SPILL PLAN

FOR THE

NORTH WARNING SYSTEM

Contract # W8485-157352/001/NX
SOW Ref: 17.2.3

Document Number

17.2.3, Revision 3, 26-Mar-2024

Prepared for

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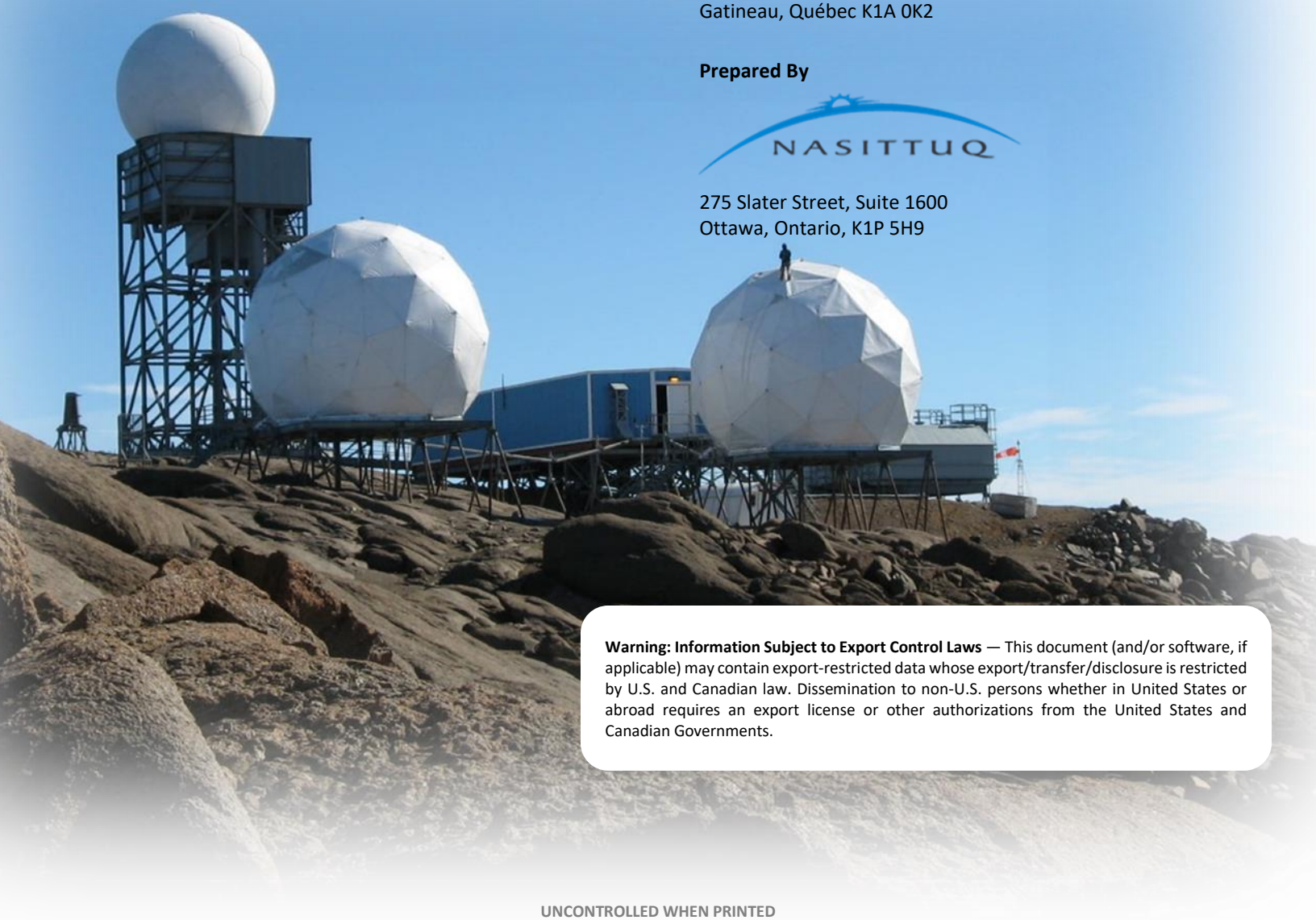

APPROVAL PAGE

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CHANGE HISTORY

This sheet is a record of each issue of this document. When the revised document is issued, the previous issue is automatically superseded.

Revision	Date	Author	Pages Changed	Reason for Change
Revision	Date	Author	Pages Changed	Reason for Change
0	1-Aug-2022	A. Leslie	All	Initial Release
1	30-Mar-2023	A. Leslie	10, 14, 36	Updates to procedures for airports, initial incident report example.
2	12-Jun-2023	A. Leslie	All	Updates to headings/typos. Updates to Maximo item numbers in spill kits.
3	26-Mar-2024	A. Leslie	All	Updates Table 3 to include sewage. Formatting updates throughout.

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1.0 INTRODUCTION

This plan provides instructions for spill prevention control and countermeasure plans for bulk fuel and other hazardous materials (HAZMAT) which are present at the North Warning System (NWS) facilities.

If there is a spill, report directly to the NWSCC by dialing 88-3400 or 88-3500

1.1 Definitions

In this plan the following definitions apply:

- **Spill** – the accidental and/or uncontrolled discharge of any volume of fuel or HAZMAT from its storage container or structure, vehicle, pipe, or other container.
- **Release** – Discharge of a greenhouse gas such as carbon dioxide or ozone-depleting substances such as halocarbons.
- **Environmental Incident** – Includes spills as well as halocarbon releases (refer to the Halocarbon Management Plan, 17.2.2.E PLN-EHS-5), and certain wildlife encounters.
- **Environmental Incident Emergency** - An emergency may be an actual or imminent life-threatening situation, a disaster which endangers the quality of life or has resulted in the loss of life, or one that may result in significant costs, loss, or damage to Government Property. This includes spills that:
    - Are greater than 500 litres, or;
    - Damage any body of water, fish, fish habitat, wildlife, or a person's health, or;
    - Has captured media attention.
- **NWS Emergency Response Plan** – Plan which outlines response to all emergencies on the NWS.
- **STS Emergency Plan** – Site-specific plan as required by the Storage Tank System (STS) Regulations. The STS Emergency Plan is made up by the *Spill Plan* (PLN-EHS-2) and the site's Site Description from the Environmental Protection Plan Appendix A.
- **Fuel** – At NWS sites, power generation and mobile support equipment (e.g., trucks, bull dozers, etc.) use Jet A1 (the only exception being CAM-CB which uses diesel). See 8.3 Bulk Fuel Storage and Distribution System for details.
- **HAZMAT** – Hazardous materials, including but not limited to:
    - polychlorinated biphenyls (e.g., PCB-containing oil or paint);
    - chlorinated and non-chlorinated solvents (e.g., cleaner-degreasers);
    - flammable gases (e.g., acetylene);
    - waste petroleum products (e.g., used engine oil);
    - corrosives (e.g., battery acid);
    - glycol (e.g., antifreeze);
    - asbestos (e.g., pipe insulation); and/or
    - halocarbons (ex. CFC-12, FM-200).

Discharges of any quantity or physical state (solid, liquid, gas) are included in this definition. There may be circumstances where the discharge of a substance not on the above list may be considered hazardous by personnel discovering the spill, e.g., large volumes of spilled wastewater. When in doubt, report the spill to the NWSCC and they will consult the Environmental Services Officer. Reporting procedures for Halocarbon releases are within the *Halocarbon Management Plan* (17.2.2.E PLN-EHS-5).

2.0 PURPOSE

The purpose of this plan is to:

2.1 Provide procedures:

- Provide clear procedures and instructions for responding, mitigating, and reporting spills and releases;
- Provide a reporting structure for spills and releases ;
- Identify the roles and responsibilities of all parties involved in spills and releases response activities;
- Identify resource requirements for the response to spills and releases ; and

2.2 Enhance Protection:

- Minimize the environmental impacts of spills and releases by establishing pre-determined responses and plans of action;
- Ensure the health and safety of employees, contractors, subcontractors, and local communities is not compromised due to fuel and/or HAZMAT activities to the extent possible;
- Ensure the environment is maintained in its natural state and conduct remediation activities as may be required;

2.3 Ensure Documentation:

- Perform annual review and update of plan in conjunction with EPP or more frequently as circumstances warrant.
- Meet the requirements of an STS Emergency Plan under the federal Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (STS Regulations) section 30 to 32 (when combined with the site descriptions in Appendix A of the Environmental Protection Plan (EPP, 17.2.2)).

3.0 SCOPE

This plan applies to all activities and facilities on NWS sites. This includes:

3.1 Short Range Radar (SRR) sites

- SRRs operate unattended;

3.2 Remote Long Range Radar (LRR) sites

- Remote LRRs include BAR-2, PIN-M, CAM-3, FOX-3, DYE-M, BAF-3, LAB-2, and LAB-6 which currently operate unattended with occasional staff visits;

- Staffing levels at remote LRRs are planned to increase in 2022 and gradually increase to year-round attendance.

3.3 Logistics Support Sites (LSS)

- These sites are staffed to support SRR and LRR operations, as follows:
    - Zone 1: LSS-I, the LSS is co-located with a Department of National Defence (DND) military Forward Operating Location (FOL) in Inuvik, Northwest Territories.
    - Zone 2: CAM-M, the LSS located next to Cambridge Bay, Nunavut and is co-located with a LRR.
    - Zone 3: FOX-M, the LSS located next to Sanirajak, Nunavut and is co-located with a LRR.
    - Zone 4: LSS-Q, the LSS is co-located with the FOL in Iqaluit, Nunavut.
    - Zone 5: LSS-G, the LSS located at 5 Wing Goose Bay, Labrador
        - This site will report spills to the Base Fire Hall.
        - Spill reporting and response will be actioned by the Base to conform with 1 Canadian Air Division Headquarters (CAD HQ) Uniform Spill Reporting Protocol and the 5 Wing Emergency Response Plan.
        - The site will report spills and releases to the NWSCC and CMO, NWSCC will notify NWSO of the spill and NWSO will liaise with the Wing Environment Officer, as required.

3.4 North Warning System Control Centre (NWSCC)

- Located at Canadian Forces Base (CFB) 22 Wing North Bay, Ontario, this site will report spills to the 22 Wing Environment Officer.
- Spill reporting and response will be actioned by the Base to conform to 1 CAD HQ Uniform Spill Reporting Protocol.
- Spill response action will be taken by the local community emergency response service.
- The site will report spills to the NWSCC and CMO, NWSCC will notify NWSO of the spill and NWSO will liaise with the Wing Environment Officer, as required.

3.5 North Warning System Support Centre (NWSSC)

- Located at Canadian Forces Base (CFB) 22 Wing North Bay, Ontario, This site will report spills to the 22 Wing Environment Officer.
- Spill reporting and response will be actioned by the Base to conform to 1 CAD HQ Uniform Spill Reporting Protocol.
- Spill response action will be taken by the local community emergency response service.
- The site will report spills to the NWSCC and CMO, NWSCC will notify NWSO of the spill and NWSO will liaise with the Wing Environment Officer, as required.

3.6 Short Range Development Site (SRD)

- Located approximately 20 kilometers outside of North Bay, and is part of 22 Wing North Bay, Ontario, this site will report spills to the 22 Wing Environment Officer.

- Spill reporting and response will be actioned by the Base to conform to 1 CAD HQ Uniform Spill Reporting Protocol.
- Spill response action will be taken by the local community emergency response service.
- The site will report spills to the NWSCC and CMO, NWSCC will notify NWSO of the spill and NWSO will liaise with the Wing Environment Officer, as required.

4.0 APPLICABLE DOCUMENTS

4.1 Regulations

- Federal
    - Release and Environmental Emergency Notification Regulations, SOR/2011-90, under the Canadian Environmental Protection Act, 1999
    - Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations, SOR/2008- 197, Section 41, under the Canadian Environmental Protection Act, 1999
- Yukon
    - Spills Regulations, Y.O.I.C. 1996/193, and Ozone Depleting Substances and Other Halocarbons Regulation, Y.O.I.C. 2000/127, both under the Yukon's Environment Act.
- Northwest Territories and Nunavut
    - Spill Contingency Planning and Reporting Regulations (R-068-93)
- Labrador
    - Regulations listed are under NL's Environmental Protection Act.
    - Storage and Handling of Gasoline and Associated Products Regulations, 2003 (O.C. 2003-225)

4.2 Internal Documents

- This plan is an integral component of Nasittuq's Environmental Protection Plan (EPP) and meets the requirements of:
- Nasittuq's *EPP* for the O&M of the NWS (17.2.2.E PLN-EHS-1);
- Nasittuq's *Emergency Response Plan* (PLN-25, NWS Support Documents);
- NWS O&M Contract SOW Line 17.2.3;
    - Excerpt from DID 17.2.3:

      "The Spill Plan must meet the requirements of all federal and territorial legislation, including but not limited to the current versions of:

      a. Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations

      b. Environmental Emergency Regulations

      c. Yukon Spills Regulations

d. Spill Contingency Planning and Reporting Regulations (Northwest Territories and Nunavut)

e. Storage and Handling of Gasoline and Associated Products Regulations (Newfoundland and Labrador).

10.2.3 The Plan. A controlled copy of the plan must be available at each NWS Site and be maintained current."

- Nasittuq's NWS Environmental Incident Reporting Procedure (SP-EHS-1).
    - Excerpt from SOW Line 17.6.1:

      "The Contractor must prepare environmental incident reports as per the related CDRL, DID. Where the incident is a spill, the Contractor must implement the Spill Plan. All spills less than 205 litres cleaned up within 3 days of discovery weather permitting. All spills less than 1000 litres cleaned up within 15 days of discovery weather permitting. No example of enforcement action taken by a regulator due to inadequate response to a spill. Clean up criteria must comply with CCME Canada Wide Standards for Petroleum hydrocarbons in soil and CCME Soil Quality guidelines."

