



ENGINEERING APPLICATIONS – PROJECT DESCRIPTION
Rio Tinto Alcan Gove – Wastewater Neutralisation Pilot Plant

Client: Rio Tinto Alcan Gove Alumina Refinery, Nhulunbuy NT

Project: Wastewater Neutralisation Pilot Plant

Duration: Fabrication – May 2011 to Aug 2011
On-site Construction – Aug 2011 to Oct 2011
Commissioning and Operational Support – Nov 2011 to Mar 2011

Man Hours: Workshop Fabrication – 8,470
On-site Construction – 14,620
Commissioning and Operational Support – 2,340

Description of ENAP's Scope:

ENAP was engaged as the principal contractor for the fabrication and installation of a pilot plant to demonstrate a new process for handling waste streams for an alumina refinery to allow environmentally acceptable discharge to the surrounding bay. This involved working collaboratively with client (Rio Tinto Alcan), engineering and project management contractor (Beca) and ENAP's electrical sub-contractor (Arnold's Electrical). ENAP's scope included:

- Shop detailing of tanks, primary structural and secondary structural packages.
- Fabrication of three mild-steel tanks in accordance with API650, including access platforms and rakes/agitators.
- Fabrication of primary structural package, including shop assembly of client supplied process flocculant vessels and connecting pipework to minimise site installation work.
- Fabrication of secondary structural package, including eight Mud Collection Skips, minor access platforms and stairs, pipe supports and drainage grating.
- Shop fabrication of process piping from client supplied isometric drawings in accordance with AS4041 Class 2.
- Electrical fitout of pilot plant substation, including MCC, VSD's and Control Panels.
- Site installation works, including installation of tanks, structural platforms, slurry pumps, flocculant dosing pumps, agitators and inter-connecting pipework working in an operating alumina refinery.
- Site electrical and instrumentation works including supply cabling to pilot plant substation, motors and instrumentation, and completion of testing and commissioning documentation.
- Commissioning and operational support over four months of initial pilot plant operation, including operational modifications and improvements



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