



Date: December 8, 2014
To: PLC Members
Copies: Blue Mountain Modernization PLC Engagement files, Mary Kainer (Environmental Chair, LKRA), posted on www.CanadianNepheline.ca website
From: **Bob Marshall**
Subject: **Public Liaison Committee – Minutes of First Meeting (November 28, 2014)**

Date: November 28, 2014 **Time:** 2:00 – 4:00 PM

Hosted by: Bob Marshall (Unimin), Cynthia Jamieson (Unimin)

Attendees:

Lake Kasshabog representatives John Davison – East Lake rep
Dawn Mitchell (via GoTo Meeting) – Member at large
Mike Delsey (via GoTo Meeting) – East Lake rep
Michael Rosin (absent) – West Lake rep
Vacant position – West Lake rep

Unimin personnel Bob Marshall
Cynthia Jamieson
Rebecca Moss
Doug Staples

Observer Jim Martin

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Agenda Items:

1. Explanation of the ECA application process so that the PLC knows how/why they fit into the picture.

Cynthia Jamieson explained the PLC Engagement Process Flowsheet (1 page Block Diagram) which outlined the following;

1. Unimin engages Lake Kasshabog residents in discussions of proposed activities which could result in an amendment to the Environmental Compliance Approval (Air & Noise). Proposed changes are identified in a format agreed upon in advance. PLC discusses impacts and mitigation strategies. Unimin solicits comments.
2. Lake Kasshabog residents review project proposal. Generate "Letter of comments / concerns" or "Letter of no comments / no concerns" Submit Letter to Unimin for inclusion into permit application.
3. Unimin generates Mitigation Strategy to address concerns not resolved during PLC engagement
4. Unimin submits ECA (Air & Noise) application to MOECC, which includes PLC Letter and proposed Mitigation Strategy, if concerns are raised
5. Unimin submits ECA Application, PLC Letter and Unimin Mitigation Strategy to MOECC
6. MOECC posts ECA (Air & Noise) Application online via EBR Registry and solicits public comment <http://www.ebr.gov.on.ca/ERS-WEB-External/>
7. MOECC reviews ECA (Air & Noise) Application and prepares Draft
8. Unimin reviews/provides comments to Draft ECA
9. MOECC responds to Unimin comments and EBR on-line comments then issues final ECA

Discussion

- No one had questions regarding the process.
- Unimin proposed that the agreed upon format for engagement be a summary of proposed changes and also include the Acoustic Assessment Report (AAR) and the Emission Summary and Dispersion Model (ESDM) Report. The high level summary would address the following; Unimin's current operating scenario; Unimin's proposed operating scenario; identification of the changes and how they will affect dust and noise, as these are the primary concern for Lake Kasshabog representatives.
- All parties agree that the high level review and copies of the AAR and ESDM would be sufficient documents for engagement with the option for the PLC to ask for further information upon initial review.
- PLC asked for electronic versions of the current AAR and ESDM Report to be sent out to the members of the PLC.
- Unimin also mentioned that the AAR and ESDM Report are always, and must be by law, available in paper copy at the site for public review during regular office hours.

Action Items

- Unimin to send PLC members ESDM and AAR via email

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- 2. A detailed review of the existing air and noise permits is required by the PLC so that the PLC understands where their input is important; or how existing conditions might already address any potential concerns.**

Cynthia Jamieson explained the information contained in the "PLC ECA Air + Noise Review 28Nov2014" 16 slide deck Powerpoint presentation, which outlined the following from the current Nephton and Blue Mountain Approvals;

1. Environmental Permitting Process
2. ECA Air and Noise Basics
 - a. Approval authorizes; general processes, specific throughput limits, mandatory compliance with government standards, limited operational flexibility
3. Compliance Documents
 - a. ESDM – model for air emissions, AAR – model for noise emissions
 - b. Available to public during regular business hours
4. Fugitive Dust Management Documents
 - a. Must control tailings emissions at all times
 - b. Prepare and implement
 - i. Fugitive Dust Best Management Practices Plan
 - ii. Tailings Dust Control Action Plan
 - iii. Technology Benchmarking Report
5. Tools for Compliance Verification
 - a. Source Testing – check of emissions in dust collector stacks
 - b. Acoustic Audit – check of noise sources at nearest receptor
 - c. Visible Emissions – check of each point source or fugitive dust source daily
 - d. Air Quality Monitoring – check of air quality – not required, framework provided in case MOE sees need in the future
6. Annual Reports
 - a. Written Summary Form to MOECC
7. Record Keeping / Retention
 - a. Maintain all documents related to the approval
 - b. Keep copies of all documents for 5 years
8. Complaint Response
 - a. Must receive complaints 24/7
 - i. Record, report, investigate, handle the complaint
 - ii. Document the response
 - iii. Notify MOECC within three days of proposed action to prevent recurrence, if Unimin is found to be the cause
 - b. Maintain and update dust notification procedure
9. Public Engagement
 - a. Prepare terms of reference for PLC and submit
 - b. Discuss with PLC any proposed amendments to the ECA Air and Noise
 - c. Provide statement with application indicating how PLC comments were considered prior to submission
10. Summary of Activities for Future Modifications
 - a. If a process change is proposed, then Unimin conducts the following:
 - i. Update the ESDM Report to verify emission compliance
 - ii. Update the AAR to verify noise compliance
 - b. If modification will cause (1) the production rate to increase; (2) the activity description to change; (3) the emissions to exceed MOECC limits; or (4) a new or modified burner is proposed; then

