



Taprogge balls

What are Taprogge balls?

Taprogge balls (pronounced ta-prog-ee) are small, spongy rubber balls used to clean the insides of pipes (condenser tubes) in the cooling water system at Eraring Power Station. The balls are named after their inventor, Josef Taprogge.

Why are they used?

Taprogge balls are used to maximise the heat transfer efficiency of the salt-water cooling system by removing the build-up of micro-organisms and maintaining an even coating of ferrous chloride in the condenser tubes. Ferrous chloride is used to prevent corrosion of the condenser tubes.

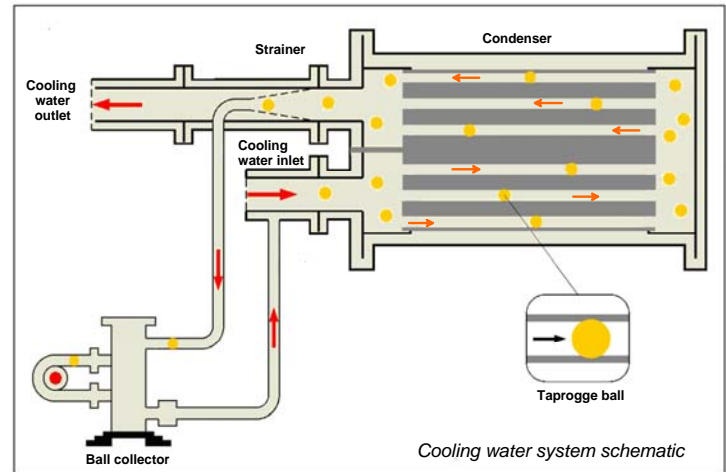
How do they work?

Each Taprogge ball is slightly larger in size than the inner diameter of the pipe. The balls are injected into the salt-water cooling system and squeezed through the pipes by the pressure of the water, leaving a thin coating of ferrous chloride and dislodging any material on the pipes' surface. When the Taprogge balls reach the end of the pipes, they are captured by strainers and recirculated back through the cooling water system.

What are the environmental impacts of using Taprogge balls?

On occasions, Taprogge balls can become worn and lose their elasticity, which allows them to pass through the strainers and enter the Lake. To minimise the risk of balls entering the Lake, Eraring Energy has implemented the following controls:

- Reduced the number of balls in operation by 75%;
- Reduced the time the Taprogge balls are in operation; and



Cooling water system schematic

- Installed additional filters in the cooling water system.

Eraring Energy continues to monitor the effectiveness of these controls through routine inspections of the cooling water system and the foreshore of Myuna Bay.

Independent analysis has confirmed that the balls are

biodegradable and chemically inert. This means that any balls that do escape the system will not cause damage to the environment.

The Taprogge ball system is a much more environmentally friendly process than alternative cleaning systems, which use potentially hazardous chemicals.



Condenser system at Eraring Power Station



The two sizes of Taprogge balls used at Eraring Power Station