

AGL Loy Yang – DWPS11 De-watering & Fire Service Mains



Project Need

AGL Loy Yang provides over 30% of Victoria's electricity and is also accompanied by an open cut coal mine. AGL Loy Yang continues to invest in the coal mine and as such, required a new fire service main and dewatering main to remove rainwater from the mine during peak one in 100-year storm events. These mains will help to continue the work of mining in the region for the next 40 years.

Solution

Steel Mains was contracted to supply and deliver mild steel pipes for these two mains at the coal mine. As part of the contract, a full suite of products was manufactured and delivered to site including approximately 5000m of 762 OD Mild Steel pipe. The jointing system used for these pipes was SINTALOCK® - Type II joint, which incorporates a Rubber Ring joint with an external fillet weld only. This joint provided the perfect solution for these two water mains. The internal lining for the pipe was Calcium Aluminate cement lining. (CAC)

Achievements

These two pipelines presented challenges on multiple fronts. The first was the acidity of the water being conveyed. It had a pH reading of 4.5. Traditional cement lining would not have been suitable for this water and would have led to corrosion in a shorter time frame. Steel Mains supplied the mild steel pipes with CAC lining, ensuring that the pH level would not be an issue over the lifetime of the pipeline. AGL Loy Yang also required a welded pipeline. Traditional welded steel pipe joints would have meant that the internal joint would be exposed to the acidic water, once again causing potential corrosion issues. With our Sintalock II joint, the internal joint is fully protected with our Sintakote coating, meaning no bare steel is exposed to the water. Lastly, these pipelines were operating at 3500 kPa. Our Sintalock II joint has been designed to handle high pressures, providing a practical solution to these high-pressure pipelines. In Summary, Sintalock II with CAC lining meant no internal welding, no internal joint exposure to low pH water, no internal cement reinstatement and ability to handle high pressures. The ideal joint for this project. Steel Mains worked with the construction contractor to deliver the pipes from our Somerton manufacturing and storage facility over a 12-month period. Providing flexible delivery and manufacturing solutions.

Project: AGL Loy Yang
DWPS11 Watermains

Principal: AGL Loy Yang

Location: Traralgon Vic

Completion: 2018

Supplied: Sintakote Steel Pipe
762 OD SINTALOCK® II
Joints – 5000m