SLOY MIV REPLACEMENT

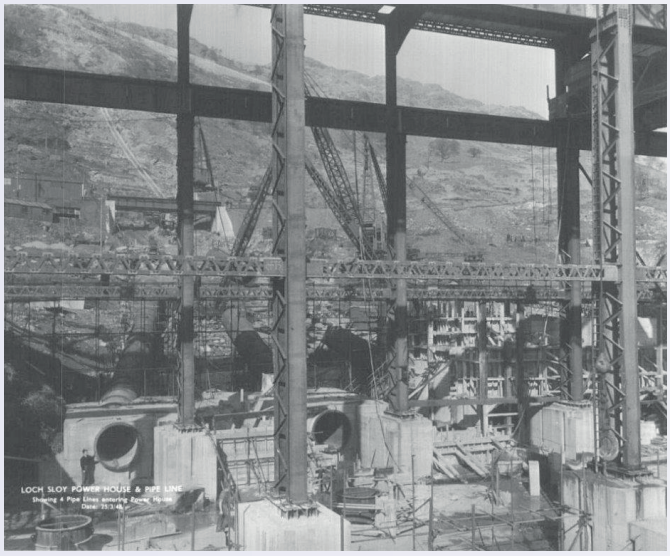
Sloy Power station was constructed 68 years ago, in 1949. Integral to the safe operation of the plant are four Main Inlet Valves (MIV's) which isolate water supply to the turbines. RSE were awarded the contract to replace these valves in Spring 2016.

Each valve is 2.1m in diameter and is embedded in concrete within the Power Station building which houses four 40Mw generators. The new MIV's are being custom built by eTec, a UK specialist valve manufacturer, based in Yorkshire.

In order to replace the existing valve, the MIV had to be exposed by breaking out the surrounding concrete, the newly formed chamber was then enlarged to house the new MIV.

Removal of the existing valves and installation of the new units are complicated by site constraints, in particular that the station's own overhead crane does not reach the valve location.

Global Energy Group (formally CPS) carried out a laser survey which allowed RSE designers to create a full model of the station and plan the lifting solution, necessitating the use of a purpose made offset lifting beam.



25.05.48 - Showing 4 pipe lines entering Power House

Removal of old Valve

Lifting Beam

Project Title: *Sloy*

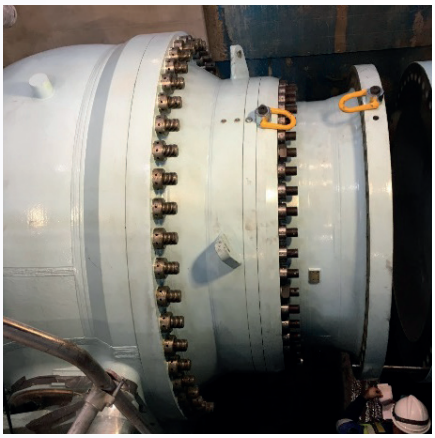
Client: *Scottish & Southern Energy (SSE)*

Project Value: *£4.3M*

Award Date: *28th April 2016*
Project Commenced: *May 2017*

Project Completed: *March 2020*

RSE
ROSS-SHIRE ENGINEERING



Installation of new Phase 1 MIV Valve.

There is a suite of electrical panels located above each of the MIV's. These have to be safely removed to enable the civil contractor to remove the concrete. Once complete the same suite of panels have to be reinstated in their original position. The existing controls are then modified to accommodate the new MIV controls.

Installation of new Phase 1 MIV Valve with the Installation of the New Control Panels.

Ross-shire successfully delivered the Phase 1 MIV and installed it in to its final position in September 2017. Commissioning of this phase will be complete for December 2017.

Phase 2 is due to start in March 2018 and phase 3 & 4 to follow with a final completion and handover date of March 2020.