs hall	443084
19	5	DC	ABC	2008	1	entrance	017215
20	10	DC	ABC	2008	1	spare	77849
21	5	DC	ABC	2013	1	hall exit	387863
22	5	DC	ABC	2013	2	upstairs hallway - above shop	365832
Unit #	Size	Type	Class	Mfd/H*	Floor	Area – Tank Farm	#
1	20	DC	ABC	2014	1	entrance	306352
2	20	DC	ABC	2018	1	back	113503
3	20	DC	ABC	2019	1	exit door	113831
4	20	DC	ABC	2014	1	exit door	000595
5	20	DC	ABC	2018	1	exit door	790345
6	20	DC	ABC	2009	1	exit door	207304
7	20	DC	ABC	2016	1	electrical room	582946
*Mfd/H = Manufacture or last hydro date							

13.2 CONTAINMENT EQUIPMENT

Item	Inventory	Location
Spill Kit	1	All Transport Units
Spill Kit	1	Spill Response Trailer
Spill Kit	1	Shop – Store Room
4’ x 4’ Containment Berms	4	Shop – Store Room
Shovels	2	Wash Pad
Shovels	2	Shop – Store Room
Squeegees	4	Shop – Store Room
Absorbent	5	Shop – Store Room

13.3 COMMUNICATION SYSTEM

Item	Inventory	Location
PA system (Office Phones)	1	Ext. 8050
Fixed Phones (Office Phones)	40	Each Office
Cell Phones	6	Operations Supervisors
Hytera Digital Radio – Model PD562	R185140285	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140286	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140471	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140472	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140473	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140474	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140475	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140476	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140479	Shop – Store Room
Hytera Digital Radio – Model PD562	R185140480	Shop – Store Room