    - Excerpt from SOW DID 17.6.1

      "The Initial Environmental Incident report must be within 6 hours of the incident identification as described within this SOW; the Contractor must submit an initial report detailing the nature of the incident. Follow-up reports must be submitted no later than 72 hours as required until the incident has been fully investigated and corrective action has been completed.

      10.3 Environmental Incident Emergency, if an incident is deemed to be an emergency, the Contractor must activate the Emergency Response Plan (ERP). Follow-up reports must document the status of the investigation and corrective actions which are planned and or completed until such time the incident is considered closed. If warranted the Contractor must update the Risk Management Plan (RMP) to eliminate or mitigate the chance of the environmental incident recurring.

      10.4 The report will be in Contractor format TA reviewed and Canada approved. A current copy of an Initial and Follow-up Environmental Incident Report can be provided as a reference.

      10.5 The Environmental Incident Report must be available online within 5 days."

5.0 RESPONSIBILITY AND AUTHORITY

Nasittuq employees, contractors, subcontractors, and anyone attending NWS sites are responsible for fuel and/or HAZMAT spill prevention, detection, and response actions during NWS O&M activities.

5.1 Nasittuq

Nasittuq is responsible for:

- Maintaining an up-to-date Spill Contingency Plan (this document, to be updated annually by April 1);
- Abiding by all regulations, fuel and HAZMAT handling and maintenance instructions;

- Providing competent individuals to perform fuel and HAZMAT associated tasks;
- Identifying the requirements of sub-contractors involved in NWS O&M activities;
- Responding appropriately to fuel and HAZMAT spills; and,
- Providing spill response kits.

When a spill or release is reported at an NWS site, Nasittuq will mobilize personnel, materials, and equipment to respond immediately upon receipt of the spill report or as soon as practicable. Considerations will be taken for weather, temperature, season, and transportation availability.

Nasittuq spill response personnel will manage most releases unless the circumstances of the spill are deemed, by the Environmental Services Officer, to require external resources.

When required, additional assistance may be requested from the following organizations, including but not limited to:

- Other NWS sites;
- The Department of National Defence (DND);
- The Canadian Coast Guard;
- Parks Canada;
- Environment and Climate Change Canada (ECCC);
- Fisheries and Oceans Canada;
- Government of Yukon;
- Government of Northwest Territories;
- Government of Nunavut;
- Government of Newfoundland and Labrador; and/or
- Local fire departments.
- Additional assistance may also be hired from:
- Northern residents;
- Local communities; and/or
- Commercial spill response firms.

5.2 Fuel Re-Supply Contractors and Sub-Contractors

Responsibilities of contractors and sub-contractors engaged in fuel resupply activities at NWS sites include:

- Provision of a Spill Response Plan which describes:
    - Spill response action plans for initial response;
    - Containment, clean-up, disposal, and site remediation of spills;
    - Chain of command and responsibilities of personnel;
    - Materials and equipment available for deployment; and
    - Post spill lessons learned meetings and revisions of spill plan as required.
- Maintain sufficient personnel, materials, and equipment for adequate response to any spills that may occur during fuel resupply operations.

- In the event that a spill occurs during fuel resupply operations, Nasittuq employees will assist in spill response activities to the fullest extent, when and where possible.

5.3 Division of Responsibility During Re-Supply

Nasittuq takes responsibility for any spills from the fuel system between the sealift/airlift connection point and the bulk fuel storage system. The sealift/airlift contractors have responsibility for any spills up to the connection point to the storage tank system.

- If a fuel spill occurs between the sealift re-supply pipeline beachhead and the ship or barge, the sealift contractor's Spill Plan is implemented. The sealift contractor assumes the role of Spill Control Manager and reports the spill to the required authorities.
- Similarly, if the spill occurs between the airlift de-fueling head and the aircraft tank or bladder, the airlift contractor assumes the role of Spill Control Manager and reports the spill to the required authorities.
- In all other instances, the Nasittuq Spill Plan is implemented. The LSS Manager becomes the Spill Control Officer, and the CMO Environmental Services Officer becomes the Spill Control Manager and reports the spill.
- In all instances, the individual discovering the spill must take steps to ensure that personnel on the ship, barge, airplane, or helicopter are contacted to stop the pumps and close the isolation valves, if applicable.
- In all instances, the NWSCC must be informed even if the spill has occurred within the contractor's area of responsibility in order to inform the LSS Manager, CMO and NWSO. In cases where the responsibility resides with the contractor, Nasittuq will provide assistance, as requested by the sealift or airlift contractor, in implementing their Spill Plan.

6.0 PROCEDURE

Nasittuq manages and mitigates the risks of spills by ensuring there are effective spill prevention programs and controls, maintaining and testing spill detection systems, and providing competent spill response resources.

6.1 Spill Prevention

Nasittuq uses comprehensive controls and standardized practices/procedures for reducing the likelihood of spills. These include but are not limited to:

- Establishment of secure storage areas for HAZMAT;
- Inventory management of all stored fuel and HAZMAT;
- Labelling of HAZMAT in accordance with Workplace Hazardous Material Information System (WHMIS) legislation;
- Transportation of HAZMAT in accordance with the Transportation of Dangerous Goods (TDG) Regulations;
- Training of personnel in correct handling, use, and storage of hazardous materials;
- Inspections of the bulk fuel infrastructure including:
    - Inspecting tanks using inspectors certified to inspect tanks to American Petroleum Institute (API) 653;

- Completing a Corrosion Analysis Program (CAP) with inspections validated by a NACE certified corrosion expert;
- Performing facility conditions surveys on every NWS site within two years to identify items of risk (e.g., bent pipes, damaged pipe supports, rust);
- Completing Preventive Maintenance Inspections (PMIs) of bulk fuel system components (e.g., pumps, valves), to include integrity testing where necessary;

- Regular maintenance of bulk fuel storage tank systems;
- Training of bulk fuel technicians in standard operating procedures (e.g., fuel transfers, fuel resupply);
- Safeguards for bulk fuel systems at unattended sites (e.g., "Time-Outs" for fuel pumps during transfer operations);
- Security (ensuring tank valves and storage buildings are secure); and,
- Administration of program effectiveness, managing associated risks, spill supplies and monitoring systems.

6.2 Spill Detection

Methods employed for detection of spills include:

- Visual and odour detection. This method is usually conducted in the summer months when there is limited or no snow cover.
- Inventory reconciliation. Inventory reconciliation is completed by dipping the bulk fuel tanks. This method of measurement provides data comparing actual with estimated consumption figures, which may indicate a spill occurrence. Loss of inventory may also not be spill related (e.g., theft of product). To validate an inspection should take place; and
- Remote monitoring. Alarms are triggered at the NWSCC when fuel levels of indoor day tanks vary by more than the expected amount or fuel pumps operate with greater than expected frequency at unattended sites.

6.3 Spill Response

6.3.1 Spill Reporting

All outdoor and indoor spills are to be reported to the LSS Manager and the NWSCC. Environmental occurrences such as wildlife encounters, bird nest sighting, archeological/heritage resource sighting, environmental false alarm/near misses (e.g., "sniffer" alarm that unlikely to be a spill based on video/SCADA etc.) are also reported to the NWSCC in the same manner.

The NWSCC then issues an Internal Environmental Report to the Nasittuq Environmental Services Officer and the Nasittuq Leadership Team. If required, the NWSCC then issues an Initial Environmental Incident Report to NWSO.

Nasittuq's Environmental Services Officer, or designate, will also report details of Environmental Incidents to the NWSO TA by 31 January and 31 July each year as part of the Semi-annual Environmental Status Report (as per SOW 17.5.5).

Spills and other environmental incidents (e.g., releases) are tracked in the Environmental Incidents Database spreadsheet (as per SOW 17.6.6).

The responsibilities of the different levels of reporting hierarchies are outlined in subsections 6.3.1.2 to 6.3.1.5.

Telephone numbers for key individuals are provided in Appendix A, Emergency Contact List.

Spill reporting must be in accordance with local regulations as well as the NWS O&M SOW (refer to SOW DID 17.6.1).

6.3.1.1 Spill Discovery or Identification

Anyone may report a spill on the NWS. The person who discovers the spill must make an immediate verbal report to NWSCC.

The NWSCC will prompt the person for information required to complete Environmental Initial Incident Report (FM-114; formerly FM-EHS-40) shown in Appendix B.

Additional information (e.g., site conditions, mitigation measures in place, etc.) can be included if relevant. If required, the person reporting the spill may provide a hand drawing of the area, and photos, locating the spill and associated details, to the LSS Manager and Environmental Officer. If communications are not possible, they may deliver the map and associated paperwork to the LSS Manager immediately upon return to the LSS.

If the spill is discovered at the NWSSC or the SRD, the person discovering the spill must also notify the NWSCC.

6.3.1.2 North Warning System Control Centre

The NWSCC operators will ensure the LSS Manager and Environmental Services Officer are informed, and issue an email with preliminary information to the Internal Environmental Incident email list.

The **NWSCC** may also issue an Internal Environmental email if they:

- Receive a spill notification by phone;
- Receive report of an environmental near-miss, wildlife encounter, etc.
- Suspect a spill as a result of Supervisory Control and Data Acquisition (SCADA) inputs;
- Are notified of a spill by the Canadian Rangers; or
- Are notified of a spill by a third party.

Upon being notified, the NWSCC must:

- Verbally notify the Environmental Services Officer by phone, and issue an email with preliminary information to the Internal Environmental Incident email list within 30 minutes;
- In the case of spills believed to be over 100 L, or in the case of environmental incident emergencies, proceed immediately to Initial Incident reporting. Otherwise, ensure the Environmental Services Officer is contacted before proceeding with Incident Reporting.

The NWSCC must:

- Prepare an Environmental Initial Incident Report (FM-114, formerly FM-EHS-40, see Appendix B). E-mail the report within 6 hours of notification to the designated addressee groups.
- Open a Work Order in Maximo for spill cleanup, if required.

If the NWSCC and Operations Manager deem the Incident to be an Emergency Incident, the Emergency Response Plan must also be enacted.

6.3.1.3 Logistics Support Site Manager

Upon being notified, the LSS Manager must proceed with the reporting procedures as follows:

- Approve the Work Order for spill response and clean up.
- Assist with the *Environmental Follow Up Incident Report* (FM-332, formerly FM-EHS-41, see Appendix C).
- E-mail updates to the Environmental Services group when additional information becomes available.
- If required, send a sketch site plan showing the contaminated locations(s) to the designated groups.
- If required, ensure the Emergency Response Plan is enacted.

See Figure 1 for communication/task flowchart.

6.3.1.4 Environmental Services Officer

Nasittuq's Environmental Services Officer will assume the role of Spill Control Manager with authority over all spill response activities.

Upon notification of a spill, the Environmental Services Officer will perform the following:

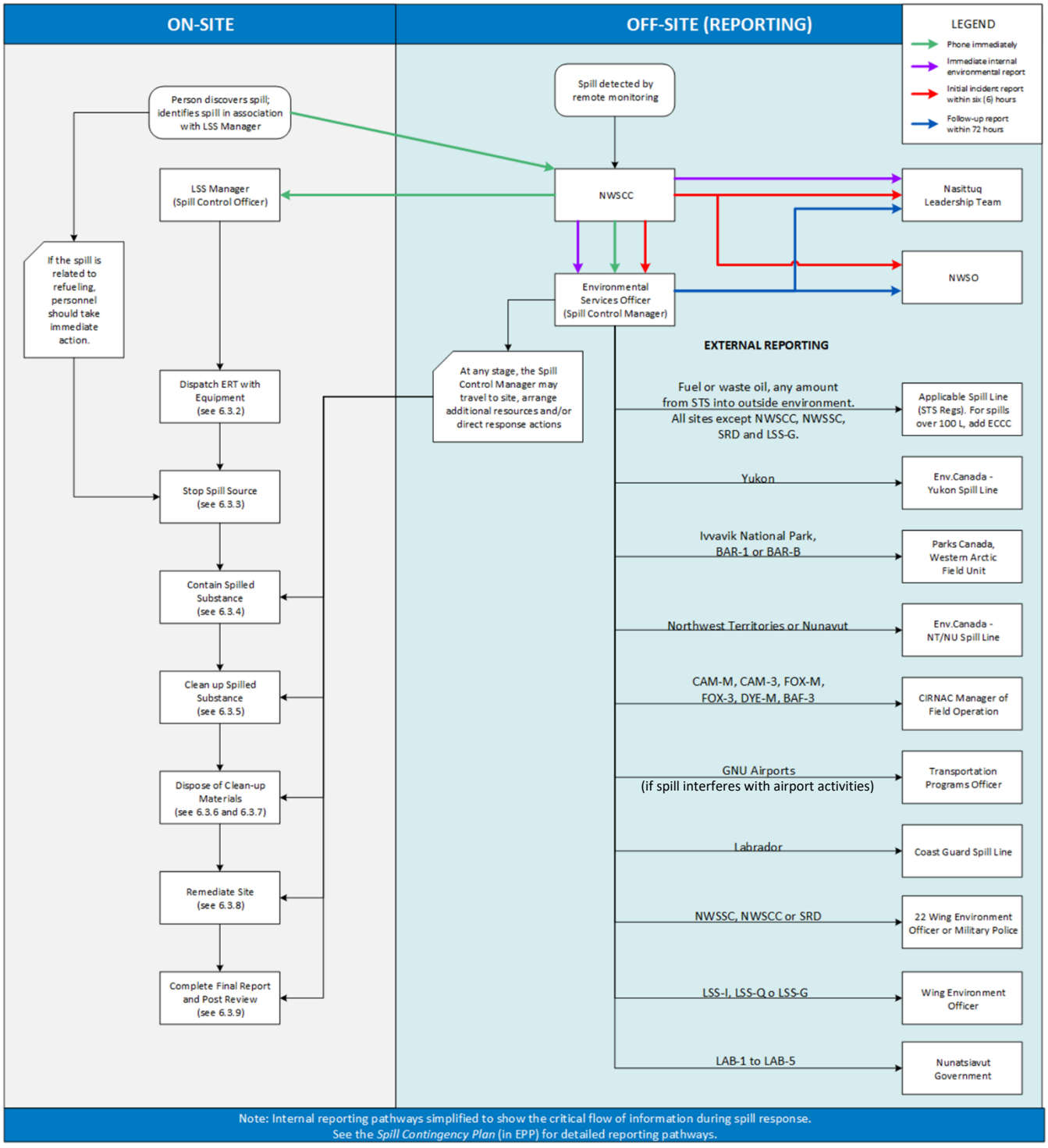
- Prepare an Environmental Follow Up Incident Report (refer to Appendix C) with any additional information. E-mail the report to the designated groups within 72 hours.
- Maintain contact with NWSO and keep them apprised of any changes to the spill status.
- Determine if the spill is reportable to and notify the appropriate regulatory agency (refer to Appendix D for more details) as summarized in Table 1.

