ENERGY NORTHWEST

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U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Subject: **COLUMBIA GENERATING STATION, DOCKET NO. 50-397 RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION RELATED TO LICENSE AMENDMENT REQUEST FOR CONDENSATE STORAGE TANK TECHNICAL SPECIFICATIONS**

References: 1) Letter dated September 13, 2007, CF Lyon (NRC) to JV Parrish (Energy Northwest), "Columbia Generating Station – Request for Additional Information Related to License Amendment Request Associated with Condensate Storage Tank Level (TAC No. MD6176)"

2) Letter dated August 8, 2007, SK Gambhir (Energy Northwest) to NRC, "License Amendment Request to Technical Specifications Associated With Condensate Storage Tank Level"

Dear Sir or Madam:

Transmitted herewith in the attachment is Energy Northwest's response to the subject request for additional information (Reference 1) regarding the license amendment request (Reference 2) to revise Columbia Generating Station Technical Specifications associated with Condensate Storage Tank level.

There are no new commitments being made. If you have any questions, please contact GV Cullen, Regulatory Programs Manager at (509) 377-6105.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the date of this letter.

Respectfully,

SK Gambhir
Vice President, Technical Services

Attachment

cc: EE Collins, Jr. – NRC RIV
CF Lyon – NRC NRR
NRC Senior Resident Inspector/988C
RN Sherman – BPA/1399
WA Horin – Winston & Strawn

A001
NRR

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

To support NRC assessment of the acceptability of the LAR with regard to setpoint changes, please provide the following for each setpoint to be added or modified:

Item 1

Setpoint Calculation Methodology: Provide documentation (including sample calculations) of the methodology used for establishing the limiting setpoint (or NSP) and the limiting acceptable values for the As-Found and As-Left setpoints as measured in periodic surveillance testing as described below. Indicate the related Analytical Limits and other limiting design values (and the sources of these values) for each setpoint.

Response

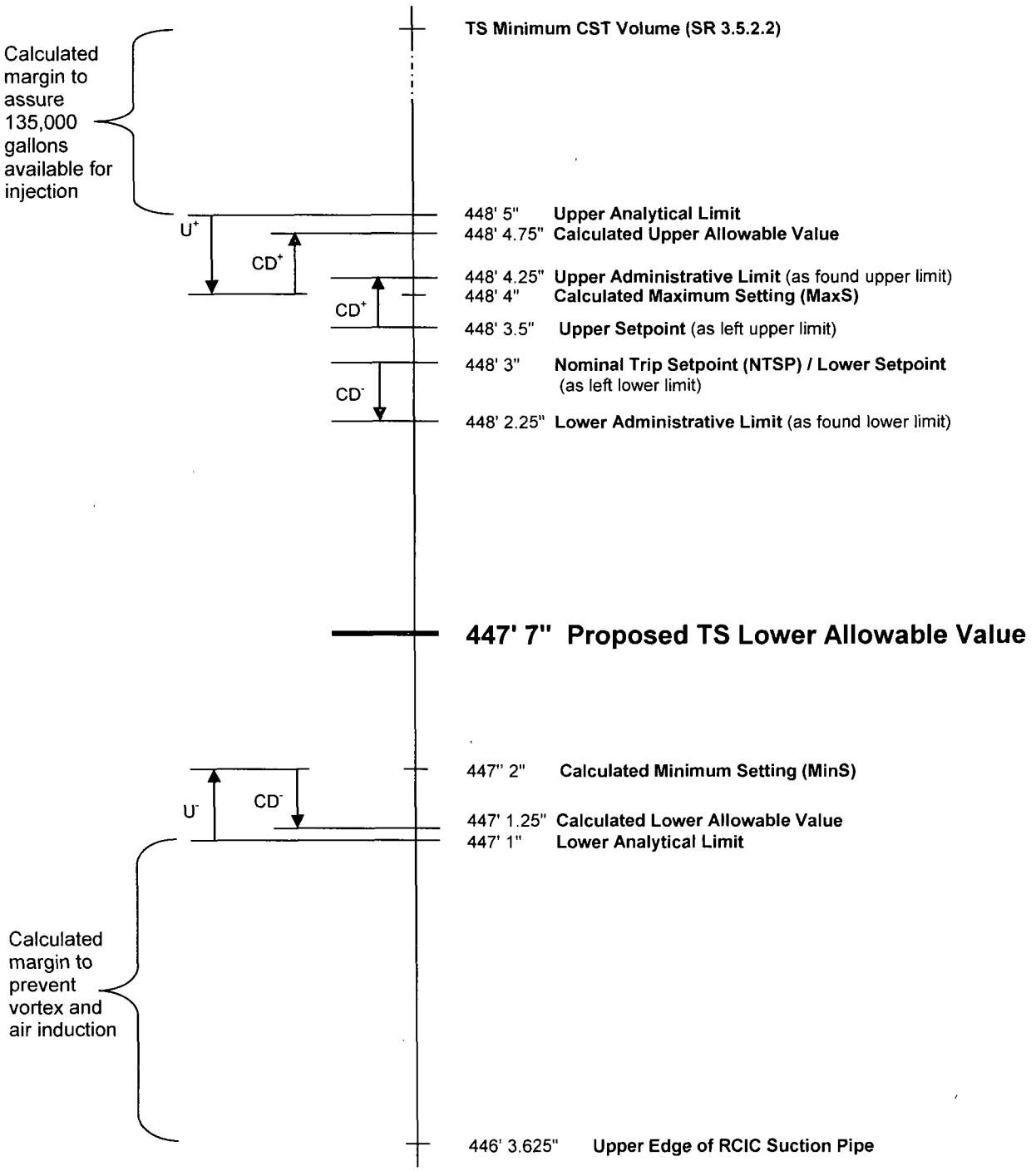
1) **Change to Table 3.3.5.2-1**
Methodology - The setpoints for Reactor Core Isolation Cooling (RCIC) level switches RCIC-LS-15A/15B were developed using the methods established in Energy Northwest procedure EES-4 (Reference 1), similar to ISA RP67.04.01 Method 3 (Reference 2). Energy Northwest Calculation E/I-02-93-1272 (Reference 3) documents the lower and upper analytical limits of RCIC-LS-15A/15B. Refer to Figure 1-1 for an overview of the values associated with RCIC-LS-15A/15B. The applicable "as-found," "as-left," and Technical Specification (TS) allowable values (AVs) are specified in surveillance procedures.