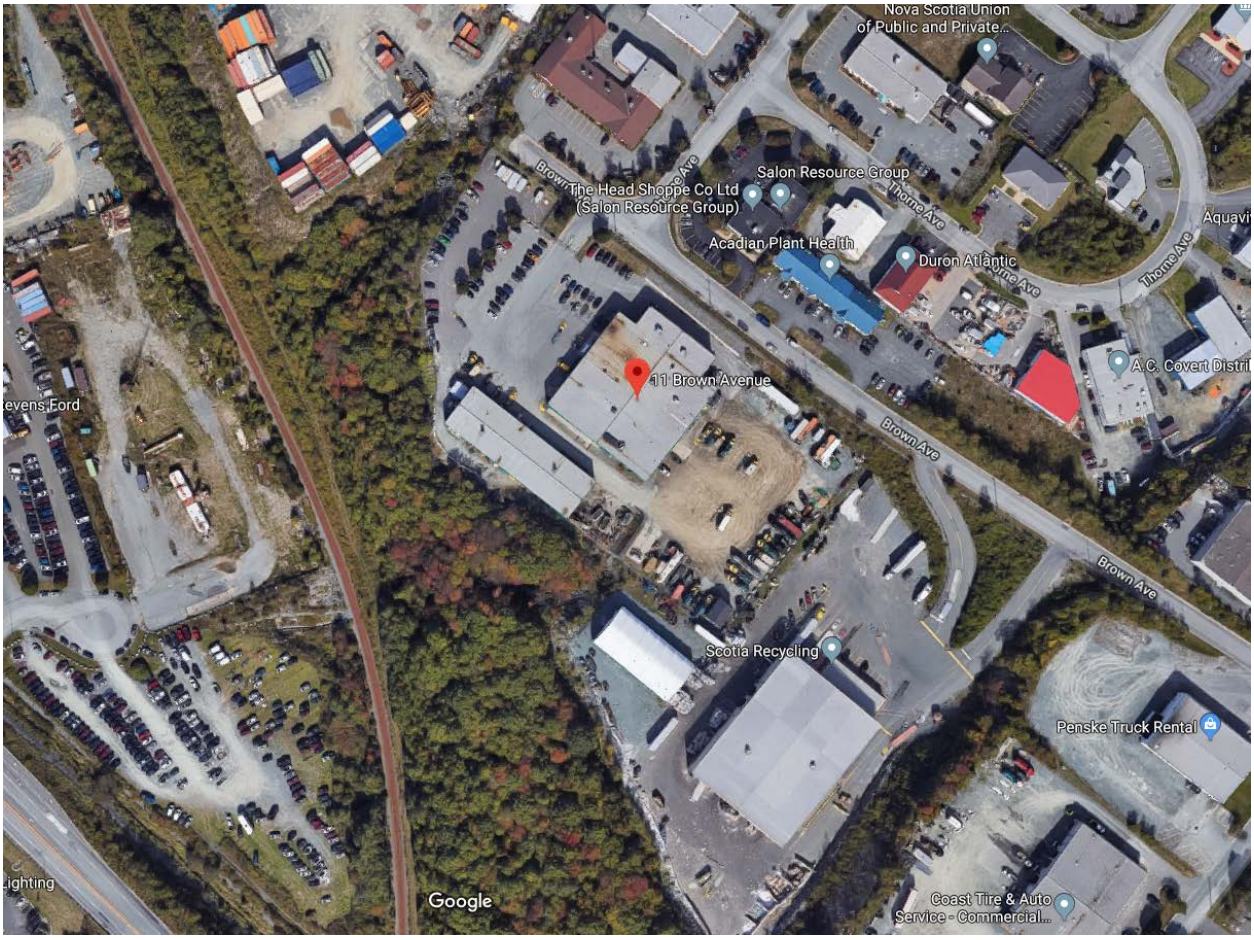
13.4 DECONTAMINATION EQUIPMENT

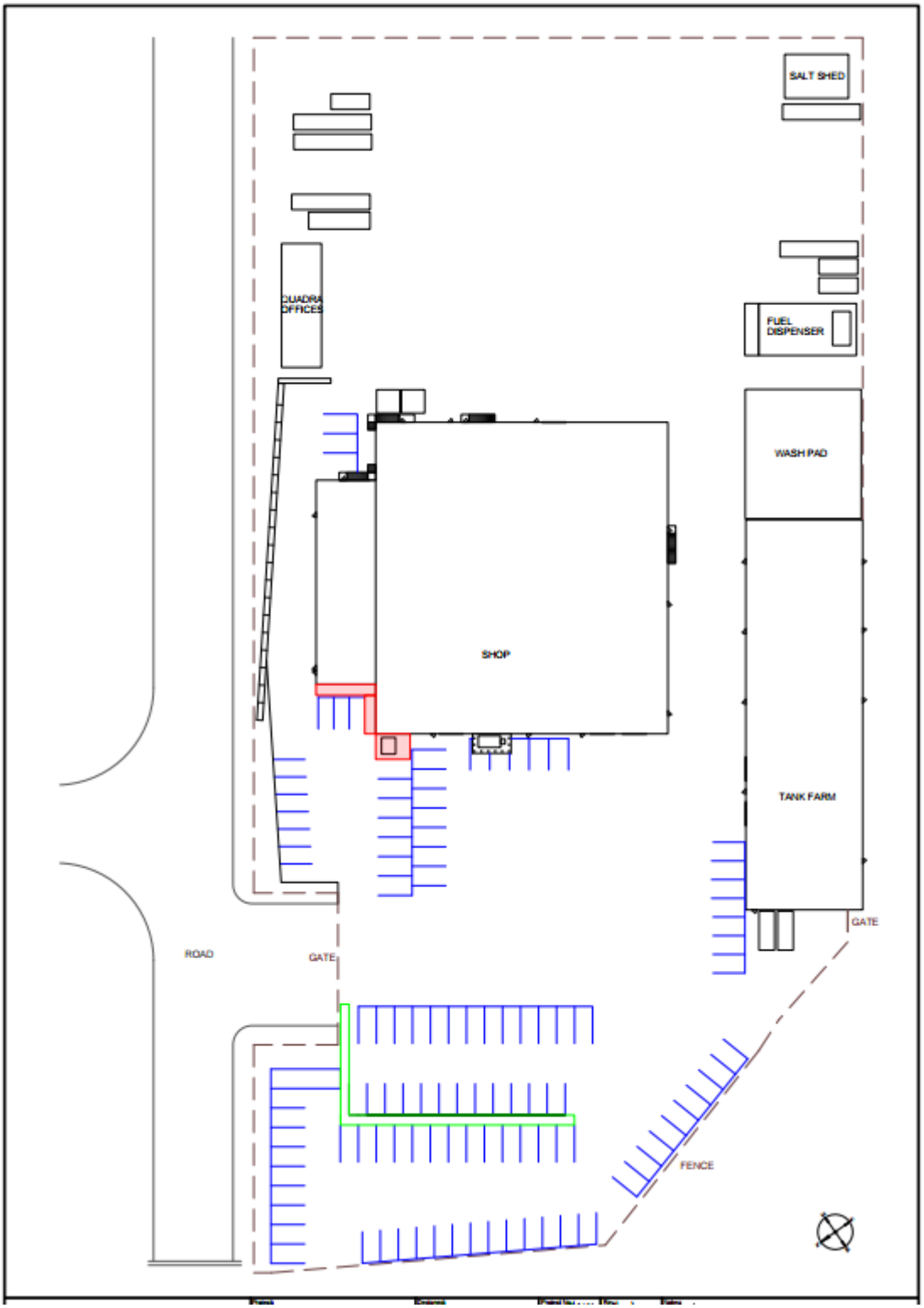
Item	Inventory	Location
Emergency Shower/Eye Wash	1	Tank Farm
Emergency Shower/Eye Wash	1	Shop (adjacent to rear bay door)
Emergency Eyewash Bottles	5	Shop – Store Room

13.5 FIRST AID EQUIPMENT

Item	Inventory	Location
Standard First Aid Kit	Standard First Aid Kit (regular)	1st floor shop wall by AED
Standard First Aid Kit	Standard First Aid Kit (regular)	2nd Floor Kitchen
Standard First Aid Kit	Standard First Aid Kit (Large)	1st floor shop (Washroom)
Standard First Aid Kit	Standard First Aid Kit (Large)	1st floor shop (Store Room)
Standard First Aid Kit	Standard First Aid Kit (Large)	1st Floor Tank Farm
Fire Blanket	1	Store Room – 1st floor - Main
Burn Kit	1	Store Room – 1st floor - Main
Respirator	6	Store Room – 1st floor - Main
SCBA	3	Store Room – 1st floor - Main
SABA	3	Store Room – 1st floor - Main
Stretcher	3	Store Room – 1st floor - Main

APPENDIX 1 – PLOT PLAN OF FACILITY




SALT SHED
QUADRA OFFICES
FUEL DISPENSER
WASH PAD
SHOP
TANK FARM
ROAD
GATE
GATE
FENCE

APPENDIX 2 – MAP SWOWING RESIDENCES WITHIN 2 KM RADIUS OF FACILITY

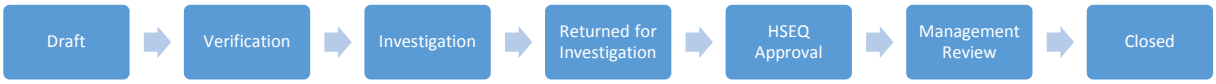
APPENDIX 3 - INCIDENT REPORTING

EHS Incident Management

There are five standard incident types:

- Environmental Incident
- Injury/Illness
- Near Miss
- Property Damage Incident and
- Vehicle Incident.

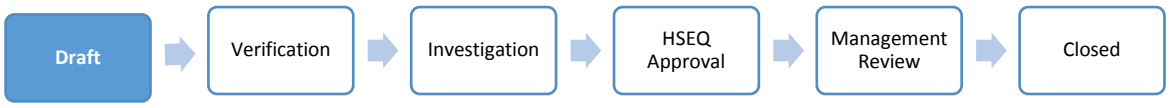
There are six workflow stages:



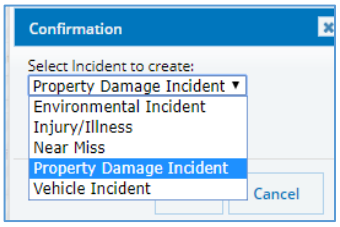
Draft, Investigation, Returned for Investigation, HSEQ Approval and Management Review stages are the same for all incident types. Verification stage is different for each incident type and includes details that are specific for that incident type.

