ATTACHMENT 1: REVISED DRAFT RAILWAY EMERGENCY RESPONSE PLAN

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Baffinland Iron Mines Corporation

DRAFT RAILWAY EMERGENCY RESPONSE PLAN

Phase 2 Proposal Revisions – FOR REVIEW PURPOSES ONLY

This document provides revisions to:
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Baffinland Iron Mines Corporation

Railway Emergency Response Plan

BAF-PH1-830-P16-0021

DRAFT

Prepared By:
Department:
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Date:
Signature:

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Index of Major Changes/Modifications

Item No.	Description of Change	Relevant Section

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1 INTRODUCTION

Baffinland's existing Emergency Response Plan (BAF-PH1-840-P16-0002) establishes the framework and procedures to safely and effectively respond to potential environmental, health and safety emergencies. Prior to the implementation of rail operations, this plan will be updated to incorporate the information contained within the Railway Emergency Response Plan.

~~1~~2 PROCEDURE – RAIL INCIDENT OR DERAILMENT

When a rail incident or derailment occurs, the immediate priority is to ensure the safety and protection of people and the environment. The secondary priority is to protect and minimize property damage and then to ensure the continuance and restoration of rail operations.

All derailments, crossing accidents and releases of Dangerous Goods must be reported to the Transportation Safety Board of Canada.

~~1.1~~2.1 INITIAL RESPONSE PROCEDURE

Any incident involving trains or equipment, fires, spills, derailments, crossing accidents or any emergency situation involving the rail operation must be reported immediately to the immediate supervisor or Rail Traffic Controller if the incident has occurred on the main track or other controlled location. The supervisor or Rail Traffic Controller shall notify emergency response personnel of the severity of the accident and the respective Mine and Railway emergency response teams will take the appropriate decisions and ensure the efficient course of action.

The following steps must be taken, as applicable:

- Protect the movement of rail cars, locomotive or track equipment;
- Keep clear of the incident scene and take immediate action to warn others;
- If the locomotive is not directly involved in the incident, cut the movement as close as safely possible and remove the remaining cars to a safe distance;
- Advise of the nature and extent of any injuries;
- Record the exact location of the incident and the time the incident occurred;
- Record the number and types of cars involved in the incident and status and condition of cars;
- If a spill has occurred, record the approximate volume and rate of release and actions taken;
- Record the weather conditions;
- Identify the resources required to respond to the incident; and
- Identify the location to meet emergency response personnel.

Draft railway incident report forms are provided in Appendix A. These forms are not for use and will be finalized prior to the commencement of rail operations.

~~1.2~~2.2 Preliminary Assessment & Response

As soon as possible after the discovery of an incident, an initial assessment is performed to determine the magnitude of the incident and the actions required to minimize the impact. The remediation of many incidents can be successfully handled with minimal resources in a short period of time. The situation will be assessed by first responders including identify the incident type, hazards involved and any affected parties. More serious incidents may require the establishment of a command post and additional technical resources including response equipment and personnel.

2.3 Health and Safety Emergencies

Health and safety emergency scenarios that may occur along the rail line include Serious Injury, Fatality, Missing Employee, or Missing Member of the Public. Response actions for these emergency scenarios are provided in Section 4.2 of the Emergency Response Plan.

~~1.3~~2.4 Derailment Recovery Procedure

An expedited site visit will be required to assess the extent of work required to re-establish the service and perform preliminary steps to investigate the derailment possible cause (broken rail, axle, etc.). The representatives of track maintenance, railway operations and mechanical maintenance should be present.

Before working on the site, a security briefing will be held. The following topics shall be addressed:

- Establishment of incident command post;
- Role and responsibility of personnel;
- Radio frequencies used;
- Procedures to be followed during manoeuvres.

Derailment response equipment will be located at Milne Port. Equipment will be dispatched to the derailment site as required including mine operations equipment if deemed required for response and restoration purposes. Track material will be located at the Port or other designated stockpile locations along the rail alignment.

