

ENVIRONMENTAL PROTECTION PLAN

QIKIQTAALUK ENVIRONMENTAL INC. LOT 666, PLAN 1673 PARCELS Q AND O ENVIRONMENTAL WASTE PROCESSING FACILITY

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FINAL

February 2016

O/Ref.: QE15-102-2

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NOTE TO THE READER

Qikiqtaaluk Environmental Inc. (QE) was established in Iqaluit, Nunavut in 2003. Its activities consist of the management of hazardous and non-hazardous waste, contaminated water treatment and contaminated soil management. QE will pursue its operations and add a soil treatment facility on the property located on Lot 666, Plan 1673, Parcels Q and O (the Site). This Environmental Protection Plan (EPP) describes these activities and how QE intends to safeguard against contaminants from escaping the Site. Monitoring wells, watertight lined cells and storage in marine containers are some of the measures taken by QE to prevent contaminants from escaping from the Site.

Hazardous waste (HW) is collected from various clients in Iqaluit and the surrounding communities. HW consists of, but is not limited to, waste oil, waste fuel, waste gasoline, hydrocarbon contaminated sludge, asbestos containing materials (ACM), lead paint and other lead containing materials, etc. These HWs are often improperly packaged and/or in containers of poor condition. QE's line of business consists of the identification, repackaging, marine transportation and final disposal of this HW. The Site will ultimately be used for that purpose.

Impacted water is often collected from spills, remediation sites or during the cleaning process of fuel storage containers. QE is licensed by the Nunavut Water Board (NWB) to collect, store, treat and discharge this water. The water treatment unit (WTU) consists of a metal treatment tank, water/oil separator and a series of filters activated by diaphragm pumps. The contaminated and treated water is stored in holding tanks with capacities ranging from 8,000 to 15,000 L. After treatment, confirmatory samples are taken and analyzed for comparison with the discharge criteria included in the NWB Licence. Following receipt of results within criteria, the clean water is then discharged to a discharge location authorized in our water license.

QE will treat hydrocarbon contaminated soils on-site using biological, chemical, and physical treatment techniques. The contaminated soils are screened (physical treatment) to remove larger materials (rocks) that do not hold contaminants. The finer materials are then placed on the biotreatment pad, which is comprised of a lined cell with a series of screened piping, to inject air into, or extract air from, the soils. Amendments are added to the soils to stimulate the bacterial activity that, over time, degrades and removes the contaminants from the soils (biological treatment). The soils are covered with a black tarp to maintain higher temperatures and minimize precipitation water infiltration. The treatment pad may also be used for treating soils by chemical oxidation.

The rocks obtained from screening are washed (physical treatment) to remove adherent fine soil particles then inspected and re-used on-site. QE will also launch a research and development project for new technologies that could provide better remediation rates in the Arctic. Monitoring measures implemented by QE consist of on-site monitoring wells to ensure that no contamination migrates off-site.

To facilitate understanding for readers who may need to focus on individual sections of this document, each section was written concisely but is, however, comprehensive enough to be read individually, at the risk of repeating key information within the document.

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LIST OF ABREVIATIONS

ACM: Asbestos containing material

CCME: Canadian Council of Ministers of the Environment

CEPA: Canadian Environmental Protection Act

DND: Department of National Defence

DoE: Department of Environment

EPP: Environmental Protection Plan

HC: Hydrocarbon

HCW: Hydrocarbon contaminated water

HDPE: High density polyethylene

HW: Hazardous waste

IMO: International Marine Organization

INAC: Indigenous and Northern Affairs Canada

MSDS: Material Safety Data Sheets

NFC: National Fire Code

NWB: Nunavut Water Board

PCB: Polychlorinated Biphenyls

PHC: Petroleum hydrocarbon

PPE: Personal Protective Equipment

ppm: parts per million

SCP: Spill contingency plan

TDG: Transport of Dangerous Goods

TDGA: Transportation of Dangerous Goods Act
TDGR: Transport of Dangerous Goods Regulation

UN: United Nations

WTU: Water treatment unit

ENVIRONMENTAL PROTECTION PLAN OBJECTIVES

The Environmental Protection Plan (EPP) was developed to provide prevention measures for potential environmental impacts associated with the development of Qikiqtaaluk Environmental Inc's (QE) activities. This plan also serves as the basic vehicle for ensuring that efficient and coordinated measures are provided in terms of detection, notification, recording, requests for assistance, containment and countermeasures for hazardous materials spills.