Workflow Stage	Person Responsible	Due Date	Workflow Actions
Draft	Created By	1 day	Submit for Verification
Verification	EHS Coordinator (Role)	1 day	Submit (for Investigation if investigation is required or HSEQ Approval if investigation is not required)
Investigation	Assigned Investigator	Investigation Due Date	Submit for HSEQ Approval
Returned for Investigation	Assigned Investigator	2 days	Submit for HSEQ Approval
HSEQ Approval	HSEQ Manager (Role)	3 days	Submit for Management Review Return for Investigation
Management Review	Divisional VP/GM (Role)	3 days	Close Incident Return for HSEQ Approval

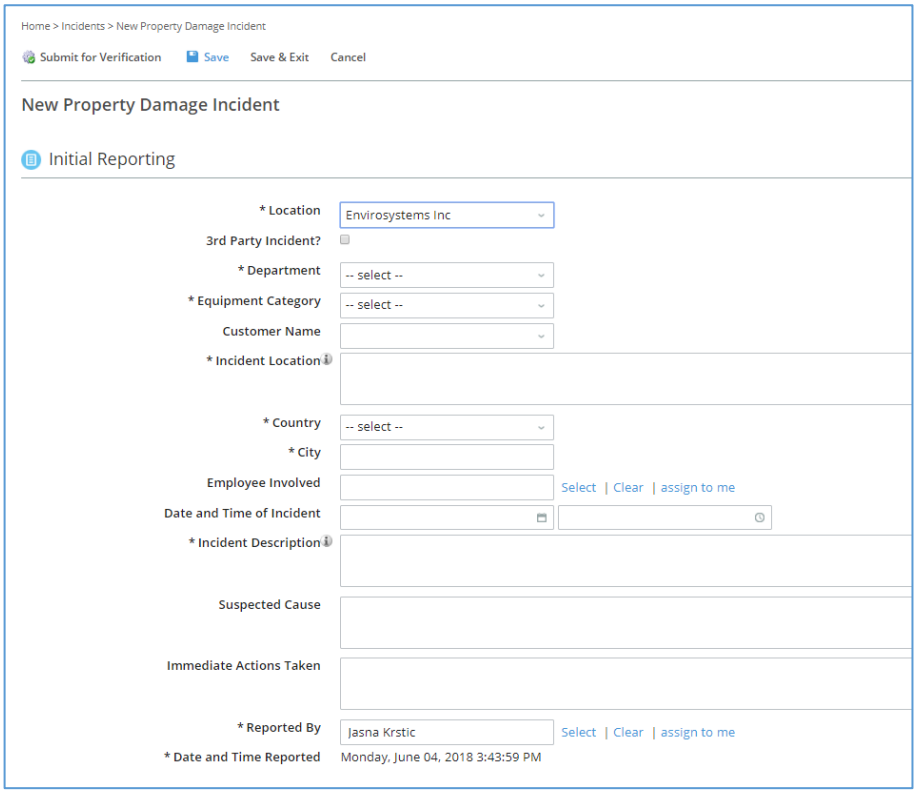
Draft Stage - Adding a New Incident



To add a new incident, in the EHS Incident Management application, click on the Incidents tab. Click Add Entry, select incident type and click Ok.



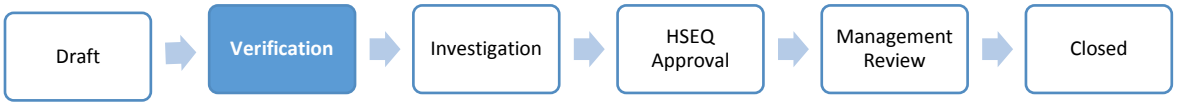
Complete the **Initial Reporting** section. This sections is the same for all incident types.



Once Initial Reporting section has been completed, click **Submit for Verification** button.

Incident is now moved to the next – Verification stage and it is assigned to HSE Coordinator for verification. EHS Coordinator is the role defined for each location. When incident is submitted for verification EHS Coordinator for that location will get an automatic e-mail notification – "Incident (type) has been submitted".

Verification Stage



Verification stage is different for each incident type. Details specific for that incident type are described at this stage.

Environmental Incident

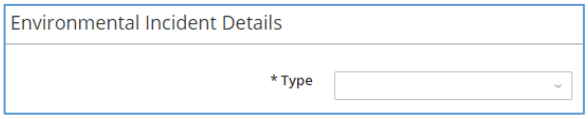
There are three sections in this stage:

- ✓ Environmental Incident Details
- ✓ Verification Details
- ✓ External Reporting Details.

Environmental Incident Details section

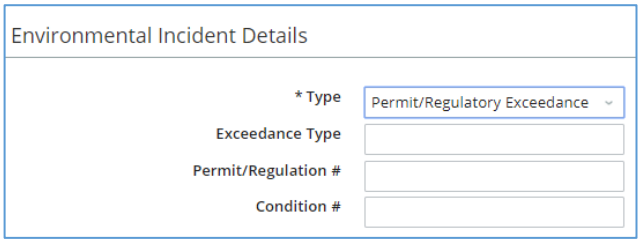
There are four environmental incident types:

- ✓ Permit/Regulatory Exceedance
- ✓ Complaint
- ✓ Wildlife and
- ✓ Spill/Release.

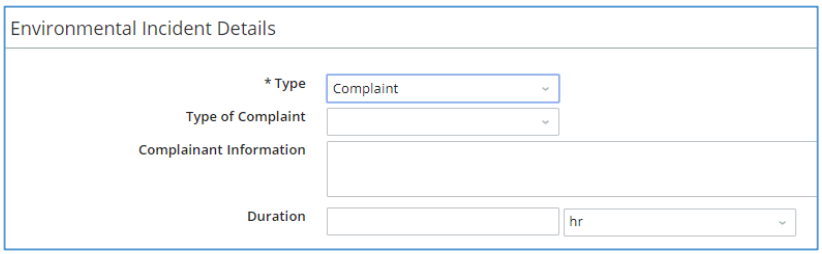


Based on the environmental incident type selection, different fields will appear.

