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VIA EMAIL Phyllis Beaulieu - licensing@nunavutwaterboard.org

Dear Ms. Beaulieu

Re: Doris North Water License Application – Project Modifications Arising from Ongoing Detailed Engineering

The Doris North Project (the Project) is currently in the detailed engineering phase. Miramar Hope Bay Ltd. (MHBL) has appointed SNC-Lavalin Engineers and Constructor's Ltd. as the Project construction manager and design engineer. SRK remain the engineer of record for all of the Project earthworks (i.e., the roads, pads, airstrip and tailings dams) and are overseeing construction QA/QC for the site pre-development work that is currently underway at Roberts Bay.

As the Project moves through detailed engineering, there are number of modifications/changes being brought forward by the engineers that modify the Project components from those described in the Final Environmental Impact Statement for the project ("FEIS") and in the April 2007 Revised Water License Application Support Document. This letter is intended to communicate these modifications/changes to the Nunavut Water Board, the Kitikmeot Inuit Association, Nunavut Tunngavik Inc., Indian and Northern Affairs Canada, the Government of Nunavut Department of Environment, Fisheries and Oceans Canada, Environment Canada, Natural Resources Canada, Health Canada, Transport Canada and to all other intervening parties. We also provide our assessment on: if these modifications/changes affect the environmental impact of the Doris North Project; and if so, how. We recognize that a number of these modifications/changes have no water related consequences and are thus outside the scope of the Water License process, however MHBL felt that this was an opportune time and method to inform all parties on the modifications/changes occurring as engineering proceeds. In MHBL's opinion, only items 2b, 4, 7, 8, 9 and 10 have a water related consequence.

In our opinion each of these modifications/changes does not significantly alter the Project as reviewed under the NIRB assessment process. MHBL requests that all regulatory agencies incorporate these proposed modifications/changes in their respective authorizations, licenses, and leases previously applied for by MHBL.

The specific modifications/changes are as follows:

1. The amount of planned electrical generating capacity to be installed at the Doris North Project has increased to 11.0 MW from 4.0 MW. This capacity will consist of 6 x 1.5 MW generator sets to be installed in the fixed power plant plus 2.0 MW in combined portable generator units to be installed: at Roberts Bay for barge offloading and fuel transfers; at the airstrip for runway lighting; at the accommodation camp as emergency backup power (also used during early construction to power the camp); and at the mill as emergency backup power). These portable generators will also provide the power source during the construction phase until the fixed power plant is installed and commissioned. SNC-Lavalin are working on electrical load balances and are considering recommending that the fixed plant be downgraded to 5 x 1.5 MW generator sets. The outcome of this work will be communicated to the NWB as soon as possible.

   The power draw provided in the FEIS did not include the portable generator units (this was an oversight) and underestimated the load balance required for the mill. The actual average daily power draw is expected to be much lower than the installed 11.0 MW. The emergency power requirements (2.0 MW) will not be drawn on a regular basis. The portable generators at Roberts Bay and at the airstrip are expected to only operate part time (less than 5% of the time – i.e., expected to be 350 hours per year at Roberts Bay and 400 hours per year at the airstrip). The mill power draw has to allow for power draw spikes that will occur when starting up the major load items, specifically the grinding circuit and the crushing plant. The start up power draw on these large motors can represent up to double the operating load thus requiring that the installed power generating capacity be sufficient to meet these intermittent peak loads.

   The main consequence of this increase in installed electrical generating capacity is the transport, handling and consumption of more diesel fuel which in turn results in the generation of a higher volume of greenhouse gases from the Project. This impact is discussed further in the next sections. A benefit is that MHBL will be using the heat from the fixed generating plant (from the diesel engines) to heat the mill and crushing plant buildings using a closed loop glycol heating system, thus eliminating the burning of diesel fuel to provide winter heat in these facilities.