The Maintenance of Way Supervisor will be responsible for the coordination of track repairs. The Railway Operations Manager will ensure that someone is available on each shift to plan all train movements with the Rail Traffic Controller, to inform on the progress of the work and coordinate personnel changes to meet the maximum working hours on the site.

All accidents must be investigated to determine the root cause and contributing factors. Representatives of track maintenance, railway operations and mechanical maintenance are jointly responsible to conduct the investigation.

~~1.4~~2.5 SPILL OF HAZARDOUS MATERIAL

~~The Superintendent Transportation is responsible to establish and implement the Emergency Intervention Team. The team will comprise site employees who receive special training to assist in an emergency.~~

Baffinland's existing Spill Contingency Plan (BAF-PH1-830-P16-0036) identifies the potential for accidental release of hazardous material to the environment and provides spill scenarios and identifies protocols for prevention, response and recovery. Prior to the implementation of rail operations, this plan will be updated to incorporate additional potential risks of release related to rail operations. Site specific response plans in the case of a spill or derailment at the four proposed bridge locations will also be incorporated into Baffinland's Spill Contingency Plan.

In case of a spill of hazardous material caused by a derailment or another accident, the following procedure should be followed~~.~~:

To minimize the impact of a spill, it is very important to intervene as soon as possible. During an accident or the discovery of a hazardous material spill on the main track or other controlled location, the Rail Traffic Controller is informed by the team or employee who noticed the event. The Rail Traffic Controller shall ensure that someone on the scene maintains or establishes communications with the site on a continuous basis and obtains and transmits the following information as soon as possible:

- The exact location;
- Type of spill;
- Approximate quantity spilled;
- Extent of the spill;
- Distance between the track and the spill;
- Approximate distance between the track and the closest water body.

The employee(s) must not leave the site until the person designated for the first response arrives. This is important in order to measure, collect and submit the required information.

If the spill was caused in a derailment, the Rail Traffic Controller must also activate the derailment procedure simultaneously.

The Rail Traffic Controller will give priority on the track to the hi-rail vehicle used for the preliminary intervention and later to the work train assigned to the secondary intervention. To minimize damages, appropriate working time will be given to the concerned teams.

~~2~~3 PROCEDURE IN CASE OF EARTHQUAKE

~~2.1~~3.1 MAGNITUDE AND EPICENTRE UNKNOWN

As soon as a Rail Traffic Controller becomes aware that an earthquake has or may have occurred, they must check with the Operations Manager or Maintenance of Way Supervisor to confirm whether the shake has been detected. Traffic must be stopped within 160 kilometres of where the earthquake was felt.

Traffic will be resumed under certain conditions, when the magnitude and the epicentre is determined. This information can be found on the following website:

http://earthquakescanada.nrcan.gc.ca/index-eng.php

Note that this information takes approximately one hour to register on the internet.

~~2.2~~3.2 MAGNITUDE AND EPICENTRE KNOWN

Trains may re-start operations based on the following criteria:

~~2.2.1~~3.2.1 EARTHQUAKE MAGNITUDE LOWER THAN 5.0 (RICHTER SCALE)

Restore normal operating speeds. Notify the Supervisor of Track and Signals who will assess the need to make an inspection.

~~2.2.2~~3.2.2 EARTHQUAKE MAGNITUDE BETWEEN 5.0 AND 5.9 (RICHTER SCALE)

Within 100 miles (160 km) from the epicentre, the following risk areas will be checked in order to allow the circulation of trains:

- Bridges
- Rock cuts
- Retaining walls

In areas within 80 km (50 miles) from the epicentre, all locomotives and all trains shall move at restricted speed, until the inspections are made and appropriate speeds are established by the Superintendent of Track and Signals. Beyond 80 km from the epicentre, the normal speed can be restored.