Permit/Regulatory Exceedance

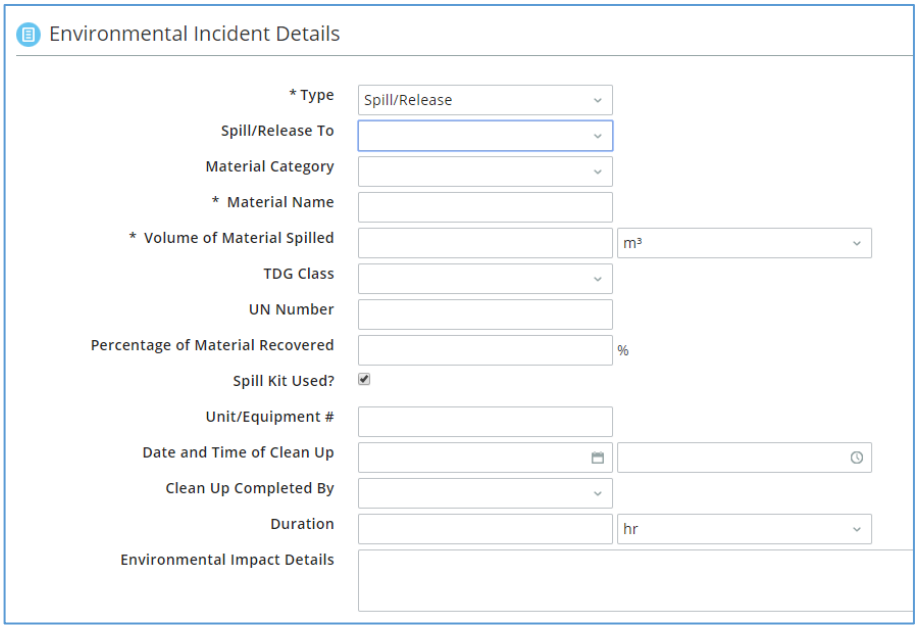


Complaint



Wildlife

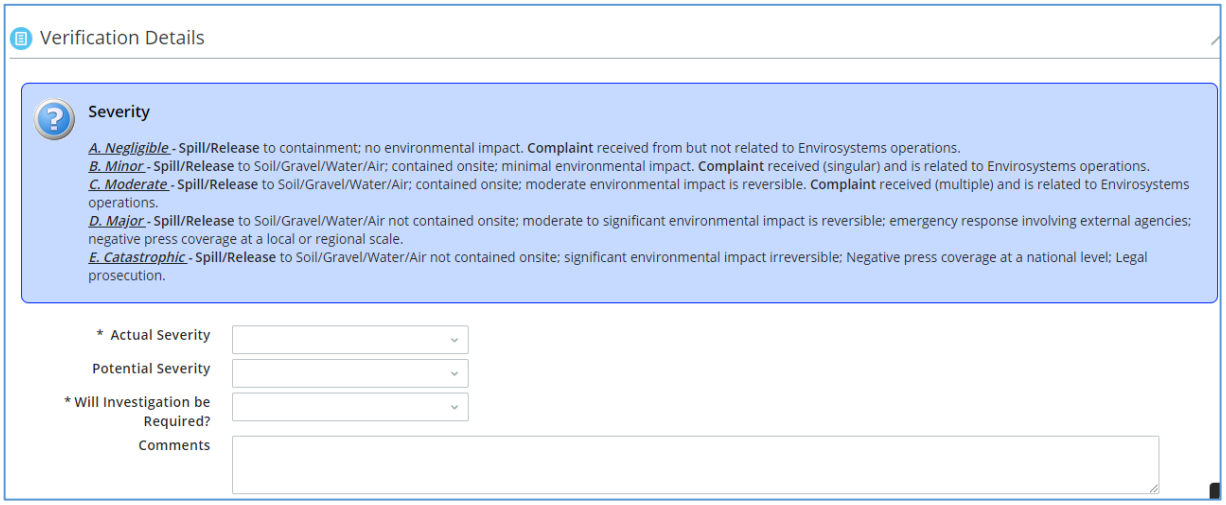
Spill/Release



If spill kit has been used an automatic e-mail notification will be sent to the location designated “Spill Kit Group” members advising them that spill kit has been used on the certain unit and it needs to be replenished.

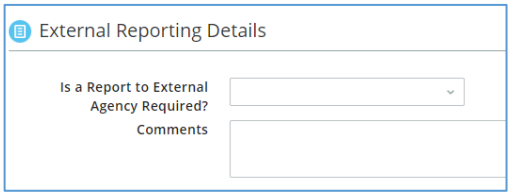
Verification Details section

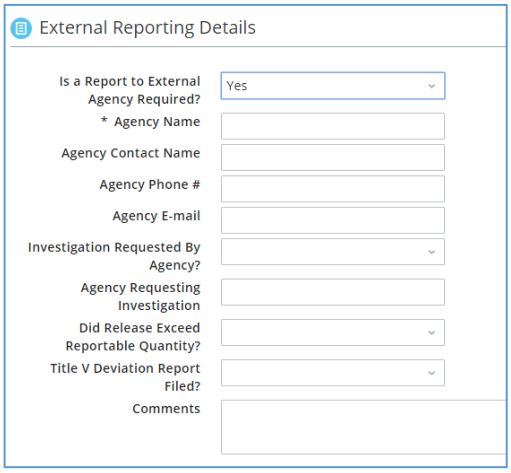
Verification Details section defines actual & potential severity and investigation requirements. This section is the same for all incident types with only difference being Severity banner which explains severity definitions for different incident types. Also Near Miss incidents do not have actual severity, only potential severity.



External Reporting Details section

If a report to external agency is required, external agency details and requirements are captured in the External Reporting Details section.





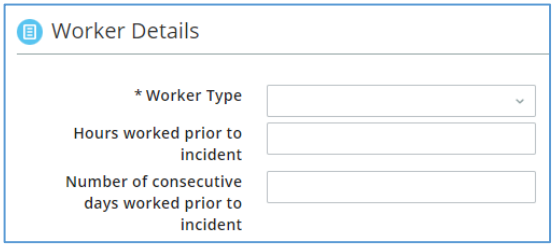
Injury/Illness

There are five sections in this stage:

- ✓ Worker Details
- ✓ Injury/Illness Details
- ✓ Lost Time
- ✓ OSHA Details and
- ✓ Verification Details.