2. The total projected annual consumption of diesel fuel at the Doris North Project has increased from 7.5 million to between 10 and 12 million litres per year, directly related to the increase in fuel consumed to generate electrical power for the Project. The effects of this change fall under two categories:

    a. Air Emissions – The amount of air emissions (SO_2, NO_x and greenhouse gases (GHG)) from the Project will increase by between 30 to 60% from that previously predicted. In the FEIS it was projected that the Doris North Project would result in a GHG emission of 7.7 kt ECO_2/yr. The change in diesel fuel consumed will now increase this to a maximum of 12.3 kt ECO_2/yr. The most recent public data available from by Environment Canada on the inventory of GHG emissions in Nunavut is for 1990 through 2004 (http://www.ec.gc.ca/pdb/ghg/inventory_report/2004_report/ann12_e.cfm). This inventory projected that total GHG emissions in Nunavut would be 549 kt ECO_2/yr in 2005. Consequently these increases in total fuel consumption at the Doris North Project will at a maximum increase this projected GHG emission by 4.6 kt ECO_2/yr (a 0.8% increase in the projected 2005 total GHG emission in Nunavut). Natural Resources Canada projected that national GHG emissions for 2005 in Canada would be 728,000 kt ECO_2/yr. Thus this increase GHG emission from this increase in fuel consumption will be fairly negligible on a national scale (~0.0006%).

    In Nunavut the increase is more noticeable but is still relatively small. Overall the environmental effect from this increase in total fuel consumption on air quality is rated not significant using the criteria put forward in Section 10.3 of the October 2005 FEIS, specifically no residual reduction in air quality within 10 km of the plant site and GHG emission that are less than 0.1% on a national scale. There will still be no projected exceedances of territorial SO_2 air standards resulting from the Doris North Project. MHBL has commissioned Golder Associates to update the previous 2005 Air Quality model for the Doris North Project to reflect this increased fuel consumption and will forward the results as soon as they become available.

    b. Fuel Storage Capacity and Handling Procedures – SNC-Lavalin has recommended that the amount of on-site fuel storage capacity should be increased from a 12 month to a 14 month supply to ensure continuity in operation and allow for contingency in the event of a colder winter or other change that results in higher fuel consumption. Consequently SNC-Lavalin has recommended that a new additional fuel tank farm be constructed within the footprint of Quarry 1 at Roberts Bay. This facility would be designed to

accommodate a single storage tank with a 5.7 million litre capacity and would be sited further than 150 m back from the water. The fuel transfer station would be relocated into this new fuel storage facility so that all fuel trucks would be loaded inside the bermed containment liner.

SNC-Lavalin pointed out that with the increase in annual fuel delivery from 7.5 to 12 million litres it will be impractical to "immediately" transfer the fuel from the arriving sea lift barges to the tank farm facility at the plant site without either doubling the number of trucks hauling fuel or doubling the demurrage time that the barge remains on site, consequently SNC-Lavalin suggested that a new 5.7 million litre fuel storage tank within a bermed and lined containment facility be constructed at Roberts Bay. In their opinion this would lower the risk created by operating double the number of transfer tank trucks over the single lane road between Roberts Bay and the plant site over a tight time schedule while the barges are at site.

MHBL has requested that SNC-Lavalin design this second fuel storage facility to be located in Quarry 1 at Roberts Bay. The facility will include the fuel truck transfer station that was previously intended to be constructed adjacent to the Roberts Bay beach laydown area. A copy of this design will be forwarded as soon as it becomes available. Under this new arrangement fuel will be pumped from the arriving barge through a fixed permanent piping (double walled piping for self containment) that runs along the jetty and over to the new storage tank in Quarry 1. It should be noted that this is not a new piping system but an extension (~400 m) of the originally proposed piping link between the jetty and the original location of the fuel transfer station. The filling of transfer tank trucks would be done from this new tank at a fuelling station constructed within the containment liner. In this way the fuel tanks at the plant site would be filled as previously planned with the additional fuel placed within the new storage tank at Quarry 1 allowing the current off-loading schedule to be maintained.

