

Steam System Reliability and Safety

Root Cause Analysis

To insure reliability one of the major components is achieved by root cause analysis (RCA). RCA has to be part of the steam system management program. RCA is the key information to prevent further failures from occurring.

Our engineers are well versed in RCA methods/

Standard Operating Procedures (SOP's) Standard operating procedures

To define Standard Operating Procedures (SOP's) is a detailed, written instruction to achieve uniformity of the performance of the steam and condensate system.

The focus of a SOP is to set on repeated application of unchanged processes and procedures with clear documentation that is supporting the segregation of origins, causes and effects. The steam system needs to operate safely and SOP's are a key factor to insure proper operation. SOP's can also provide any plant person with a reference to common steam and condensate operations, practices, activities, or tasks. New employees use an SOP and a training tool or to answer questions about the different tasks that must occur with a steam system.

Waterhammer

Water hammer is not only a system issue; it is a safety issue. The plant needs to understanding the nature and severity of water hammer in a steam and condensate system to avoid its destructive forces. There should never be waterhammer in any steam or condensate system. Waterhammer can occur from errors in system designs, steam system startups, maintenance, component selection and installations. Water hammer; in its most severe form, can injure or even cause fatalities to plant personnel.

Inveno engineers can set the roadmap to resolve any waterhammer issues.

Code reviews

The steam system design and operation needs to follow all the governing codes such as ASME pressure vessel, B31.1, B31.3, B16, etc. The codes provide the assurance that the steam and condensate system will operate safely.

Is your steam system up to Code? Inveno steam specialist will assist the plant to assure that everything is operating properly.

Pressure vessel reviews

Are all existing pressure vessels meeting code? Inveno's engineers can help define all the pressure vessels and provide a very detailed database for now and future references. Also, a PM schedule will part of Inveno's final report.