Lower Analytical Limit - The lower analytical limit is established to prevent vortexing and air induction into the common suction line for RCIC from the Condensate Storage Tank (CST). Per calculation E/I-02-93-1272, the lower analytical limit of the switch has been determined to be 447' 1". Based on this and the device uncertainties (U^-), the calculated minimum setting (MinS) for this device is 447' 2". Subtracting the calibration and drift (CD) term, the calculated lower AV is 447' 1.25". For additional conservatism, a margin of 5.75" between the calculated lower AV and the proposed TS AV of 447' 7" is requested.

The Columbia Licensee Controlled Specifications (LCS) conservatively establishes a Nominal Trip Setpoint (NTSP) of $\geq$ 448' 3" for these switches. The setting tolerances are specified at +0.5" / -0.0" (448' 3.5" to 448' 3"). Therefore, when considering the CD term, the lower administrative limit is determined to be 448' 2.25".

Upper Analytical Limit - The upper analytical limit is established to assure that 135,000 gallons of water have been transferred before RCIC-LS-15A/15B swaps RCIC pump suction to the Suppression pool. The upper analytical limit for this switch has been determined to be 448' 5". Based on this and the device uncertainties (U^+), the calculated maximum setting (MaxS) for this device is 448' 4" and adding the CD term, the calculated upper allowable value is 448' 4.75".

Figure 1-1, RCIC LS-15A/15B Analysis



2) **Change to SR 3.5.2.2**
The minimum value for Condensate Storage Tank (CST) level is a parameter that has been established to provide a sufficient supply of water (135,000 gallons) for injection to minimize the consequences of a draindown event, a non-safety analysis event, and is therefore, a non-Regulatory Guide 1.105 value. This value is a system functional requirement and not a safety analysis consideration. The functional requirement has sufficient margin for measurement uncertainties. The minimum value to ensure 135,000 gallons is maintained in the CST was determined in accordance with Energy Northwest Calculation E/I-02-93-1272.

Item 2

Safety Limit (SL)-Related Determination: Provide a statement as to whether or not the setpoint is a limiting safety system setting for a variable on which a safety limit (SL) has been placed as discussed in 10 CFR 50.36(c)(1)(ii)(A). Such setpoints are described as "SL-Related" in the discussions that follow. In accordance with 10 CFR 50.36(c)(1)(ii)(A), the following guidance is provided for identifying a list of functions to be included in the subset of LSSSs specified for variables on which SLs have been placed as defined in Standard Technical Specifications (STS) Sections 2.1.1, Reactor Core SLs and 2.1.2, Reactor Coolant System Pressure SLs. This subset includes automatic protective devices in TSs for specified variables on which SLs have been placed that: (1) initiate a reactor trip; or (2) actuate safety systems. As such these variables provide protection against violating reactor core safety limits, or reactor coolant system pressure boundary safety limits.

Examples of instrument functions that might have LSSSs included in this subset in accordance with the plant-specific licensing basis, are pressurizer pressure reactor trip (pressurized water reactors), rod block monitor withdrawl blocks (boiling water reactors), feedwater and main turbine high water level trip (boiling water reactors), and end of cycle recirculation pump trip (boiling water reactors). For each setpoint, or related group of setpoints, that you determined not to be SL-Related, explain the basis for this determination.

Response

Neither proposed change involves a change to a limiting safety system setting variable.

