Boswick, Robert (SD)

From: Colin McKinnon <mckinnonc@ae.ca>
Sent: April-26-19 9:43 AM
To: Boswick, Robert (SD)
Cc: Dale Wallace (virden_sup@mymts.net); Wittmeier, Nathan (MR); Jeff O'Driscoll
Subject: Virden WWTF Licence - Phase 2 WWTF Work Upgrades Summary
Attachments: 2017VirdenWWTF_ContractP&IDS.pdf

Hi Rob,

I've attached a set of the P&IDs for the Virden WWTF Phase 2 work. As you are aware the work is complete and the plant is in operation. I hope that this information helps to finalize the licence. Below is a brief summary of the Phase 2 upgrade.

In the Phase 2 Upgrades Project, the Virden WWTF was upgraded to provide a secondary level of treatment, biosolids stabilization, and dewatering. The upgraded facility is rated to provide secondary treatment capacity up to 42 L/s (3,600 m3/d) and process a peak flow rate of 100 L/s (8,640 m3/d). In the Headworks Building, the existing influent metering, fine screen system, and primary treatment Salsnes Filter were retained, but a second influent forcemain, a raw sewage splitter box, and a second fine screen were added. The primary treatment Salsnes Filter was repurposed as a standby unit to facilitate plant maintenance activities. The existing old plant building was repurposed as the Main Building and expanded to accommodate additional treatment processes. The effluent chlorination system and the dechlorination system that was originally located in this building were demolished. The Main Building houses the grit removal, plant lift station, UV disinfection system, effluent Parshall flume, alum storage and dosing system, digested sludge transfer pumps, biosolids dewatering unit, biosolids storage bin, plant service water system, and a septage receiving system. A new sequencing batch reactor (SBR) secondary treatment system was built adjacent to the Headworks and Main Building. This SBR Building was constructed to include SBR reactors, equalization tanks, and aerobic digestion system.

In review of the P&IDs documents with the January 2014 EAP submission I've identified the following minor changes:

1. The constructed facility has two SBR basins and two equalization tanks. An additional SBR basin and equalization tank can be added in the future if required.
2. Salsnes Filter(screen) which was installed in Phase 1 in the head works building is bypassed and is now a standby unit. In the EAP the concept was to relocate the existing Salsnes and add a second prior to the aerobic digesters. In the constructed facility the sludge is transferred directly from the SBR Basins into the Digesters.
3. A second fine screen(Parkson Helisieve) was added in the headworks building.
4. The digesters supernatant discharges to the plant lift station and is then pumped back to the SBR Basins. The EAP submission concept had the plant lift station pumping the back to the headworks building.

Please let me know if you require any other information.

Thank you,

Colin

Colin McKinnon, P.Eng.
Project Manager
Associated Engineering (Sask.) Ltd.
203 - Number Five Donald Street, Winnipeg, MB R3L 2T4
Tel: 204.942.6391 | Cel: 204.806.0023

Associated Engineering | GLOBAL PERSPECTIVE. LOCAL FOCUS.

CANADA'S BEST MANAGED COMPANIES Platinum member

You may unsubscribe from Associated Engineering electronic communications at any time.

You may unsubscribe from Associated's electronic communications at any time.