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- i. Unimin will consult with PLC and solicit comments
- ii. Unimin will submit an application for an amendment to the Environmental Compliance Approval
- c. If the ESDM Report and AAR show compliance with standards, and the production rate won't change; the description won't change; the MOECC limits are not exceeded; and there is no change to the dryers; then Unimin may proceed with construction without an ECA Amendment

Discussion

- There was discussion around the ESDM summary table, as it was noted that there is no consistent relationship between the two tables. Unimin indicated that there numerous variables that contribute to the values and there would be no way to clearly lay out why the numbers didn't seem to relate to each other. Some of the variables are; stack height, location, borders of property, equipment parameters, topography etc.
- Members of the PLC expressed that they were encouraged to see Unimin moving in the right direction by being so transparent with their neighbours.
- PLC members encouraged Unimin to keep the information as simple as possible while satisfying the MOECC requirement to engage through the PLC. Agreed upon that simplistic versions would be best suited to PLC members.
- PLC members noticed that that items on page 8 of the the Powerpoint presentation ran off the page and they wondered if Unimin could re-issue the Powerpoint. Unimin indicated that they would address the issue and re-issue the Powerpoint.

Action Items

- Edit page 8 of the PLC ECA Air+Noise Review 28Nov2014 Power point and resend to PLC members

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3. Summary of area dust monitoring results to-date.

Bob Marshall explained the information contained in the NSO Fugitive Dust Abatement and Monitoring 2014 slide deck(13 slides) Powerpoint presentation which outlined the following;

1. Items used in creating a Fugitive Dust Control Solution at NSO
 - a. Vegetation
 - i. Ground and aerial photos of vegetation on Blue Mountain and Nephton tailings
 - ii. Sample tailings re-vegetation sequencing schematic for Blue Mountain and Nephton
 - b. Irrigation
 - i. Photos of irrigation
 - ii. Sample schematic of Nephton irrigation plan
 - c. Armouring of sloped surfaces with top soil and/or gravel
 - d. Cell construction sequencing to reduce the active un-vegetated tailings area
 - i. Sample tailings re-vegetation sequencing schematic for Blue Mountain and Nephton
 - e. Weather monitoring
 - i. Screen capture of the weather monitoring station
 - f. Daily Dust Control Plan
 - g. Current Situation on Dust Control
 - i. Fiver open houses (two in 2013, three in 2014), informal meetings with residents, commissioned 3rd party air quality monitoring and analysis
 - ii. Nephton and Blue Mountain remain in full environmental compliance on air emissions

Discussion

- There was discussion about which aspects of the operations create the most dust and Unimin indicated that in 2012 it was dust from the tailings. Dust abatement is now fully under control as a result of all the actions implemented as per the preceding slide show.
- The PLC wondered about which direction future growth would move in relation to the lake and Unimin responded that in the next 25-30 years the quarry would operate in the current location, in the next 50-70 years the early forecasts show that the quarry would move south west. The quarry's distance in relation to the lake would remain relatively similar.

No Action Items

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4. Review historical results of mine acoustic testing. (An Acoustic Audit of the mine is just being compiled by Cambium Environmental. The acoustic audit occurred for the two weeks from October 25 - Nov 8 and included 4 off site listening locations as well as two in-close locations, one at each of the two plants. Their report will not be completed until mid-December.)