The change to Table 3.3.5.2-1, affects a RCIC system component. At Columbia, the RCIC system is not an Engineered Safety Feature System and no credit is taken in the safety analyses for RCIC system operation. Based on its contribution to the reduction of overall plant risk, however, the system satisfies Criterion 4 of 10 CFR 50.36(d)(ii) and is therefore included in the Technical Specifications.

The change to SR 3.5.2.2 affects a parameter and not a setpoint, and therefore, would not affect the initiation or actuation of any equipment.

Item 3

For setpoints that are determined to be SL-Related: The NRC letter to the NEI SMTF dated September 7, 2005 (ML052500004), describes Setpoint-Related TS (SRTS) that are acceptable to the NRC for instrument settings associated with SL-related setpoints. Specifically: Part "A" of the Enclosure to the letter provides LCO notes to be added to the TS, and Part "B" includes a check list of the information to be provided in the TS Bases related to the proposed TS changes.

a. Describe whether and how you plan to implement the SRTS suggested in the September 7 letter. If you do not plan to adopt the suggested SRTS, then explain how you will ensure compliance with 10 CFR 50.36 by addressing items 3b and 3c, below.

b. As-Found Setpoint evaluation: Describe how surveillance test results and associated TS limits are used to establish operability of the safety system. Show that this evaluation is consistent with the assumptions and results of the setpoint calculation methodology. Discuss the plant corrective action processes (including plant procedures) for restoring channels to operable status when channels are determined to be "inoperable" or "operable but degraded." If the criteria for determining operability of the instrument being tested are located in a document other than the TS (e.g. plant test procedure) explain how the requirements of 10 CFR 50.36 are met.

c. As-Left Setpoint control: Describe the controls employed to ensure that the instrument setpoint is, upon completion of surveillance testing, consistent with the assumptions of the associated analyses. If the controls are located in a document other than the TS (e.g. plant test procedure) explain how the requirements of 10 CFR 50.36 are met.

Response

Not applicable – neither change affects safety limit related variables.

Item 4

For setpoints that are determined not to be SL-related: Describe the measures to be taken to ensure that the associated instrument channel is capable of performing its specified safety functions in accordance with applicable design requirements and associated analyses. Include in your discussion information on the controls you employ to ensure that the as left trip setting after completion of periodic surveillance is consistent with your setpoint methodology. Also, discuss the plant corrective action processes (including plant procedures) for restoring channels to operable status when channels are determined to be "inoperable" or "operable but degraded." If the controls are located in a document other than the TS (e.g., plant test procedure), describe how it is ensured that the controls will be implemented.

Response

1) **Change to Table 3.3.5.2-1**
The following TS Surveillance Requirements (SRs) apply in accordance with TS Table 3.3.5.2-1:
SR 3.3.5.2.1 - Perform a Channel Check every 12 hours
SR 3.3.5.2.2 - Perform a Channel Functional Test every 92 days
SR 3.3.5.2.3 - Perform a Channel Calibration every 18 months
SR 3.3.5.2.4 - Perform Logic System Functional Test every 24 months

Each of these SRs is performed in accordance with surveillance procedures that are prepared and maintained in accordance with the Energy Northwest Operational Quality Assurance Program (Reference 4) requirements. Acceptable "as left" and "as found" values associated with RCIC-LS-15A/15B are specified in surveillance procedure ISP-RCIC-Q902 (Reference 5) which is used by plant technicians to accomplish SR 3.3.5.2.2 and 3.3.5.2.3. This procedure incorporates values derived from calculation E/I-02-93-1272. Changes to procedures are controlled in accordance with Columbia's administrative control processes (Reference 6).

In the performance of these procedures, "as-found" values that are discovered outside the Technical Specification allowed value are procedurally required to be reported to Operations and entered into Columbia's corrective action program (Reference 7). This results in the performance of an immediate operability determination and actions to restore the condition. Other discovered degraded or non-conforming conditions are similarly addressed through Columbia's corrective action program. Additionally, if the "as-found" values are discovered outside of the acceptable range for "as-left" settings, the procedure directs re-calibration of the level switch to within the "as-left" limits.

2) **Change to SR 3.5.2.2**
This change does not involve a change to a setpoint.

REFERENCES

1. EES-4, Setpoint Methodology, Revision 6
2. ANSI/ISA RP67.04.01-2000, Setpoints for Nuclear Safety Related Instrumentation
3. E/I-02-93-1272, Setting Range Determination for Instrument Loops RCIC-LS-15A and RCIC-LS-15B, Revision 0 (including supplemental change 5389)
4. OQAPD-01, Operational Quality Assurance Program Description (EN-QA-004), Revision 42
5. ISP-RCIC-Q902, RCIC Suction Transfer on CST Low Level – CFT/CC, Revision 5
6. SWP-PRO-02, Preparation, Review, Approval, and Distribution of Procedures, Revision 18
7. SWP-CAP-01, Corrective Action Program, Revision 12