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 50-373 LaSalle County Station, Unit 1, Commonwealth Edison Co. 05000373
 AUTH. NAME: CRANE, P.A. AUTHOR AFFILIATION: Pacific Gas & Electric Co.
 RECIPIENT NAME: MIRAGLIA, F.J. RECIPIENT AFFILIATION: Licensing Branch 3

SUBJECT: Responds to NRC 791005 request for addl info re potential errors in steam generator water level measurement. Setpoint of 15% of span provides required safety margin for low-low steam generator trip function.

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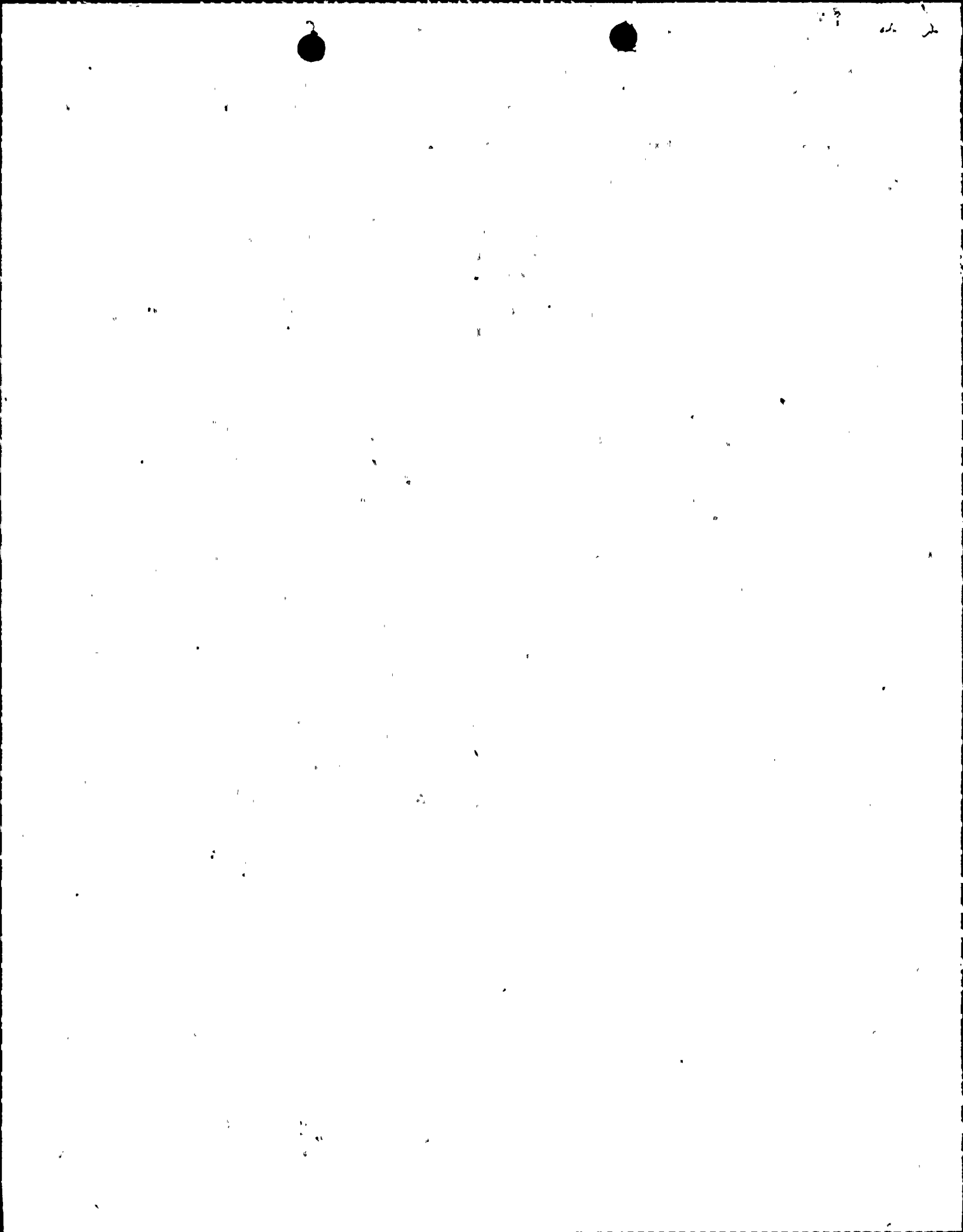
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February 19, 1981