Worker Details section

This section includes details about injured worker such as personal information, hours worked prior to incident and number of consecutive days worked prior to incident. If worker type is “employee”, personal information is pulled from the Employee object and doesn’t have to be entered again.



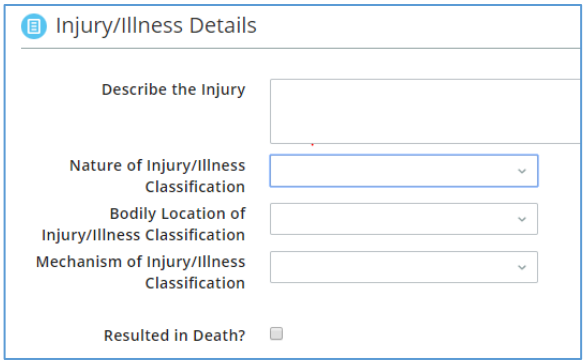
Injury/Illness Details section

This section has two parts:

- ✓ Injury/Illness details and
- ✓ Medical Treatment.

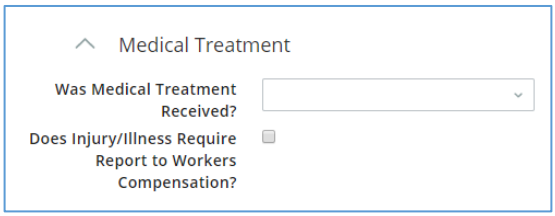
Injury/Illness details include the following classifications (primary and detailed - based on primary selection):

- ✓ Nature
- ✓ Bodily location and
- ✓ Mechanism.



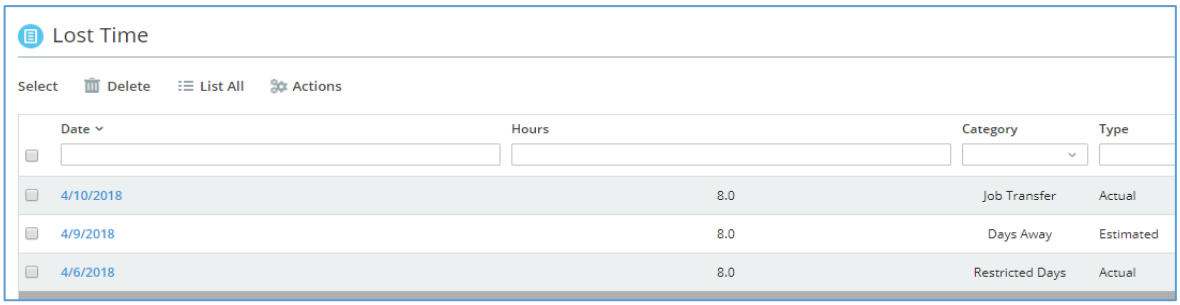
If medical treatment has been received, details such as treatment received, physician name, and medical facility information are captured here.

If injury/illness requires report to Workers Compensation, date of the report will be entered in this section.



Lost Time section

Lost time section allows you to select date(s), hours and lost time category (restricted days, days away or job transfer).



Verification Details section

Verification Details section defines actual & potential severity and investigation requirements. Severity banner explains severity definitions for injury/illness.

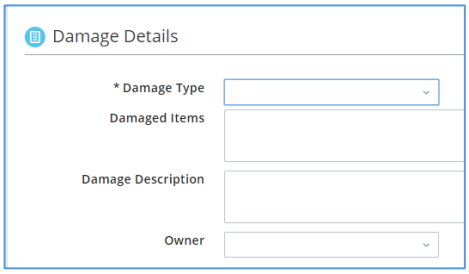
Property Damage Incident

There are two sections in this stage:

- ✓ Damage Details and
- ✓ Verification Details.

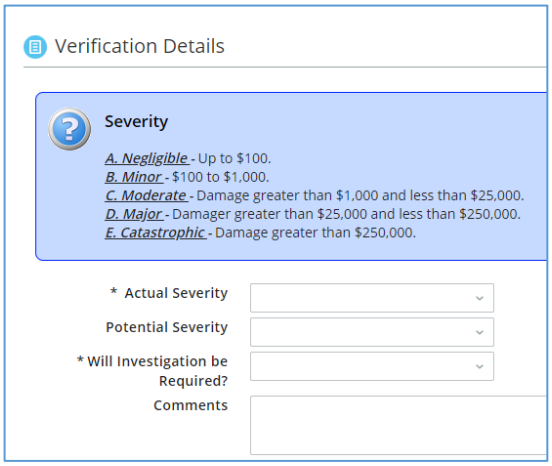
Damage Details section

This section includes details about damage such as damage type, items, description and property owner.



Verification Details section

Verification Details section defines actual & potential severity and investigation requirements. Severity banner explains severity definitions for property damage.



Vehicle Incident

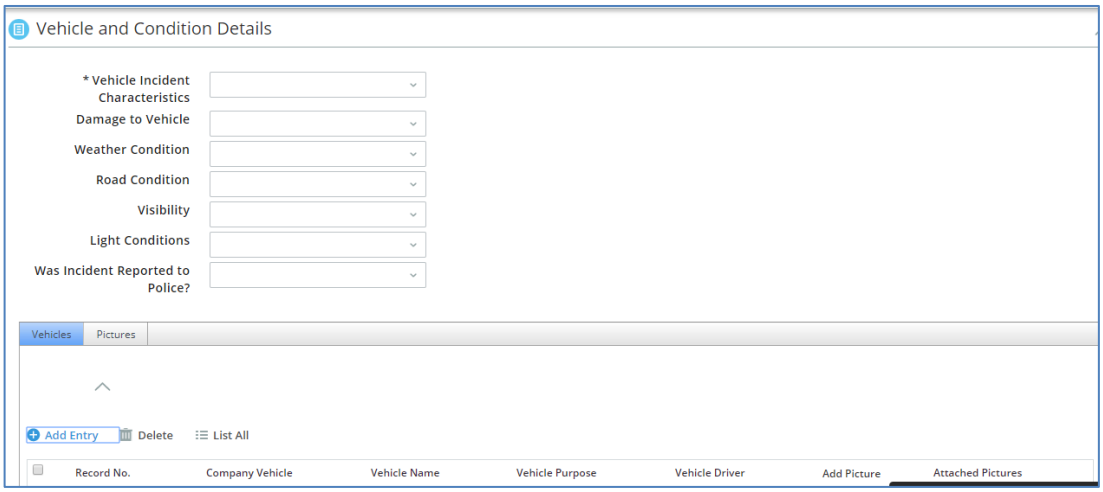
There are two sections in this stage:

- ✓ Vehicle and Condition Details and
- ✓ Verification Details.