~~2.2.3~~3.2.3 EARTHQUAKE MAGNITUDE OF 6.0 (RICHTER SCALE) AND MORE

The operation of all locomotives and trains within 100 miles (160 km) from the epicentre should be discontinued. It should not be reinstated before the inspection of the area involved and the establishment of appropriate speed limits by those responsible for track maintenance.

All locomotives and trains located beyond a radius of 100 miles (160 km) from the epicentre can move at restricted speed, after verification of the risk areas listed in 3.2.2. Following the inspections, speed limits throughout the territory will be determined by the Maintenance of Way Supervisor.

4 EMERGENCY RESPONSE EQUIPMENT

4.1 MEDICAL RESPONSE

Baffinland has equipped the Mine and Port sites with medical clinics capable of providing advanced life support (ALS) support in the event of a medical emergency.– The clinics are resourced by physician assistants working under the direction the Medical Director (physician) of our contracted medical services contractor. The physician assistants are able to provide advanced cardiac life support, basic trauma life support, administration of pain medication and narcotics, prescribe antibiotics, cardiac defibrillation and monitoring, intubation, cast application, and audiometry testing.

4.2 FIRE RESPONSE EQUIPMENT

Located at the Port is an Oshkosh TI3000 Aircraft Rescue Fire Fighting (ARFF) truck with 3000 Gallon water tank, 420 Gallon foam tank, 450 lb dry chemical tank and ARFF snozzle. At the Mine are the Pierce Internation Fire Engine with 1000-gallon water tank and Oshkosh T1500 ARFF with 1500-gallon water tank, 750 litre foam capacity, 450 lb dry chemical tank with an ARFF snozzle.

The ERT is equipped with Scott AP 75 4.5 SCBA and associated turn-out gear for responding to emergencies and fires. Equipment is also available to support vehicle accidents such as hydraulic cutters, spreaders and rams, reciprocating saws, high pressure air lifting bags.

Locomotives and hi-rail vehicles are equipped with fire extinguishers.

4.3 AMBULATORY EQUIPMENT

In the event of a medical emergency along the railway alignment, ambulances are stationed at both the Port and Mine Site. Each of these ambulances are 4x4 Wheeled Coach models fitted with equipment to facilitate emergency medical care while in transit. For medical emergencies at locations along the alignment that are not accessible to wheeled ambulances, emergency medical equipment may be available in a hi-rail vehicle that can travel along the rail line. Injured personnel would be transported to the Mine or Port site at the discretion of medical response personnel, either in a hi-rail vehicle and/or wheeled ambulance. If available, the use of a helicopter to transport injured personnel will also be considered by the Emergency Response Team.

4.4 Spill Response Equipment

The Emergency Response Team is equipped and trained to respond to spills using the following equipment:

- Rescue and spill response truck at both the Mine Site and Milne Port;
- Pumps and containment structures;
- Floating booms, spill pads and containers;
- Diking and damming supplies;
- Spill kits; and,
- Safety equipment for working on or near water and/or specific hazardous materials.

Further detail on Spill Response is provided in the Spill Contingency Plan.

5 REPORTING

5.1 Mines Health and Safety Reportable Incidents

Under Section 16.02(1) in the event of a fatality or serious injury (reportable incident) the corporate emergency management team will be initiated who shall without delay notify a Workers' Safety and Compensation Commission (WSCC) inspector and OHSC Committee co-chairs. Reporting to WSCC shall be directly to the mines inspector (867-979-8527), chief mines inspector (867-669-4412), or to the 24-hour reporting phone line (800) 661-0792. A written report must be provided to the inspector within 72-hours of the occurrence.