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Mr. Frank J. Miraglia, Jr., Chief
 Licensing Branch No. 3.
 Division of Licensing
 Office of Nuclear Reactor Regulation
 U. S. Nuclear Regulatory Commission
 Washington, DC 20555

Re: Docket No. 50-275
 Docket No. 50-323
 Diablo Canyon Units 1 and 2

US NRC
 DISTRIBUTION SERVICES
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 DIVISION OF LICENSING
 FEB 25 1981

Subject: Additional Information on Steam Generator Level Instruments Setpoint

Dear Mr. Miraglia:

This is in response to your letter of October 5, 1979 requesting additional information regarding potential errors in steam generator water level measurement due to environmental temperature effects on level reference legs. Earlier, (letter to J. F. Stolz of January 22, 1980), PGandE identified errors of 13 percent for the low-low steam generator level setpoint and specified an actual setpoint of 15 percent. Per NUREG-0675, Supplement No. 9, Paragraph 7.8(d), the NRC believes that a 3 percent margin of safety is necessary and therefore required PGandE to raise the actual setpoint to 16 percent. PGandE has since re-analyzed the setpoint requirements and found that the 2.3 percent instrument accuracy value used in determining the 13 percent error value was overly conservative. This value duplicated transmitter errors accounted for in the post-accident accuracy figure and included conservative calibration allowances. The attached calculations show that the required error-setpoint is actually less than 12 percent of span.

In light of the above, PGandE feels that a setpoint of 15 percent of span provides the required margin of safety for the low-low steam generator level trip function.

Boo!
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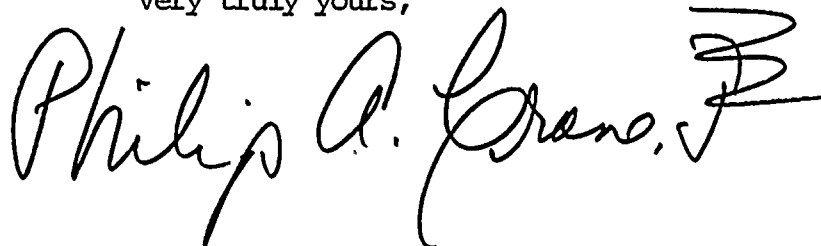
Mr. Frank J. Miraglia, Jr.

-2-

February 19, 1981

Kindly acknowledge receipt of this material on the enclosed copy of this letter and return it to me in the enclosed addressed envelope.

