



May 21st , 2015 Baker Lake Tank Farm Spill

Clean-up and Follow-up Actions

Please find the following information as a follow up to the Spill report 15-215 submitted May 21, 2015 by Agnico Eagle Mines (AEM), Meadowbank division, for the incident at the Meadowbank Diesel refueling station in Baker Lake.

This detailed report is submitted to the Inspector in compliance with the conditions under the Nunavut Water Board License 2AM-MEA0815, Part H, Item 9 (c).

Spill Description

On May 21st, 2015, at approximately 16h40 (Central Time), diesel fuel was spilled on the ground around the refueling area of the Baker Lake Tank Farm. The spill was due to overflow of fuel by the overflow pipe of the tanker truck of Arctic Fuel (AEM contractor). Approximately 250 liters of diesel fuel was spilled on the ground. It is important to note that the area of refueling where the spill occurred is lined with a geomembrane underneath the backfilled ground. It is designed to contain spillage and ensure that clean-up activities (excavation) are efficient and effective. The spill was confined to that area, which is not near any water courses.

The spill was reported on May 22nd, 2015, 11h21 (Central Time) as required by the conditions under the Nunavut Water Board License 2AM-MEA0815, Part H , item 9 b pursuant to subsection 12(3) of the Nunavut Waters and Nunavut Surface Rights Tribunal Act.

This spill is being also reported as required by the Government of Nunavut's, Environmental Protection Act paragraph 5.1(a).

Clean-up – May 21st – Arctic Fuel Operators

Immediately after the spill, the truck operator laid absorbent pads over the contaminated area. Absorbents pads were picked up and placed in a 45 gallon open top drum. A second operator, with a 980 Loader, was able to scrape the contaminated area approximately 10 cm (4 inches) in depth before hitting the frozen ground. Approximately ½ loader bucket of material was removed. Another layer of absorbent pads was placed on the frozen ground to soak up any remaining fuel. The absorbent pads were again picked up and placed in a 45 gallon drum. The drums containing oily rags and contaminated soil have been brought to the Meadowbank site. Clean 0-20 mm (0-¾ inches) cleaned granular material was then placed and backfilled over the spill area.

Inspection - May 21st - AEM Environmental Technician

A visual inspection of the area was conducted by an AEM Environmental Technician on May 21st, 2015, 18h00 (Central Time). The area was inspected and it was identified that an additional inspection would be required the next day to assess if the area was completely decontaminated.

Inspection – May 22nd – AEM Environmental Technician & Arctic Fuel Operator

An AEM Environmental Technician inspected the Baker Lake Tank Farm refueling area on May 22nd, 2015, at 16h30 (Central Time). No visual evidence of a spill was present. The technician took 6 soil samples within the spill area. The samples were immediately analyzed using a handheld MiniRae VOC gas monitor. A small detection of fuel was present (maximum reading 10.8ppm) in the spill zone. Two soil samples were taken outside of the spill zone to gain a ppm value on the clean material (maximum reading 0.1ppm). Following the results of the soil sampled from the spill area, it was decided that additional cleaning would be performed on May 23rd. There was no off site impact or discharge to any receiving watercourses. See photos 1, 2 and 3 presented below.

Clean-up – May 23rd – AEM Technician & Arctic Fuel Operator

AEM Environmental Technician required Arctic Fuel operator to scrape and remove the 0-20 mm (0-¾ inches) granular material that was placed on May 21st. Operator again scraped approximately 10 cm (4 inches) in depth before hitting frozen ground, on an area of approximately 6 to 7 m². Contaminated material has been brought up to the Meadowbank site. For safety reasons and in order to continue operations at the Baker Lake Tank Farm refueling area, as well as to avoid water accumulation in the excavated area, the area was backfilled after the excavation. Clean 0-20 mm (0-¾ inches) granular material was then placed on the ground and leveled out. See photos 4, 5, 6, 7 and 8 presented below.

The actions taken ensured that that the spilled material did not migrate from the immediate area and that the use of absorbent pads along with the excavation was effective in limiting the affected area to a small zone. Due to the spill at the Baker Lake Tank farm, approximately 1.0 m³ of contaminated soil have been brought on May 26th, 2015 to the Meadowbank site to be placed in the landfarm. The contaminated absorbent pads will be disposed in the Meadowbank incinerator.