Table 1: Spill Scenarios and Actions

Scenario		Action
Spills from a Storage Tank System	Less than 100 L	• Report via local spill lines as described below.
	100 L or more	• Notify Environment and Climate Change Canada (ECCC), including: • names of both the owner and the operator of the storage tank system • the identification number of the storage tank system • the date on which any release in liquid form in the environment occurred; • the type of petroleum product that is the subject of the report; • the quantity, or an estimate of, the spill quantity; • a description of the circumstances of any release in liquid form in the environment and any mitigating measures taken; and • a description of the measures taken following any release in liquid form in the environment to prevent a subsequent occurrence.
Spills at Yukon sites	BAR-1 or BAR-B (Ivvavik National Park)	• Notify the Manager of Resource Conservation, Western Arctic Field Office, Parks Canada. • Notify the Yukon 24 Hour Spill Line for reportable spills (e.g., over 200 L of flammable liquid).

Scenario		Action
	BAR-2	• Notify the Yukon 24 Hour Spill Line for reportable spills (e.g., over 200 L of flammable liquid).
Sites in Nunavut or the Northwest Territories	Nunavut Water Board licence sites (CAM-M, CAM-3, FOX-M, FOX-3, DYE-M, BAF-3)	• Notify CIRNAC Manager of Field Operations and Water Resources Officer/Inspector. • Within 30 days, submit a written report to the CIRNAC Water Resources Officer/Inspector that includes: amount and type of spilled product, GPS coordinates of location of spill, and measures taken to contain and clean up the spill.
	Other NT or NU sites	• Submit a NT-NU Spill Report (Appendix E) for reportable spills (e.g., over 100 L for flammable liquid).
Spill at an airport	Sanirajak airport, Cambridge Bay airport	• If the spill interferes with airport activities, notify the Transportation Programs Officer for reportable spills on airport property at Cambridge Bay or Sanirajak (Hall Beach).
Labrador sites	LAB-1 to LAB-5	• Notify the Nunatsiavut Government of reportable spills (e.g., 70 L of gasoline).
	All sites	• Notify the Canadian Coast Guard for reportable spills at Labrador sites.

Figure 1: Spill Response Flowchart



6.3.1.5 NWS Quality Services and Risk Manager

The NWS Quality Services and Risk Manager, with input from the Environmental Services Officer, will determine which spills require a Root Cause Failure Analysis (RCFA) (as per SOW 4.11.1). All Emergency Environmental Incidents will require a RCFA.

6.3.2 Emergency Environmental Incident

If the incident is deemed an emergency, the Emergency Response Plan (PLN-CC-1) will also be implemented. As per the Emergency Response Plan, the NWSCC Manager is initially designated interim Emergency Response Manager. NWSO and NWS personnel are notified of the emergency and subsequently the Emergency Response Manager is identified, and the Emergency Response Team is established and dispatched. An Emergency Response Communications Plan is submitted to NWSO. Refer to the Emergency Response Plan (PLN-25, formerly PLN-CC-1) for more details.

6.3.2.1 Dispatch of Emergency Response Team

The Emergency Response Team will include the Spill Control Manager and Spill Control Officer, as well as FMTs and other workers required to aid in cleanup, first aid, etc. Refer to Table 2, below, for applicable stakeholders

- **Spill Control Manager:** Nasittuq's Environmental Services Officer will assume the role of Spill Control Manager.
- **Spill Control Officer:** The LSS Manager will assume the role of Spill Control Officer and have authority over the Emergency Response Team (ERT). The LSS Manager or the NWSCC will raise the appropriate Work Order(s) to identify and track the necessary repairs, clean-up activities, and disposal actions.

Table 2: Chart for Environmental Emergencies

	NWS Program Manager	NWS Operations Manager	Compliance Manager	Contracts Manager	Business Services Manager	Technical Services Manager	Security Officer	ES Officer	OH&S Officer	Fire Safety Officer	NWSCC Manager	NWSSC Manager	LSS Manager	Media Manager	Legal	Senior Management	Community	Regulatory Bodies	Customer/NWSO TA
Environmental	**A**	**C**	**M**			**I**		**R**			**C**	**C**	**C**	**I**	**I**	**I**		**I**	**I**

Stakeholder Key:

- **R** – Responsible (Performs the tasks, creates the records)
- **A** – Approver (Approves the records and or tasks)
- **C** – Participates (Contributes to, participates in or reviews tasks and or records)
- **I** – Information (Informed of tasks in-process and or outcome)
- **M** – Monitors (Monitors the MA/QA process and/or records to assure execution as defined)

6.3.2.2 Emergency Communications

Communications will be in accordance with the Emergency Response Communications Plan. Communication will be maintained between the ERT and the LSS Manager throughout the duration of any spill response. The typical responsibilities and composition of an ERT is presented in Figure 6.3-2.

6.3.2.3 Communication with Public

The measures to notify members of the public who may be adversely affected by an emergency that may cause harm to the environment or danger to human life or health are:

- The identification of the incident, initial reporting, and updates will be done in accordance with the NWS *Environmental Incident Reporting Procedure* (SP-02; formerly SP-EHS-1).
- The NWSCC Manager will notify NWSO if members of the public may be adversely affected by an emergency that may cause harm to the environment or danger to human life or health.

NWSO will notify DND Public Affairs who will then notify members of the public in accordance with DND protocols such as Defence Administrative Orders and Directives (DAOD) 2008-3 Issue and Crisis Management which includes any event that threatens public safety. The DAOD identifies significant incidents which include the accidental release of hazardous material that may threaten public safety. It identifies the process to be followed and assigns responsibilities

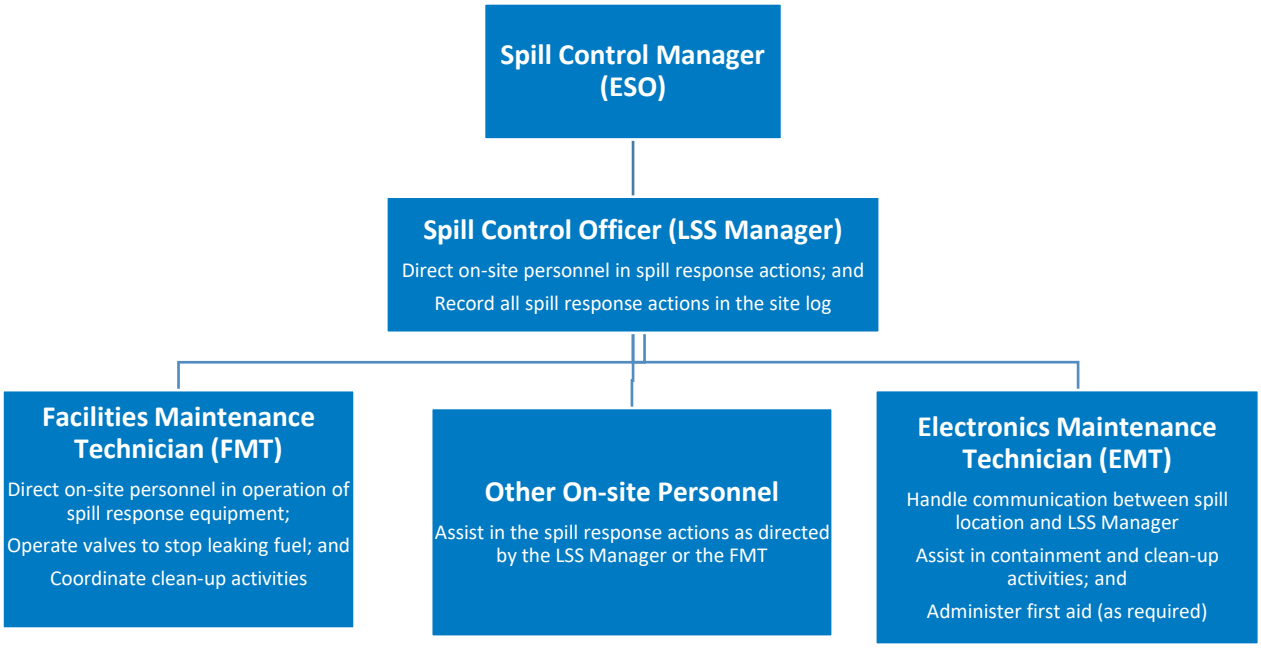
6.3.2.4 Corrective Action and Root Cause Analysis

Corrective action and continuous updates as per the Emergency Response Communications Plan, will continue until the emergency has been resolved. A Root Cause Analysis will be completed.

6.3.3 Stop Leakage/Flow at Source

If the spill is still taking place (e.g., flowing, leaking, dripping) the spill response team and/or ERT will take measures to stop the spill. This may include shutting off pumps, closing isolation valves, applying chemical cold patches to tanks, transferring fuel to another tank, attaching a dresser coupling to the pipe or valve, attaching a blind flange or pipe cap, or other appropriate actions, as determined by the Spill Control Officer.

Figure 2: Spill Response Team/ERT Responsibilities



6.3.4 Spill Containment

The Spill Response Team/ERT will deploy materials from the on-site spill kit and use on-site equipment available to contain the spill, possibly including the construction of temporary containment berms. In cases where the spill exceeds the capabilities of on-site resources, the Spill Control Manager will arrange for additional personnel, equipment, and materials from additional resources.

Spill kits vary depending on site type and type of spill. The contents of each type of kit are listed in Appendix J.

Types of spill kits include:

- SRR/LSS Fuel Spill Kit (Maximo Item 1070540: POL SPILL CLEANUP KIT no. 2)
- LRR Fuel Spill Kit (Maximo Item 1067553: POL SPILL CLEANUP KIT No. 1)
- LRR Chemical Spill Kit (Maximo Item 1067552: CHEMICAL SPILL KIT)
- Asbestos Response Spill Kit (Maximo Item 1067551: ASBESTOS REPONSE KIT)

6.3.5 Clean Up of Spilled Material

If possible, without putting personnel at risk, the spill response team/ERT will commence cleanup with the equipment available once containment of the spill has been achieved (i.e., absorbent material, salvage drums, etc.). Additional resources may be dispatched to the spill site by the Spill Control Manager in cases where the spill clean-up exceeds the capabilities of the on-site resources.

Clean-up actions are identified and tracked through the spill's Work Order. A spill clean-up Work Order cannot be closed until all actions are completed or the remaining requirements transferred to a separate Work Order.

Weather permitting, spills less than 205 L will be cleaned up in less than 3 days, and spills less than 1000 L will be cleaned up in less than 15 days, as per SOW Line 17.6.1.

Clean up will meet the Canadian Council of Ministers of the Environment (CCME) Canada Wide Standards for Petroleum Hydrocarbons in Soil and CCME Soil Quality Guidelines. Samples will be taken as per the Spill Sampling and Assessment Procedure to confirm that the CCME standards and guidelines are met.

6.3.6 Substance Specific Clean Up and Disposal Procedures

Prior to performing clean-up read the Safety Data Sheet and obtain the proper PPE. Contact Environmental Services with any questions.