The new fuel tank farm will be in a containment liner and fuel transfers will be via a double walled pipeline for self containment. With these mitigation measures, it is MHBL's opinion that the risk of accidental spillage from this handling of additional fuel will not significantly increase. MHBL's overall environmental assessment of this modification is that the environmental impact of this additional fuel storage facility is neutral given its proposed placement within the footprint of Quarry 1. There is no additional project footprint resulting from this modification and the additional storage capacity

will reduce stress during the annual fuel offloading by providing a storage buffer at Roberts Bay between the barge offloading and the movement of fuel to the plant site by tank truck.

3. Roberts Bay Jetty – Barge Anchoring Blocks - SNC-Lavalin has recommended that the proposed on-shore concrete blocks used to tie up the sea lift barges be replaced with an on-shore concrete piling placed in the same locations but set into holes drilled into the ground. This change reduces the amount of concrete required and reduces the risk of friction moving one of the tie up concrete blocks. MHBL and SRK are in agreement with this modification and have indicated that SNC-Lavalin should proceed with their alternate design. In MHBL's opinion this modification does not result in any change in the potential environmental impact of these two on shore barge tie up points. It does not create any further ground disturbance or impact the permafrost in this area and has a neutral overall environmental impact.

4. Doris Lake Fresh Water Intake – SNC-Lavalin has recommended that the proposed 4" HDPE DR 17 fresh water pipe intake to be sited on the bottom of Doris Lake feeding an on-shore wet well, be replaced with a floating barge system with an approximate in-lake footprint of 10 feet square. The floating pump house barge will be equipped with an aerator bubble system to keep the barge from freezing solidly in place. SNC-Lavalin feels that the floating barge system is more suitable for the small volume of water to be drawn from Doris Lake and easier to install and maintain. SNC-Lavalin cites successful use of similar pumping systems at other sites in the North. In this way the entire system can be fabricated off-site and shipped as module for direct placement. This modification will remove any lake bottom impacts potentially associated with the HDPE pipe laid along the lake bottom and anchored in place with clean rockfill. There would be no change in the volume of water drawn from Doris Lake and the bubbling system will only affect the ice within 6 inches of the floating barge and thus does not create any new hazards to wildlife or humans traveling on the frozen lake in winter. This modification will remove any potential impact on fish habitat caused by a pipe on the lake bottom. Overall in MHBL's opinion the potential environmental effect from this change is positive as it eliminates any impact on the lake bottom. This style of pump intake is in line with that previously requested by DFO during the NIRB process.

5. Jetty – Access Road to Construct Shorefast Rock Spurs – As part of its planned fish habitat compensation measures, MHBL has agreed to build six rock fill spurs along the foreshore immediately to the east of the Roberts Bay jetty to provide 600 m^2 of new fish habitat. To move the rockfill to this area MHBL has to construct a spur road of approximately 100 m in length from the jetty access road to the foreshore. The proposed

alignment of the road is shown in Figure 1. The road is needed to access this area without rutting the underlying permafrost. The spurs must be placed under open water conditions and so summer access to the shore at this point is required to allow a backhoe to place the rockfill on the bottom of the bay. The width of the road will be 6 m and built to a minimum standard required to protect the underlying tundra (approximately 1 m in height). This access road will not be required once the shoreline habitat spurs are constructed however the rockfill will not be removed as excavating this rockfill will in MHBL's opinion result in disturbance to the underlying tundra and could cause erosive damage if removed. This road will add an additional 0.06 hectares to the 62 hectare project footprint. In MHBL's opinion this additional short road will not have a significant environmental impact and thus this change is seen as being neutral.