Photos: *Red Circle indicates Spill Area



1. May 22nd – 16:30pm - Area after initial clean-up



2. May 22nd – Area after initial clean-up



3. May 22nd – Soil Sampling



4. May 23rd – 0-20 mm granular material removal



5. May 23rd – 0-20 mm granular material removal



6. May 23rd – 0-20 mm granular material removal



7. May 23rd – Area after new clean 0-20 mm granular material

8. May 23rd – Area after new clean 0-20 mm granular material

Follow-Up Actions with the contractor

On May 26th, an AEM ENV technician conducted tool box meetings with the following groups:

- AEM Site Services Field Crew
- AEM Site Services Road Crew
- AFS Arctic Fuel Supply

During the toolbox meeting the MBK-ENV-0016 Spill Reporting Procedure was reviewed along with the email from Government of Nunavut (Department of Environment, received on May 25th 2015) outlining the roles and responsibilities of the owner when a contaminate is released into the environment.

Attached to this report are the MBK-ENV-0016 Spill Reporting Procedure and a list of all personal that were present and reviewed the procedure on May 26th. A small group of Arctic Fuel operators could not be present on May 26th so the procedure was reviewed on May 25th with their foreman.

The fueling and safety procedures for the Baker Lake Tank Farm were also reviewed on May 25th by the Artic Fuel Crew. Attached to this report are the meeting record form and the list of attendees present on May 25th.

Closure

We trust that the above details described appropriately the spill incident at the Baker Lake Tank Farm of May 21st, 2015 and the cleanup activities. Please contact the undersigned should you have any questions.

Érika Voyer, Eng., M.Sc.

Environmental Coordinator

erika.voyer@agnicoeagle.com

T: 819.759.3555 x 6980

Agnico Eagle Mines Limited

Meadowbank Division

PROCEDURE NUMBER: **MBK-ENV-0016**

People concerned	• All Departments	Prepared by	Jeff Pratt Erika Voyer Environment Coordinator
		Authorized by	Kevin Buck Assistant Environmental Superintendent
Effective :	January 18, 2015	<i>“Safety First, Safety Last ... Safety Always!”</i> <i>“No Repeats” – Our Stepping Stone to ZERO HARM</i>	
<i>This procedure corresponds to the required minimum standard. Each and everyone also have to comply with the rules and regulations of the Nunavut Government in terms of health and safety at work.</i>			

Objective:

- As per Meadowbank's Water License we must have and employ a Spill Contingency Plan. The overall purpose of creating a spill contingency plan is to minimize the impacts of spills by the establishment of predetermined lines of response and plans of action. The plan has been designed to facilitate effective communication and the efficient clean-up of spills from potentially hazardous materials. The Plan also specifies the reporting of all spills on site to the Environment Department. The Plan details which spills will be reported to regulators.

Concerned departments:



ALL DEPARTMENTS

Risks/ Impacts Legend



Health & Safety



Process/quality








Costs






Environment

Definitions:


- A) A **Major spill** is defined as an accidental release of product into the environment that has the potential for adverse impacts to the receiving environment, AEM property or human health. This can include potential impacts to water, surface and groundwater, land, equipment, buildings, human health and the atmosphere.
- B) A **Minor spill** is defined as any spill that does not involve a toxic, reactive, or explosive material in a situation that does not pose a significant risk to the environment, is not human health or AEM property.

Procedure	Risks/ Impacts
1. All Spills on the Meadowbank site regardless of size, quantity, location, or time of spill are to be reported to the Environment department.	
2. Spills must be immediately reported to the Supervisor.	
3. The supervisor will determine if the spill is a major or minor spill. A) If the spill is <i>Major</i> , supervisor will call CODE 1 to dispatch (Mine, AWAR, or Control room). B) If the spill is <i>Minor</i> the supervisor will contact the Environment Department (Channel 9 or extension 6747 or 6759 Techs / 6980 or 6728 Coordinators)	
4. Whether the spill is Major or Minor the following must be verbally reported: a) Product description (diesel, hydraulic oil, sodium cyanide) b) Estimated quantity of the product c) Location of Spill d) Area contaminated (#meters x # meters) e) Cause of spill – If this is not yet know best assumption ** if photos can be taken of the spill, please submit to the environment department with spill report	
5. For a <i>Major Spill</i> the Supervisor will ensure the area stays safe until the ERT team arrives to intervene. The environment department will assist the ERT team.	