Table 3: Clean-Up of Common Materials on the NWS

Item Description	Clean Up/Disposal Procedure
Fuel / JET-A1	Fuel spills are dealt with on a case by case basis. To contain a small fuel spill: • Isolate the leaking component if possible (close valves, if from a drum rotate so the puncture is facing upward); • Put a bucket or drip tray under the leak; • Place sorbent pads to the tank/piping (for a slow leak only); • Put a “Temporarily Out of Service” sign on the fill point; To contain a large fuel spill: • Isolate the leaking component if possible (close valves); • Place sorbent booms to limit spill migration; • Form a berm/dike down-gradient of the spill. • Put a “Temporarily Out of Service” sign on the fill point;
	Clean up: • Shovel any contaminated snow/ice/gravel into drums for disposal; • If the spill is into a secondary containment, clean up the spill with sorbents; • Place any used sorbents into drums for disposal; • Properly mark and label all waste drums; and • Always make effort to protect any body of water. • Contact Environmental Services for a clean up of a large spill. Larger spills may require treatment of impacted water and treatment / removal of large quantities of impacted soil.
Paint	To contain a spill of paint: • Contain the spilled paint with sorbents or rags;
	Clean up: • Shovel any contaminated snow/ice/gravel into drums for disposal; • Place any used sorbents into drums for disposal; and • Properly mark and label all waste drums.
Oil, Oil Filters	To contain an oil spill: • Clean up the spilled oil with sorbents or rags;
	Clean up: • Shovel any contaminated snow/ice/gravel into drums for disposal; • Place any used sorbents into drums for disposal; and • Properly mark and label all waste drums. • Used oil filters are to be placed in a salvage drum for disposal.
Contaminated Soil	To contain a contaminated soil spill: • Eliminate the source; • Place sorbent booms to contain any contaminant migration / runoff (if necessary).
	Clean up:

Item Description	Clean Up/Disposal Procedure
	• Contaminated soil should be picked up with shovels and placed into a salvage drum for disposal. • Properly mark and label all waste drums.
Lead Acid Batteries	To contain a spill of battery acid: • Neutralize the acid with baking soda; • Contain the spill using booms or sorbent pads; • Keep the acid from reaching the environment using sorbents;
	Clean up: • If the spill is outdoors, shovel up the neutralized acid/snow/soil; • Place the rags/sorbents in a drum for disposal; and • Properly mark and label all waste drums.
Glycol	To contain a spill of glycol: • Use a plastic sheeting/drip tray to catch any leaking glycol; • Soak up the glycol with rags or universal sorbents;
	Clean up: • Shovel any contaminated snow/soil into drums; • Place any used sorbents into a drum for disposal; and • Properly mark and label all waste drums. • Glycol is not TDG regulated; do not place a TDG hazard label on the container.
Waste Tank Cleaning Effluent, Oily water	Waste tank cleaning effluent may contain hydrocarbons. • To contain a spill of tank cleaning effluent: • If from a drum: position the drum so the puncture is facing upward; • Put a bucket or drip tray under the leak; • Place sorbent pads on the tank/piping (for a slow leak only).
	Clean up: • Shovel any contaminated snow/ice/gravel into drums for disposal; • If the spill is into a secondary containment, clean up the spill with sorbents; • Place any used sorbents into drums for disposal; • Properly mark and label all waste drums; and • Always make effort to protect any body of water. • Larger spills may require treatment of impacted water and removal of large quantities of impacted soil
PCB-containing material	To contain a spill of PCB-containing material: • Contain the spill with sorbent booms;
	Clean up: • Shovel any contaminated snow/ice/gravel into drums for disposal; • If the spill is into a secondary containment, clean up the spill with sorbents; • Place any used sorbents into drums for disposal; • Properly mark and label all waste drums; and • Always make effort to protect any body of water. • Contact Environmental Services to confirm clean up requirements as additional cleaning may be necessary if on a hard surface.
Acids	To contain a spill of acid: • Neutralize the acid with baking soda; • Contain the spill using booms or sorbent pads; • Keep the acid from reaching the environment using sorbents;

Item Description	Clean Up/Disposal Procedure
	Clean up: • If the spill is outdoors, shovel up the neutralized acid/snow/soil; • Place the rags/sorbents in a drum for disposal; and • Properly mark and label all waste drums
Hydraulic Fluid	To contain a spill of Hydraulic Fluid: • Contain the spill using booms or sorbent pads; • Keep the hydraulic fluid from reaching the environment using sorbents;
	Clean up: • If the spill is outdoors, shovel up the snow/soil; • Place the rags/sorbents in a drum for disposal; and • Properly mark and label all waste drums.
Asbestos	Each Long Range Radar Site is equipped with an Asbestos Response Kit. To contain a release of asbestos: • For small releases: mist the material with water to minimize release of asbestos fibres and contain the material in yellow bags (provided in the response kit); • For Large releases: cordon off the area with poly sheeting and signage (provided in the response kit). Contact Environmental Services for further direction.
	Clean up: • Use a vacuum with a HEPA filter to clean up any remaining fibres; • Wipe area with wet rags, place rags in yellow bags; • Place yellow bags in a drum; • Properly mark and label all waste drums.
Refrigerant Gas	To contain a release of refrigerant gas: • Cordon off the area; • Stop leak if it is safe to do so, and ensure area is ventilated; • Prevent gas from entering confined areas.
	Clean up: • Isolate area until gas has dispersed • Note: A person who installs, services, leak tests or charges a refrigeration system, an air- conditioning system or a fire-extinguishing system, or who does any other work on any of those systems that may result in the release of a halocarbon, shall recover, into a container designed and manufactured to be refilled and to contain that specific type of halocarbon, any halocarbon that would otherwise be released during those procedures.
Propane	To contain a spill of waste propane: • Cordon off the area; • Stop leak if it is safe to do so, and ensure area is ventilated; • Prevent gas from entering confined areas.
	Clean up: • Isolate area until gas has dispersed. • Properly mark and label waste propane cylinder.
Thermometers , Thermostats	Older waste thermometers and thermostats contain mercury and are TDG regulated. To contain a spill of waste thermometers: • Cordon off the area and ensure it is well ventilated; • Contain the spill using booms or sorbent pads; • Keep the spilled material from reaching the environment using sorbents;

Item Description	Clean Up/Disposal Procedure
	Clean up: • If the spill is outdoors, shovel up the snow/soil into waste drums for disposal; • Place the sorbents in a drum for disposal; • Place the thermometer in a Ziploc bag using a wet rag and pick up any remaining dust with the sticky side of a piece of duct tape; • Place rags and duct tape in Ziploc bag; • Place Ziploc bags into waste drum; and • Properly mark and label all waste drums.
Cleaner, Degreaser	To contain a spill of waste cleaner/degreaser: • Contain the spill using booms or sorbent pads; • Keep the spilled material from reaching the environment using sorbents;
	Clean up: • If the spill is outdoors, shovel up the snow/soil; • Place the rags/sorbents in a drum for disposal; and • Properly mark and label all waste drums.
Aerosols	To contain a spill of aerosols: Stop leak if it is safe to do so; Prevent gas from entering confined areas.
	Clean up: • Isolate area until gas has dispersed. • Place waste aerosol in a drum for disposal; and • Properly mark and label all waste drums.
Waste light bulbs	To contain a spill of a mercury-containing light bulb (e.g., broken fluorescent lamp): • Cordon off the area and ensure it is well ventilated;
	Clean up: • Sweep lightbulb into a Ziploc bag using a wet rag, pickup any remaining dust with the sticky side of a piece of duct tape; • Place rags and duct tape into Ziploc bag; • Once all visible debris is picked up, use a vacuum with a HEPA filter to pick up any non-visible dust. • Place the Ziploc into a waste drum; • Properly mark and label all waste drums.
	To contain a spill of sewage: • Isolate the leaking component if possible (close valves, if from a drum rotate so the puncture is facing upward); • Put a bucket or drip tray under the leak; • Place sorbent pads to the tank/piping (for a slow leak only);
	Clean up: • Shovel any contaminated snow/ice/gravel into drums for disposal; • Properly mark and label all waste drums; • Always make effort to protect any body of water; and, • Refer to the Application of Hydrated Lime for larger spills. Larger spills may require treatment of impacted water and treatment / removal of large quantities of impacted soil.

6.3.7 Disposal of Clean Up Materials

Waste generated from spill response activities will be disposed of according to the procedures outlined below.

6.3.7.1 Used Sorbent Materials

Used sorbent materials will be placed in drums and sent to a licensed hazardous waste disposal facility as per the EPP and the NWS Hazardous Waste Management Plan.

6.3.7.2 Fuel/Water Mixture

Fuel/water mixtures may be dealt with on-site during the clean-up phase, and/or collected and drummed for treatment/disposal off-site (e.g., using an oil/water separator, filter bank, etc.). Drummed fuel/water mixtures will be sent to a licensed hazardous waste disposal facility as per NWS Hazardous Waste Management Plan. The decision to recover fuel for reuse will be made on a case-by-case basis based on the quantity and quality (i.e., the results of the fuel testing).

6.3.7.3 Contaminated Snow

Small volumes of contaminated snow are to be shoveled into an open-head drum, along with a hydrophobic sorbent mat, pillow, or sock. Each drum is to be marked as to its contents with permanent marker or spray paint as follows: “Snow with <substance>, <site>, <date>.” Drums may be stored in a level area outside to await spring thaw, or moved indoors to speed melting. The melted snow is to be treated as fuel/water mixture, as discussed in the preceding section. Large areas of contaminated snow may be removed/isolated to be containerized or treated as it melts. Decisions in such a situation will be at the discretion of the Spill Control Manager.

Drummed contaminated snow will be sent to a licensed hazardous waste disposal facility as per the Retrograde Plan.

6.3.7.4 Contaminated Soil

Decisions regarding remediation of contaminated soil must be made by the Spill Control Manager on a case-by-case basis. Should contaminated soil need to be excavated and contained, the following points are to be noted:

- Do not mix soil with other spill wastes.
- Do not overfill open head drums; they will need to be moved without the aid of heavy equipment at SRRs.
- Each drum is to be marked as to its contents with permanent marker or spray paint as follows: “Soil with <substance>, <site>, <date>”.
- Drummed contaminated soil will be sent to a licensed hazardous waste disposal facility as per the EPP and the NWS Hazardous Waste Management Plan (8.22.3.1).

6.3.7.5 Reporting Disposal Actions

The LSS Manager (Spill Control Officer) is to advise the Spill Control Manager of disposal actions taken by the spill response team/ERT, through e-mail or Internal Environmental Report updates. Drums of waste left at an SRR must be transported to the LSS or LRR within four months of the spill response, weather permitting.

Spill clean-up Work Orders are to include the removal and disposal actions for spill wastes, the number of drums involved and their contents. A spill clean-up Work Order cannot be closed until the disposal actions are completed or the remaining requirements are transferred to a separate waste disposal Work Order.

6.3.8 Site Remediation

Remediation efforts will be coordinated through Nasittuq. Site remediation will be undertaken by trained NWS personnel or by spill response sub-contractors (e.g., environmental consultants).

6.3.9 Final Report and Post-Spill Review

A final report will be created and contain the following:

- Initial report information;
- Confirmation of spill volume;
- Actions taken;
- Future remediation/monitoring requirements;
- Sketch map and/or photographs of spill area;
- Lessons learned.

A joint review of all spill response activities and involved parties will be held by Nasittuq and NWSO in order to:

- Document all events from the initial spill report through to site remediation;
- Analyze spill response actions taken and their effectiveness in order to:
    - Revise action plans as required;
    - Amend spill response procedures as required; and
    - Amend the spill response training program.

6.4 Spill Response – Fuel Re-Supply Activities

The Hazardous Materials General Management Plan (17.2.2.C PLN-EHS-3) describes the bulk fuel re-supply process for NWS sites. Fuel re-supply is conducted by:

- Sealift (e.g., vessel or barge);
- Airlift (e.g., rotary wing or fixed wing aircraft); and
- Road Transport (e.g., LAB-6 and CAM-CB)

Transport of the bulk fuel is performed by contractors and subcontractors who must each possess their own spill contingency plan. The re-supply contractor will be responsible for spill response when the spill originates from the contractor's equipment, i.e., occurs between the vessel and the junction with NWS piping. Response to a spill originating from NWS piping or facilities during resupply will be the responsibility of Nasittuq, and will be reported and responded to as per this Plan.

6.5 Spill Simulation Exercise

One spill response simulation exercise will be conducted annually. The scenario will be developed by Environmental Services and will be based on a spill of a size and location which poses a direct threat to fish habitat. The spill response simulation exercise will:

- Test spill contingency response procedures;
- Ensure staff preparedness; and
- Identify any areas requiring improvement.
- Results of the spill response simulation exercise will be recorded and reported to the NWSO TA within 20 business days of the exercise. The report will include:
    - The number of participants;
    - Location;
    - Date;
    - Exercise detail (a description of the spill exercise scenario);
    - Successes/failures;
    - Lessons learned; and
    - Any proposed changes to processes/procedures due to the lessons learned.

Spill reporting exercises shall be conducted on a periodic basis to assist with identifying deficiencies. Sites selected are at the discretion of Environmental Services.

Note: External reporting to spill lines and/or other contacts is not a component of the spill exercise, and all associated verbal or written communications must clearly announce 'Exercise. Exercise. Exercise.'

6.6 Spill Response Training Program

Spill response training is provided to all LSS staff and Bulk Fuel Technicians as per SOW Line 17.6.4. The training will include:

- Types and causes of spills at NWS sites;
- Spill reporting procedures;
- Spill kit familiarization;
- Spill response actions for a variety of scenarios;
- Post-spill site assessment;
- Post-spill review; and
- Health and safety.

The training methods will include:

- Lectures;
- Audio – visual presentations; and
- Field simulations exercises.

Training will be regenerative on a two-year cycle.

7.0 FORMS

- Initial Incident Report (See Appendix B)
- Environmental Follow Up Incident Report (see Appendix C)
- NT-NU Spill Report Form (see Appendix E)

8.0 BACKGROUND

8.1 Spill Risk

Nasittuq has established policies and procedures to reduce the risk and mitigate the impact of fuel or HAZMAT spills. Controls include:

Limiting the quantity of HAZMAT at site and ensuring only required minimal volumes are present;

Ensuring storage requirements of materials are followed. Store materials indoors when possible (e.g., the Nunavut Water Board Licences for CAM-M, CAM-3, FOX-M, FOX-3, DYE- M, and BAF-3 require that HAZMAT is stored in secondary containment); and

Identification of spill potential risk and evaluation of potential impact (e.g., Jet A1 fuel).

Table 4:Risk Analysis of Spills on NWS Sites

Scenario	Impact	Probability	Mitigation
Catastrophic tank failure	High • Spill could result in a large amount of contaminated soil. • Spill could contaminate water and result in Fisheries Act infractions. • Spill could impact the prime mission of the NWS by loss of data and communications.	Low • Two incidents from 2001 to 2018.	• Tanks are visually inspected annually during Preventive Maintenance Inspections (PMIs) and before fuel is transferred into a tank, if the tank is visible (i.e., not covered by snow). • The tanks are dipped to confirm the volume of fuel in the tanks (inventory reconciliation).
Pipeline leak	Medium • Leak is difficult to detect during winter conditions. • Spill could result in a moderate amount of contaminated soil. • Spill could contaminate water and result in Fisheries Act infractions. • Spill could impact the prime mission of the NWS by loss of data and communications.	High • 145 incidents from 2001 to 2018.	• Piping is visually inspected during PMIs and is monitored/inspected during fuel transfers. • Non-destructive testing of the pipelines are completed at every site on a 5 year schedule in according with the Corrosion Analysis Protection (CAP) Program. • Wherever practical, pipelines are drained when not in use.
Spill from fuel truck while transferring fuel (i.e., connecting, and disconnecting hoses, etc.)	Low • Spill could result in a moderate amount of contaminated soil.	Low • There are no incidents from 2001 to 2018.	• Portable secondary containment is used during fuel transfers. • All fuel transfers from fuel trucks are monitored.

