

October 5, 2015

MV2005L2-0015
MV2005C0032

Angela Love
Regulatory Officer
Mackenzie Valley Land and Water Board
7th Flr – 4922 48th Street
P.O. Box 2130
Yellowknife, NT X1A 2P6

Dear Ms. Love,

Subject: Follow-Up Spill Report –Sewage Treatment Plant (STP) Emergency Overflow Lift Station - Gahcho Kué Project – September 5, 2015

Incident Summary:

At approximately 19:15 on 05 September, 2015, a worker within the Gahcho Kué camp complex reported a spill of liquid flowing to the ground from the STP Emergency Overflow Lift Station. The ground outside this building consists of an engineered pad with a surface of crushed aggregate (20 mm minus). Upon notification of the spill the STP plant operator attended the scene and shut down the treatment system to prevent additional untreated sewage from being released to the ground. Approximately 500 L of untreated sewage was spilled. The spill was confined to the immediate area outside of the building containing the overflow lift station and covered an area of approximately 50 m².

Immediate measures to mitigate the effects of the spill consisted of the following:

- A sump was excavated into the pad outside of the overflow tank building to collect any overflow and contain the spread of untreated sewage;
- Additional personnel and equipment were employed to excavate the contaminated aggregate and transport it to landfill for disposal where a covering of lime was applied over the material; and
- Lime was also applied to the excavated area at the pad and a fresh covering of aggregate was placed to restore the pad surface to its' original condition.

An NT-NU Spill Report was completed and submitted via email to spills@gov.nt.ca at 15:29 on 06 September, 2015.

Root Cause Analysis:

The results of the internal De Beers investigation revealed that the incident's primary cause originated from a missing interlock (electronic switch) that triggers a shut off of sewage from the main lift station to the emergency overflow lift station when the screener in the STP hits



a high level. Prior to the spill, the need for an interlock was identified and had been scheduled for installation on 06 September.

A secondary cause was an audible alarm that sounded within the overflow lift station building but could not be heard outside of the building, delaying the response time by the STP operator.

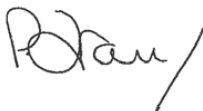
Corrective Actions:

The following corrective actions were implemented as a result of this incident:

- The interlock switch has been installed by ADCO the on-site electrical/mechanical contractor. . The STP plant is also now tied into the fire alarm system that includes a paging/notification system. This will alert the STP operator immediately to any alarms within the STP at any given time.
- Additional capacity has been added to the overflow lift station to allow for a greater volume of overflow storage, should it be required.

The internal investigation relating to this incident has been concluded and the corrective actions implemented. Should you have any questions or concerns, please do not hesitate to contact the undersigned at your convenience.

Sincerely,



Patrick Kramers
Environmental Superintendent / Gahcho Kué Mine Project

Report prepared by: R. Mellow

Attachments:

1. Copy of original spill report
2. Photos of:
 - a. Location of spill outside of Emergency Overflow Lift Station (building with open door)
 - b. Sump to collect/contain spread of overflow excavated outside of Emergency Overflow Lift Station.

DE BEERS

GROUP OF COMPANIES

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:	09 06 15	Report Time:	12:00 pm	<input checked="" type="checkbox"/> Original Spill Report OR <input type="checkbox"/> Update # _____ to the Original Spill Report	Report Number:
	B	Occurrence Date:	09 05 15	Occurrence Time:		
C	Land Use Permit Number (if applicable):	MV2005C0032		Water Licence Number (if applicable):	MV2005L2-0015	
D	Geographic Place Name or Distance and Direction from the Named Location:			Region:		
	Gahcho Kue Mine Project (Kennedy Lake, NT)			<input checked="" type="checkbox"/> NT <input type="checkbox"/> Nunavut <input type="checkbox"/> Adjacent Jurisdiction or Ocean		
E	Latitude:		Longitude:			
	63 Degrees 26 Minutes 5 Seconds		109 Degrees 12 Minutes 29 Seconds			
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:			
	De Beers Canada		Suite 300, 5120-49th St., Yellowknife, NT, X1A 1P8			
G	Any Contractor Involved:		Contractor Address or Office Location:			
	n/a		n/a			
H	Product Spilled:	<input type="checkbox"/> Potential Spill	Quantity in Litres, Kilograms or Cubic Metres:	U.N. Number:		
	Sewage		~500 L	n/a		
I	Spill Source:	Spill Cause:		Area of Contamination in Square Metres:		
	STP Emergency Overflow Tank	Missing interlock that triggers a shut off of sewage flow from		~50		
J	Factors Affecting Spill or Recovery:	Describe Any Assistance Required:		Hazards to Persons, Property or Environment:		
	None	None		None		
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials: Spill of an estimated 500 L of raw sewage from the STP Emergency Overflow Tank to the ground. Ground consists of an engineered pad with a surface of crushed rock (-20 mm aggregate size). There is no evidence to suggest that the spilled material migrated away from the immediate area. The overflow occurred as the result of a missing interlock that triggers a shut off of sewage flow from main lift station to the overflow lift station when the screener in the STP triggers a high level alarm. Corrective Actions Undertaken: 1) Valves and pumps connected to spill were shut off immediately upon discovery of spill; 2) A sump was excavated into the pad outside the doorway of the overflow tank building to collect overflow and contain spread of sewage; 3) Personnel and equipment were employed to excavate the sewage contaminated crushed rock and transport it to the landfill for disposal. 4) Lime was applied to the pad surface where the spill occurred and fresh aggregate was placed to restore the pad surface; and 5) Engineering controls are currently being installed to prevent a re-occurrence of this incident.					
L	Reported to Spill Line by:	Position:	Employer:	Location Calling From:	Telephone:	
	Rob Mellow	Env. Coordinator	De Beers Canada	Gahcho Kue Project	(416) 645-1695	
M	Any Alternate Contact:	Position:	Employer:	Alternate Contact Location:	Alternate Telephone:	
	Patrick Kramers	Env. Superintendent	De Beers Canada	Gahcho Kue Project	(416) 645-1695	

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:
	Lead Agency:	Significance:		File Status:	
	<input type="checkbox"/> EC <input type="checkbox"/> CCG/TCMSS <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> AANDC <input type="checkbox"/> NEB <input type="checkbox"/> Other: _____	<input type="checkbox"/> Minor <input type="checkbox"/> Major <input type="checkbox"/> Unknown		<input type="checkbox"/> Open <input type="checkbox"/> Closed	
	Agency:	Contact Name:	Contact Name:	Remarks:	
	Lead Agency:				
	First Support Agency:				
	Second Support Agency:				
	Third Support Agency:				

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a. Location of spill outside of Emergency Overflow Lift Station (building with open door)



b. Sump to collect/contain spread of overflow excavated outside of Emergency Overflow Lift Station.