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TECHNICAL REPORT

ISA-TR98.00.02-2006

Skill Standards for Control System Technicians

Approved 28 July 2006

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1 Scope

This document is intended to supply a general list of work-oriented functions, activities, tasks and duties that an instrument, instrument/electrical, automation or control system technician should be skilled at in order to successfully work in this technical area. It is intended to be a dynamic document that will change as the equipment the technician works with evolves. The document is inclusive of the most common work-oriented functions. Specialty area technicians are expected to have additional skills and higher technical competences that are not included in this general list.

This document provides skill standard information beyond that contained in ANSI/ISA-98.00.01-2002 to enhance control system technician education and training. It includes specific demonstrable performance criteria that indicate when the work-oriented activities have been performed successfully. Performance criteria specify the type, quality and level of output required to perform the work. These performance criteria provide benchmarks against which skills and knowledge can be meaningfully evaluated in order to support the development of training curricula and assessment.

2 Purpose

The purpose of the document is to identify the work-oriented functions, activities, tasks and duties that a technician should be able to perform competently. This document should supply an employer or contractor with the ability to judge the qualifications of an individual technician or state the requirements necessary for technicians to be used in the instrumentation field. These skills also provide a framework for educators and employers to develop the educational and training tools necessary to prepare students and incumbent workers for success in the workplace. The document is not intended as detailed work instructions or directions.

The inclusion of worker-oriented information in the annexes completes the definition of skills and knowledge required to successfully perform the work-oriented tasks. Both work and worker-oriented information are required for the development and delivery of relevant, outcome-based training and instructional methods.

3 Equipment Definition

The term "equipment" is used in this document to refer to process control, safety instrumented systems (SIS), and related equipment used to produce quality products and ensure safe, cost-effective operations. Process control, SIS, and related equipment includes: pneumatic, mechanical, electromechanical, electronic microprocessor and computer-based process control equipment as follows:

- a) Controllers and remote telemetry units;
- b) Control valves, positioners, operators and pressure regulators;
- c) Sensing lines, measuring devices and transmitters;
- d) Signal transmission lines and transducers;
- e) Relays, switches and alarm panels;
- f) Analyzers and analyzer sample systems.

Related and auxiliary equipment typically includes:

- a) Equipment mounting;
- b) Instrument air supply system;