5.2 Spill Reporting

Quantities of hazardous substances spilled that require reporting are listed in Schedule B of the Nunavut Spill Contingency and Reporting Regulation. After the initial field emergency response to the spill event, a spill report is filled out and reported to the 24-hour Spill Report Line:

24-Hour Spill Report Line
spills@gov.nt.ca
Tel. (867) 920-8130 or
Fax (867) 873-6924

Failure to report a spill can lead to fines. The Qikiqtani Inuit Association (QIA) Lands Administrator will also be promptly notified at (867) 975-8422 or via e-mail. Similarly, the CIRNAC Water Resources Officer will be promptly notified of the spill event at (867) 975-4295 or via e-mail. In the event of a spill on the ocean, the incident will be reported to the Canadian Coast Guard (Arctic region) 1-800-265-0237 (24 hour).

It is the responsibility of the Environmental Superintendent on behalf of the Operations Manager to prepare the proper reports and transmit them to regulatory authorities. The Environmental Superintendent will determine on a spill by spill basis whom in addition to those above, should be contacted.

QIA requests that Baffinland produce a site map(s) listing the location in UTM coordinates, date, amount, and nature of the substance spilled. The map(s) should be updated annually and will be provided along with annual report requirements. The map(s) will also detail major project components and relevant water-bodies.

5.3 Railway Occurrence Reporting

Reporting railway occurrences to the Transportation Safety Board is required as per Section 5(1) of the Transportation Safety Board Regulations, 2014.

Anyone that has direct knowledge of a railway occurrence must report the following railway occurrences to the Board:

- a person is killed or sustains a serious injury as a result of getting on or off or being on board the train, or coming into direct contact with any part of the train or its contents;
- the train or its contents are involved in a collision or derailment, sustain damage that affects the safe operation of the train, cause or sustain a fire or explosion, or cause damage to the railway that poses a threat to the safe passage of train or to the safety of any person, property or the environment;
- a risk of collision occurs between train;
- an unprotected main track switch or subdivision track switch is left in an abnormal position;
- a railway signal displays a less restrictive indication than that required for the intended movement of train;
- train occupies a main track or subdivision track, or track work takes place, in contravention of the Rules or any regulations made under the *Railway Safety Act*;
- train passes a signal indicating stop in contravention of the Rules or any regulations made under the *Railway Safety Act*;
- there is an unplanned and uncontrolled movement of train;
- a crew member whose duties are directly related to the safe operation of the train is unable to perform their duties as a result of a physical incapacitation which poses a threat to the safety of persons, property or the environment; or
- here is an accidental release on board or from a train which results in any of the events listed in subsection 8.4(2) of the *Transportation of Dangerous Goods Regulations*.

The person making the report must send to the Transportation Saefty Board as soon as possible and by the quickest means available, all the information required that is available at the time of the occurrence. The remainder of the required information must be submitted by the end of the calendar month following the month of the occurrence.

The report must contain the following information:

- the train's number, direction, tonnage, length and authorized speed;
- the number of loaded cars and empty cars on each train and cut of cars;
- the names of the operator of the train and the operator of the track;
- the date and time of the occurrence;
- the number of crew members, passengers and other persons involved in the occurrence and the number of those who were killed or sustained serious injuries as a result of the occurrence;
- the number of train or intermodal platforms that are damaged or have derailed and their reporting marks;
- for each train that is damaged or has derailed, whether the train is loaded, empty or contains residue;
- for each damaged or derailed train a list of all the dangerous goods on board the train, including the shipping name or UN number of the dangerous goods;
- if dangerous goods are released,
    - the shipping name or UN number of each dangerous good,
    - the reporting marks of each train from which the dangerous goods were released,
    - a brief description of each of the means of containment from which the dangerous goods were released, including the specification of the means of containment,
    - a brief description of the condition of each of the means of containment from which the dangerous goods were released,
    - the quantity of the dangerous goods on board each train or in each means of containment prior to the occurrence, and
    - the quantity of each dangerous good that is known or suspected to have been released;
    - the local weather conditions at the time of the occurrence and any climatic conditions such as snow, ice, wind, fog, dust and severe heat;
- the location of the occurrence, including the mile, the subdivision and the track designation;
- a description of the occurrence and the extent of any resulting damage to the environment and to the train, the railway and other property;

- a description of any action taken or planned to protect persons, property and the environment, including any evacuation as a result of the occurrence;
- the name and title of the person making the report and the phone number and address at which they can be reached; and
- any information specific to the occurrence that the Board requires.

