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 RECIP. NAME: MARTIN, J.B. RECIPIENT AFFILIATION: Region 5, Ofc of the Director

SUBJECT: Forwards proposed equipment setpoint methodology program plan, per CJ Bosted request.

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August 2, 1989  
G02-89-134

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Docket No. 50-397

Mr. J. B. Martin  
Regional Administrator  
U. S. Nuclear Regulatory Commission  
Region V  
1450 Maria Lane, Suite 210  
Walnut Creek, CA 94596

Dear Mr. Martin:

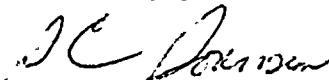
Subject: NUCLEAR PLANT NO. 2  
OPERATING LICENSE NPF-21  
WNP-2 EQUIPMENT SETPOINT METHODOLOGY  
PROGRAM PLAN

At the request of C. J. Bosted, Resident Inspector, attached hereto is the proposed WNP-2 Equipment Setpoint Methodology Program Plan. The Supply System has been working on this plan for several months. The methodology was originally targeted to be complete in draft form by April 1989, but was delayed in order to allow consideration of recently published ISA-RP67.04, Part II draft (4/11/89).

The proposed program is very manpower intensive, and will probably require the participation and support of the Supply System's Technical Support Services Contractor. That Contractor is scheduled to be selected and functional the first quarter of CY 1990. As the program is evolving and based on a draft ISA standard, we anticipate that changes will become necessary as information is gained. The dates included herein are tentative and will have to be adjusted to also reflect manpower availability.

The Supply System requests that the NRC communicate any questions and/or concerns they may have as soon as practicable.

Very truly yours,



G. C. Sorensen, Manager  
Regulatory Programs

HLA/bk

cc: Document Control Desk - NRC  
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## WNP-2 EQUIPMENT SETPOINT METHODOLOGY

### PROGRAM PLAN

#### 1.0 BACKGROUND

During the SSFI audit conducted in August 1987, NRC reviewers identified that existing WNP-2 setpoint methodology did not include consideration of service environment (normal and accident) effects on instrument setpoint accuracies. The Supply System acknowledged this fact but indicated that calculational conservatism offset any effects of environment. Additionally, preliminary investigations concluded that many safety related instruments accomplished their intended safety function prior to being affected by abnormal environments.

The Supply System had previously submitted the WNP-2 setpoint methodology to the NRC in May 1985 (Docket Letter G02-85-238) and requested in August, 1987 that the NRC approve that methodology. The NRC responded with an SER in November 1988 providing acceptance of the WNP-2 methodology recognizing that it did not yet include environmental/seismic influence criteria. This methodology will become the basis for all WNP-2 setpoint calculations along with new guidance provided by ISA.

#### 2.0 SCOPE

The setpoint program shall address and resolve the following issues:

##### 2.1 Equipment to be Included in the Program

The program shall address the following equipment types:

- a. Instrumentation to include mechanical switches, electronic switches, analog control setpoints and analog transducers.
- b. Electrical equipment to include time delay relays, solid state undervoltage relays and limit/position switches not within the MOVATS program scope.

Mechanical equipment, including relief valves, is not within this program scope.

##### 2.2 Safety Related Versus Non-Safety Related Equipment

The program shall address all safety related equipment requiring setpoints irrespective of whether that equipment is identified specifically in the Technical Specifications or not. Additionally, non-safety related equipment actuating annunciators which require the Operators to enter into or control within an Emergency Procedure shall also be included within the setpoint program. Although not required, other non-safety related equipment may also benefit from implementation of the program methodology.

### 2.3 Environmental/Seismic Effects on Equipment Setpoints

The program shall provide the methodology and application of that methodology for adjustment of equipment setpoints to include effects of environment/seismic resultant inaccuracies.

### 2.4 Safety Function Completion Time

To minimize the necessity for field setpoint adjustment, the program shall include analysis taking credit for equipment safety function completion time and its relation to the time at which environment/seismic effects become affecting. This may reduce the number of existing setpoints requiring change.

### 2.5 Setpoint Calculation Consolidation

The program shall address consolidation of Plant Technical ISCR's and Engineering calculations into a single calculation per EPN.

### 2.6 Current Industry Practice

The program shall address current industry/ISA methodology and investigate application to WNP-2.

## 3.0 PROGRAM MILESTONE ELEMENTS

### 3.1 Industry Methods Investigation

### 3.2 Formulation of WNP-2 Methodology

### 3.3 NRC staff approval (verbal approval is sufficient)

### 3.4 List of equipment requiring setpoint calculations, by EPN, including analysis to reduce list, where possible by identifying that equipment which performs its safety function prior to effects of environmental conditions.

### 3.5 Determine environmental and seismic accuracy effects for each EPN.

### 3.6 Determine if qualification tests are required for equipment without required environmental or seismic accuracy data.

### 3.7 Consolidate Setpoint Calculations

### 3.8 Provide Setpoint Calculations

### 3.9 Recalibration of Equipment

#### 4.0 MILESTONES/RESPONSIBILITIES/SCHEDULES

The organizations/departments listed below are responsible for completing the following program scope elements within the scheduled completion dates.

##### 4.1 Methodology Determination Considering Scope Elements

- a. Review industry methods including April 1989 ISA draft for application to WNP-2.

Responsible Organization - Generation Engineering, Electrical/I&C Systems

Task Completion Date: August 4, 1989

- b. Formulate I&C/Electrical equipment methodology.

Responsible Organization - Generation Engineering (with input from Plant Technical and Equipment Engineering) Electrical/I&C Systems.

Task Completion Date: September 1, 1989.

- c. Assemble methodology and issue associated Engineering Standard.

Responsible Organization - Generation Engineering, Electrical/I&C Systems

Task Completion Date: November 1, 1989.

##### 4.2 NRC Staff Approval

Provide NRC (NRR) staff WNP-2 methodology for review.

Responsible Organization - Licensing

Task Completion Date: November 1, 1989

##### 4.3 Equipment Identification

- a. List of equipment requiring setpoint calculations.

Responsible Organization - Generation Engineering, Electrical/I&C, Mechanical and Nuclear Systems

Task Completion Date: March 1, 1990

- b. Perform safety analysis to indicate safety function completion times for equipment located in harsh environments.

Responsible Organization - Generation Engineering, Electrical/I&C Systems with review by Mechanical and Nuclear Systems

Task completion Date: May 1, 1990

4.4      Environmental/Seismic Accuracy Effects

Responsible Organization - Generation Engineering with aid (if required) by Equipment Engineering

Task Completion Date: July 1, 1990

4.5      Qualification Test Determination and Retest

Responsible Organization - Equipment Engineering

Task Completion Date: To be determined.

4.6      Consolidate/Reconcile Setpoint Calculations

Identify equipment with existing multiple setpoint calculations and supercede as appropriate (including ISCR's).

Responsible Organization - Generation Engineering, Assigned System Engineers and Plant Technical

Task Completion Date: September 1, 1990

4.7      Setpoint Calculations

Responsible Organization - Generation Engineering, provide setpoint calculations, Assigned System Engineers

Plant Technical to review and revise Master Data Sheets

Task Start Date: July 1, 1990 - (Focus on Technical Specification equipment to support implementation of the improved Technical Specification submittal.)

Task Completion Date: December 1, 1991

4.8      Recalibration of Equipment

Responsible Organization - Plant Technical/Maintenance

Task Completion Date: December 1, 1992