The EPP will be monitored by QE and will be used during daily activities in conjunction with the facility's drawings and specifications.

The EPP defines the following:

- Section 1: Operations regarding hazardous waste management, water treatment and soil treatment;
- Section 2: Environmental and other relevant jurisdictions, including legislation and regulations from federal, territorial and municipal authorities;
- Section 3: Protection measures required to avoid potential environmental impacts;
- Section 4: Emergency plans required to respond to situations which can adversely impact the environment.

The protection measures described in this document shall be implemented by QE to avoid potential adverse environmental impacts. These procedures were developed to take into consideration known and potential situations and conditions. However, if some procedures or protection measures prove to be impractical, imprudent or insufficient in field situations, appropriate modifications will be proposed by QE's Project Manager and approved by the concerned regulatory agency or its representative.

1. PROJECT OVERVIEW

The Site covers an approximate area of 20,000 m² and bears the legal description Lot 666, Plan 1673, Parcels Q and O. It is located in the area designated West 40, within the boundaries of the City of Iqaluit. It has an M2 zoning classification, which, according to the City of Iqaluit zoning by-law, allows for heavy industrial activities. The Site is leased from the Iqaluit International Airport (IIA); however, it will soon be transferred to the City of Iqaluit. QE plans to reroute current drainage ditches and restrict public access to the Site through the use of 6 foot-high metal fencing with 3 rows of barbwire at the top of the fence. Surveillance using closed circuit cameras and movement-detecting exterior lighting will also be installed.

The Site has four neighbours:

- To the North: An empty industrial lot and an abandoned building:
- To the West: Sylvia Grinnell Territorial Park and empty industrial lots;
- To the South: A DND compound;
- To the East: Industrial lots leased to Hanson Construction Ltd. for cold storage and Wynburg Automotive for vehicle repairs.

An office space and warm storage area will be installed in trailers and/or modified marine containers. Heat will be provided by an oil-fired furnace. Heating oil will be delivered to the Site by UQSUQ Corporation, as is standard throughout the City of Iqaluit. Parking spaces and marine containers, to be used for cold storage, will also be part of the Site's infrastructures.

A road will be constructed and the entire Site will be graded to a slight eastern slope to allow rain or melting snow to be drained into the City of Iqaluit's current drainage pathways. Snow piling areas are also included to allow for activities to be carried out year-round.

1.1 Site Activities

The on-site activities will be based to meet CCME or territorial environmental compliance (whichever is more severe). The following sections describe the major activities to be performed and the environmental requirements to be respected. The EPP will be monitored in conjunction with these documents to assess requirements of all activities. The major activities include the following:

- Hazardous waste management;
- Water treatment:
- Soil treatment.

1.2 Hazardous Waste Management

QE will implement appropriate waste management procedures for all waste collected during operations.

Non-hazardous solid waste generated as part of the on-site daily activities will be disposed of in the City of Iqaluit landfill. Non-hazardous materials expected to be encountered include: packaging materials, building demolition debris, metals, concrete and other debris.

Any hazardous waste generated by QE during daily activities (such as waste fluids and sludge) will be containerized and shipped off-site to authorized facilities.

Hazardous materials are defined as follows: wastes or materials that are designated as hazardous under the Nunavut or Federal legislation, or as "dangerous goods" under the TDGA¹. Specifically identified and/or potentially hazardous materials that QE encounters during daily activities include: contaminated soils, hazardous building demolition debris, lead amended painted materials, batteries, asbestos, fuel tank sludge, solvents, waste fuels and lubricating oils and glycols. The requirements for the disposal of these hazardous materials are presented in Table 1.