Bob Marshall explained the information contained in the Sound Control Update November, 2014 slide deck (11) Powerpoint presentation which outlined the following;

1. A brief history and overview of the mine operations
 - a. 75+ years of mining
2. Sound Control Measurement and Activity
 - a. Sound control measurement July/August 2008
 - b. 2009 installation of silencers, sound level with silencers
 - c. Sound control activity June 2009, improvements reported to KLRA AGM July 2009 with positive response
 - d. Sound control measurement January 2013 confirmed compliance
3. Current Status of efforts to reduce mine related sound
 - a. Forty plant silencers have been installed at NSO since 2008 , Fan speed adjusted to remove low frequency sound,, mobile equipment retrofitted with non “beeping” backup alarms
 - b. Cambium Environmental currently writing report for a 2 week acoustic audit performed October 25 – November 8
 - c. Images of typical new stack silencers
 - d. Noise impact contour maps from April 2013 – Nephton and Blue Mountain

Discussion

- Unimin confirmed with the PLC its intention to seek approval to phase out operations at Nephton in 4-6 years’ time.
- There was discussion about how many fans have silencers and Unimin indicated that historically Nephton had the most noise issues they had installed silencers on 100% of the fans at that plant. At Blue Mountain it was discussed that 7 or 8 fans do not have silencers but if the modernization goes ahead fans at Blue Mountain would be shut down.
- Unimin indicated that further detail on the most recent acoustic audit would be brought forward at the next meeting. .

No Action Items

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5. Review the 3D model of the proposed modernization plans.

Bob Marshall reviewed the 3D model contained in the Canadian Nepheline Modernization info for PLC slide deck (3) Powerpoint presentation.

- Discussed that the section of Blue Mountain that has the fans would become obsolete and therefore the fans would be shut down. It was discussed that many items were brought to the engineering firm, Poyre, completing the preliminary design that would give improvements in the area of noise abatement and quality of air. Items brought to Poyre include that no stacks would be going up through the roof, any fan discharges should be facing down, where practicable.

No Action Items

6. New Business. All

- It was agreed upon that Unimin would issue draft meeting minutes within two weeks of each meeting. The PLC agreed that based on the Terms of Reference section 3.2 the minutes could be used to provide proof of consultation with the MOECC.
 - In Section 3.2 the fourth bullet point states that one of the PLC's responsibilities shall include discussion regarding any proposed Unimin amendment to the ECA and that the meeting minutes will be proof of PLC consultation.
- The PLC members discussed the best way to reach out and gather feedback from other people that have residences on the lake. Some members did not feel that there will be a lot of response from others on the lake. It was suggested that someone could discuss options of sharing the PLC news with Mary Kainer as she is the chair of the Environmental Committee for the Lake Association.
- A proposal was suggested to post the PLC meeting minutes on the Canadian Nepheline website
- A proposal was suggested to distribute minutes with the cooperation of LKRA or Lake Kasshabog website
- Dawn Mitchell mentioned that she would be willing to let someone else take her spot on the committee if they were better suited for the position. In response, Unimin indicated that Mary Kainer, at this time, does not fit into the PLC based on the agreed upon Terms of Reference. However Mary has been invited to attend any of the meetings in the role of observer.
- PLC members asked if Unimin could draft a timeline of engagement for the PLC to use for guidance.
- In response Unimin indicated that while Unimin may be able to provide guidance on a timeline and would be able to work with the PLC on many aspects of the mine operation and or modernization, the way the information travels to other community members is not up to Unimin.
- Bob Marshall wanted to ensure that PLC members knew that he sees the group as a committee to deal with day to day operating issues with respect to the Nepton and Blue Mountain plants and associated mines. Bob hopes that the PLC will provide a vehicle to get to himself or other Unimin employees who can help to resolve any possible issues that arise.

Action Items

- Unimin to distribute meeting minutes to Mary Kainer
- Unimin to post the meeting minutes on the Canadian Nepheline corporate website

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Summary of Action Items:

- Send ESDM and AAR to PLC members
- Edit page 8 of "PLC ECA Air+Noise Review 28Nov2014" Powerpoint and resend complete slide deck to PLC members
- Unimin to distribute meeting minutes to Mary Kainer
- Unimin to post the meeting minutes on the Canadian Nepheline corporate website

Next Meeting: tentatively agreed upon for February. Notice of a proposed meeting date would be issued with a minimum of 2 weeks lead time as per the section 5 of the Terms of Reference.

Purpose of next meeting: to continue open dialogue with PLC focussing on the proposed Blue Mountain Modernization project – as a minimum, minutes from 2015 Q1 and Q2 meetings will be used in the application for amendment to the ECA Air and Noise that will be submitted in support of Blue Mountain Modernization on June 1, 2015.