

Example Setpoint Control Program Specification

5.0 ADMINISTRATIVE CONTROLS

5.5 Programs and Manuals

The following programs shall be established, implemented, and maintained.

5.5.XX Setpoint Control Program (SCP)

- a. The Setpoint Control Program (SCP) implements the regulatory requirement of 10 CFR 50.36(c)(1)(ii)(A) that technical specifications will include items in the category of limiting safety system settings (LSSS), which are settings for automatic protective devices related to those variables having significant safety functions.
- b. The Limiting Trip Setpoint (LTSP), Nominal Trip Setpoint (NTSP), Allowable Value (AV), As-Found Tolerance (AFT), and As-Left Tolerance (ALT) for each Technical Specification required automatic protection instrumentation function shall be calculated in conformance with the instrumentation setpoint methodology previously reviewed and approved by the NRC in [Title, Revision #, dated Month dd, yyyy, (MLxxxxxxx)], and the conditions stated in the associated NRC safety evaluation, [Letter to AREVA NP from NRC, Title, dated Month, dd, yyyy, (MLxxxxxxx)].
- c. For each Technical Specification required automatic protection instrumentation function, performance of a CALIBRATION and a SENSOR OPERATIONAL TEST surveillance shall include the following:
 1. The as-found value of the instrument channel trip setting shall be compared with the previous as-left value or the specified NTSP.
 - i. If the as-found value of the instrument channel trip setting differs from the previous as-left value or the specified NTSP by more than the pre-defined test acceptance criteria band (i.e., the specified AFT), then the instrument channel shall be evaluated to verify that it is functioning in accordance with its design basis before declaring the surveillance requirement met and returning the instrument channel to service. This condition shall be dispositioned by the plant's corrective action program.
 - ii. If the as-found value of the instrument channel trip setting is less conservative than the specified AV, then the surveillance requirement is not met and the instrument channel shall be immediately declared inoperable.

Example Setpoint Control Program Specification

2. The instrument channel trip setting shall be set to a value within the specified ALT around the specified NTSP (a trip setting as or more conservative than the specified LTSP) at the completion of the surveillance; otherwise, the surveillance requirement is not met and the instrument channel shall be immediately declared inoperable.
- d. The difference between the instrument channel trip setting as-found value and either the previous as-left value or the specified NTSP, for each Technical Specification required automatic protection instrumentation function shall be trended and evaluated to verify that the instrument channel is functioning in accordance with its design basis.
- e. The SCP shall establish a document containing the current values of the specified LTSP, NTSP, AV, AFT, and ALT for each Technical Specification required automatic protection instrumentation function, and references to the calculation documentation. Changes to this document shall be governed by the regulatory requirements of 10 CFR 50.59. In addition, changes to the specified LTSP, NTSP, AV, AFT, and ALT values shall be governed by the approved setpoint methodology. This document including any midcycle revisions or supplements shall be provided upon issuance for each reload cycle to the NRC.

-----REVIEWER'S NOTE-----

The referenced NRC approved setpoint methodology shall meet the following guidance, and shall be applicable to Technical Specification required automatic protection instrumentation function surveillances that require verification that setpoints (or channel outputs) are within the necessary range and accuracy (e.g., CALIBRATIONS, SENSOR OPERATIONAL TESTS):

1. The methodology allows little variation in the values calculated by different analysts using identical input values (such as uncertainties and channel calibration drift).
2. The as-left value of the instrument channel trip setting shall be the value at which the channel was set at the completion of the surveillance with no additional adjustment of the instrument channel.
3. The as-found value of the instrument channel trip setting shall be the trip setting value measured during the subsequent performance of the surveillance before making any adjustment to the instrument channel that could change the trip setting value.
4. If the requirements of 5.5.XX.c.1 include an allowance for the as-found value to be compared with the specified NTSP, the following conditions shall be applied:
 - a. The setting tolerance band (i.e., the specified ALT) must be less than or equal to the square root of the sum of the squares of reference accuracy, measurement and test equipment errors, and readability uncertainties;

Example Setpoint Control Program Specification

- b. The setting tolerance band (i.e., the specified ALT) must be included in the total loop uncertainty; and
 - c. The pre-defined test acceptance criteria band (i.e., the specified AFT) for the as found value must include either the setting tolerance band (the specified ALT) or the uncertainties associated with the setting tolerance band (the specified ALT), but not both of these.
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eRAI Public Report for Web Site

U. S. EPR Standard Design Certification - Docket Number 52-020



Application Title: U. S. EPR Standard Design Certification - Docket Number 52-020