TABLE 1:Hazardous Material Requirements for Disposal

| Description | Management Procedure | | |
|---|---|--|--|
| Liquids containing organic compounds with and without heavy metal contamination such as: Cadmium (Cd) > 2 ppm, Chromium (Cr) > 10 ppm, Lead (Pb) > 100 ppm; Batteries; Tires. | Consolidation, containerization, temporary on-site storage and off-site shipment to an authorized treatment/disposal facility. | | |
| Asbestos | Double-bagged and temporary on-site storage and off-site shipment to an authorized treatment/disposal facility. | | |
| Fuels;Lubricating oils;Solvents and glycols;Fuel tank sludge. | Consolidation, containerization, temporary on-site storage and off-site shipment to an authorized treatment/disposal facility. | | |
| Hazardous Demolition materials; Paint, Lead amended paint and paint related materials | Consolidation, containerization, temporary on-site storage and off-site shipment to an authorized treatment/disposal facility. | | |
| Biohazard, medical waste | Biohazard packaged in proper Class 8 containers at hospital or health centre. Containers consolidated in a locked marine container prior to shipment. | | |

^{1.} Transportation of Dangerous Goods Act, 192 (1992, c. 34)

Workers shall wear suitable PPE and use appropriate materials and equipment for the collection and sorting of hazardous materials.

Activities will take place on a lined area to prevent spills. Contact water will be collected and analyzed before treatment or discharge. Materials awaiting packaging will be covered to limit contact water. Adequate separation and storage will be maintained on-site to avoid product interaction.

1.3 Water Treatment

In August 2014, QE was awarded a NWB Licence #1BR-THI1419 / Type "B" to carry out water treatment activities. Under this licence, QE is permitted to collect, store, treat and discharge HCW. HCW is collected by QE from fuel spill clean-up, tank cleaning or liquid waste consolidation activities. The HCW and treated water are stored in 4 different holding tanks, each with capacity ranging from 8,000 to 15,000 L. The tanks will be placed in a bermed area, as stated in the licence conditions, following INAC review. The bermed area will be designed to contain 30,000 L. More detailed information on WTU activities are included in the NWB licence.

QE is in the process of requesting an amendment to its NWB license that would allow for the management and treatment of water impacted by contaminants other than petroleum hydrocarbons (e.g., metals and other organic contaminants)

1.4 Soil Treatment

Petroleum hydrocarbon contaminated soils will be treated on site using biological, chemical, and physical treatment techniques.

Contaminated soils will be temporarily stockpiled in a lined and bermed processing area. The processing area will also be used for physical treatment of soil involving soil screening to remove coarse materials followed by washing of the screening rejects. Water from the washing process will be redirected to the water treatment facility. Finer soil materials produced by the screening process are further treated by biological and/or chemical techniques.

Contaminated soils will be treated using biological degradation methods (landfarming or biopile) in a lined and bermed treatment area consisting of a watertight cell, usually made of an HDPE membrane or similar material. Biological soil treatment consists of facilitating bacterial activity within contaminated soils in order to reduce contaminants to a standardized concentration. Air, moisture and amendments are added to the soils and soil mixing is carried out on a regular basis. Biotreatment is effective in eliminating F1 and F2 HC fractions and to a lesser degree F3 fractions.

Soil treatment by chemical oxidation using an oxygen source other than air (e.g., hydrogen peroxide, sodium persulfate, sodium percarbonate) may also be conducted in the treatment area. Treatment by chemical oxidation is effective is eliminating F3 HC fractions.

QE will conduct remediation activities within the City of Iqaluit for soils impacted by hydrocarbons. The contaminated soils collected will be treated to meet the GN DoE Guideline for Contaminated Site Remediation.

Table 2 presents the generic contaminated soil remediation criteria that will be used for the soil treatment activities.

