

PART 2: WASTEWATER TREATMENT

Questions from ECCC (letter dated 2017 July 19) and responses:

- Was there a process change between February 2015 when ammonia was reported at 32.6 – 482 mg/L and May to July when all results was reported as 0.01 mg/L?
Ans.: The upgrade WWTP was just starting up in early 2015, the higher ammonia numbers are as a result of nitrification not yet being established. The lower numbers shown later are indicative of nitrification well underway.
- Data Quality Assurance/Quality Control (QA/QC) issues were evident in the numerous negative values for ammonia and Total Suspended Solids (TSS) in the Wastewater Treatment Plant (WWTP) Lab Test Results spreadsheet. After April 2015 there were numerous negative TSS results reported. After October 2015, negative values for ammonia were reported and comprised most of the results between December 2015 and June 2016 (16 of 21 results). Please advise how data QA/QC was done and whether or not these data should have been screened out.
Ans.: The negative numbers should have been screened out.
- February 2016 samples reported in the pdf summary appear to have exceeded holding times for all parameters. Samples were analyzed approximately five weeks after collection.
Ans.: There is a process now in place to minimize the time between sampling and having the lab receives the samples (weather and flight delays have caused problems in the past)
- Many ammonia results in the Excel spreadsheet are reported as zeros in mid-2016. What was the detection limit for these results?
Ans.: Those "zeros" should have been screened out.
- ECCC recommends that the Proponent provide responses to all points listed above and verification of the questionable data provided for final effluent from the wastewater treatment plant.
Ans.: Local oversight of the plant operations was a challenge in the past. A new SAO is in place and he has made a commitment to improve plant operations which includes better quality control of the lab.
- ECCC recommends that the Proponent update the Pangnirtung WWTP Bypass Contingency Plan to include an explanation of what will be done should untreated or partially treated wastewater be discharged during bypass conditions.
Ans.: Exp's report is attached.
- ECCC recommends that the Type A water licence include the requirement for effluent to be non-acutely toxic at end of pipe. The rainbow trout bioassay test could be specified in the SNP, and should be completed annually.
Ans.: If this item is included as the requirement of the new Water Licence, Hamlet will follow up accordingly.

- ECCC recommends that the Proponent remove the Environment Canada 24-hour telephone number ([867]975-4464) from the Pangnirtung Spill Contingency Plan.
Ans.: The document has been revised by exp and attached.
- ECCC's preference is for the Hamlet of Pangnirtung Renewal-Amendment Water Licence Technical Meeting, Pre-Hearing Conference and Public Hearing to be in written form.
Ans.: NWB 's decision was published on dated Oct.30,2017 to conduct the Public hearing on Dec.5 and Dec.6, 2017.

Questions from INAC (letter dated 2017 July 28) and responses:

- INAC recommends that the Licensee include these additions (INAC as an agency with a vested interest in a bypass event; report bypass events to NT-NU 24-hour spill-report line) in an updated version of the Plan.
Ans.: These additions have been added in the Bypass Contingency Plan. The revised version is attached.
- INAC recommends that the old sewage lagoon remain under a renewed licence until such time as it is decommissioned. We also recommend that the Licensee clarify if the sewage lagoon to be decommissioned is distinct from the sewage treatment wetland receiving leachate from the metal dump. If they are in fact the same, it may have an important impact of the reclamation effort required.
Ans.: Yes, the sewage lagoon to be decommissioned is distinct from the sewage treatment wetland. Refer to the attached photo. Leachate from the metal dump would flow directly to the shore line, it does not flow through the lagoon.
- INAC recommends the Licensee provide the information requested in Part H Item # 13, including geographic coordinates, a general description of samples taken of wastewater effluent, and a better description of where the discharge samples are being taken.
Ans.: Raw wastewater is sampled directly from the sewage disposal Point at the WWTP at PAN-2. The final effluent is collected from the end of the sewer pipe at PAN-3 in summer and from a Valve of the sewer line inside the building just after the UV during winter season.
- We recommend that the Licensee correct the deficiencies noted above (include calcium hypochlorite at WTP; add "Facility Supervisor" contact; additional spill kits) in a revised version of the Spill Contingency Plan to be submitted with next year's annual report.
Ans.: This will be done as per the instruction provided.
- INAC recommends that the license should be renewed for 10 years.
Ans.: Yes, this recommendation will be welcome, however, the Hamlet will be requesting a 15-year renewal.