RAI No

Question No	RAI Accession No	Response Accession No	Question Status **
RAI No. 93			
02.03.01-12	<u>ML083010104</u>	<u>ML083430811</u>	Confirmatory Action Applicant
RAI No. 10			
02.03.01-1	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
02.03.01-2	<u>ML081610721</u>	<u>ML081970051</u>	Confirmatory Action Applicant
02.03.01-3	<u>ML081610721</u>	<u>ML081970051</u>	Resolved/Closed
02.03.01-4	<u>ML081610721</u>	<u>ML081970051</u>	Resolved/Closed
02.03.01-6	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
02.03.01-7	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
02.03.01-8	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
02.03.01-9	<u>ML081610721</u>	<u>ML081970051</u>	Resolved/Closed
RAI No. 256			
02.03.01-13			Issued/Open Action Applicant
02.03.01-14			Issued/Open Action Applicant
02.03.01-15			Issued/Open Action Applicant
RAI No. 37			
02.03.01-10	<u>ML082240655</u>	<u>ML083280073</u>	Question Closed/Issue Unresolved
02.03.01-11	<u>ML082240655</u>	<u>ML083280073</u>	Question Closed/Issue Unresolved
RAI No. 10			
02.03.04-1	<u>ML081610721</u>	<u>ML081970051</u>	Resolved/Closed
02.03.04-2	<u>ML081610721</u>	<u>ML081970051</u>	Confirmatory Action NRC
02.03.04-3	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
02.03.04-4	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
RAI No. 256			
02.03.04-7			Issued/Open Action Applicant
02.03.04-8			Issued/Open Action Applicant
RAI No. 37			
02.03.04-5	<u>ML082240655</u>	<u>ML082521057</u>	Confirmatory Action Applicant
02.03.04-6	<u>ML082240655</u>	<u>ML082521057</u>	Resolved/Closed
RAI No. 10			
02.03.05-1	<u>ML081610721</u>	<u>ML081970051</u>	Resolved/Closed
02.03.05-3	<u>ML081610721</u>	<u>ML081970051</u>	Resolved/Closed
02.03.05-4	<u>ML081610721</u>	<u>ML081970051</u>	Question Closed/Issue Unresolved
RAI No. 256			
02.03.05-6			Issued/Open Action Applicant
02.03.05-7			Issued/Open Action Applicant
RAI No. 37			
02.03.05-5	<u>ML082240655</u>	<u>ML082521057</u>	Resolved/Closed
RAI No. 13			
02.04-1	<u>ML081610600</u>	<u>ML081970046</u>	Resolved/Closed

Sample
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7/23/2009

** --- Status is not a final determination by NRC.

Issued/Open Action applicant -- The question has been issued to the applicant and the NRC is waiting for a response from the applicant.

Responded -- The applicant has provided a response to the question.

Confirmatory Action Applicant -- The applicant has responded the question. The NRC has reviewed and agrees with the response but some action included as part of the response is not complete (e.g., FSAR change is not formally submitted).

Confirmatory Action NRC -- The response to the question is acceptable but the NRC wants to verify/confirm that the application contains the information to close the issue. This is NRC staff's activity and no additional information is required from the applicant.

Resolved/Closed -- The NRC has accepted the response and no additional issues or concerns are remaining for that question.

Question closed/Issue Unresolved -- Question Closed means that the question can be closed if it is related a similar question or superseded by another

RAI Status Guide (07/29/2009)

Issued/Open Action Applicant

The question has been issued to the applicant. The applicant has not yet responded.

Responded [Action NRC]

The applicant has responded. The NRC staff has not completed the review.

Confirmatory Action Applicant

The applicant has responded. The NRC has reviewed and agrees with the response but some action included as part of the response is not complete (e.g., FSAR change is not formally submitted).

Confirmatory Action NRC

The response to the question is acceptable but the NRC wants to verify/confirm that the application contains the information to close the issue. This is NRC staff's activity and no additional information is required from the applicant.

Resolved/Closed [No Action]

The NRC has accepted the response and no additional issues or concerns are remaining for that question.

Question closed/Issue Unresolved [No action]

Question Closed means that the question can be closed if it is related a similar question or superseded by another question. Issue unresolved means that the issue within the question is not resolved and may become an open item in the SER.