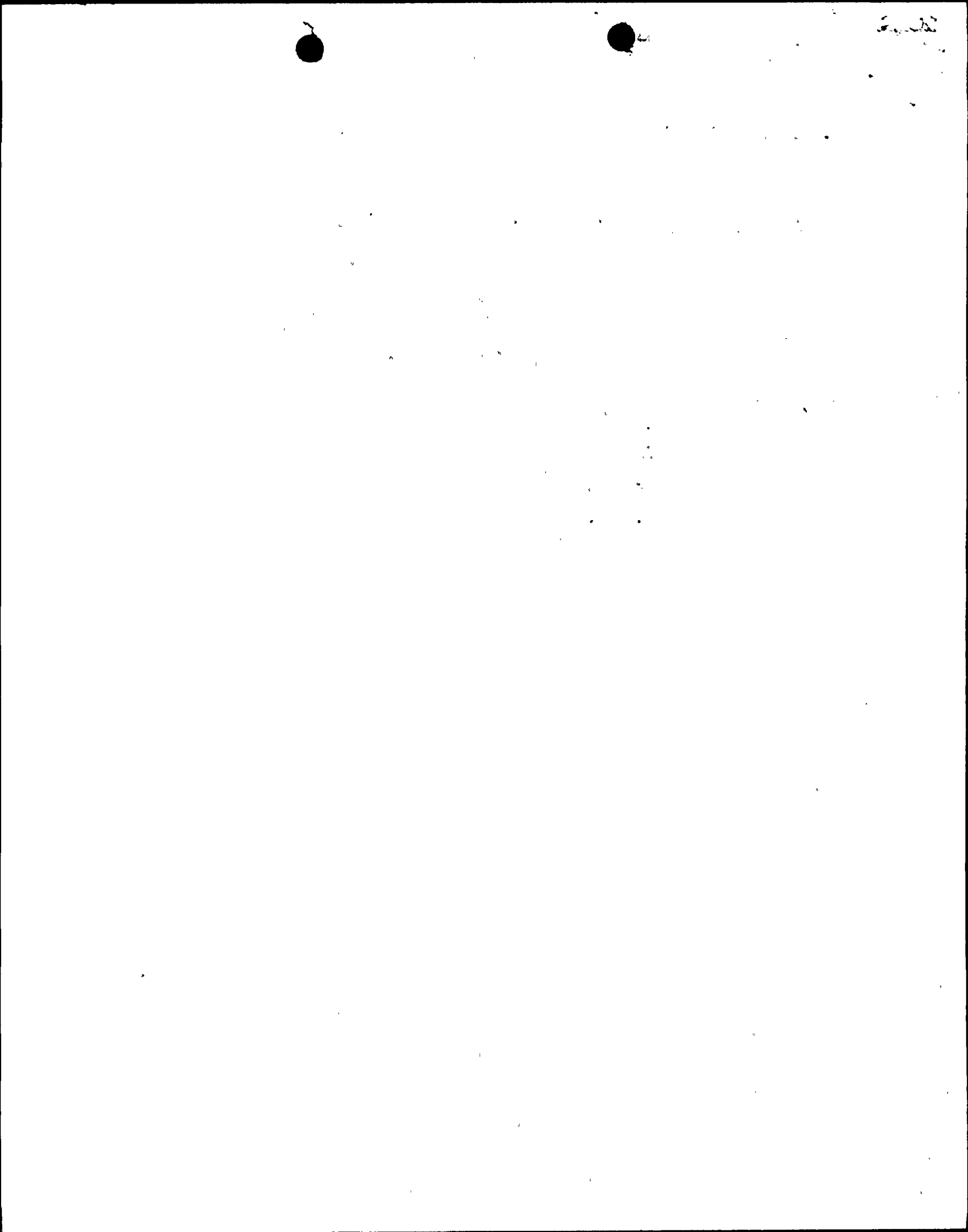
Very truly yours,

A handwritten signature in black ink that reads "Philip A. Grano, Jr." with a stylized flourish at the end.

Attachment

CC w/attachment: Director
Office of Inspection and Enforcement
Region V
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Service List



CALCULATIONS FOR REQUIRED SETPOINT FOR LOW-LOW
STEAM GENERATOR LEVEL SETPOINT

Accident Analysis (FSAR Table 15.1-2)	0% of span
Bistable Accuracy ¹	+ 0.5% of span
Post Accident Transmitter Error ²	+10.0% of span
Setpoint Tolerance ³	+ 0.5% of span
Test Equipment Accuracy ⁴	+ 0.32% of span
Reference Leg Heat Up ⁵	+ 0.62% of span
	<hr/>
Required Setpoint	11.94% of span
Margin for Safety	3.0 % of span
	<hr/>
Actual Setpoint	15.0% of span

1. Accuracy at which the bistable module can receive and analyze the transmitter signal.
2. Guaranteed accuracy of the transmitter output signal versus differential pressure during the first five minutes after accident.
3. Calibration error allowed for the technician when setting the bistable.
4. For Heise Type CM test gauge. Accuracy is 0.1% of test gauge span or 0.335 inches which equals .32% of instrument span. This is the least accurate of the gauges available for calibration of steam generator narrow range level channels. Error for the multimeter is negligible.
5. As calculated in the January 22, 1980 submittal.

NOTE: The sum total of Items 1, 3, and 4 (+1.32% of span) corresponds to the "Instrument Accuracy" (+2.3% of span) in the previous submittal letter to J. F. Stolz dated Jan. 22, 1980.

