

Publication: Utility Week

Date: 7<sup>th</sup> November 2008

SOAPBOX



**Maintaining a healthy balance of cost between manufacturer, operator and insurer is very difficult, but critical for long-term financial stability**

## New generation risk must be shared

Insurance in the power generation sector has been very much a buyer's market recently. Lower premium rates might be good news for the buyer, you might think, but in the long term it creates an imbalance that stores up problems for the future, particularly when the overall operating risks are not being shared fairly between manufacturer, operator and insurer.

When there is a loss, such as a breakdown at a power plant, the subsequent cost will look for a home. The plant may be under warranty or subject to a maintenance agreement, in which case some of that cost will go back to the manufacturer, while some stays with the plant operator and some goes to the insurer. Maintaining a healthy balance of cost between these three parties is very difficult, but it is critical for long-term financial stability.

Following the introduction of the large frame gas turbines developed to satisfy the worldwide dash for gas, there were many breakdowns, most of which were design related. These large frame machines, typically F class technology, had been introduced to the market with little or no test running in a live, operational situation. As a result, many had problems in their early life and modifications were subsequently introduced to correct design issues. Some of the plant damage costs incurred at this early stage were covered by manufacturers' warranties, with the remainder of the costs falling with the (often much larger) business interruption costs to the power generators or their insurers.

The insurance market is characterised by a cycle that sees premium rates harden and soften on a cyclical basis and, depending at which point the insurance cycle was, generators found themselves at one end able to transfer most of their risk to insurers cheaply, and at the other end of the cycle being unable to transfer design risk which had fallen to them, even at large cost. Some insurers have, in the past, provided more generous terms and conditions to win business that might, for example, include cover for break-ages related to design faults. Having suffered heavy losses due to design issues, however, insurers sought to exclude this particular cover, leaving generators to pick up the hefty costs.

At times, manufacturers have carried too much risk by offering long warranties and onerous performance guarantees on new equipment. This is also an unhealthy situation which can, at

worst, result in a manufacturer facing financial difficulties if the equipment does not perform.

Design improvements to increase the heat rate or efficiency of gas turbines are inevitable. The beneficial economics of reduced fuel cost per megawatt hour for the operator, as well as reduced environmental impact, are desirable so they should not be resisted. A way of embracing this new technology has to be found.

A welcome development is manufacturers seeking projects that allow new technology to be field-tested before general release. Worldwide there are now a number of sites where the new large next generation H class technology gas turbine models have been introduced at a plant that is built by the manufacturer on an operator's site, then operated as a joint venture for a period of years during proving and then at full load normal operation. The plant is then finally taken over by the operator. This approach mitigates risk for manufacturers, generators and insurers because it allows reliability and durability issues to be solved before a turbine is marketed and sold. It's an attractive concept to all parties.

Even with this approach to testing, it is worth noting that there has also been a series of problems with power plants that can be regarded as mid-life problems. What was regarded by many as proven equipment has had failures that only emerged as the equipment accumulated more hours. Manufacturers responded to these problems and together with operators, inspections were carried out on the equipment to try to avoid further failures. Again, manufacturers, generators and insurers have inevitably paid for plant damage and business interruption loss.

Looking forward, knowledgeable power plant insurers will be ready to rise to the new challenges of insuring clean coal technology and alternative energy projects that are coming in the near future, but it is critical that a fair risk balance is achieved.

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