

Permits

From: Adrian Paradis <Adrian.Paradis@aandc-aadnc.gc.ca>
Sent: Friday, November 6, 2015 3:26 PM
Cc: Geneva Irwin
Subject: Giant Mine Remediation AQM weekly summary report for the week ending October 31, 2015
Attachments: YELLOWKN-#775766-v1-GIANT_MONITORING_WEEKLY_AIR_QUALITY_REPORT_31_OCTOBER_2015.PDF; Adrian Paradis.vcf

A summary of the Giant Mine ambient air quality monitoring program for the week ending October 31, 2015 is as follows:

Fenceline Network:

- No 15-minute average particulate matter less than 10 microns in diameter (PM₁₀) concentrations above the established Risk Based Action Level (RBAL) criteria (159 µg/m³) were measured at the fenceline monitoring stations during the week. PM₁₀ concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;
- No 15-minute average total suspended particulate (TSP) concentrations above the established RBAL (333 µg/m³) were measured at the fenceline monitoring stations during the week. TSP concentrations measured at fenceline locations during the week were typical of seasonal background concentrations;

Community Stations:

- No twenty-four (24) hour average concentrations of PM_{2.5} and PM₁₀ were measured above the referenced criteria at the community stations during the week. PM_{2.5} and PM₁₀ concentrations during the week were typical of seasonal background concentrations;
- Laboratory results from available TSP, PM₁₀, and trace metals (including arsenic) samples collected on October 12, 15, and 18, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory analysis of community station filters collected after October 18, 2015 are pending;
 - Laboratory results from available asbestos samples collected on September 15, 18, 21, 30, and October 9, 12, and 18, 2015 at the community stations were less than the analytical detection limit and/or below the referenced criteria. Laboratory results from asbestos samples collected at the community stations after October 18, 2015 are pending;

Interim Underground Stabilization (IUS) (tailings work):

- Air quality monitoring specific to the IUS program was conducted at:
 - Four (4) locations within the vicinity of paste fill operations in the B1 and A1 Pits;
 - Four (4) locations set on the west, north, and south perimeters of the Central and South Tailings Ponds;
 - Four (4) locations at the mine vents and intake openings.

- All IUS program monitors were taken offline on October 31, 2015. Operations have concluded for the season at the paste fill locations, tailings ponds, and mine vent and intake openings.
- No 15-minute average PM₁₀ concentrations were measured above the surface drilling RBAL (260 µg/m³) during the week. Concentrations during the week were typical of background levels;
- Several 15-minute average PM₁₀ concentrations above the tailings pond work RBAL (180 µg/m³) were measured at the perimeter of the tailings pond work on October 30, 2015. On-site investigations indicate fog interference with the sampler likely caused the PM₁₀ concentrations above the RBAL. Concentrations during the rest of the week were typical of background levels;
- Multiple 15-minute average PM₁₀ concentrations above the underground vent monitoring RBAL (300 µg/m³) were measured at the C1 Pit Man Exit (Sampler E12) on October 25, 26, 28, 29, and 30, 2015. On-site investigations indicate excess moisture exiting the C1 Pit Man Exit was most likely interfering with the sampler when PM₁₀ concentrations were measured above the RBAL. One 15-minute average PM₁₀ concentration was measured above the RBAL at the UBC Portal (Sampler E11) at 12:45 PM on October 30, 2015. On-site investigations indicate excess moisture exiting the mine vent likely interfered with the sampler when the PM₁₀ concentration was above the RBAL. Concentrations during the rest of the week at all other underground vent locations were typical of background levels;
- Laboratory results from available arsenic filter samples collected October 12, 15, and 18, 2015 at the IUS locations were less than the analytical detection limit and/or below the referenced criteria. Laboratory results from available arsenic filter samples collected after October 18, 2015 at the IUS locations are pending.

General Operations:

- The AQM program operated as specified during the week ending October 31, 2015 with exception to the following:
 - The PM₁₀ BAM sampler at NAPS community station was down October 25 - 26, 2015. A new sampler was installed and began operating at 8:00 AM October 26, 2015.
 - The PM_{2.5} BAM sampler at NAPS community station was down from 1:00 PM October 26 through 11:00 AM on October 27, 2015. The sampler was down due to internal heater malfunction and subsequent repairs.
 - Site B (Town Site) at the fenceline was down 1:45 AM to 6:00 AM October 25, 2015 due to battery failure.
 - Site D (Beach) at the fenceline was down 2:15 AM to 5:30 AM October 27, 2015 due to battery failure.

Regards,

Adrian Paradis

Regulatory Manager, NWT Region, Giant Mine Remediation Project
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November 6, 2015

Mr. Willard Hagen, Chair
Mackenzie Valley Land and Water Board
7TH FLOOR – 4910, 50TH AVE., PO BOX 2130
YELLOWKNIFE, NT X1A 2P6

RE: Water Licence MV2012L8-0010 – Air Quality Reports for the Week of October 31, 2015

Dear: Mr. Hagen,

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Sincerely,



Adrian Paradis
Regulatory Manager
Giant Mine Remediation Project

c.c.: Distribution List