



RWE's mothballing skills enabled a unit to be ready to return to service in just two weeks

# CASE STUDY

Market conditions dictated that two units at the 2,100MW oil-fired Littlebrook power station were to be mothballed. RWE's engineers ensured this was undertaken to such a high standard that one of the units was ready to return to service in just two weeks.



## The need for our expertise

During the mid nineties, over-capacity in the UK electricity market, the high cost of oil, low load factors and the need to reduce fixed costs led to the business need to close or mothball some oil plant. The decision was taken to mothball two 700MW units at Littlebrook power station. Unit 3 was mothballed in 1995, followed by unit 2 in April 1996.

The 'mothballing' or 'preservation' was undertaken in a way that would allow the return to service of the units at anytime, even at very short notice. Littlebrook unit 2 was returned to service in 2000 after four and a half years. It was operational in six weeks, which included the statutory inspection of pressure parts and fitting of new airheater baskets. Without the need for the statutory inspection the unit could have been returned to commercial operation in less than two weeks.

## Putting our expertise into action

For a unit to be returned to service at minimum cost, mothballing must be undertaken with great precision.

Local expertise was very important in the initial stages of the mothballing at Littlebrook. The use of competent local contractors and equipment suppliers played a crucial role in the process. Blowing out water and steam vessels at maximum appropriate temperatures and pressures ensured maximum dry out and minimum time for dehumidification.

Washing, cleaning and/or dusting necessary gas passes with neutralising powder as soon as possible, minimised cold surface 'sweating', reducing acid formation and subsequent corrosion.

Our engineering expertise and experience allowed for the quick identification of the steam and water flow paths for dehumidification, together with the identification of the appropriate size machines to enable an optimum drying out period.

In addition, gas side cleaning and acid neutralisation treatment was essential to prevent corrosion of steelwork. This work was pivotal to allow the plant to be returned to useful service at short notice.

## The difference we made

A decision on mothballing is largely driven by economic measures, as significant savings can be made by mothballing a generation unit not required for operation.

RWE's engineers ensured that Littlebrook unit 2 was mothballed safely, economically and effectively, enabling it to be brought back to service in just six weeks.

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