1 Scope

This technical report provides guidance in the design and function of a method for instrument tracking and documentation control that is adaptable for use by multiple plants and is compatible with many of the available plant-site-distributed control systems. The report addresses methods to develop a user-friendly interface that allows instrument technicians and electricians easy access to instrument-and-control-drawing information (loop, electrical and connection), cable schedules, piping-instrument documents, and work-practice procedures.

This technical report addresses methods linking a document management system with a work and asset management system. These links eliminate the time to manually search for plant drawings, manuals, or critical documents. Convenient access is included to daily maintenance, calibrations, state certifications, audit schedules, instrument-outage-calibration-list reports, and options for detailed reports.

2 Purpose

The purpose of this technical report is to provide advice and guidance in the development of methods to address the common issue of tracking, troubleshooting, and reporting instrument and control (I&C) equipment data in a standard format.

3 Definitions

Document Management System (DMS) – a system that electronically manages drawings, documents, and manuals throughout the lifecycle of the plant.

Distributed Control System – a control system, usually of a manufacturing system, process, or any kind of dynamic system, in which the controller elements are not central in location (like the brain) but are distributed throughout the system with each component sub-system controlled by one or more controllers. The entire system of controllers is connected by networks for communication and monitoring.

Fossil-Fired Power Plant – a power plant that burns fossil fuels, such as coal, natural gas, or petroleum (oil) to produce electricity. Fossil fuel power plants are designed on a large scale for continuous operation. In many countries, such plants provide most of the electrical energy used.

Work and Asset Management System (WAMS) – a strategic asset and service management system that runs on a number of databases. The WAMS is used to track work processes, including preventative maintenance (PM) tasks, hours worked, and assets, such as pieces of equipment.

4 Abbreviations (Acronyms)

CAE- Computer Aided Engineering
CR- Circuit Raceway
DCS- Distributed Control System
DMS- Document Management System
I&C- Instrument and Control
IOCL- Instrument Outage Calibration List
PM- Preventative Maintenance
WAMS-Work and Asset Management System

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