6. Roberts Bay Access Road – Construction Turnouts – The current access road design calls for a single lane road between Roberts Bay and the plant site with passing turnouts sited at 1 km intervals. This remains unchanged, however SNC-Lavalin has pointed that in constructing a single lane road, a number of construction turnouts will be required to allow the construction dump trucks to safely turn around to dump their loads. The contractor will install these turnouts where they are needed for safe turning of the trucks. This is a safety requirement and a change in the road design submitted to the NWB. It is estimated that approximately 35 of these turnouts will be needed to allow for safe construction of the Roberts Bay access road (turnouts will not be needed for the widened airstrip portion of the road). Each turnaround will be approximately 6m x 12m (72 sq m). The total additional surface footprint from these turnouts will be approximately 0.25 hectares which is still significantly less than if the width of the road had been increased to a double lane road. In MHBL's opinion these additional road turnouts will not have a significant environmental impact and thus this change is seen as being neutral.

7. Site Roads – Replacement of Culverts by Coarse Rock Drains – SNC-Lavalin has recommended that all culverts, planned where the site roads cross low flow (less than 0.25 m^3/s) ephemeral drainages that have no fish access potential, should be replaced by rock drains. This recommendation is based on their experience at other Northern sites where typically the culverts remain frozen after the freshet flow commences in the spring turning the culverts into flow obstructions until they can be thawed using applied heat. SNC-Lavalin proposes that these culverts be replaced with rock drains consisting of coarse rock that has been screened to remove fines. In their experience these rock drains perform better in the North at passing the spring freshet flows. These will only be used where the drainage pathways have no defined stream and thus no potential for fish access and where flow is expected to be less than 0.25 m^3/s. SNC-Lavalin

has prepared a typical rock drain design and specification. This design is based on an approved GNWT Highway design used on SNC-Lavalin's design build contract for NWT Highway 3 near Yellowknife. SNC-Lavalin has forwarded the design to SRK who will review its application at Doris North. Once an agreeable design has been completed this typical rock drain design and specification will be forwarded to the NWB. In the interim a copy of the GNWT approved rock drain design is attached as Figure 2. A copy of the GNWT approved specification for the rock drains is attached as Appendix A. In MHBL's opinion this replacement of culverts by a rock drains for the low flow ephemeral crossings has a neutral overall environmental impact as these ephemeral drainages have no fish passage potential.

8. Underground Mine Ventilation Raise Service Access Road – Construction of the Doris North underground mine requires the construction of three ventilation raises that will come to surface (See Section 4.8.1 in the FEIS). The first raise is to be located approximately 500 m ramp length from surface where a temporary ventilation raise/escape way (Vent #1) will be driven to surface. At the top of the vent raise, a large diameter low pressure 45 kW (60 HP) main fan will be installed to force 47 m^3/s (100,000 cfm) up the main ramp. As the ramp development reaches the northern and southern extents of the mine, two additional ventilation raises/escape way (Vent #2 and Vent #3) will be driven to surface. The temporary raise (Vent #1) will then be sealed off and the two new raises (Vent #2 and Vent #3) will each have a low pressure large diameter 45 kW (60 HP) fan mounted on top of them.

   An 800 m long x 6 m wide service road will have to be constructed to allow maintenance access for these fans at Vent Raise #1 and #2. The road will run to the northeast of the mine portal along the east side of the mesa as shown in the attached Figure 3. This new road will add an additional 0.48 hectares of surface disturbance to the overall project footprint of 62 hectares. Raise #3 will be accessed from the main road going to Tail Lake. This service road will see minimal traffic (estimated at 1 vehicle trip per day) but will also allow for a secondary egress route from the mine for mining personnel in the event of an underground emergency that may block safe access up the ramp. This road was inadvertently overlooked by MHBL during the assessment phase although the ventilation fans were included in the assessment. The three vent raise service stream crossings shown on Figure 3 are all ephemeral drainage runoff paths and do not represent year round streams and thus do not allow for fish access. MHBL proposes that rock drains be installed at these three points to allow unimpeded passage of surface runoff through these drainage pathways.

