Charles Long
Research and Power Reactor Safety Branch, DL&R

March 26, 1962

R. R. Maccary
Special Projects Branch, DL&R

PACIFIC GAS AND ELECTRIC COMPANY; ADDENDUM A TO FINAL HAZARDS SUMMARY REPORT; HUMBOLDT BAY POWER PLANT NO. 3

Review: Revisions to Appendix I - March 16, 1962

With reference to my memorandum of March 6, 1962, all pertinent information requested has been included in the revision to Appendix I.

Weld clad specifications meet the requirements of acceptable practices and standards for the application of stainless steel cladding to SA-302 B base manganese-molybdenum steel.

Testing specifications, (liquid penetrant, ultrasonic, magnetic particle) include acceptance standards equivalent to the requirements of any of the following:

(a) ASME Case 1275 N (ultrasonic inspection)
(b) ASTM specification E109 (magnetic particle)
(c) Mil-Std 271 BuShips Jan 1959

Radiographic examination met or exceeded 2% sensitivity, with majority of radiographs providing 1% sensitivity. Such sensitivity will ensure that defects in heavy wall sections will not exceed sizes which may introduce stress concentrations of objectionable magnitude.

Impact Charpy test values have been reported for both the reactor shell material and the weld metal, (Pg. 12, and 27) including the proper fabrication interstage heat treatments. All values reported indicate a correlation which results in an initial NDT temperature slightly below 10°F.

Charpy Value Correlation for 10°F NDT
Required for ASTM-A302 material - 30 ft. lbs. at +10°F
Reported (averages) Shell (Long.) - 50.7 ft. lbs. at 10°F
Weld Metal - 51.6 ft.lbs. at +10°F

OFFICE ▶	SrB:DL&R				
SURNAME ▶	RRMaccary/lbm				
DATE ▶	3/26/62				

Stress calculation basis for the vessel shell has been clarified and meets the allowable stress values of the ASME Code. Control rod drive nozzle, calculations follow the acceptable method of analysis, with satisfactory basic assumptions in determining the thermal distribution under transient and steady conditions. No attempt has been made to check the stress values since such calculations are too lengthy to perform without calculation or computer equipment.

A review of the Control Rod Nozzle isotherm diagram (Fig. 50) indicates satisfactory correlation with the heat-slow pattern for the boundary conditions specified.

cc: E. Case, DL&R
J. DiNunno, DL&R

OFFICE ▶						
SURNAME ▶						
DATE ▶						

OPTIONAL FORM NO. 10
5010-104

UNITED STATES GOVERNMENT

Memorandum

TO : Charles Long
Research and Power Reactor Safety Branch, DL&R

DATE: March 26, 1962

FROM : R. R. Maccary
Special Projects Branch, DL&R

R.R Maccary

SUBJECT: PACIFIC GAS AND ELECTRIC COMPANY; ADDENDUM A TO FINAL HAZARDS SUMMARY REPORT; HUMBOLDT BAY POWER PLANT NO. 3

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cc: E. Case, DL&R
J. DiNunno, DL&R

1. Are thermal sleeves provided or necessary for cooling spray nozzle and Poison inlet nozzle

2. Highest reported stress level was in cooling spray nozzle, which is a non-radial connection. What was basis or general method of analysis for stresses due to pressure and external (pipe) load?

J.M. comments 3/27/62