

Permits

From: Adrian Paradis <Adrian.Paradis@aandc-aadnc.gc.ca>
Sent: Friday, August 21, 2015 1:48 PM
Subject: Water Licence MV2012L8-0010 – Air Quality Reports for the Week of August 15, 2015
Attachments: YELLOWKN-#722916-v1-giant_monitoring_weekly_air_report_for_15_aug_2015.PDF;
Adrian.Paradis.vcf

A summary of the Giant Mine ambient air quality monitoring program for the week ending August 15, 2015 is as follows:

Fenceline Network:

- Multiple 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 between 12:15 AM and 4:15 AM (MST) on August 9, 2015. Site investigations indicated that PM₁₀ concentrations above the RBAL were likely the result of smoke from regional wildfires. Influences from regional wildfires were observed during the same period at all fenceline, community and supplemental monitoring program locations. PM₁₀ concentrations measured at fenceline locations during the remainder of 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. Elevated TSP concentrations were observed on August 9, 2015 as a result of smoke from regional wildfires. TSP concentrations measured at fenceline locations during the remainder of the week were typical of seasonal background concentrations;

Community Stations:

- Twenty-four (24) hour average concentrations of PM_{2.5} and PM₁₀ were measured above the referenced criteria at the YCC and NDL community stations on August 9, 2015. Site visits indicated smoke from regional wildfires was likely the main contributor to the elevated PM_{2.5} and PM₁₀ concentrations on this day. PM_{2.5} and PM₁₀ concentrations were typical of seasonal background concentrations for the remainder of the week;
- Laboratory results from available TSP, PM₁₀, and trace metals (including arsenic) samples collected on July 20, 23, 26, 29, and August 1 and 4, 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 August 4, 2015 are pending;
- Laboratory results from available asbestos samples collected on August 1 and 4, 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 August 4, 2015 are pending;

Interim Underground Stabilization (IUS) (tailings work):

- Air quality monitoring specific to the IUS program was conducted at:
 1. Four (4) locations within the vicinity of paste fill operations in the B1 and A1 Pits;

2. Four (4) locations set on the west, north, and south perimeters of the Central and South Tailings Ponds;
 3. Four (4) locations at the mine vents and intake openings.
- There were several 15-minute average PM₁₀ concentrations above the surface drilling RBAL (260 µg/m³) measured at Site PF2 located south of paste fill hole #1 from 2:30 AM to 5:00 AM MST on August 9, 2015. Site investigations indicated smoke from regional wildfires was influencing PM₁₀ concentrations during this period. Similar PM₁₀ concentrations were measured at the fenceline, community, and paste fill stations indicating all samplers were influenced by the smoke from regional wildfires. Concentrations were typical of background levels during the remainder of the week;
 - There were several 15-minute average PM₁₀ concentrations above the tailings pond work RBAL (180 µg/m³) measured at the perimeter of the tailings pond work areas from 12:15 AM to 4:45 AM MST on August 9, 2015. Site investigations indicated smoke from regional wildfires was influencing PM₁₀ concentrations during this period. Similar PM₁₀ concentrations were measured at the fenceline, community, and tailings pond monitoring stations indicating all samplers were influenced by the smoke from regional wildfires. Site investigations indicated smoke from regional wildfires was influencing PM₁₀ concentrations during this period. Concentrations were typical of background levels during the remainder of the week;
 - No 15-minute average PM₁₀ concentrations above the underground vent monitoring RBAL (300 µg/m³) were measured at the monitors located at mine vents and intake openings during the week. Elevated concentrations were observed during the early morning hours on August 9, 2015, consistent with other fenceline, community and E-Sampler monitoring stations. Site investigations indicated smoke from wildfires was influencing PM₁₀ concentrations during this period. Concentrations were typical of background levels during the remainder of the week;
 - Laboratory results from available arsenic filter samples collected July 17, 20, 23, and 26, 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 July 26, 2015 at the IUS locations are pending.

General Operations:

- The AQM program operated as specified during the week ending August 15, 2015 with the exception of the following:
 1. A total of 23 hours of PM_{2.5} BAM data was invalidated at the NDL community station August 13-15, 2015. Data was invalidated due to measured concentration values recorded below instrument detection limits.

Additional air quality information for the Giant Mine can be found on the NWT Air Quality Monitoring Network web page: <http://aqm.enr.gov.nt.ca>.

Should you have any questions or comments, please contact Adrian Paradis by Telephone: (867) 669-2425 or by E-mail: Adrian.Paradis@aandc-aadnc.gc.ca.

Sincerely,

Adrian Paradis

Regulatory Manager, NWT Region, Giant Mine Remediation Project

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August 21, 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 August 15, 2015

Dear: Mr. Hagen,

This report is meant to satisfy commitments made in the May 21, 2013, responses to review comments on the roaster plans. Our commitment was to provide weekly summaries of the following data:

- PM₁₀ measurements captured by the contractor and the fence-line program;
- All other available and quality assured data, including TSP, trace elements (metals) and asbestos data.

In discussions with the Giant Mine Working Group, in lieu of the detailed weekly reports the project has decided to provide weekly summaries and a detailed monthly report. This is done to make the reporting more useful to users, while still maintaining the level of details previously provided.

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Sincerely,



Adrian Paradis
Regulatory Manager
Giant Mine Remediation Project

c.c.: Distribution List