Scenario	Impact	Probability	Mitigation
Catastrophic fuel drum (205 L) failure (i.e., entire contents of drum spilled)	Medium • Spill could result in a moderate amount of contaminated soil. • Relatively low quantity of product in a drum.	Low • No incidents from 2001 to 2018.	• Drums are stored as per the Hazardous Materials General Management Plan (PLN-EHS-3) or the Storage and Tracking of Waste HAZMAT Plan (PLN-EHS-4).
Spill of greater than 600 L	High • Spill could result in a large amount of contaminated soil. • Spill could contaminate water and result in Fisheries Act infractions. • Spill could impact the prime mission of the NWS by loss of data and communications.	Low • 14 incidents from 2001 to 2018.	• Preventive maintenance is completed on tanks and piping. • Non-destructive testing of the pipelines are completed at every site on a 5 year schedule in according with the Corrosion Analysis Protection (CAP) Program.
Spill of 100 L to 600 L	Medium • Spill could result in a moderate amount of contaminated soil. • Spill could contaminate water and result in Fisheries Act infractions.	Low • 25 incidents from 2001 to 2018.	• Preventive maintenance is completed on tanks and piping. • Non-destructive testing of the pipelines are completed at every site on a 5 year schedule in accordance with the Corrosion Analysis Protection (CAP) Program
Spill of 20 L to 100 L	Medium • Spill could result in a moderate amount of contaminated soil	Medium • 58 incidents from 2001 to 2018.	
Spills of less than 20 L	Low • Spill could result in a small amount of contaminated soil	High • 287 incidents from 2001 to 2018.	
Notes: • 1. Spills from tanks at beach locations present a higher risk resulting in Fisheries Act infractions than tanks at summit locations. • 2. Bulk fuel storage tank systems near roads are generally protected with bollards.			
Definitions of Impacts: • High: Significant impact to land, water, and likely receptors • Medium: Moderate impact to land, water, and likely receptors • Low: Slight to no impact to land, water, and likely receptors			

8.2 Bulk Fuel Description and Characteristics

The fuel used for all purposes on the NWS sites is Jet A1 (3A), Arctic Grade, Aviation turbine fuel, Kerosene type. This fuel type is flammable with a flash point of 38°C. It contains paraffin, olefin, naphthalene, and aromatics. The aromatics and naphthalene in Jet A1 evaporate easily and are highly toxic.

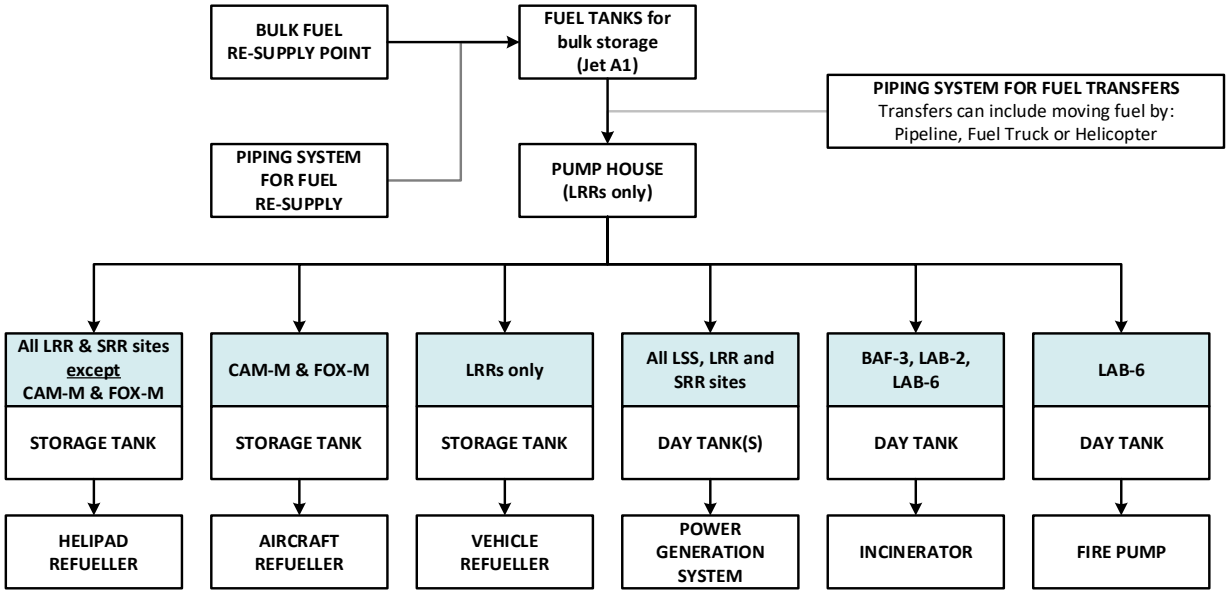
The Jet A1 characteristics allow it to easily be absorbed by soil and to be dispersed as a sheen on top of water surfaces. Land spills of Jet A1 cause contamination of soil. Water spills of Jet A1 may cause alteration of fish habitat. The federal Fisheries Act (s. 36) prohibits the deposit of any deleterious substance to water bodies.

The only NWS site which uses fuel other than Jet A1 for power generation is the SRR site CAM-CB, Gjoa Haven, Nunavut, which is powered by diesel fuel. Diesel is flammable with a flash point of 38°C and shares the other characteristics and potential impacts of Jet A1 shown above. This plan will reference Jet A1 as the bulk fuel on NWS sites because the use of diesel is limited to one site and the characteristics of Jet A1 and diesel are similar.

8.3 Bulk Fuel Storage and Distribution System

Each LRR, SRR, and LSS has fuel storage tanks and piping systems for fuel distribution. The main components of the bulk fuel storage and distribution system are shown in Figure 3. In this Figure, "Fuel resupply" is the delivery of fuel to site; "fuel transfer" is the pumping of fuel from primary to secondary tanks.

Figure 3: Bulk Fuel Storage and Distribution System



The bulk fuel systems vary from site to site. Review the site descriptions in the EPP Appendix A for specific details. All fuel tanks are Aboveground Storage Tanks (AST) and range in size from 200 litre capacity to 946,300 litre capacity.

Bulk storage tanks are:

- Single-walled vertical or horizontal tank in a berm, an earthen dyke lined with a geotextile membrane; or
- Horizontal tank with integral secondary containment.

Oils and lubricants, used in the operation of power generating systems (PGS) and vehicles, are stored in site specific storage areas and in dedicated storage sheds. Waste products are stored in dedicated areas prior to disposal by retrograde activity.

8.4 Fuel Re-supply and Use

Bulk fuel re-supply of all LRR and all SRR sites takes place during the summer season every year, or every two years. Bulk fuel is transported to most LRRs and SRRs by sealift (barges or ships). The FOX-3 LRR site and some SRR sites are re-supplied by airlift. Contractors and sub-contractors engaged in fuel resupply operations must have their own Spill Contingency Plans to cover their area of responsibility.

Uses of fuel at LRR sites include:

- Operation of the power generating system;
- Aircraft re-fueling;
- Vehicles;
- Furnaces and boilers; and
- Fire pumps and incinerator at BAF-3, LAB-2, and LAB-6.

Uses of fuel at LSSs and SRR sites include:

- Operation of the power generating system;
- Aircraft re-fueling; and
- Furnaces.

9.0 ACRONYMS AND ABBREVIATIONS

Term	Definition
API	American Petroleum Institute
AST	Aboveground Storage Tank
CAD HQ	Canadian Air Division Head Quarters
CAP	Corrosion Analysis Program
CAR	Corrective Action Review
CCME	Canadian Council of Ministers of the Environment
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CFB	Canadian Forces Base
CMO	Contractor Management Office
CSN	Canadian Switch Network
DND	Department of National Defence
EHS	Environment, Health, and Safety
EMT	Electronics Maintenance Technician
EPP	Environmental Protection Plan
ERT	Emergency Response Team
ESO	Environmental Services Officer
FMT	Facilities Maintenance Technician

Term	Definition
FOL	Forward Operating Location
HAZMAT	Hazardous Materials
LHCN	Long-Haul Communication Network
LRR	Long Range Radar
LSS	Logistics Support Site
NACE	National Association of Corrosion Engineers
NL	Newfoundland and Labrador
NT	Northwest Territories
NU	Nunavut
NWS	North Warning System
NWSCC	North Warning System Control Centre
NWSSC	North Warning System Support Centre
NWSO	North Warning System Office
NWSO TA	North Warning System Office Technical Authority
O&M	Operation and Maintenance
PCBs	Polychlorinated biphenyls
PGS	Power Generating System
PMI	Preventive Maintenance Inspection
RCA	Root Cause Analysis
SCADA	Supervisory Control and Data Acquisition
SDS	Safety Data Sheets
SOP	Standard Operating Procedure
SOW	NWS O&M Contract Statement of Work
SRD	Short Range Radar Development Site
SRR	Short Range Radar
TDG	Transportation of Dangerous Goods
TSB	Technical Services Building
WHMIS	Workplace Hazardous Materials Information System

10.0 APPENDIX A: EMERGENCY CONTACT LISTS

Table 5: NWSCC Contact List

Contact	Contact Number
NWSCC Long Haul Communications Network (LHCN)	(705) 494-2011 ext. 3500 (on-site dial 88-3500)
NWSCC Facilities Group	(705) 494-2011 ext. 3400 (on-site dial 88-3400)
NWSCC Radar	(705) 494-2011 ext. 3104

Table 6: Nasittuq and Contact List

Title	Contact	Contact Number
Nasittuq Environmental Services Officer	Don Beattie (alternate: Alaina Leslie)	613-298-1764 (alternate 613-223-0629)
Nasittuq Operations Manager	Shawn Hickey	(613) 229-1673
Nasittuq Quality Services & Risk Manager	Mehul Shinde	613-229-7990
NWSO Facilities Manager	Major Jake Lawrence	343-572-8472
NWSO Facilities Deputy Manager	Captain Joseph St Georges-Fingler	343-573-5538
NWSO Environmental Officer	Will Wyman	343-552-0501
Note: These contacts will be updated annually as required. The living "O&M Contractor and NWSO Incident Contact List" is maintained by staff at the NWSCC.		

Table 7: 24 Hour Spill Lines

Contact	Contact Number
Yukon	(867) 667-7244
Northwest Territories / Nunavut	(867) 920-8130
Newfoundland and Labrador (Canadian Coast Guard)	(709) 772-2083
Ontario	1-800-268-6060
Note: From: Release and Environmental Emergency Notification Regulations, SOR/2011-90, under the Canadian Environmental Protection Act, 1999.	

Table 8: Other Important Contacts

Organization	Contact	Contact Number
Inuvialuit Land Administration		(867) 977-7100
Inuvik Fire Department		(867) 777-2222
Iqaluit Fire Department		(867) 979-4422
North Bay Fire Department		(705) 474-5662
Parks Canada - Western Arctic Field Unit	Manager of Resource Conservation	(867) 777-8800
CIRNAC	Nunavut Regional Office, Iqaluit	(867) 975-4500
	Manager of Field Operations	(867) 975-2749

Organization	Contact	Contact Number
	Water Resources Officer, Kitikmeot Region - Kugluktuk (CAM-M, CAM- 3)	(867) 982-4306
	Water Resources Officer, Qikiqtani Region - Iqaluit (FOX-M, FOX-3, DYE-M, BAF-3)	(867) 975-4289
Government of Nunavut Department of Economic Development and Transportation	Nunavut Airports: Juanisie Etidloi Transportation Programs Officer Louisa Parr Transportation Programs Officer	(867) 645-2773 JEtidloi1@gov.nu.ca (867) 645-2773 lparr2@gov.nu.ca
	Cambridge Bay Airport: Arsene Sivanertok Manager, Transportation Programs, Peter Kiahingnaq Transportation Programs Officer	(867) 983-4184 asivanertok@gov.nu.ca
Nunatsiavut Government Department of Lands and Natural Resources	Ernie Ford, Environmental Enforcement Officer	(709) 922-2942 ext.234 ernie_ford@nunatsiavut.com

11.0 APPENDIX B: SAMPLE ENVIRONMENTAL INITIAL INCIDENT REPORT

Section 1 – Initial Report			
Incident Type	☐ Aircraft ☐ Environmental ☐ Fire ☐ Mobile Support Equipment	☐ Occupational Health and Safety ☐ Medical Emergency ☐ Real Property ☐ Security ☐ Significant	
Zone:	Choose zone.	Site:	Choose Site
Incident Date:	Date Inci Occurred	Incident Time (Zulu):	
Reported Date:	Date reported to CC	Reported Time (Zulu):	
Third Party / Sub Involved:		Incident No.	
Reporting From:		Phone #:	
Reported by Name:		SM Section:	
Reported How:	Choose an item.	NWSCC Tech Initials:	

Section 2 - INITIAL INCIDENT Overview			
Approx. location of incident:			
Description of incident:			
Work order number:		Media Involved?	Yes ☐ No ☐ Unk ☐
Fatalities:		Injuries:	

Section 3 –Details by incident type			
Aircraft incident Information			
Aircraft Tail No.		No. Souls on Board:	
Environmental Incident INFORMATION			
Spill/Release Category:	Choose an item.	Substance:	Choose an item.
Approx. quantity:		Leak/release status:	Stopped ☐ Ongoing ☐ Unk ☐
Reached outdoors?	Yes ☐ No ☐ Unk ☐	Qty Reached outdoors	
Fire incident Information			
Suppression Type Released:		Piquet required?	
Estimated Property Loss in $:		Comments:	
Mobile Support Equipment Incident Information			
Vehicle/MSE Licence no.:		Vehicle Description:	
Occupational Health & SAFETY Incident Information			
Employer of affected person		Lost Time?	Yes ☐ No ☐ Unk ☐

First Aid action taken (at site)		Medical Aid requiring outside intervention	
Medical Emergency Information			
Does the incident place life or limb in jeopardy?	Yes ☐ *Must be yes if incident is classified as medical emergency*	Lost Time?	Yes ☐ No ☐ Unk ☐
First Aid action taken (at site)		Medical Aid requiring outside intervention	
Real Property Incident Information			
Description of lost/damaged item/property:		Asset number of lost/damaged item:	
Security Incident Information			
Type:	Choose an item.	Comments:	
Significant Incident Information			
Type	Significant Incident	Sub-type	Choose an item.

