

High thermal cycling of a power generation unit means variable support loading and stresses to the piping. Resulting in possible permanent creep deformation and reduced system operating life with steam leaks and even possible major failures.

INTEGRA will measure the loads on piping and spring hangers to determine existing plant operating conditions and adjust the loads when required.

HIGH PRESSURE PIPEWORK - DEAD WEIGHT TESTING

For many years INTEGRA has provided the power generation industry with the facility for checking the dead-weight load of high pressure piping at each support location - from the boiler to the turbine. Loads are verified at all hanger locations, be they constant supports, variable supports or rigid supports. The information obtained determines whether the design load of the hanger matches the pipe load, at each hanger location.

Once the pipe load data has been obtained at all locations throughout each piping run the piping engineers can carry out pipe stress analysis.

BENEFITS

- Prevent Forced Outages**
- Prevent Accidents**
- Reduce Equipment Failure**
- Predict System Weakness**



CONSTANT LOAD SUPPORTS - HYSTERESIS TESTING

Investigations carried out by INTEGRA during the course of on-site testing has proven that you can not assume the Constant Load Supports always provide a constant restoring force throughout the complete range of travel and that the force matches the respective pipe load.

To address this anomaly INTEGRA provides an on-site, in situ Hysteresis testing service. For the purpose of on-site testing, the sling rod is replaced by a hydraulic cylinder to pull the unit through its complete travel range. Transducers are attached and the load/travel characteristics of the Constant Load Support is plotted on a computer.

Upon completion of the test, a certificate is provided illustrating the curve produced during both the downward and upward cycles, and records the downward, upward and mean deviation values, and hence the overall accuracy of their unit.

Bolting The World's Critical Joints