Vehicle and Condition Details section

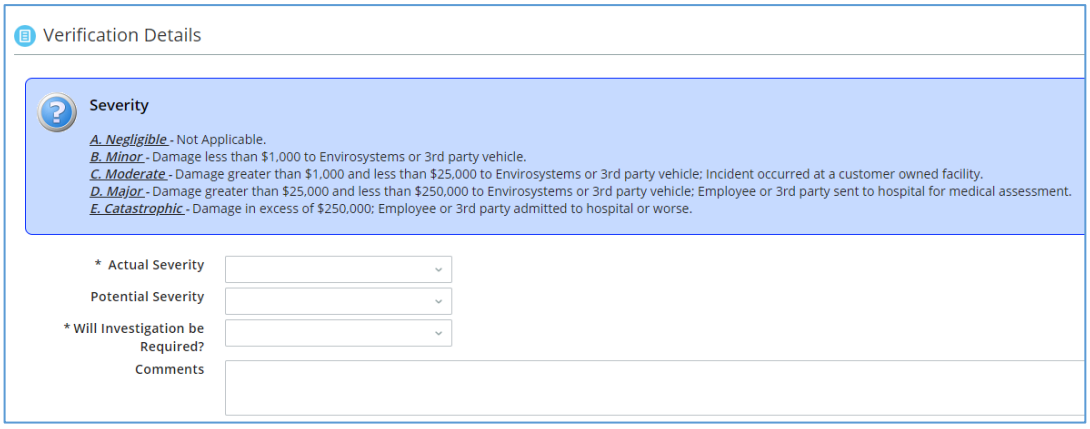
This section has two parts:

- ✓ Details about vehicle incident/damage and road/weather conditions
- ✓ Grid section with vehicle and driver information.



Verification Details section

Verification Details section defines actual & potential severity and investigation requirements. Severity banner explains severity definitions for vehicle incident.



Near Miss

Near Miss Verification stage has only one section – Verification Details section.

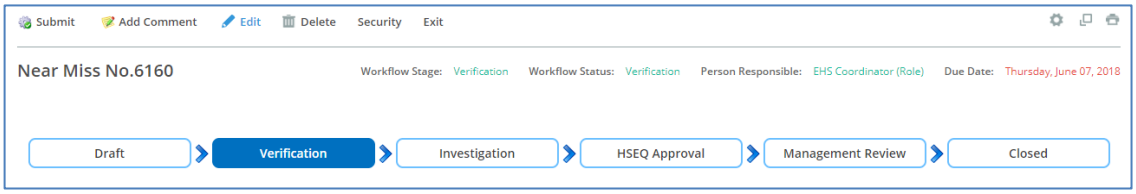
Verification Details section

Verification Details section defines potential severity and investigation requirements.

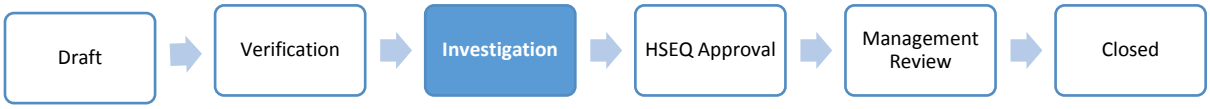
Once verification section has been completed, click **Submit** button.

If investigation was required, incident will be moved to Investigation stage and person responsible (assigned investigator) will get an automatic e-mail notification – "Incident (type) has been verified and submitted for investigation".

If investigation was not required, incident will be moved to HSEQ Approval stage and HSEQ Manager will get an automatic e-mail notification - "Incident (type) has been verified and submitted for HSEQ Approval".

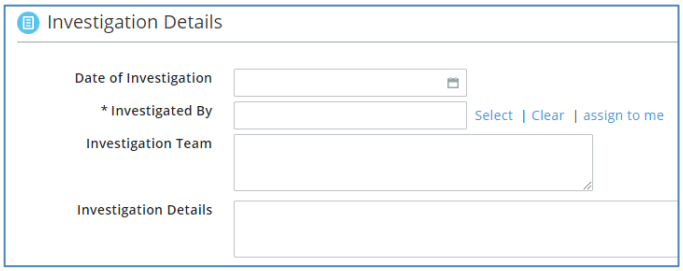


Investigation Stage



Investigation stage has four sections:

✓ Investigation Details



✓ Cost Details

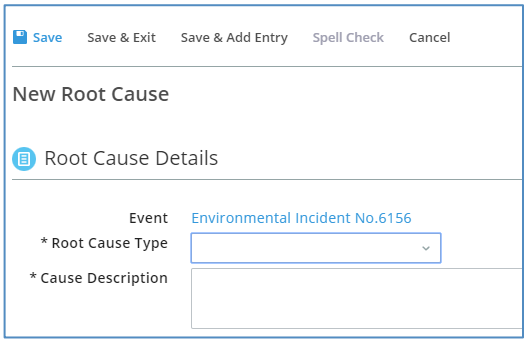
Cost details are specific to incident type and are displayed as per table:

	Environmental	Injury/Illness	Property Damage	Vehicle	Near Miss
Investigation Cost					
Cleanup					
Fines/Penalties					
Insurance/Deductible					
Legal Fees					
Medical					
Repair					
Replacement					
Waste Disposal					
Other					

✓ Root Causes and
✓ Action Plans.

Root Causes section

Root Causes section is the same for all incident types.



There are two root cause types:

✓ Immediate causes and
✓ Basic/Underlying causes.

Immediate causes can be:

- Behaviours or
- Conditions.

