

Attachment 1 - Baffinland Response to NIRB Recommendations – Dec 8, 2018 Responses

Table 1: Baffinland Responses to 2017-18 NIRB Monitoring Report Request for Information to Recommendations due in 30days

NO.	NIRB Comment	NIRB Recommendation	Baffinland Response
4	<p><u>Noise and Vibration Monitoring</u></p> <p>Condition 14 of the Project Certificate requires Baffinland to conduct noise and vibration monitoring at Project accommodations during all phases of the Project, particularly during the summer and winter seasons. In Baffinland’s 2017 Annual Monitoring Report to the NIRB, the Proponent stated that in June 2017, one (1) room at the Mine Site and two (2) rooms at the Milne Port site were tested for noise and vibration levels. Baffinland further reported that due to equipment malfunction and availability issues that could not be resolved before the end of 2017 it was unable to conduct the scheduled winter noise and vibration monitoring during the 2017 period. The NIRB’s 2017 Board Recommendation #5 had specifically requested that Baffinland improve its noise and vibration monitoring program across Project sites; however, during the current reporting year the NIRB noted that the recommended changes to the noise and vibration monitoring program has yet to be fully implemented and is still data deficient. The NIRB also questions the validity of Baffinland’s conclusion regarding the seasonal variation of noise/vibration levels between the two (2) sites as indicated in the 2017 Annual Report due to the relatively low sample size (Mine site=1; Milne Port=2) and lack of consideration for seasonal changes in noise/vibration levels across the project sites.</p>	<p>The Board requires that Baffinland develop an action plan to comply with Project Certificate Term and Condition 14 by improving noise and vibration monitoring at site through improved seasonal sampling and increased sample sizes and frequency of monitoring of noise and vibration levels, particularly at the Mine site and Milne Port accommodation facilities. The action plan must highlight measures designed to ensure that noise and vibration levels continue to be monitored across the Project and the safety of workers maintained in the event of additional equipment malfunctions in future. Baffinland must also provide an analysis of any observed seasonal variation in noise and vibration levels (summer vs. winter) and a discussion of the implication of such variations (if any) on workers’ health and safety onsite. It is requested that this action plan be provided within 30 days’ receipt of the Board’s recommendations.</p>	<p>Baffinland recognizes NIRB’s request to improve the monitoring frequency of noise and vibration monitoring on the Project and has already successfully implemented measures to improve the monitoring program. In 2018 Baffinland engaged an external noise and vibration expert consultant, RWDI, to develop and implement a testing program at the Project Site and to provide training to Baffinland staff on new equipment.</p> <p>In June 2018, RWDI, completed a noise and vibration testing program on accommodation complexes at the Mine and Port Site. Accommodation complexes that were tested for impact and steady state noise safety thresholds registered below recommended levels. Accommodation complexes that were tested for vibrational exposure thresholds registered below recommended levels. Results support that there is no risk of noise or vibrational harm to employees while residing in dormitories and accommodations.</p> <p>A winter testing program is planned for the end of 2018 to compare seasonal differences. It is noteworthy that summer is the busiest season at Site entailing more construction and activity than winter. It is anticipated that levels of noise and vibration would remain the same or be reduced. Baffinland plans to continue its annual Noise and Vibrational testing in 2019 with two seasonal sample events (winter and summer) at five locations per site and will continue to report the results in the NIRB annual reports.</p>
19	<p><u>Used Tires</u></p> <p>During the 2018 site visits, it was noted that used tires are a significant waste stream across the Project sites, particularly around the Mine site and Milne Port, and as noted in the 2016 and 2017 site visits. During the August 2018 site visit, NIRB staff noted that several of the used tire piles are now removed and stored in seacans for shipping and disposal offsite. In general, the state of tire disposal has significantly improved during the site visits in 2018.</p>	<p>The Board requires Baffinland to provide continued reporting regarding how it has implemented measures within its Tire Management Plan for re-treading, reuse, or offsite disposal of tires generated from the site. Baffinland must implement an organized method of storing and relocating tire piles across the Project consistently moving forward. It is requested that an update regarding this recommendation be provided within the next 30 days to the Nunavut Impact Review Board.</p>	<p>Baffinland continued to make significant progress on used tire management in 2018. Starting in mid-2017 the current used tire stream is organized and stored in designated seacans at the Mine Site and Milne Port tire shops. These seacans are then sent offsite for disposal during sealift backhaul activities. As planned and committed to do in 2017, the vast majority of historical tire piles at Milne Port were processed and organized into seacans in 2018.</p> <p>Approximately 11,700 of both used and historical tires were backhauled from Milne Port in 2018.</p> <p>Baffinland is currently developing an action plan to process the historical tire pile in Mary River for backhaul offsite during the open water season in 2019. As part of this plan, Baffinland is maximizing the use of the ore haul truck fleet during poor weather conditions that prevent use of the Tote Road to move historical tire piles into the seacans. Where possible, Baffinland uses and repurposes tires for barriers, berms and ballasts across the site.</p>
20	<p><u>Waste Landfill</u></p> <p>During both the April and August 2018 NIRB site visits, it was noted that all of the protective mesh around the landfill area were completely removed from the supporting poles similar to previous site visit observations in 2014, 2015, 2016, and 2017, and the newly installed wooden fence around the facility was observed to be insufficient to contain the landfill footprint, thereby increasing the risk of wind-blown debris from the facility. The NIRB further notes that the condition of the fencing around the landfill during the 2018 site visits have not significantly improved compared to previous years. Further, the NIRB’s 2017 Board Recommendation #31 requested that</p>	<p>The Board directs Baffinland to improve the quality of fencing around the perimeter of landfill sites to reflect industry best practices for these operations. Landfill litter fences must be of sufficient quality and height and encircle the entire landfill area to ensure that waste materials are not dispersed offsite. Baffinland must include evidence of this issue being satisfactorily addressed within its annual reporting in future. It is requested that an update regarding implementation of this direction be provided within the next 30 days to the Nunavut Impact Review Board, and with updates included within</p>	<p>The design and installation of the perimeter fence has been a priority action item for Baffinland. Throughout 2017 and into early 2018 Baffinland proposed a number of different designs for the landfill fence and had several conversations with NIRB monitoring officers on the development of the designs. Following a final design criteria taking into consideration future expansion of the landfill, all materials were ordered in early 2018.</p> <p>In September 2018, Baffinland completed the installation of a perimeter fence downwind around the active portion of the landfill.</p> <p>As soon as the materials arrived on the sealift, construction commenced on August 20 following</p>

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	Baffinland continue to evaluate its need for an upgraded litter fence around the active areas of the landfill in the light of changing environmental conditions at site.	the Annual Reports to the Nunavut Impact Review Board moving forward.	<p>NIRB’s site visit and was completed on September 18, 2018. The installed fence is 215 meters in length, eight feet tall and made up of two-inch galvanized chain link heavy gauge meshing with a tire base (see Photo 1 and 2).</p> <p>Baffinland intends to expand the fence progressively with the landfill expansion of additional cells and will provide further updates in subsequent annual reports to the NIRB as relevant.</p>

Photo 1: Landfill perimeter fence installed September 2018 facing south-west



Photo 2: Landfill perimeter fence installed September 2018 facing north-east

