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U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Gentlemen:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
Response to Request for Additional Information
Instrument Setpoints

References: 1) NRC letter, A. W. Dromerick to E. E. Fitzpatrick, "Oyster Creek Nuclear Generating Station - Technical Specification Setpoints. Request for Additional Information - SEP Topic 4.28", dated November 13, 1990.

2) GPUN letter, J. C. DeVine, Jr. to the NRC, "Technical Specification Setpoints", dated May 29, 1990.

The NRC Staff requested GPU Nuclear in Reference 1 to provide additional information regarding instrument setpoints at Oyster Creek, within 30 days of receipt of Reference 1. In telephone conversations with the NRC Project Manager for Oyster Creek on December 14 and 21, 1990 we indicated that several additional weeks would be needed in order to prepare our response. This letter and its attachments provides responses to both of the Staff concerns.

Concern 1

The Staff requests that GPU Nuclear show that the setpoints for instrument loops RE-02 A, B, C and D and RE-18 A, B, C and D are sufficiently above instrument zero so the margin between instrument zero and the actuation point is greater than the historical or calculated instrument accuracy.

Response 1

The attached Figures 1 and 2 show setpoint and range related values for the instrument loops in question. The figures show that the setpoint is sufficiently above instrument zero such that the instrument will actuate within its specified range. The other thirty seven Technical Specification instrument loops discussed in Reference 2 were reviewed and their setpoints, including calibration tolerance and drift, are within the range of the instrument.

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Concern 2

The staff requests GPU Nuclear to show that the margin between the instrument setpoint and the Technical Specification allowable limit reported in Reference 2 is inclusive of all combinations of drift, temperature effect errors, and power supply tolerances that may occur during plant operations.

Response 2

This concern is identified in the context of the definition of instrument drift given in GPU Nuclear Engineering Standard ES-002, "Instrument Error Calculation and Setpoint Determination," which was contained in Reference 2 as Attachment III. Drift, as defined in ES-002, is "an undesired change in the output over a period of time; this change is unrelated to the input, environment, or load."

The instrument drift information presented in Attachment II of Reference 2 is "historical drift" as opposed to drift as defined in ES-002. While these terms are used interchangeably there is a difference.

Historical drift as discussed in Reference 2 is a statistical calculation of a 95/95 confidence level that the Technical Specification allowable limit will not be exceeded. As it is based on actual experience, "historical drift" takes into account drift as defined in ES-002, normal temperature variations and normal power supply parameter variations. It is not possible to separate these affects while gathering data in the field during normal plant operations. When data is taken, a snapshot of the instrument setpoint is taken while all effects are acting on the setpoint. Admittedly, one snapshot is not adequate to predict the range of potential setpoint deviation. However, sufficient surveillance data exists to predict the range of setpoint deviation using statistical analysis techniques.

In conclusion, we have shown that Technical Specification instrument setpoints are within the instruments' range considering worst case calibration tolerance and drift. Also, "historical drift" includes the effects of drift, temperature effect errors and power supply tolerances that may occur during plant operations.

Very truly yours,

J. C. DeVine, Jr.
Director and Vice President
Technical Functions

JCD/PC/amk

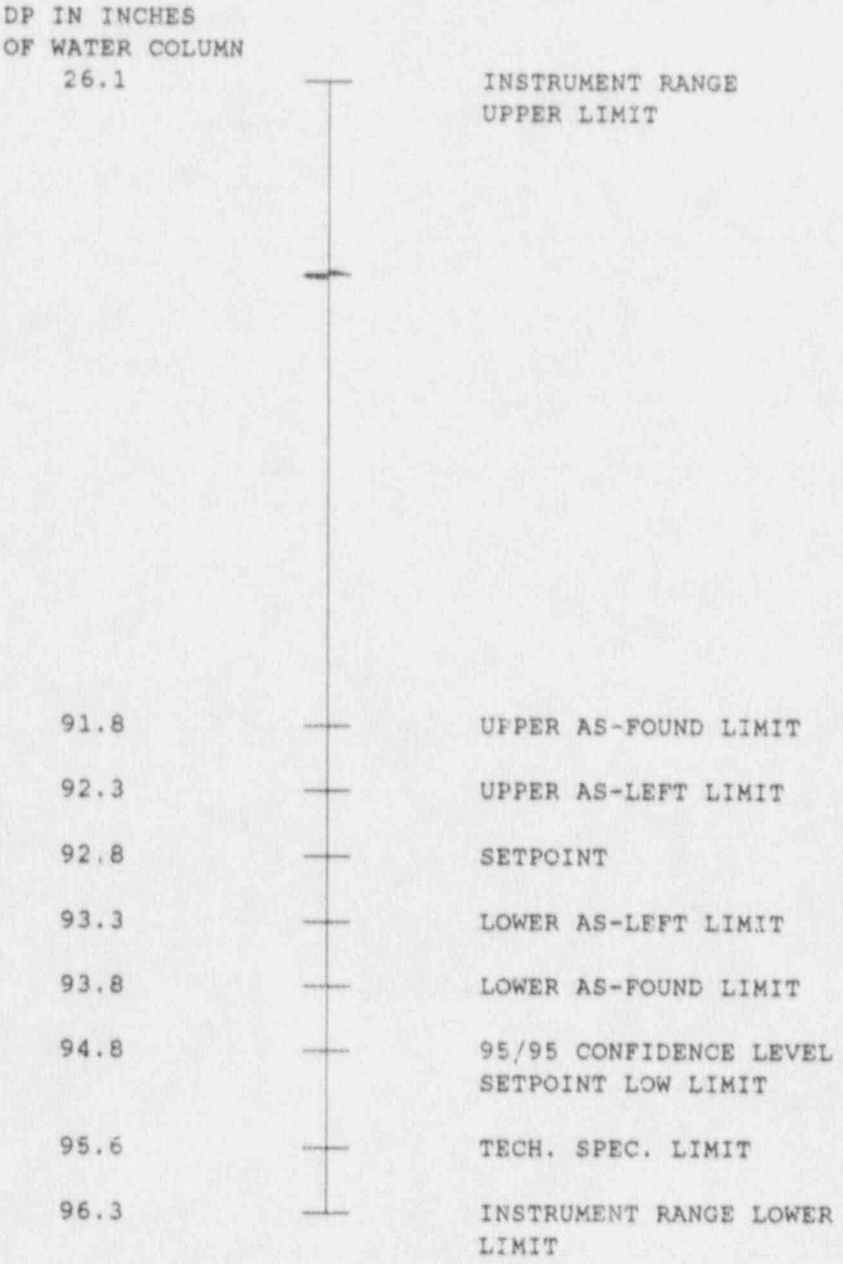
cc: Administrator, Region I
Senior NRC Resident Inspector
Oyster Creek NRC Project Manager