TABLE 2: Summary of Tier 1 Criteria (mg/kg) for PHCs in Surface Soils

| Land Use | Soil Texture | Fraction 1 (C6-C10) | Fraction 2 (> C10-C16) | Fraction 3 (> C16-C34) | Fraction 4 (> C34) |
|---------------------------|---------------------|------------------------|------------------------|------------------------|-----------------------|
| A grigultural A A ildland | Fine-grained soil | 210 (170a) | 150 | 1,300 | 5600 |
| Agricultural/Wildland | Course-grained soil | 30b | 150 | 300 | 2800 |
| Desidential/Devkland | Fine-grained soil | 210 (170a) | 150 | 1,300 | 5,600 |
| Residential/Parkland | Course-grained soil | 30b | 150 | 300 | 2,800 |
| Commercial | Fine-grained soil | 320 (170a) | 260 (230a) | 2,500 | 6,600 |
| Commercial | Course-grained soil | 320 (240a) | 260 | 1,700 | 3,300 |
| Industrial | Fine-grained soil | 320 (170a) | 260 (230a) | 2,500 | 6,600 |
| maustriai | Course-grained soil | 320 (240a) | 260 | 1,700 | 3,300 |

Work related to the excavation and disposal of contaminated soils will be completed in accordance with the requirements of the GN DoE.

Should other contaminants such as untreatable chemicals or metals exceeding the applicable criteria's be found in some soils, they will be packaged and shipped south for final disposal after agreement with the generator.

Any HCWs produced from soil treatment activities will be collected and treated at the adjacent WTU.

2. JURISDICTIONS

2.1 General

QE will respect all applicable federal and/or territorial laws, regulations and requirements. QE will obtain the required permits, approvals and authorizations and will fully comply with said permits and approvals while conducting this work. QE will also work in close collaboration with the GN DoE and all other regulatory authorities to ensure full compliance. This will be applicable to all project phases.

2.2 Federal Jurisdictions

Several federal acts, regulations, and guidelines, which are applicable across Canada, will affect project activities to be conducted at the Site. With respect to the activities QE will undertake at the Site, the most relevant of the federal acts, regulations and guidelines are described as:

- <u>Canadian Environmental Protection Act</u>: controls hazardous substances from their production and/or import, to their consumption, storage and/or disposal. This act also includes procedures to handle specified levels of PCB contaminated materials, and requirements for PCB storage facilities;
- <u>Fisheries Act</u>: protects fishes and their habitat from pollution and disturbance, and also
 protects fish movement disturbances. Fisheries and Oceans Canada reviews permit
 applications or restoration plans submitted by other agencies;
- <u>Transportation of Dangerous Goods Act</u> and <u>Regulations</u>: describe safety measures for TDG. The act applies to all handling of dangerous goods by any means of transport whether the goods originate from or are destined for anywhere in Canada;
- Interprovincial Movement of Hazardous Waste Regulations: ensures that the Canadian manifest tracking and hazards classification conditions for waste, formerly set out in the Transportation of Dangerous Goods Regulations, are maintained for the interprovincial movements of hazardous wastes
- <u>Canada Wildlife Act</u>: ensures that the Government of Canada collaborates in the research and management of wildlife species normally under the responsibility of provinces and/or territories. This is particularly relevant for threatened, endangered and/or vulnerable species, such as polar bears and barn swallows, which seasonally move across various regulatory boundaries;
- <u>Canada Shipping Act</u> and <u>Regulations</u>: provides safety standards and/or pollution prevention and controls procedures for shipping activities in Canadian waters;
- <u>Navigable Waters Protection Act</u>: relates to all facilities required for navigation in Canadian waters;
- <u>Canada Labour Act</u> and <u>Regulations</u>: is the labour code which governs all federal employees or activities on Canadian owned or controlled lands. Private, provincial or territory employees are always submitted to such jurisdictions. The labour acts govern minimum wages, statutory holidays, and maximum work hours;

<u>National Fire Code</u>: describes the requirements for fire prevention, safety in buildings, firefighting and the maintenance of fire safety equipment including fire extinguishers. Furthermore, the NFC establishes the procedures for the prevention, containment and fighting of fires originating outside buildings. The NFC also defines sets of standards for the storage and handling of dangerous goods, flammable liquids and combustible liquids;

2.3 Nunavut Jurisdictions

In addition to the federal acts and regulations listed in Section 2.2, the Site activities will also comply with the following:

- Environmental Guideline for Site Remediation (2002). Government of Nunavut, Department of Environment;
- Environmental Guideline for Contaminated Site Remediation, (2003) Government of Nunavut, Department of Environment.