   The construction and operation of this road is not expected to have any significant environmental impact. It will not impede water flow, will not

impact any aquatic life, will not hinder wildlife access and will not significantly increase noise levels due to the expected minimal traffic. The road will ensure that service access to vent raise #1 and #2 during mine operations is restricted to the road and does not create further ground disturbance on the surrounding tundra.

9. Cyanide Destruct Process - MHBL retained CyPlus (a subsidiary of Degussa) to conduct further cyanide destruction testing and to provide process design criteria to SNC-Lavalin. CyPlus were asked to evaluate the Caro's Acid process, their CombinOX process and the SO_2-Air Cyanide destruction process with the constraint that they meet or better the Caro's Acid performance presented in the October 2005 FEIS (the Bateman Engineering work of September 2003). CyPlus was also asked to evaluate the logistics for each of the three cyanide destruction processes as well as operating and capital costs.

   Performance results:

   CyPlus reported comparable results between the CombinOX and the SO_2-Air process which in turn had better metal reduction rates than the Caro's Acid Process.

   Logistics and operating cost results:

   CyPlus found that logistics of transporting and storing drums of sulphuric acid to be used in the manufacture of Caro's Acid proved to be difficult and expensive. To prevent freezing under winter temperatures common at the Doris North Project site a maximum sulphuric acid concentration of ~30% would be required, thereby tripling the volume of drums of sulphuric acid that would have to be shipped, stored and handled at site (sulphuric acid freezes at higher temperatures when at full strength with the freezing point going down as the concentration decreases). CyPlus found that in mixing a 30% concentration of sulphuric acid with hydrogen peroxide resulted in a much weaker strength Caro's Acid even after adjusting the stoichiometric volumes mixed to equal the use of full strength sulphuric acid. This had an adverse effect on kinetics and consequently performance when using Caro's Acid performance to destroy the residual cyanide.

   The CombinOX and SO_2-Air process provided similar logistical problems with a slightly lower operating cost for the SO_2-Air process.

   Based on their test work CyPlus recommended on the basis of performance, operating cost and logistics that the Project would be best served by selecting the SO_2-Air Process using sodium metabisulphate as the SO_2 source. MHBL has thus moved from Caro's Acid to the SO_2-Air process as the selected cyanide destruction process for the Doris North Project.

The SO_2-Air is a simpler process and has a good track record at numerous other gold mines across Canada and around the world while the CombinOX process is relatively new in comparison. The CyPlus optimized results for the SO_2-Air process are compared with the Bateman Caro's Acid results that were used in the SRK Water Quality Model 2007 Update as follows:

CyPlus SO_2-Air Optimized Cyanide Destruction Test Results (May 2007)

			SOLUTION ASSAYS						REAGENT ADDITIONS		
TEST	STREAM	RET'N TIME (hours)	CN_{WAD} (ppm)	*CN_{TOT} (ppm)	Cu (ppm)	Ni (ppm)	Fe (ppm)	pH	SO_2 (g / g CN_{WAD})	$Ca(OH)_2$ (g /g CN_{WAD})	Cu^{2+} (ppm)
	FEED – CN Leach Residue (sol'n)		631.7	1,510	81.60	1.99	314.3	10.5			
SO_2/AIR #1 (Optimum)	C.I.L. Tails (sol'n)	2	0.76	1.85	0.07	0.13	0.39	8.5	6.0	2.05	800 (Fe + 167 ppm)

Bateman Engineering Caro's Acid Cyanide Destruction Test results (Sep 2003)*

			SOLUTION ASSAYS					
TEST	**STREAM**		**CN_{WAD} (ppm)**	***CN_{TOT} (ppm)**	**Cu (ppm)**	**Ni (ppm)**	**Fe (ppm)**	**pH**
	FEED		153	220	40.4	0.38	3.61	10.17
Caro's Acid	C.I.L. Tails (sol'n)		0.25	2.50	0.14	0.62	0.17	7.86