FIGURE 1

RE02 (REACTOR LO-LO LEVEL ES ACTUATION)

INSTRUMENT LOOP SETPOINT DIAGRAM

(AT OPERATING CONDITIONS)



REFERENCES:

1. GPUN OC Procedure 610.3.010, "RX LO-LO Level Test and Calibration" Rev 18.

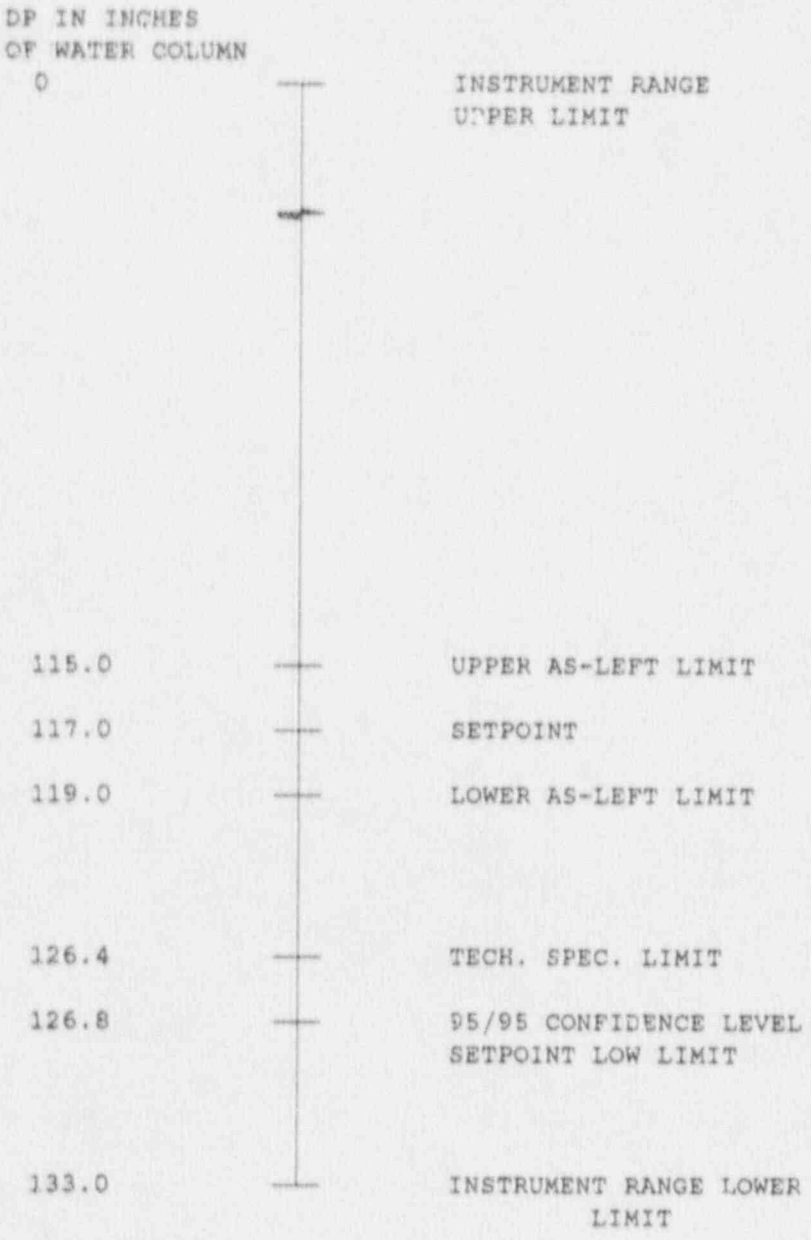
2. GPUN Calculation C1302-640-5350-001, "Oyster Creek Technical Specification Instrumentation Drift Calculation" Rev. 1.

FIGURE 2

RE18 (REACTOR LO-LO-LO WATER LEVEL ADS ACTUATION)

INSTRUMENT LOOP SETPOINT DIAGRAM

(AT OPERATING CONDITIONS)



REFERENCES:

1. GPUN OC Procedure 619.3.006, "RX Triple Low Water Level Test and Calibration" Rev. 22.

2. GPUN Calibration C1302-640-5350-001, "Oyster Creek Technical Specification Instrumentation Drift Calculation" Rev. 1.