2.4 Other Applicable Jurisdictions

HW to be shipped off-site for disposal will only be sent to licensed disposal facilities and/or waste handlers who comply with the applicable provincial requirements. The Certificates of Authorization for all facilities selected to receive HW originating from the Site will be provided upon request.

2.5 Permits

QE will obtain the necessary permits, authorizations, certificates and approvals related to site operations namely the handling, transport and disposal of hazardous materials. Table 3 presents a partial list of these requirements.

TABLE 3: Applicable Permits and Authorizations for the Site activities

| Authorizations or Permits | Regulatory Authorities | Activities | Permitting Agencies | Applicant |
|--|---|---|--|--------------------------|
| Development Permit | Iqaluit Zoning By-Law | Land development | Municipality of Iqaluit #DP15-024 | QE |
| Nunavut Water Board License | NLCA ¹ | Treatment of Contaminated Water Hazardous Waste Management and Soil Treatment | Nunavut Water Board License #1BR-THI1419 | QE |
| Nunavut Impact Review Board Decision | NLCA ¹ | Treatment of Contaminated Water Hazardous Waste Management and Soil Treatment | Nunavut Impact Review Board | QE |
| Nunavut Planning Commission Decision | NLCA ¹ | Whole project | Nunavut Planning Commission | QE |
| Transportation Permit | TDGA, IATA ² Dangerous Goods Act | Sea lift and/or air transport of hazardous waste | Transport Canada | QE and Subcontractors |
| Hazardous Waste Management Facility Registration | Department of Environment | Hazardous Waste Management Facility | Department of Environment NUF#400006 | QE |
| Hazardous Waste Receiver Registration | Department of Environment | Hazardous Waste Management Facility | Department of Environment NUR#300001 | QE |
| Land Lease | Iqaluit International Airport | Land Development | Nunavut Airport Services Ltd. | QE |

^{1.} Nunavut Land Claim Agreement

^{2.} International Air Transport Association

3. ENVIRONMENTAL PROTECTION

3.1 Objectives

The procedures and requirements provided hereinafter are intended to protect the environment, ecosystem parameters and human receptors at, and immediately surrounding the Site. It also describes the monitoring measures to be followed from year to year and the procedures to follow if a doubt arises that contamination may have entered the environment.

3.1.1 Hazardous Waste Management Facility

In order to avoid environmental impact, site operations shall require specific procedures and monitoring:

- Workers shall be required to wear suitable PPE while handling HW materials;
- Hazardous materials processing areas shall be developed and properly maintained for hazardous materials management;
- Hazardous materials processing areas shall be located at a minimum distance of 31 m from the nearest water body.
- The movement of heavy machinery, vehicles and equipment between the hazardous materials processing areas and other work site locations shall be controlled to prevent cross contamination;
- The hazardous materials processing area shall be constructed with an impermeable liner covered with 0.3 m of gravel. In the eventuality of a contaminant spill, the liner will act as a barrier preventing contamination from escaping the area;
- Contact water shall be collected and analyzed prior to treatment or discharge;
- Any ignition sources such as smoking, hot work or torch cutting shall be prohibited within a 5 m radius of the hazardous materials processing area;
- Hazardous liquids shall be stored in suitable containers (e.g., 205 L drum, UN-approved 20 L pail with lid, etc.);
- Solid hazardous waste shall be stored in suitable containers such as Quatrex™ bags, covered open-top drums or marine containers;
- A site-specific SCP has been developed and is attached to this EPP;
- Firefighting equipment shall be made available for immediate access near the hazardous waste processing and storage location;
- Drums containing hazardous materials, including waste fuel, shall be identified, labelled and stored in such a way as to prevent spills. Labels shall provide health, safety and environmental information;
- MSDS for all hazardous products used and stored on site will be made available to personnel;

- Hazardous waste storage facilities shall be inspected a minimum of once a day during business days;
- Emergency spill equipment including fuel pumps, recovery drums, containment booms and other sorbent materials shall be available on-site. QE is responsible for informing the fire department of stored waste so that they may respond appropriately in case of an emergency and for maintaining enough equipment on-site to clean up a 1,000 L spill in the hazardous waste storage area (see the Spill Response Procedure presented in Section 4);
- A detailed inventory will be kept and made available to emergency response crews.

