

WYLFA CONDENSER – RETUBE UNIT TA1 - 2007

IN 2007 TEI were awarded the contract to re-tube TA1 condenser at Wylfa Nuclear Power Station in Anglesey North Wales. This is the largest of its nuclear type in the UK. This contract was successfully completed on schedule and to the clients satisfaction in SEPTEMBER 2007.

The condenser is divided into six banks of tubes at two levels. In total 42000 tubes at 1" OD with an effective length of 25 feet 11 inches. The tubes are sealed by means of expanding into a pair of steel & brass tube plates at each end of the condenser. They are then supported by five intermediate sagging plates.

TEi EXPERTISE

TEi have the exclusive UK licence for specialist equipment for cutting, pulling and flattening the old tube.

This equipment is maintained on a 24hr basis by site technicians.

Statistics

- 42000 temporary liners removed.
- 42000 tubes removed and replaced, total 396 miles or Anglesey to York return.
- Total scrap weight removed 348 tonnes.
- Total weight of new tubes 240 tonnes.
- 350,000 holes prepared & cleaned.
- 169,584 expansions carried out and no leaks found.
- Approx. 100,000 man-hours liquidated.



KEY ACTIVITIES

- Removal of all feed & drain pipe work.
- Removal of outlet water box doors and erection of 360m² x 2 dance floor scaffolds.
- Removal of 42000 temporary CTI full length tube liner sleeves, expanded into the original tubes.
- Internal cutting, pulling, travelling and chopping of old tubes & liners.
- Management, segregation & disposal of scrap tube & liners.
- Cleaning of tube & sagging plate holes by means of ball burrs and flapper wheels.
- Tube/Sagging plate repairs by means of expanded sleeves.
- Hole dimensional checks to ensure expansion tolerances.
- Installation of new tubes using 'clean condition' methods.
- Expanding new tubes into steel/brass tube sheets.
- Cutting to length and flaring new tubes.
- Repairs to expansion bellows and internal surfaces.
- Installation of Water box doors.
- Hydrostatic pressure test of condenser per individual bank.
- Fill test survey & inspection.
- Replacement of all feed & drain pipe work.
- Hand over to client before return to service due date.



TEI's integrated
management system,
ISO 9001 ISO 14001
OHSAS 18001

PO BOX 80 CALDER VALE ROAD
WAKEFIELD | UK | WF1 5YS

TEL: +44 (0)1924 780000
FAX: +44 (0)1924 201901

enquiries@tei.co.uk
www.tei.co.uk