



Monolec® R & O Compressor / Turbine Oil (6401-6402)

Functions of a Boiler Feed Pump in Power Plants

Boiler Feed Pump

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The function of boiler feed pumps in power plants is to feed water into the boiler to produce steam. This water is fed into the boiler under extreme pressure. A typical problem experienced by many power plants is water contamination in the oil. The water/oil mixture will then emulsify in the boiler feed pump. The water thins the thickness of the oil film and weakens the strength of the oil.

Listed below are how some power plants have solved this problem by changing to LE's Monolec® R & O Compressor / Turbine Oil. Since Monolec R & O Compressor / Turbine Oil is ideal for all steam-turbo generators, small industrial turbines, gear and bearing applications and circulating systems, it is the preferred choice for modern power plants today. It offers excellent oxidation resistance and excellent water separation characteristics, thus preventing corrosive wear. In addition, it is extremely long-lasting in service. Best of all, it contains Monolec®, LE's exclusive wear-reducing additive, to give long equipment life.

PSE&G Kearney Generating Station, located in Kearney, N.J., was using a commercial grade turbine oil in Worthington boiler feed pumps. Because the oil was emulsifying, they had to change it every five to seven days. Monolec R & O Compressor / Turbine Oil (6402) (ISO 46) was recommended because of its excellent water separation characteristics. Now, using Monolec 6402, the oil has lasted one year and the water can be drained off while the pumps are running. This offers considerable cost savings, considering that each pumps holds 30 gallons of oil. Pumps that formerly would fail every year or two have ran for ten years without a failure.

Orange & Rockland Utilities, Inc., located in Tompkins Cove, N.Y., was using a commercial grade turbine oil and experiencing emulsification problems and shorter drain intervals. In addition, they felt the bearing wear was higher than normal. Since changing to Monolec 6401, their Pacific DeLaval boiler feed pumps are now drained once a year and all lubricant related problems have been eliminated. Even with 10 percent water mixed with the oil, thrust bearings last from outage to outage.

Wyeth Ayerst, located in Pearl River, N.Y., was having problems with accumulation of water in their pump reservoir. The water was degrading the oil causing premature pump bearing failures. Since changing to Monolec 6451 10 years ago, they have experienced no pump failures. On a daily basis, the operators drain pure water from the bottom of the reservoir while the pumps are still running. Wyeth has added Des-Case breathers to control solid contamination and moisture from entering the turbine oil reservoir.

Thank you to the personnel located at the power plants, and to Dave O'Connor, LE lubrication consultant (pictured), for providing the information used in this report.





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