3.1.2 Transportation of Hazardous Materials

- The operators of equipment used to haul waste will be experienced, trained and licensed;
- When required, hazardous materials shall be shipped off-site in accordance with the following:
 - provisions from the TDGA, as well as the IMO and the IATA dangerous goods regulations,
 - hazardous materials shall be packaged according to requirements specified in the TDGRs.
 - the prescribed documents shall be obtained and accompany any materials classified as hazardous by the TDGA. These documents shall provide the names and addresses of the shipper (generator), consignee (receiver) and all carriers,
- Specific provisions for hazardous materials in quantities larger than 5 kg or 5 L, and for wastes that contain more than 50 ppm PCBs, shall apply as follows:
 - QE shall complete a waste manifest for each shipment. This document shall follow the shipment to its final destination,
 - the origin and destination of the shipment shall be defined. The nature and quantity
 of dangerous goods shall also be given (shipping name, classification, UN number,
 packaging group, subsidiary risk, number and kind of packaging, and gross weight),
 - manifests shall be transmitted by the shipper to the initial carrier. When dangerous goods arrive at their final destination, the receiver shall send, within 2 working days, a signed copy of the manifest to the shipper;
- Unknown waste that may require off-site shipment shall be characterized according to regulations to determine whether it must be considered as a transport hazard;
- Hazardous materials to be shipped off-site shall be packaged in accordance with the TDGA. IMO and IATA regulations, which define criteria based on risk:
- Hazardous material containers to be shipped off-site must be provided with prescribed labelling:
 - packages shall be identified according to the hazardous item's class and division. It should be noted that requirements may differ between the IATA, IMO and TDGA regulations. Label or placard designs are unique to each classification,
 - packages shall be labelled on a minimum of 2 sides of the container and the nature of the dangerous goods shall be clearly identified on the label (i.e., shipping name, UN number, classification, packaging group);

- All materials known to exceed the CEPA criteria shall be containerized in selected rigid sided containers that comply with the TDGA and shall be stored at the temporary staging area;
- Fluids (including water) resulting from the cleaning (i.e., decontamination) of equipment and heavy machinery used in the hazardous waste management areas shall be contained, tested and treated, as per regulations;
- Hazardous materials, including hazardous drum contents, shall be treated and disposed of in accordance with regulations;
- Hazardous materials (fluids and solids) shall be removed and placed in storage containers for shipment to an authorized disposal facility.

3.1.3 Water Treatment

Water treatment activities are governed and regulated through QE's NWB License. The main mitigation and safety measures are:

- Treated water must meet discharge criteria;
- Treated water discharge location must be approved by an INAC field officer;
- INAC field officer must be given a minimum 10 days' notice before every discharge event.

3.1.4 Soil Treatment

Hydrocarbon impacted soils will be treated on-site using physical, biological and chemical soil treatment techniques. Measures to avoid contaminants escaping are:

- Containment cells shall be watertight and made of a minimum 30 mil thickness HDPE liner or similar, covered and underlain by a protective geotextile liner;
- The processing area and the treatment pad are composed of a containment cell, as described above, which is further protected by a 0.3 m thick layer of clean gravel;
- A lined water collection pond shall be located between the treatment pad and the processing area;
- The processing area, water collection pond and treatment pad will be components of the same watertight liner, thus avoiding contaminants to escape while soils are being processed;
- The outer edge of the entire processing area, water collection pond and treatment pad will be composed of an elevated berm (6-inch above grade) to prevent loss of soil or water;
- Precipitation runoff water accumulating in the collection pond will be reused as part of the soil treatment process; any excess water will be analyzed to determine whether it is to be treated or discharged;
- Soil piles on the treatment cell will be covered with a semi-permeable liner to minimize the amount of snowmelt or rainwater to be collected;
- Visual inspection of the cells will occur every business day;

Upon completion of a soil treatment batch, soil sample laboratory results confirming that
quality criteria are met will be submitted to GN DoE. Only upon receipt of an approval
from the regulatory agency will QE remove the soils from the treatment pad.