12.0 APPENDIX C: SAMPLE ENVIRONMENTAL FOLLOW-UP INCIDENT REPORT

Report Type							
☐	**Initial Report (issue within 6 hours)**			**DATE:**	**Click here to enter a date.**		
☐	**Follow-Up Report (issue within 72 hours)**			**DATE:**	**Click here to enter a date.**		
INCIDENT INFORMATION							
ZONE :	Choose an item.			**SITE:**	Site		
Incident Date:	**2022-01-01**			**Incident time (Zulu):**			
Type of Incident	Choose an item.			**IF OTher, SPECIFY:**			
Incident Emergency STATUS:	Choose an item.						
Section 2 – FOLLOW UP REPORT							
FOLLOW-UP REPORTING DETAILS							
FOLLOW-UP REPORT DATE:	**2022-01-01**			**REPORT TIME (ZULU):**	12:00		
INCIDENT INFORMATION							
Date of Occurrence: **Time of Occurrence:**	Occurrence Date ☐Unknown, see Comments			**Date of Discovery:** **Time of Discovery:**	Discovery Date		
Date Stopped: **Time Stopped:**	Spill Stopped Date			**Date Cleaned:** **Time Cleaned:**	Spill Cleaned up Date		
Incident Closed Date	Spill Closed Date						
INCIDENT DETAILS							
On-site location							
Coordinates							
SPILL/RELEASE DETAILS							
Quantity:				**Quantity reached environment:**			
Quantity Recovered:							
Cause:							
Status:							
Environmental Effects:							
Human Health Effects:	**Personal information recorded on a separate form**						
OTHER INFORMATION							
Comments (e.g., circumstances of incident, mitigation, remediation, and determination of incident cause):							
WEATHER INFORMATION (IF RELEVANT)							
Temperature:				**Precipitation**			
Wind Direction:				**Wind Speed / Direction:**			
Distance from Surface Water:				**Distance from Property Boundary:**			
COMMUNICATION RECORD							
Report Submitted to NWSO By:				**Date:**	Date	**Report No:**	
Notified Federal Government:	**Date:**	Date	**Time:**		**Contact:**		
Notified Provincial Government:	**Date:**	Date	**Time:**		**Contact:**		
Notification Comments (e.g., Spill Line Report #, Spill Line tel #, co-ordinates of person(s) contacted: name, tel. #, position, gov't dept, city)							


NWS

13.0 APPENDIX D: REPORTING CRITERIA FOR SPILL LINES

13.1 Federal or Aboriginal Land in Canada

As per Section 41 of the Canadian Environmental Protection Act (1999), any spill of fuel or waste oil which meets reporting requirements must be reported to Environment Canada through territorial or provincial spill lines. Spills from a Storage Tank System greater than 100 L require a written report to ECCC.

13.2 Yukon

The minimum reportable volumes listed in Table 9 are from the Yukon's *Environment Act*.

Table 9: Minimum Reportable Volumes for HAZMAT spills in Yukon

Item No.	TDGR Class	Description of Contaminant	Minimum Reportable Volume
1	1	Explosives	Any amount
2	2.1	Flammable gases	Any amount of gas from a container with a capacity greater than 100 L or where the spill results from equipment failure, error or deliberate action or inaction
3	2.2	Non-flammable gases	Any amount of gas from a container with a capacity greater than 100 L or where the spill results from equipment failure, error or deliberate action or inaction
4	2.3	Poisonous gases	Any amount
5	2.3 (was 2.4)	Corrosive gases	Any amount
6	3	Flammable liquid	200 L
7	4	Flammable solid	25 Kg
8	5.1	Oxidizing substances	50 L or 50 Kg
9	5.2	Organic peroxides	1 L or 1 Kg
10	6.1	Poisonous substances	5 L or 5 Kg
11	6.2	Infectious substances	Any amount
12	7	Radioactive	Any amount
13	8	Corrosive substances	5 L or 5 Kg
14	9.1	Miscellaneous products or substances	50 L or 50 Kg
15	9.2	Miscellaneous products or substances	1 L or 1 kg
16	9.3	Dangerous wastes	5 L or 5 Kg
17	None	Special waste as defined in section 1 of the Yukon's Special Waste Regulations	As specified in section 3(1)(b) of the Yukon's Special Waste Regulations
18	None	A pesticide as defined in section 2 of the Environment Act, but not including those pesticides and fertilizers listed in Schedule 4 of the Yukon's Pesticide Regulations	5 L or 5 Kg

Item No.	TDGR Class	Description of Contaminant	Minimum Reportable Volume
19	None	Pesticides and fertilizers listed in Schedule 4 of the Yukon's Pesticide Regulations	Any amount
20	None	Ozone depleting substances and halocarbons	10 Kg

Under Yukon's Special Waste Regulations, the following substances are special wastes:

- **Waste oil** – This is oil that has become unsuitable for its intended purpose due to the presence of impurities or the loss of original properties. Any mixture containing waste oil in excess of 3% by weight is considered waste oil.
- **Biomedical waste** – This includes human anatomical waste, animal waste, microbiology laboratory waste, human blood and body fluid waste, and waste sharps typically generated from human or animal health care facilities, medical or veterinary research and teaching establishments, and clinical testing and research laboratories. This does not include healthy and chemical-free animal slaughter wastes.
- **Dangerous goods no longer used for their original purpose** – These are dangerous goods as defined in the federal Transportation of Dangerous Goods Regulations (TDGR) that are not used for their originally-intended purpose, as well as some hazardous wastes as defined in the Cross-border Movement of Hazardous Waste and Hazardous Recyclable Material Regulations.

Under Yukon's Special Waste Regulations, a permit is required to generate, dispose, collect, transport, or otherwise handle special waste if greater than or equal to the quantities listed in Table 10 are handled over the course of 30 days or stored onsite at any one time.

Table 10: Yukon's Special Waste Reportable Thresholds

Item no.	Description of contaminant	Minimum Reportable Volume
1	Waste Oil	20 L
2	Other Liquid Special Waste	5 L
3	Solid Special Waste	5 kg
4	Mixed solid and liquid Special Waste	5 kg or 5 L

13.3 Northwest Territories / Nunavut

Table 11: Minimum reportable volumes for HAZMAT spills in NT/NU

Item No.	TDGA Class	Description of Contaminant	Minimum Reportable Volume
1	1	Explosives	Any amount
2	2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 L
3	2.2	Compressed gas (non-corrosive, non-flammable)	Any amount of gas from containers with a capacity greater than 100 L
4	2.3	Compressed gas (toxic)	Any amount
5	2.3 (was 2.4)	Compressed gas (corrosive)	Any amount

Item No.	TDGA Class	Description of Contaminant	Minimum Reportable Volume
6	3.1,3.2, 3.3	Flammable liquid	100 L
7	4.1	Flammable solid	25 Kg
8	4.2	Spontaneously combustible solids	25 Kg
9	4.3	Water reactant solids	25 Kg
10	5.1	Oxidizing substances	50 L or 50 Kg
11	5.2	Organic peroxides	1 L or 1 Kg
12	6.1	Poisonous substances	5 L or 5 Kg
13	6.2	Infectious substances	Any amount
14	7	Radioactive	Any amount
15	8	Corrosive substances	5 L or 5 Kg
16	9.1 (in part)	Miscellaneous products or substances, excluding PCB mixtures	50 L or 50 Kg
17	9.2	Environmentally hazardous	1 L or 1 kg
18	9.3	Dangerous wastes	5 L or 5 Kg
19	9.1 (in part)	PCB mixtures of 5 or more parts per million	0.5 L or 0.5 Kg
20	none	Other contaminants	100 L or 100 Kg

13.4 Nunavut Water Board Sites

For the sites with NWB licences (i.e., CAM-M, CAM-3, FOX-M, FOX-3, DYE-M, and BAF-3), any unauthorized discharge or any foreseeable unauthorized discharge must be reported to the NT-NU Spill Line, the CIRNAC Manager of Field Operations, and the CIRNAC Water Resources Officer/Inspector.

A summary of the spills at NWB Sites will be included in the annual report for each site.

13.5 Newfoundland and Labrador (Per NL's *Environmental Protection Act*)

Table 12: Minimum reportable volumes for HAZMAT spills in NL

Substance	Minimum Reportable Volume	Limit Source
Oil	70 L	Storage and Handling of Gasoline and Associated Products Regulations, 2003, NL Regulation 58/03, s. 2(cc)
Gasoline or associated product	70 L	
Halocarbon	10 kg	Halocarbon Regulations, NL Regulation 41/05, s. 6(1)
Used oil (> 15 ppm Total Petroleum Hydrocarbons) or Used glycol (> 15 ppm glycol)	70 L	Used Oil and Used Glycol Control Regulations, NL Regulation 100/18, s. 2(h), 2(r), 2(t), 7(g) - reporting required for spill or leak from a storage tank system containing used oil or used glycol.

14.0 APPENDIX E: SAMPLE NT-NU SPILL REPORT FORM AND GUIDE

Northwest Territories · Nunavut · Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
TEL: (867) 920-8130
FAX: (867) 873-6924
EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR	REPORT TIME	☐ ORIGINAL SPILL REPORT, OR ☐ UPDATE # _____ TO THE ORIGINAL SPILL REPORT	REPORT NUMBER _____-_____
B	OCCURRENCE DATE: MONTH – DAY – YEAR	OCCURRENCE TIME		
C	LAND USE PERMIT NUMBER (IF APPLICABLE)	WATER LICENCE NUMBER (IF APPLICABLE)		
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM NAMED LOCATION	REGION ☐ NWT ☐ NUNAVUT ☐ ADJACENT JURISDICTION OR OCEAN		
E	LATITUDE DEGREES MINUTES SECONDS	LONGITUDE DEGREES MINUTES SECONDS		
F	RESPONSIBLE PARTY OR VESSEL NAME	RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION		
G	ANY CONTRACTOR INVOLVED	CONTRACTOR ADDRESS OR OFFICE LOCATION		
H	PRODUCT SPILLED	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
	SECOND PRODUCT SPILLED (IF APPLICABLE)	QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES	U.N. NUMBER	
I	SPILL SOURCE	SPILL CAUSE	AREA OF CONTAMINATION IN SQUARE METRES	
J	FACTORS AFFECTING SPILL OR RECOVERY	DESCRIBE ANY ASSISTANCE REQUIRED	HAZARDS TO PERSONS, PROPERTY OR EQUIPMENT	
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS			

L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE

REPORT LINE USE ONLY

N	RECEIVED AT SPILL LINE BY	POSITION STATION OPERATOR	EMPLOYER	LOCATION CALLED YELLOWKNIFE, NT	REPORT LINE NUMBER (867) 920-8130

LEAD AGENCY ☐ EC ☐ CCG ☐ GNWT ☐ GN ☐ ILA ☐ INAC ☐ NEB ☐ TC | SIGNIFICANCE ☐ MINOR ☐ MAJOR ☐ UNKNOWN | FILE STATUS ☐ OPEN ☐ CLOSED

AGENCY	CONTACT NAME	CONTACT TIME	REMARKS
LEAD AGENCY			
FIRST SUPPORT AGENCY			
SECOND SUPPORT AGENCY			
THIRD SUPPORT AGENCY			

PAGE 1 OF _____

NASITTUQ

NWS

Instructions for Completing the NT-NU Spill Report Form

This form can be filled out electronically and faxed to the spill line at 867-873-6924. Commencing April 1, 2007, the form can also be e-mailed as an attachment to spills@gov.nt.ca. Until further notice, please verify receipt of e-mail transmissions with a follow-up telephone call. Spills can still be phoned in by calling collect at 867-920-8130.

