



**Owner :** Eraring Energy

---

**Subsidiary(ies) :** Freyssinet Australia

---

**Beginning of works :** 04/2010

**End of works :** 04/2010



#### Description of the work :

The project consisted of repairs and inspection to Units 1/2 Chimney Stack of the Eraring Power Station, located near Newcastle. Works were to be performed during the plants scheduled Easter shut down period which consisted of 13 days. Work to be completed during this time was the replacement of chimney stack capping and lightning protection. Inspection and reporting of the stacks condition was also required.

#### Freyssinet mission :

Replacement of capping and lightning protection was successfully completed on the chimney stack, which towered 200 meters high. This was achieved by a 24 hour a day roster, rotating in 2 shifts. The platform for works was custom built and placed upon the stack by helicopter. Access to the working platform was provided by a mast climber installed on the outside face. Swing stages were then installed on the inside of the chimney to provide access to the replacement work, and to carry out the inspections on the stack. Concrete repairs were also performed on the face of the stack. Techniques used during the survey included cement content sampling, half cell mapping, carbonation depth on external surface, chloride ion sampling and analysis, concrete condition and integrity assessment by Impulse Response test, crack survey and measurement, core sampling, compressive testing, wall thickness, concrete surface erosion or cracking, delamination survey, concrete cover to reinforcement, evidence of steel corrosion and sulphate attack on concrete surface.