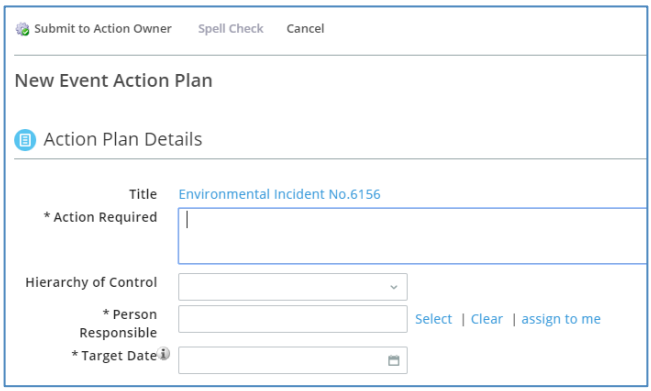
Basic/Underlying causes can be:

- Personal factors or
- Job factors.

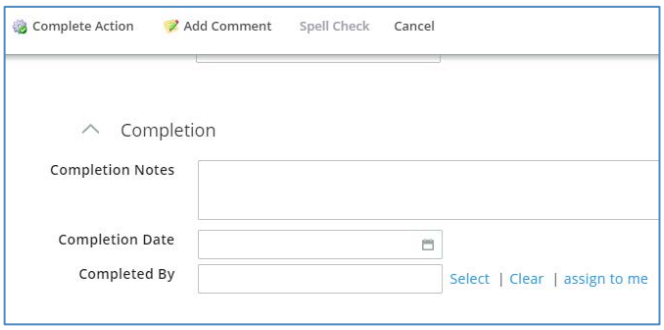
After appropriate selections, click **Save** button to save inputs and open Action Plans window.

Action Plans section

Action Plans section is the same for all incident types. It is a separate object with its own workflow.

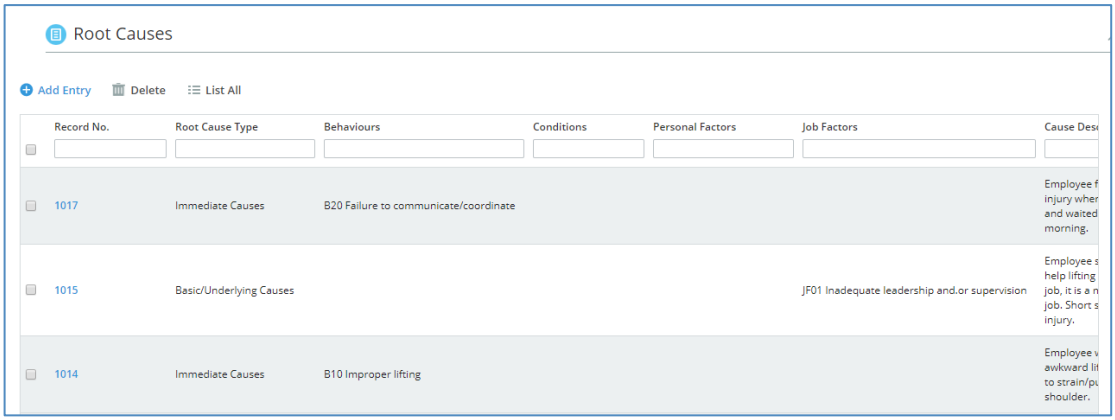


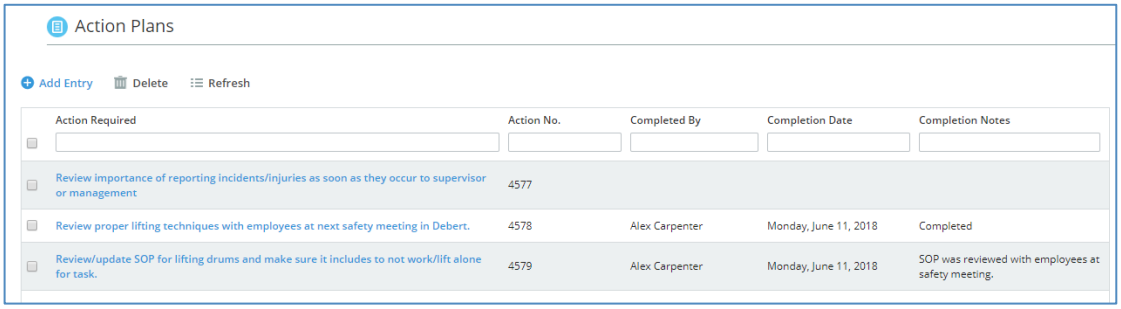
Once all details are completed, click **Submit to Action Owner** button. Action Owner (person responsible) will get an automatic e-mail notification. Action Plan has now "open" status and can be completed.



Complete Completion section details and click **Complete Action** button to complete/close the action plan.

All identified root causes and assigned action plans will show in the grids within Investigation section.

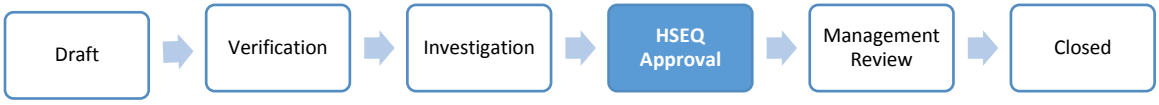




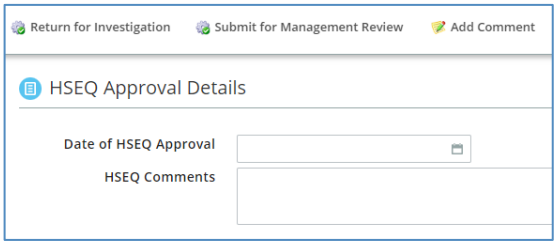
Once all investigation details are completed, root causes identified and action plans submitted, click **Submit for HSEQ Approval** button.

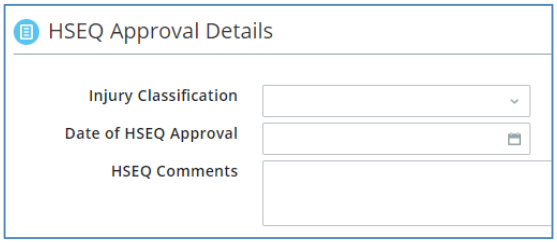
Incident is now moved to the next stage – HSEQ Approval stage and it is assigned to HSEQ Manager for approval. HSEQ Manager is the role defined for each location. When incident is submitted for HSEQ approval, HSEQ Manager for that location will get an automatic e-mail notification – "Incident (type) has been investigated and submitted for HSEQ Approval".