*Source: Table 3.11 SRK Water Quality Model Report, March 2007 – Page 40

Effects on Water Quality Management:

The results show that the SO_2-Air process provided treated effluent water that is similar, if not slightly better, in quality than that predicted in October 2005 FEIS. CyPlus are currently completing their report. A draft copy has been appended to this letter as Appendix B. The report is still in Draft form as CyPlus are still completing capital and operating cost estimates. A full set of solutions from the optimized CyPlus test have been shipped to Cantest Ltd (formerly BC Research) for a full parameter analyses and for a one month ageing test to see what happens to the treated solution as it ages.

The effluent quality results from the CyPlus SO_2-Air (optimized) test were input by John Chapman into the SRK water quality model to test the validity of previous predictions with these new results. The modeling verified that the water management strategy as proposed by MHBL in the Water License application will remain valid. The CyPlus testing demonstrates that with the switch from Caro's Acid to the SO_2-Air cyanide destruct process can be achieved without adversely affecting the planned water management strategy.

Consequently it is MHBL's opinion that the switch from Caro's Acid to the SO_2-Air Process has a neutral effect and does not change the previous environmental predictions. The switch eliminates the use and consequently the need to transport and store sulphuric acid and hydrogen peroxide to site and replaces these chemicals with dry sodium metabisulphate which will be shipped in 1 tote plastic lined tote bags placed inside containers.

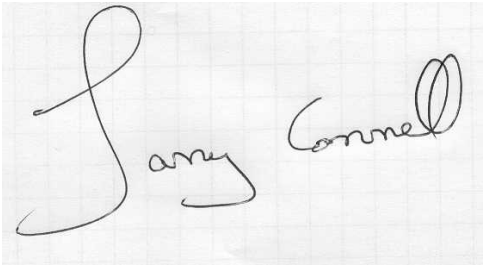
10. Sewage Treatment – SNC-Lavalin have recommended that MHBL switch the packaged sewage treatment plant from the rotary biological contactor type of plant as described in the April 2007 Water License application to a SaniBrane Membrane bio reactor similar to the units installed at the Snap Lake and Diavik Diamond Mine Projects. These newer membrane bioreactor sewage treatment systems are reported to be easier and cheaper to maintain and operate in Northern Climates and to achieve better treatment levels than the rotary biological contactors. A copy of the manufacturer's brochure on the membrane bioreactor treatment system provides more detail on the proposed sewage treatment system and is attached as Appendix C. The basic operating theory behind membranes is conventional biological treatment combined with a semi permeable barrier that precludes mixed liquor suspended solids from being discharged from the biological reactor. At Snap Lake the SaniBrane Membrane Bioreactor sewage treatment plant is reported to be achieving BOD levels below the 5 mg/L detection level, less than 2 mg/L Total Suspended Solids and fecal coliform concentrations less than the 15 F.C./100 ml detection limit. In MHBL's opinion this change in sewage treatment plant technology is neutral from an environmental impact assessment point of view and does not significantly alter previous assessment predictions related to wastewater treatment at the Doris North Project.

As part of this change/modification all sewage sludge will now be filtered, bagged, dried and then incinerated on site rather than being pumped to the tailings containment area for co-disposal with the tailings. The treated grey water will still report to Tail Lake as previously planned. The volume of dried sludge to be incinerated is small and is not expected to have any significant impact on air quality emissions from on-site camp incinerator.

In summary MHBL feels that these proposed modifications/changes do not result in any significant difference in the environmental impacts previously predicted for the Doris North Project (October 2005 FEIS). The changes are either neutral or result in insignificant incremental impact.

Please feel free to call on the undersigned for any additional information. It is MHBL's intent to present these changes to all interveners at the scheduled Doris North Water License Technical Hearing scheduled for Cambridge Bay on June 11th.

Regards
Miramar Hope Bay Ltd.



Larry Connell
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cc: - NWB Doris North email distribution list