<p>6. For a minor spill the supervisor and the Environment department will then determine the clean-up method and the location in which the contaminated material will be taken too.</p> <p>**Environment department may want to investigate the spill prior to clean up.</p>	
<p>7. A spill report will need to be completed, <i>In Full</i>, and submitted to the environment department within <u>12 hrs.</u> of the spill occurring. Thus allowing time for the environment department to determine if it needs to be reportable to the Governing bodies.</p> <p><i>**Spill report is attached below or can be found here:</i> http://mymeadowbank/documentcentre/Documents/Health%20and%20Safety/2014%20-%20AEM%20Internal%20Spill%20Report%20Form_V03.pdf</p>	
<p>8. Spills found on site that have not been reported to the environment department will be deemed as Non-Reported spills.</p>	

**Agnico Eagle Mines Meadowbank Project:
Internal Spill Reporting Form**

(Spills greater than the *Reportable Volume*, see *Spill Contingency Plan*, require the completion and submission of the *Nunavut Spill Report Form*)

 AGNICO EAGLE	Meadowbank Project	Spill report #.
Date and time of spill :		<div style="border: 1px solid black; width: 150px; height: 20px;"></div>
Location of spill :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
First responder name :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Company Name:	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
AEM Contact:	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Nature of contaminant :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Volume/quantity of the container / tank (L)	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Quantity spilled (L) :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Cause of the spill :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Contaminant collected by :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Follow-up done by :	<div style="border: 1px solid black; width: 100%; height: 20px;"></div>	
Actions taken :		
Report completed by:	<div style="border: 1px solid black; width: 350px; height: 20px;"></div>	Date : <div style="border: 1px solid black; width: 150px; height: 20px;"></div>
Incident investigation recommended : YES <input type="checkbox"/> NO <input type="checkbox"/>		
Government agency notified : YES <input type="checkbox"/> NO <input type="checkbox"/>		
Date of notification to government agency :		
Date of report :	Signature of environmental personnel :	
_____	_____	

Document Review: AEM Spill Reporting Procedure

1/2

Print	Sign	Date:
Moses del	del	May 26 15
William Alvarez	del	" "
Nicolas R. Kiangumotak	del	" "
Bernardine Dugues	del	" "
Pustuaq Krelok	del	" "
JEAN-LOU BOODRIAS	del	" "
Daniel Guimond	del	26-5-2015
Abraham Tokoro	del	" "
Rene Okstiaik	del	May 26, 2015
Daniel Alliot	del	May 26/15
Josée Tournier	del	May 26-15
Jean Tokoro	del	May 26, 2015
Miguel Castillo	del	May 26, 2015
Valérie Bellé	del	May 26 2015
René Bertrand	del	" "
Daniel Berthiaume	del	" "

AEM Site Services
& Road Crew

Arctic Fuel

11

Document Review: AEM Spill Reporting Procedure

Print	Sign	Date:
Ronny Nagysalilik	Ron Nagysalilik	May 25, 2015
Erny Tpetuk	Erny Tpetuk	
Ernie Cischinski	Ernie Cischinski	
Ernie Cischinski	Ernie Cischinski	
Ronnie Plimoville	Ronnie Plimoville	
Robert Readman	Robert Readman	May 25 - 2015
Deno Stace	Deno Stace	May 25 - 2015
Tommy Mann	Tommy Mann	May 26, 2015
Randy Rygon	Randy Rygon	May 26, 2015
Mike Hackley	Michael Hackley	May 26 - 2015
Ernie Cischinski	Ernie Cischinski	May 26 - 2015

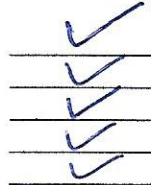


Safety Meeting Record Form:

Department: Arctic Fuel Driver Date: May 15/15 Time: 5:PM

Agenda:

1. Review of Previous Minutes
2. Review of Inspections/Incidents
3. Current Topic Discussion
4. Worker Input
5. Work Card discussion
6. Date/Topic of Next Meeting



Summary

Topic:

House Keeping

Attendance: Have each person sign the attached form.

Topics Reviewed:

1. Tank Farm Safety
2. Chocks Blocks
3. Load Procedures / Catch Rail
4. Grounding

On Job / Off Job

Topic

Topic

☐
☐
☐
☐☐
☐
☐
☐

Worker Input:

Discussed Loading Procedures, Things such as Catch Rail, Grounding, Staying outside vehicle while Loading

Action to be taken:

Use Ground Cable, Catch Rail and Staying outside Trucks while Loading
Following Spill Procedures
Pay attention to what compartment you are on and know the capacity of Each Compartment

Michael Hachey

Foreman/Supervisor Signature

Reviewed by: (Department Head)

Mike Hachey

Foreman/Supervisor Printed Name

(Please ensure a copy of both the Safety Meeting Record Form and Topic discussed is sent to the Health and Safety Department)





Safety Meeting Topic:

Name (Print)

Signature

Randy Ridgeon

Deno STACC

Ernie Lischinski

Robert Pleadwell

Jenny Koplar

Ronny

Ronny Nagayagalik

Mike Hachey

Nehemiah Kablona

Robt Pleadwell

Jenny

Ronny Nagayagalik

Michael Hachey

Nehemiah