EPR Design Center
COL Integrated Audit Schedule

	Completed	8/3/2009	9/14/2009	10/19/2009	4th QTR 2009	1 QTR 2010	2 QTR 2010
Calvert Cliffs	X						
Environmental - Primary Site	X						
Environmental - Alternate Site							
Demographics							
DHS Audit	X						
Geology.Seismology (1)	Additional	Required					
Geology.Seismology (2)	TBD						
Hydrology	x						
Meteorology	x						
Quality Assurance							
Structural							
Callaway (suspended)							
Environmental - Primary Site	X						
Environmental - Alternate Site	X						
Demographics							
DHS Audit	X						
Geology.Seismology							
Hydrology							
Meteorology	N/A						
Quality Assurance							
Structural							
Nine Mile Point (delayed)							
Environmental - Primary Site							
Environmental - Alternate Site							
Demographics		TBD					
DHS Audit	X						
Geology.Seismology							
Hydrology							
Meteorology							
Quality Assurance							
Structural							
Bell Bend							
Environmental - Primary Site	X						
Environmental - Alternate Site	X						
Demographics	X						
DHS Audit							
Geology.Seismology							
Hydrology	X						
Meteorology	X						
Quality Assurance							
Structural							



Post Accident Monitoring System Technical Specifications Regulatory Guide 1.97 Revision 4

July 29, 2009



PAM Instrumentation Issue Summary

- EPGs, EOPs, and AOPs have not been developed and are not required for Design Certification or a Combined License Application (required for fuel load)
- SECY 08-142 states COL Technical Specifications must be complete and implementable. Three options are provided:
 - Plant-specific values
 - Bounding values
 - Administrative Control Program
- Procedures not available to conclusively define plant-specific or bounding list of instrumentation
- Proposed resolution to be discussed with NRC staff



**Technical Specification
Setpoint Program
- NRC feedback**

July 29, 2009



**Use of High Density
Polyethylene Piping in EPR
Class 3 Applications**

HDPE Topical Report

July 29, 2009

Agenda

1. Introduction
2. Overview
3. Compliance with Code and Standards
4. Summary

Introduction

As a means of improving system availability and overall plant safety, UniStar is currently proposing to use HDPE piping in the following buried sections of ASME Class 3 Safety Related Essential Service Water (ESW) systems in UniStar U.S. EPRs :

- ESW piping from cooling towers to Safeguard Buildings
- Emergency make-up ESW line to UHS basins

UniStar is currently proposing to use HDPE piping in buried sections of the following Non- Safety Related systems:

- Raw water piping to Fire Protection System (makeup) (not used for Fire Protection System piping)
- Raw water piping to ESW (makeup)
- Demineralized Water
- Wastewater

Approach

- *UniStar plans to submit a proprietary Topical Report to address the use of HDPE piping following the guidance provided in Code Case N-755.*
- The design parameters include:
 - Maximum design temperature
 - Maximum design pressure
 - Short term operation parameters

Overview

- HDPE piping has a proven record of providing superior service over carbon steel piping in brackish water systems
- HDPE piping is installed in safety related underground systems at operating nuclear stations
- HDPE piping provides significant advantages over carbon steel piping in the following areas:
 - Superior Corrosion Resistance
 - Lower Hydraulic Resistance
 - Resistance to Biofouling and Tubercles

Compliance with Codes and Standards

- The U.S. EPR will follow ASME B31.1 Power Piping Code design rules for non-safety related HDPE piping applications.
- ASME Code Case N-755 provides the rules to be used for the design, fabrication, installation, examination, and testing of safety related buried ASME Section III, CL 3 HDPE piping for applications.
- Code Case N-755 is approved on a case by case basis by the NRC

Summary

- As a means of improving system availability and overall plant safety in UniStar U.S. EPRs, UniStar is proposing to use HDPE piping in buried sections of selected ASME Class 3 safety related and non-safety related systems.
- UniStar will submit a Topical Report to support the use of HDPE piping for US EPR applications at Calvert Cliffs, Bell Bend, Nine Mile Point, and Callaway Stations.
- The Topical Report meets the 4 criteria established by the NRC for submission of a Topical Report
- UniStar would like to request a Topical Report pre-submittal meeting within 10-12 weeks
- Based on the NRC feedback, UniStar will provide an expected submittal date for the Topical Report



RAI Response Acceptability UniStar

July 29, 2009



Clarification of ERAI Status

- Some status codes not clearly defined
- Some status items very broad.
 - "Response received"



COL Issuance and Related Processes

July 29, 2009



Item from May DCWG meeting

•UniStar requested additional information about COL Issuance and related processes in the following areas:

- Final rulemaking
- Hearing schedule
- COL Issuance (final phases and steps required after Phase 6)



Schedule/Audit Look Ahead
NRC/DCWG discussion

July 29, 2009