HSEQ Approval Stage



HSEQ Approval stage has one section and it is the same for all incident types except Injury/Illness which in addition to date and comments fields also has "Injury Classification" dropdown.





HSEQ Manager has two options:

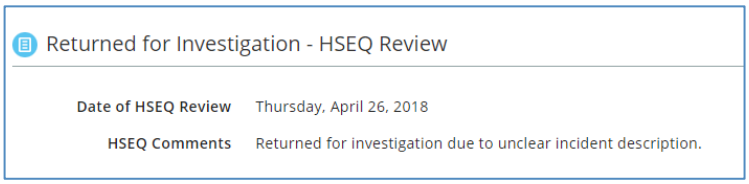
- ✓ To submit incident for Management Review or
- ✓ To return incident for Investigation.

If incident is returned for investigation, it will go to:

- ✓ Person responsible for investigation, if investigation was initially required or
- ✓ EHS Coordinator (verification stage) to request investigation.

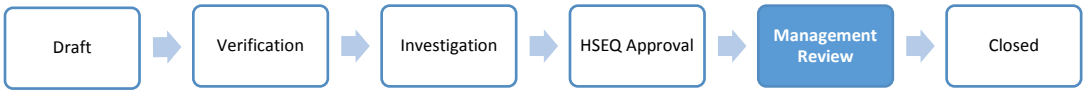
In both cases, automatic e-mail notification will be sent out.

When incident is returned for investigation, **Returned for Investigation – HSEQ Review** section with reasons for returning incident back for investigation will be displayed at the top of the page.

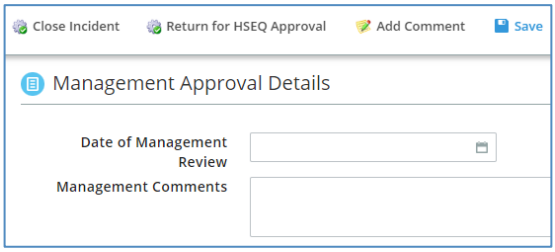


When incident is submitted for Management Review, Divisional VP/GM (defined location role) will receive an automatic e-mail notification - "Incident (type) has been submitted for Management Review".

Management Review Stage



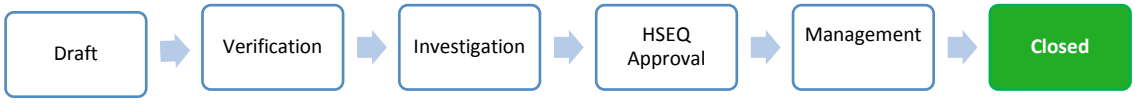
Management Review stage has one section and it is the same for all incident types.



Divisional VP/GM has two options:

- ✓ To close incident or
- ✓ To return incident for HSEQ Approval.

Once incident is closed, HSEQ Manager for that location will receive an automatic e-mail notification – "Incident (type) has been closed".



Incident is now closed and its workflow status is completed.

APPENDIX 4 – SPILL QUANTITIES OR LEVELS FOR IMMEDIATE REPORTING

TDG Class	Description of Substance	Reportable Release Amount
1	Explosive	any amount
2.1	Compressed gas (flammable)	> 100 L
2.2	Compressed gas (non-corrosive, non-flammable)	> 100 L
2.3	Compressed gas (toxic)	any amount
3	Flammable liquid	> 100 L
4.1	Flammable solid	> 25 kg
4.2	Spontaneously combustible solid	> 25 kg
4.3	Water reactant solid	> 25 kg
5.1	Oxidizing substance	> 50 L or > 50 kg
5.2	Organic peroxide	> 1 L or > 1 kg
6.1	Poisonous substance	> 5 L or > 5 kg
6.2	Infectious substance	any amount
7	Radioactive substance	any amount
8	Corrosive substance	> 5 L or > 5 kg
9 (in part)	Miscellaneous product or substance, excluding PCB mixtures and environmentally hazardous substances	> 25 L or > 25 kg
9 (in part)	PCB mixture of 50 or more ppm	> 0.5 L or > 0.5 kg
9 (in part)	Environmentally hazardous substance	> 1 L or > 1 kg
N/A	Asbestos waste	> 50 kg
N/A	Used oil	> 100 L
N/A	Contaminated used oil	> 5 L
N/A	Pesticide in concentrated form	> 5 L or > 5 kg
N/A	Pesticide in diluted form	> 70 L
N/A	Unauthorized sewage discharge into fresh water or sensitive marine water	> 100 L
N/A	Ozone-depleting substance	> 25 kg

APPENDIX 5 – TANK VOLUMES AND CONTENTS

Tank Number	Volume, litres	Content
2004-044245-001	45,460	Bunker/Used Oil
2004-044245-002	45,460	Bunker/Used Oil
2004-044245-003	45,460	Bunker/Used Oil
2004-044245-004	45,460	Bunker/Used Oil
2004-044245-005	45,460	Bunker/Used Oil
2004-044245-006	45,460	Bunker/Used Oil
2004-044245-007	45,460	Bunker/Used Oil
2004-044245-008	45,460	Bunker/Used Oil
2004-044245-009	45,460	Bunker/Used Oil
2004-044245-010	45,460	Bunker/Used Oil
2004-044245-011	45,460	Bunker/Used Oil
2004-044245-012	45,460	Bunker/Used Oil
2004-044245-013	45,460	Bunker/Used Oil
2004-044245-014	45,460	Bunker/Used Oil
2004-044245-015	45,460	Bunker/Used Oil
2004-044245-016	45,460	Bunker/Used Oil
2004-044245-017	36,368	Used Oil
2004-044245-018	36,368	Used Oil
2004-044245-019	36,368	Used Oil
2004-044245-020	36,368	Used Oil
2004-044245-021	36,368	Used Oil
2004-044245-022	36,368	Used Oil
2004-044245-023	36,368	Used Oil
2004-044245-024	36,368	Used Oil
2004-044245-025	9,213	Diesel
2004-044245-026	9,711	Fuel Oil

about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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