A. Report Date/Time	The actual date and time that the spill was reported to the spill line. If the spill is phoned in, the Spill Line will fill this out. **Please do not fill in the Report Number**: the spill line will assign a number after the spill is reported.
B. Occurrence Date/Time	Indicate, to the best of your knowledge, the exact date and time that the spill occurred. Not to be confused with the report date and time (see above).
C. Land Use Permit Number /Water Licence Number	This only needs to be filled in if the activity has been licenced by the Nunavut Water Board and/or if a Land Use Permit has been issued. Applies primarily to mines and mineral exploration sites.
D. Geographic Place Name	In most cases, this will be the name of the city or town in which the spill occurred. For remote locations – outside of human habitations – identify the most prominent geographic feature, such as a lake or mountain and/or the distance and direction from the nearest population center. **You must include the geographic coordinates** (Refer to Section E).
E. Geographic Coordinates	This only needs to be filled out if the spill occurred outside of an established community such as a mine site. Please note that the location should be stated in degrees, minutes and seconds of Latitude and Longitude.
F. Responsible Party Or Vessel Name	This is the person who was in management/control/ownership of the substance at the time that it was spilled. In the case of a spill from a ship/vessel, include the name of the ship/vessel. Please include full address, telephone number and e-mail. Use box K if there is insufficient space. **Please note that, the owner of the spilled substance is ultimately responsible for any spills of that substance, regardless of who may have actually caused the spill.**
G. Contractor involved?	Were there any other parties/contractors involved? An example would be a construction company who is undertaking work on behalf of the owner of the spilled substance and who may have contributed to, or directly caused the spill and/or is responding to the spill.
H. Product Spilled	Identify the product spilled; most commonly, it is gasoline, diesel fuel or sewage. For other substances, avoid trade names. Wherever possible, use the chemical name of the substance and further, identify the product using the four digit UN number (eg: UN1203 for gasoline; UN1202 for diesel fuel; UN1863 for Jet A & B)
I. Spill Source	Identify the source of the spill: truck, ship, home heating fuel tank and, if known, the cause (eg: fuel tank overfill, leaking tank; ship ran aground; traffic accident, vandalism, storm, etc.). Provide an estimate of the extent of the contaminated/impacted area (eg: 10 m^2)
J. Factors Affecting Spill	Any factors which might make it difficult to clean up the spill: rough terrain, bad weather, remote location, lack of equipment. Do you require advice and/or assistance with the cleanup operation? Identify any hazards to persons, property or equipment: for example, a gasoline spill beside a daycare centre would pose a safety hazard to children. Use box K if there is insufficient space.
K. Additional Information	Provide any additional, pertinent details about the spill, such as any peculiar/unique hazards associated with the spilled material. State what action is being taken towards cleaning up the spill; disposal of spilled material; notification of affected parties. If necessary, append additional sheets to the spill report. Number the pages in the same format found in the lower right hand corner of the spill form: eg. "Page 1 of 2", "Page 2 of 2" etc. **Please number the pages to ensure that recipients can be certain that they received all pertinent documents.** If only the spill report form was filled out, number the form as "Page 1 of 1".
L. Reported to Spill Line by	Include your full name, employer, contact number and the location from which you are reporting the spill. Use box K if there is insufficient space.
M. Alternate Contact	Identify any alternate contacts. This information assists regulatory agencies to obtain additional information if they cannot reach the individual who reported the spill.
N. Report Line Use Only	**Leave Blank**. This box is for the **Spill Line's use only**.

15.0 APPENDIX F: STS REGULATIONS COMPLIANCE

15.1 STS Emergency Plan

This emergency plan is required under the Storage Tank Systems for Petroleum Products and Allied Petroleum Products Regulations (STS Regulations), sections 30 to 32. The plan applies to storage tank systems at North Warning System (NWS) sites under the care, custody, and control of Nasittuq.

Nasittuq is the "operator" of the systems. The "owner" is the North Warning System Office (NWSO), Department of National Defence (DND), Government of Canada.

Table 14 cross-references the requirements of the STS Regulations, s. 30 to 32, to the location of the information in this emergency plan.

15.2 Purpose

This plan is intended to be paired with the site descriptions from the NWS Environmental Protection Plan (EPP; 17.2.2 PLN-EHS-1) to meet the requirements of the STS Regulations, s. 30. Appendix G is the Safety Data Sheet (SDS) for Jet A1. SDSs for WHMIS controlled products are available at the sites.

15.3 Location of the Plans and Notification of the Minister

The NWS consists of radar sites across the Arctic. The sites are divided into five zones. In each zone, there is one attended (staffed) site called a Logistics Support Site (LSS). The LRRs are also attended as of 2022. The other sites in a zone are Short Range Radar (SRR) sites and are unattended except for quarterly preventive maintenance work, corrective maintenance trips, and one-time projects. Since the LSS and LRRs are the "place of work" for a zone, the emergency plans for the sites in a zone are kept both at the LSS and LRRs. Site-specific emergency plans are also located at the given SRR. This meets the requirements of the STS Regulations, s. 31(1).

In 2010, NWSO (the owner) notified the Minister of the civic addresses, and the latitude and longitude, of the LSSs where the plans are kept as per the STS Regulations, s. 31(2). The LSS information that was communicated is shown below.

Table 13: Location of Plans

Zone	LSS	Address	Coordinates
1	LSS Inuvik	297 Airport Road, PO Box 1680 Inuvik, NT X0E 0T0	68 18' 41" N, 133 28' 30" W
2	LSS Cambridge Bay	1 North Warning Road, PO Box 1050 Cambridge Bay, NU X0B 0C0	69 06' 52" N, 105 07' 14" W
3	LSS Sanirajak (Hall Beach)	1 Airport Road, PO Box 46 Sanirajak, NU X0A 0K0	68 45' 35" N, 81 11' 41" W
4	LSS Iqaluit	2050 Hubbard Lane, PO Box 1089 Iqaluit, NU X0A 0H0	63 44' 32" N, 68 32' 57" W
5	LSS Goose Bay	1 Canuck Rd, Bldg. 265, PO Box 2170, Stn. B Happy Valley-Goose Bay, NL A0P 1E0	53 18' 20" N, 60 23' 47" W
N/A	Nasittuq NWS Contract Management Office	275 Slater St Suite 1600 Ottawa, ON K1P 5H9	

Zone	LSS	Address	Coordinates
N/A	NWSCC & NWSSC North Bay	22 Wing CFB North Bay, BLDG 109 Hornell Heights, ON P0H 1P0	

Table 14: STS Regulations, s.30 to 32, Compliance Assessment

STS Regulations reference	Information required	Location of information in this plan
s. 30(1)	**The owner or operator of a storage tank system must prepare an emergency plan taking into consideration the following factors:**	
s. 30(1)(a)	• the properties and characteristics of each petroleum product (e.g., Jet A1) or allied petroleum product stored in each tank of the system and	• s. 8.2 Bulk Fuel Description and Characteristics • Appendix G: Jet A1 SDS
	• the maximum expected quantity of the petroleum product or allied petroleum product to be stored in the system at any time during any calendar year; and	• EPP s. Appendix A Site Description of each site, section entitled “Bulk Fuel Storage and Distribution”.
s. 30(1)(b)	• the characteristics of the place where the system is located and of the surrounding area that may increase the risk of harm to the environment or of danger to human life or health.	• EPP s. Appendix A Site Description of each site, sections entitled “Location and Topography”, “Land Use/Status”, and “Wildlife” supplemented by site drawings and, where available, photos.
s. 30(2)	**The emergency plan must include:**	
s. 30(2)(a)	• a description of the factors considered under s. 30(1)	• See the rows above.
s. 30(2)(b)	• a description of the measures to be used to prevent, prepare for, respond to, and recover from any emergency that may cause harm to the environment or danger to human life or health;	The Spill Plan (this plan) in its entirety and specifically: • s. 6.1 Spill Prevention; • s. 6.2 Spill Detection; • s. 6.3 Spill Response; • s. 6.5 Spill Simulation Exercise; and • s. 6.6 Spill Response Training Program.
s. 30(2)(c)	• a list of the individuals who are required to carry out the plan and a description of their roles and responsibilities;	The Spill Plan (this plan) in its entirety and specifically: • s. 3.0 Scope (NWSO) • s. 5.0 Responsibility & Authority (Nasittuq as the O&M contractor, and fuel re-supply contractors and subcontractors); • s. 6.3.1.1 Spill Discovery/Identification; • s. 6.3.1.2 NWSCC; • s. 6.3.1.3 LSS Manager; • s. 6.3.1.4 Environmental Services Officer; • s. 6.3.2 Dispatch of Emergency Response Team (ERT) with position-specific duties; and • Figure 1 Spill Response Flowchart.
s. 30(2)(d)	• the identification of the training required for each of the individuals listed under s.30(2)(c);	The Spill Plan (this plan) in its entirety and specifically: • s. 6.5 Spill Simulation Exercise; and • s. 6.6 Spill Response Training Program.

STS Regulations reference	Information required	Location of information in this plan
s. 30(2)(e)	• a list of the emergency response equipment included as part of the plan, and the equipment's location; and	• s. 6.3.4 Spill Containment lists the equipment in the spill kits; • LRR sites, LSS-I, and LSS-Q: EPP s. 25 Site Descriptions, section entitled "Kits" states location of the equipment; • SRR sites: the location of the equipment is the sole building on-site, the Technical Services Building (TSB); • LSS-G: the location of the equipment is the office/warehouse building used by Nasittuq.
s. 30(2)(f)	• the measures to be taken to notify members of the public who may be adversely affected by the harm or danger referred to in s. 30(2)(b)	• s. 6.3.1.6 Communication with Public
s. 30(3)	**The owner or operator of a storage tank system must ensure that the emergency plan is ready to be implemented:**	
s. 30(3)(a)	• in the case of a storage tank system that is installed before June 12, 2008, no later than two years after June 12, 2008; and	• An Emergency Plan to meet the requirements of the STS Regulations for the NWS was initially prepared on 11 Jun 2010.
s. 30(3)(b)	• in any other case, before the day on which the first transfer of petroleum products or allied petroleum products into any tank of the storage tank system occurs.	• Emergency Plan is in place for every site.
s. 31(1)	**The owner or operator of a storage tank system must:**	
	• keep the emergency plan up-to-date and	• Emergency Plan will be updated as needed.
	• keep a copy of it readily available for the individuals who are required to carry it out,	• Table 13: Location of Plans
	• as well as a copy at the place where the storage tank system is located if that place is a place of work.	• Table 13: Location of Plans
s. 31(2)	• The owner or operator must notify the Minister of the civic address of each location where the emergency plan is kept.	• Table 13: Location of Plans
s. 32(1)	• If the owner or operator of a storage tank system has prepared an emergency plan with respect to the system on a voluntary basis or for another government or under an Act of Parliament and the plan meets the requirements of s. 30(1) and (2), they may use that plan for the purposes of meeting those requirements.	• This plan uses: • The Spill Plan (this plan, 17.2.3 PLN-EHS-2) containing required information not found in the other documents, including the SDS for Jet A1 in Appendix G; and NWS Site Descriptions (from the EPP).
s. 32(2)	• If the plan does not meet all of the requirements of s. 30(1) and (2), the owner or operator may use the plan if they amend it so that it meets all of those requirements.	• See the row above.

16.0 APPENDIX G: JET A1 SDS

SAFETY DATA SHEET

JET A/A-1 AVIATION TURBINE FUEL

000003001081

Version 3.0 | Revision Date 2021/02/19 | Print Date 2021/02/19

SECTION 1. IDENTIFICATION

Product name	:	JET A/A-1 AVIATION TURBINE FUEL
Synonyms	:	Jet A-1; Jet A-1-DI; Aviation Turbine Kerosene (ATK); Aviation Turbine Fuel, Kerosene Type (CAN/CGSB 3.23)
Product code	:	101851, 100123
Manufacturer or supplier's details		SUNCOR ENERGY INC. P.O. Box 2844, 150 - 6th Avenue South-West Calgary Alberta T2P 3E3 Canada, Telephone: 1-866-786-2671
Emergency telephone number		CHEMTREC: 1-800-424-9300 (toll free) or +1 703-527-3887; Suncor Energy: +1 403-296-3000

Recommended use of the chemical and restrictions on use

Recommended use	:	Used as aviation turbine fuel. May contain a fuel system icing inhibitor. In the arctic, Jet A-1 may also be used as diesel fuel (if it contains a lubricity additive) and heating oil.
Prepared by	:	Product Safety

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Clear liquid.
Colour	Clear and colourless
Odour	Kerosene-like.

GHS Classification

Flammable liquids	:	Category 3
Skin irritation	:	Category 2
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Aspiration hazard	:	Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.

Precautionary statements : **Prevention:**
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting equipment.
Use non-sparking tools.
Take action to prevent static discharges.
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
IF SWALLOWED: Immediately call a POISON CENTER/doctor.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
IF exposed or concerned: Get medical advice/ attention.
Do NOT induce vomiting.
If skin irritation occurs: Get medical advice/ attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects

Primary Routes of Entry : Eye contact
Ingestion
Inhalation
Skin contact

Aggravated Medical Condition : None known.

Other hazards

None known.

ACGIH Confirmed animal carcinogen with unknown relevance to humans

Kerosene 8008-20-6

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Concentration
Kerosine (petroleum); Straight run kerosine	8008-20-6	90 - 100 %
2-(2-methoxyethoxy)ethanol	111-77-3	0 - 0.2 %

All above concentrations are in percent by weight.

SECTION 4. FIRST AID MEASURES

If inhaled : Move to fresh air.
Artificial respiration and/or oxygen may be necessary.
Seek medical advice.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Wash clothing before reuse.
Seek medical advice.

In case of eye contact : Remove contact lenses.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Obtain medical attention.

If swallowed : Rinse mouth with water.
DO NOT induce vomiting unless directed to do so by a physician or poison control center.
Never give anything by mouth to an unconscious person.
Seek medical advice.

Most important symptoms and effects, both acute and delayed : Inhalation may cause central nervous system effects.
Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Causes skin irritation.
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Notes to physician : Treat symptomatically.
Contact poison treatment specialist immediately if large quan-

tities have been ingested or inhaled.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO2) Water fog. Foam
Unsuitable extinguishing media	:	Do NOT use water jet.
Specific hazards during fire-fighting	:	Cool closed containers exposed to fire with water spray.
Hazardous combustion products	:	Carbon oxides (CO, CO2), nitrogen oxides (NOx), sulphur oxides (SOx), smoke and irritating vapours as products of incomplete combustion.
Further information	:	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	For personal protection see section 8. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.

Conditions for safe storage : Store in original container.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Keep in a dry, cool and well-ventilated place.
Keep in properly labelled containers.
To maintain product quality, do not store in heat or direct sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Kerosine (petroleum); Straight run kerosine	8008-20-6	TWA	200 mg/m3 (total hydrocarbon vapor)	CA BC OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	CA AB OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH

Engineering measures : Adequate ventilation to ensure that Occupational Exposure Limits are not exceeded.
Use only in well-ventilated areas.
Ensure that eyewash station and safety shower are proximal to the work-station location.