Appendix A -
Draft Railway Incident Report Forms (Not for Use)

BAFFINLAND NORTH RAILWAY

Preliminary Accident Report (DRAFT FOR INFORMATION ONLY)

NOT FOR USE

Date:			**Time:**		
Type of accident:					
Subdivision:			**Location:**		
Mileage:					
Cndr:		**Engr:**			
Assignment:		**Locomotives:**			
Authority #:		**Direction:**			
Loads:		**Empties:**		**Tonnage:**	
Length:					
Speed:			**Activity:**		
Weather conditions:					
Engine number derailed:					
Cars number derailed:					
Numbering cars derailed:					
Verify if crossing obstructed:					
Track ID:					
Reported by:					
If involved in a crossing accident:					
Vehicle type:					
Number of occupants:					
State of the occupants:					
Direction of travel (To Port/Mine):					
RTC on duty:					
Incident Description:					

CALL LIST

NAME	OFFICE	CELL	HOME	TIME
DISPATCHING OFFICE				
Director Rail traffic Control				
OPERATIONS				
General Manager				
Operation Supervisor				
TRACK DEPARTMENT				
Roadmaster				
Assistant Roadmaster				
SIGNAL DEPARTMENT				
ALL ACCIDENTS WITH CROSSING				
Signal Maintainer				
CAR DEPARTMENT FOR INSPECTION OF CARS AND ENGINE				
Mechanical Supervisor				
SECURITY DEPARTMENT				
Director Safety				
POLICE AND GOVERNMENTAL AGENCIES				
RCMP				
Transportation Safety Board				
Environment Canada				
GN Spill Report Line				

UNUSUAL OCCURRENCE REPORT

DRAFT FOR INFORMATION ONLY – NOT FOR USE

This form is to be used for all rail accidents, including near misses.
Do not use for Personal Injury, Property or Motor Vehicle – see separate report.

Check Type of occurrence

☐ Derailment on our property / ☐ Derailment on other property / ☐ Others derailing on our property
☐ Grade crossing accident / ☐ Hazard material release / ☐ Side Swipe / ☐ Collision /
☐ Other accident/incidents / ☐ Trespasser / ☐ Near misses

Prepared By: _____ Preparer Title: _____

Preparer Date: _____ Signature: _____

I certify that the information in this report is accurate and complete: _____
(Supervisor's signature)

Supervisor's phone # _____ Name of supervisor (in block letters): _____

Claim Information			
Claim Name:			Nearest station:
Date of Accident/Incident:		Time of Accident/Incident (military time):	
Narrative Description:			
FRA Primary Cause Code:		FRA Contributing Cause Code:	
General Information			
Reporting Railroad:		Other Railroad:	Reporting Accident #
Maintenance Railroad:		Name of railroad where the accident occurred:	
G&W Responsible to Inspect? ☐ Y ☐ N (for Derailment on other property)			
Type of Accident/Incident (check one):	☐ Derailment ☐ Head on collision ☐ Rear end collision ☐ Side collision ☐ Raking collision	☐ Broken train collision ☐ Hwy-rail crossing ☐ RR grade crossing ☐ Obstruction ☐ Explosion-detonation	☐ Fire-violent rupture ☐ Other impacts ☐ Other (describe in narrative)
# Cars Carrying Hazmat:	Hazmat Cars Damaged/Derailed:	Cars Releasing Hazmat:	People Evacuated:
Location Description:			
Subdivision:	Accident State:	Nearest City:	
Accident County:	Milepost:	Specific Site:	
Was Police report made? ☐ Y ☐ N	Agency:	File number:	
Temperature: ☐ F ☐ C	Visibility: ☐ Dawn ☐ Day ☐ Dusk ☐ Dark	Weather: ☐ Clear ☐ Cloudy ☐ Rain ☐ Fog ☐ Sleet ☐ Snow	

