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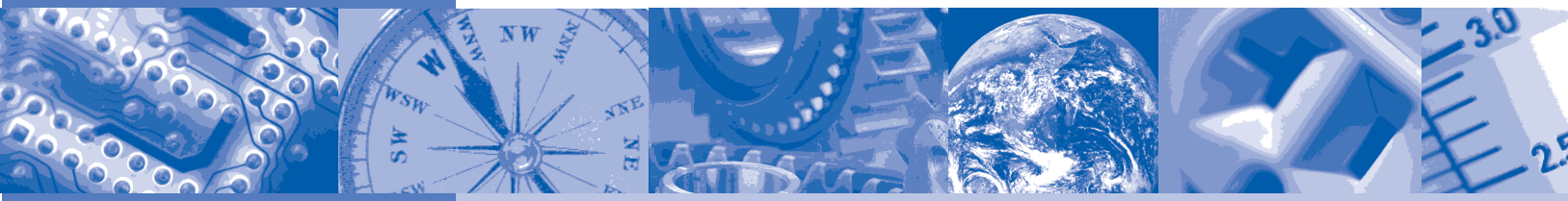

Fossil Fuel Power Plant Instrument Piping Installation

Approved 20 July 2005

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1 Scope

This standard covers the mechanical design, engineering, fabrication, installation, testing, and protection of fossil power plant instrumentation sensing and control lines. The boundaries of this standard span the process tap root valve to the instrument connection. This standard applies to all fluid media (liquid, gas, or vapor).

2 Purpose

This standard establishes the applicable installation requirements and limits of instrumentation sensing and control lines and their instruments in fossil power plants.

This standard addresses the requirements of maintaining the pressure boundary integrity of the instrumentation sensing line (in accordance with the appropriate parts of American National Standards Institute [ANSI] standards).

3 Definitions and terminology

For the purposes of this standard, the following definitions apply.

3.1 anchor: A reliable support that fastens the sensing line in place and prevents movement in all directions.

3.2 blowdown line: The pipe or tubing located below the instrument connection for draining the condensate or steam to a safe location.

3.3 blowdown valve: The valve in instrument sensing lines used to discharge undesirable fluids.

3.4 breakable fitting: A fitting that is easily removed without damaging the tubing or pipe.

3.5 capillary: A small diameter tubing that runs from the process connection to the instrument.

3.6 condensate pots: Reservoirs that are used in the measurement of steam or other vapors for condensing to the liquid state at ambient temperature.

3.7 control piping: The piping that is used to interconnect pneumatically or hydraulically operated control apparatus, as well as signal transmission systems used to interconnect instruments. This applies to all instrument valves, fittings, tubing, and piping.

3.8 credible events: Those events considered environmental, geographical, or atmospheric in nature, such as earthquakes, tornadoes, hurricanes, etc.

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