Note that biological soil treatment **does not** represent a deposit of waste, since the contaminated soil is separated from the environment by the watertight liner. Biological soil treatment activities will not require the use of water from an external source. Water collected in the collection pond will be reused to moisten the soils, as required. **No other source of water will be used.**

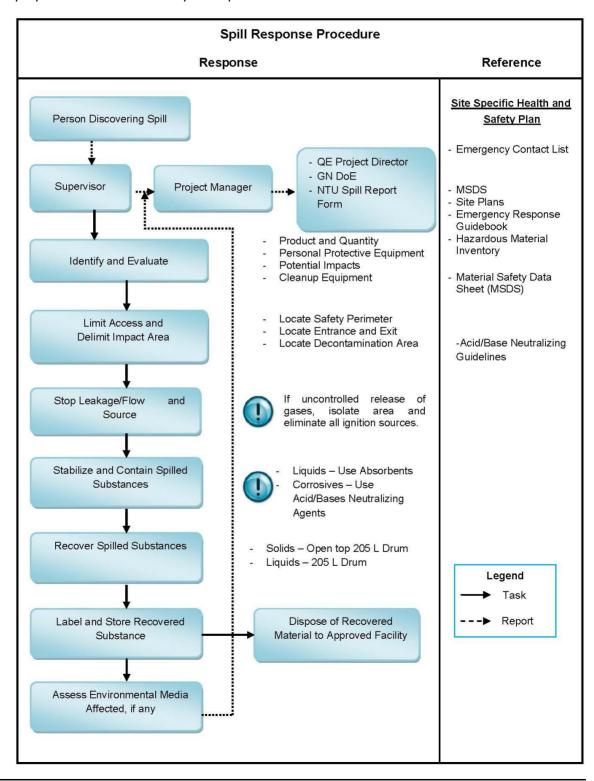
3.1.5 Site Monitoring

In order to ensure that the EWPF activities do not have a negative impact on the surface waters next to or in the EWPF area, a water monitoring program will be conducted.

- Groundwater monitoring wells will be installed around the site, one upgradient and 3 downgradient of the operations. Water samples will be collected once a year, at the end of August, and analyzed at a certified laboratory;
 - Coordinates where the monitoring wells will be installed are as follows:
 - Monitoring Well 1 (MW-1): 63°44'38" N, 68°33'00" W
 - Monitoring Well 2 (MW-2): 63°44'35" N, 68°32'58" W
 - Monitoring Well 3 (MW-3): 63°44'37" N, 68°32'55" W
 - Monitoring Well 4 (MW-4): 63°44'39" N, 68°32'53" W
- Surface water from the ditches will be sampled at 2 locations on a yearly basis, at the
 end of August. One sample of water entering the site (upgradient) and one sample
 leaving the site (downgradient) will be collected and analyzed at a certified laboratory;
 - Coordinates of the water quality sampling locations are as follows:
 - Entrance to the site (Point I): 63°44'38.82"N, 68°33'2.45"W.
 - Exit from the site (Point O): 63°44'39.27"N, 68°32'52.00"W;
- The water samples collected as part of the water monitoring program will be analysed at a minimum for the following parameters:
 - oil and grease,
 - benzene, toluene, ethylbenzene and xylenes,
 - biological oxygen demand,
 - total suspended solids,
 - · glycol,
 - polycyclic aromatic hydrocarbons,
 - metals
 - other parameters as required by the water licence.

4. SPILL RESPONSE PROCEDURE

Find below the spill response algorithms to be followed by all QE employees upon discovery of a hazardous material spill. A complete Spill Contingency Plan has been prepared and is available upon request.



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