Personal protective equipment

Respiratory protection : Concentration in air determines protection needed.
Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type : A NIOSH-approved air-purifying respirator with an organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection
Material : polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

Remarks	:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Eye protection	:	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Protective measures	:	Wash contaminated clothing before re-use.
Hygiene measures	:	Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Clear liquid.
Colour	:	Clear and colourless
Odour	:	Kerosene-like.
Odour Threshold	:	No data available
pH	:	No data available
Melting point	:	-51 °C (-60 °F)
Boiling point/boiling range	:	140 - 300 °C (284 - 572 °F)
Decomposition temperature		No data available
Flash point	:	> 38 °C (100 °F) Method: Tagliabue
Auto-Ignition Temperature	:	210 °C (410 °F)
Evaporation rate	:	No data available
Flammability	:	Flammable in presence of open flames, sparks and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite. May accumulate in confined spaces.
Upper explosion limit	:	5 %(V)
Lower explosion limit	:	0.7 %(V)
Vapour pressure	:	5.25 mmHg (20 °C / 68 °F)
Relative vapour density	:	4.5

Relative density	:	0.775 - 0.84 (15 °C / 59 °F)
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Viscosity		
Viscosity, kinematic	:	1.0 - 1.9 cSt (40 °C / 104 °F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation does not occur.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Reactive with oxidising agents, acids and alkalis.
Hazardous decomposition products	:	May release COx, NOx, SOx, aldehydes, acids, ketones, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Eye contact
Ingestion
Inhalation
Skin contact

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	Remarks: Based on available data, the classification criteria are not met.

Components:

Kerosine (petroleum); Straight run kerosine:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg,
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Exposure time: 4 h

Relative density	:	0.775 - 0.84 (15 °C / 59 °F)
Solubility(ies)		
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Viscosity		
Viscosity, kinematic	:	1.0 - 1.9 cSt (40 °C / 104 °F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerisation does not occur.
Conditions to avoid	:	Extremes of temperature and direct sunlight.
Incompatible materials	:	Reactive with oxidising agents, acids and alkalis.
Hazardous decomposition products	:	May release COx, NOx, SOx, aldehydes, acids, ketones, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Eye contact
Ingestion
Inhalation
Skin contact

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	Remarks: Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	Remarks: Based on available data, the classification criteria are not met.

Components:

Kerosine (petroleum); Straight run kerosine:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg,
Acute inhalation toxicity	:	LC50 (Rat): > 5 mg/l Exposure time: 4 h

Aspiration toxicity

Product:

May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available
Toxicity to algae	:	Remarks: No data available
Toxicity to bacteria	:	Remarks: No data available

Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	The product should not be allowed to enter drains, water courses or the soil. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labelled prior to recycling or disposal. Send to a licensed waste management company. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.
Contaminated packaging	:	Do not re-use empty containers. Contact local or business unit authorities for guidance on disposal of product.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No.	:	UN 1863
Proper shipping name	:	Fuel, aviation, turbine engine
Class	:	3
Packing group	:	III
Labels	:	Class 3 - Flammable Liquid
Packing instruction (cargo aircraft)	:	366

IMDG-Code

UN number	:	UN 1863
Proper shipping name	:	FUEL, AVIATION, TURBINE ENGINE
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

National Regulations

TDG

UN number	:	UN 1863
Proper shipping name	:	FUEL, AVIATION, TURBINE ENGINE
Class	:	3
Packing group	:	III
Labels	:	3
ERG Code	:	128
Marine pollutant	:	yes

SECTION 15. REGULATORY INFORMATION

This product has been classified according to the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all of the information required by the HPR.

The components of this product are reported in the following inventories:

DSL	On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Prepared by	:	Product Safety
Revision Date	:	2021/02/19

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

17.0 APPENDIX H: ENVIRONMENTAL EMERGENCY REGULATIONS, 2019

17.1 Introduction

The Environmental Emergency Regulations, 2019 (E2 Regulations) do not apply to the substances held at NWS sites. Therefore, the emergency plan, notices, simulation exercises, and records under the E2 Regulations are not required.

When the E2 Regulations came into force in 2019, Jet A1 was characterized mistakenly as Item 218 on Schedule 1 List of Substances. FOX-M was registered with ECCC due to the volume of Jet A1 on-site. NWSO has since confirmed with ECCC that Jet A1 is not listed in Schedule 1 and therefore the E2 Regulations do not apply to FOX-M. FOX-M was confirmed to be removed from the E2 Regulations registry in May 2022.

18.0 APPENDIX I: TERRITORIAL/PROVINCIAL PLAN COMPLIANCE

18.1 Yukon Territory

No requirements for a Spill Plan are stated in the Yukon Spills Regulations (O.I.C. 1996/193). The reporting thresholds from these regulations are listed in Appendix D of this document.

18.2 Northwest Territories / Nunavut

The Spill Contingency Planning and Reporting Regulations (R-068-93) apply in the Northwest Territories and Nunavut. Section 4(2) of these regulations require the following information:

Table 15: Section 4(2) of the Spill Contingency Planning & Regulations (NT/NU)

s. 4(2)	Information Required	Location of information in this plan
a	the name, address and job title of the owner or person in charge, management, or control	The “owner” is the North Warning System Office (NWSO), Department of National Defence (DND), and Government of Canada.
b	the name, job title and 24-hour telephone number for the persons responsible for activating the spill contingency plan	Appendix A of this plan
c	a description of the facility including the location, size, and storage capacity	NWS Site Descriptions (from the EPP).
d	a description of the type and amount of contaminants normally stored at the location described in paragraph (c)	NWS Site Descriptions (from the EPP).
e	a site map of the location described in paragraph (c)	NWS Site Descriptions (from the EPP).
f	the steps to be taken to report, contain, clean up and dispose of contaminants in the case of a spill	Section 6.3 of this plan
g	the means by which the spill contingency plan is activated	Section 6.3 of this plan
h	a description of the training provided to employees to respond to a spill	Section 6.6 of this plan
i	an inventory of and the location of response and clean-up equipment available to implement the spill contingency plan	NWS Site Descriptions (from the EPP).

s. 4(2)	Information Required	Location of information in this plan
j	the date the contingency plan was prepared	The date that this plan was prepared is on the cover page and in the footer of every page of this plan.

18.3 Newfoundland and Labrador

No requirements for a spill plan are stated in the Storage and Handling of Gasoline and Associated Products Regulations, 2003 (O.C. 2003-225). The reporting thresholds from these regulations are listed in Appendix D of this document.

19.0 APPENDIX J: SPILL KIT CONTENTS

Table 16: SRR/LSS Fuel Spill Kit

Maximo Item No.	QTY.	ITEM	PART NUMBER
1070540	**C/W**	**POL SPILL CLEANUP KIT No. 2**	**CL-098**
1021477	12 Bags	Loose oil absorbent, cellulose fibre	A/101
1021664	1 Case	200 Absorbent sheets (fuel & oil)	OB-100
1008697	1 Box	Heavy duty garbage bags	35-50-3B
1009276	1 Roll	600 feet of Polypropylene Rope	MIL-R-24049
1013919	20 Pairs	Lined rubber gloves	GL4513 (M)
1061292	2	Safety glasses	6367
1062475	2	Round mouth shovel	GGG-S-326
1003058	2	85 Gallon Salvage Drums	PS-26368

Table 17: LRR Fuel Spill Kit

Maximo Item No.	QTY.	ITEM	PART NUMBER
1067553	**C/W**	**POL SPILL CLEANUP KIT No. 1**	**CL006**
1021477	20 Bags	ABSORBENT, MATERIAL 50 QT. BAG	48210
1021572	10 Rolls	ABSORBENT, MATERIAL 3/8" X 36" X 144 FT	OB150
1044124	150 Bags	ABSORBENT, MATERIAL 50 QT. BAG	48230
1021664	1 Case	ABSORBENT, SHEET 200 SH/CS 17"X19"X3/8"THK	OB100
1059485	8 EA	ABSORBENT BOOM, OIL 40 FT. TOTAL LG.	48225
1062419	2 EA	PITCHFORK	R41645
1018094	1 BX	PLASTIC BAG 100 BAGS/BOX	35-50-3B
1008712	4 RL	PLASTIC POLY 6 MIL, 1000 SQ.METERS	VISQUEENCLEAR
1021141	3 EA	HALF MASK, DISPOSABLE TYPE	GT-9999-3005-7
1009276	1 RL	ROPE, POLYPROPYLENE 600 FT.	MIL-R-24049
1013919	20 PR	RUBBER GLOVES, LINED	GL4513 (M)
1061292	2 PR	SAFETY GLASSES	6367
1062475	2 EA	SHOVEL, ROUND MOUTH	GGG-S-326
1022135	1 EA	SLIPTANK, PORTABLE 100 GAL.	TANK100
1003058	2 EA	SALVAGE DRUMS 85 GAL.	PS-26368

Table 18: LRR Chemical Spill Kit

Maximo Item No.	QTY.	ITEM	PART NUMBER
1067552	**C/W**	**CHEMICAL SPILL KIT**	**CL007**
4006452	4 PR	TYVEK COVERALLS, W/ HOOD & BOOT COVERS	SEA PA5228

Maximo Item No.	QTY.	ITEM	PART NUMBER
4006452	8 PR	TYVEK BOOT COVERS	
1012161	4 PR	GLOVES, CHEMICAL RESISTANT	111E220
1063898	1 BX	RAGS, COTTON, 50 LB.	31-25
1062334	4	LABEL, HAZARDOUS CHEMICAL	70852
1062407	12	CARTRIDGE,RESPIRATOR,TOXIC DUST/PAINT MIST/ORGANIC VAPOR,AIR FILTER (use with HONEYWELL/NORTH respirator only)	75SC9100L
4002293	12	3M™ FILTER P100 2/BAG, TO BE USED WITH 3M 7500 HALF MASK SERIES AGAINST A VARIETY OF GASES, VAPOURS AND PARTICULATE HAZARDS ACCORDING TO NIOSH APPROVALS (use with 3M respirator only)	3m-60923
1022622	12	CARTRIDGE, RESPIRATOR FILTERS, ORGANIC VAPOUR	655F155
2010127	4	RESPIRATOR, HALF-FACE, LARGE, USE WITH HONEYWELL/NORTH CARTRIDGES	
2010128	4	RESPIRATOR, HALF-FACE, MED, USE WITH HONEYWELL/NORTH CARTRIDGES	
2010129	4	RESPIRATOR, HALF-FACE, SMALL, USE WITH HONEYWELL/NORTH CARTRIDGES	

Table 19: Asbestos Response Spill Kit Contents

Maximo Item No.	QTY.	ITEM	PART NUMBER
1067551	**C/W**	**ASBESTOS RESPONSE KIT**	**CL008**
4006452	8 PR	TYVEK COVERALLS, W/ HOOD	SEA PA5228
4006452	8 PR	TYVEK BOOT COVERS	
1063146	2 BG	GLOVEBAG. HORIZONTAL, ZIP-LOCK	10HZ
1050629	1 PG	GLOVEBAG. TEE, ZIP-LOCK	10TZ
1049979	1 PG	GLOVEBAG. HORIZ. W/VALVE ZIP-LOCK	10VLZ
1060069	1 PG	GLOVEBAG. VERTICAL, ZIP-LOCK	10VZ
1063032	1	CANVAS SHEET 5 FT. X 6 FT.	00
1062407	12	CARTRIDGE,RESPIRATOR,TOXIC DUST/PAINT MIST/ORGANIC VAPOR,AIR FILTER (use with HONEYWELL/NORTH respirator only)	75SC9100L
4002293	12	3M™ FILTER P100 2/BAG, TO BE USED WITH 3M 7500 HALF MASK SERIES AGAINST A VARIETY OF GASES, VAPOURS AND PARTICULATE HAZARDS ACCORDING TO NIOSH APPROVALS (use with 3M respirator only)	3m-60923
1060534	2	CAUTION LABELS (BRADY)	85383
1011756	14 RL	DUCT TAPE	290
1057731	2	EXPANSION STRIP (FOR GLOVEBAG) 6" X 54 "	0654EX

Maximo Item No.	QTY.	ITEM	PART NUMBER
1012151	10 PR	GLOVES, CHEMICAL RESISTANT	111E220
1013228 or 4001961	1 BX	GLOVES, SURGICAL 100/BOX	431104
1011596	3	PLASTIC PAIL	L-P-65
1008712	2 RL	SHEET, PLASTIC 144" W X 1200" LG.	VISQUEENCLEAR
1066387	1	PRESSURE SPRAYER, 1 GAL	60071
1063898	1	RAG, COTTON	31-25
1022625	4	RESPIRATOR, HALF-FACE	655X013
2010127	4	RESPIRATOR, HALF-FACE, LARGE, USE WITH HONEYWELL/NORTH CARTRIDGES	
2010128	4	RESPIRATOR, HALF-FACE, MED, USE WITH HONEYWELL/NORTH CARTRIDGES	
2010129	4	RESPIRATOR, HALF-FACE, SMALL, USE WITH HONEYWELL/NORTH CARTRIDGES	
1009663	1	SHEARS, METAL TIN SNIPS	270-10
1063027	1 SE	SHOULDER STRAP, 30" LG	30SS
1063040	1 SE	SHOULDER STRAP, 60" LG	60SS
1063637	1	DISINFECTANT, 1 GAL	EMP425-1
1019931	3	UTILITY KNIFE	U-3-C
1061205	4	WARNING SIGN (BRADY)	92288
1061986	1	WIRE, FLEXSAW BLADE	20FS
1018252	1 PL	COATING, WETTING AGENT, SURFACTANT 5 GAL.	CP-225
1062413	6 EA	BAG, PLASTIC. YELLOW	ASBA003
1064301	4	BRUSH, PAINT 4 IN. WIDE	310-100
1063031	1	COATING, RESIN EMULSION LAGGING, 3.78 L, WHITE, FIRE RESISTIVE	