Type of Equipment Consist (check one):	☐ Freight Train	☐ Work Train	☐ Light loco(s)	☐ DMU	Was Equip attended: ☐ Y ☐ N
	☐ Passenger Train – Pulling	☐ Single Car	☐ Maint./inspect. Car	☐ Passenger Train – Pushing	
	☐ Commuter Train – Pulling	☐ Cut of cars	☐ Spec. MoW Equip	☐ Commuter Train – Pushing	
		☐ Yard/switching	☐ EMU		

Train #/Symbol:	Speed (recorded speed, if available) ☐ R – Recorded ☐ E - Estimated ____ ☐ MPH ☐ KPH

Trailing Tons:	Type of Territory (check all that apply) Signalization (Mandatory) ☐ Signaled ☐ Not Signaled Method of Operation/Authority for Movement (Mandatory) ☐ Signal Indication ☐ Direct Train Control ☐ Yard/Restricted Limits ☐ Block Register Territory ☐ Other Than Main Track Supplemental/Adjunct Codes ____ ____ ____	Remotely Controlled Locomotive? ☐ Not a remotely controlled operation ☐ Remote control portable transmitter ☐ Remote control tower operation ☐ Remote control portable transmitter – more than one remote control transmitter

Type of Track (check one): ☐ Main ☐ Siding ☐ Yard ☐ Industry	Track Name/#:	Track Class:	Time Table: ☐ North ☐ South ☐ East ☐ West	

Casualties to:	Railroad Employees on Duty	Railroad Employees Not on Duty	Train Passengers	Others						
				Trespassers	Non-Trespassers on RR property	Non-Trespassers off RR property	Contractor – Worker on duty	Contractor – Other	Volunteer – Worker on duty	Volunteer - Other
Nonfatal										
Fatal										

Principal Car/Unit:	Initial and Number	Position in Train	Loaded (Yes/No)
First Involved (derailed, struck, etc.)			☐ Y ☐ N
Causing (if mechanical, cause reported)			☐ Y ☐ N

Locomotive Units:	Head End	Mid Train		Rear End		**Cars:**	Loaded		Empty		Caboose
		Manual	Remote	Manual	Remote		Freight	Passenger	Freight	Passenger	
Total in Train:						Total in Equipment Consist:					
Total Derailed:						Total Derailed:					

Engines Damaged (Unit #):	Cars Damaged (Car #):
Engines Derailed (Unit #):	Cars Derailed (Car #):

Crew Members

# of Eng/Operators:	# of Firemen:	# of Conductors:	# of Brakemen:

Engineer's Name:	Hours Worked:	Minutes Worked:	D&A Tested: ☐ Y ☐ N
Conductor's Name:	Hours Worked:	Minutes Worked:	D&A Tested: ☐ Y ☐ N
Other crew Name:	Hours Worked:	Minutes Worked:	D&A Tested: ☐ Y ☐ N

# of Positive Drug Tests:	# of Positive Alcohol Tests:	Transporting Passengers: ☐ Y ☐ N

Additional Information

Latitude:	Longitude:

First Finance Estimates (IF derailment, please sent the Derailment Costs Checklist)

Equipment Cost $:	Rerailing Cost $:	Commodity Cost $:	Track Cost $:
Misc. Cost $:	Environmental Cost $:	Property Cost $:	

Department Supervisor:	Transportation Supervisor:
Mechanical Supervisor:	Track Supervisor:
Was this accident/incident reported to the FRA? ☐ Y ☐ N	Is this event re-billable to a third party ? ☐ Y ☐ N