

BALTIMORE
GAS AND
ELECTRIC

CHARLES CENTER • P.O. BOX 1475 • BALTIMORE, MARYLAND 21203

ELECTRIC ENGINEERING
DEPARTMENT

February 23, 1981

Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attn: Mr. Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 & 2, Dockets Nos. 50-317 & 50-318
Spent Fuel Racks Modification,
Supplementary Information

Reference: BG&E letter from A. E. Lundvall, Jr. to
Robert A. Clark dated 1/29/81; same subject.

Gentlemen:

A telephone conference call was held on 2/19/81 between members of your staff, BG&E and Nuclear Energy Services, Inc. to discuss certain aspects of the design of the Calvert Cliffs spent fuel racks, specifically the use of a spot welding procedure for fabrication of the racks and the identification and resolution of possible defective spot welds. In that conversation, your staff requested that we provide a copy of our engineering approval of the spot welding procedure. We were also requested to provide an explanation of our analysis to determine the extent of defective spot welding.

Attached is a copy of our letter of 5/21/80 from M. C. Key to R. A. Milos of NES approving the use of the spot welding procedure.

As discussed with your staff, an explanation of the technique used to evaluate the racks for defective spot welds is provided in Enclosure 2 of our letter of 1/29/81 (see Reference).

Very truly yours,



R. C. L. Olson
Principal Engineer
Nuclear Licensing & Analysis Unit

cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire

Messrs. E. L. Conner, Jr. - NRC
R. E. Architzel - NRC
R. A. Milos - NES

POOR ORIGINAL

8102260 435

May 21, 1980

Mr. R. A. Milos
Nuclear Energy Services, Inc.
NES Division
Shelter Rock Road
Danbury, CT 06810

Subject: Calvert Cliffs Nuclear Power Plant
Spent Fuel Pool Modification
FCR 77-1022, P.O. No. 33203-GX

Dear Mr. Milos:

<u>Procedure No.</u>	<u>Title</u>
QC-PPS-203-5	Liquid Penetrant Testing
QC-PPS-219-5	Gas Tungsten Arc Welding
QC-PPS-233-3	Gas Metal Arc Welding
QC-PPS-237-2	Automatic Gas Metal Arc Welding
WC-PPS-245-1	Arc Spot Welding
QC-SIP-255-0	Inspection of Fuel Storage Racks
ENG-PPS-244-1	Fabrication of Nuclear Fuel Storage Racks

The procedures listed above have been reviewed by BG&E and approved with comments on Proc. No. QC-PPS-219-5 as follows:

Page 2 - Par. 7.0 Process - indicates using 1/8" - 3/16" diameter 2% thoriated tungsten electrodes.

Page 5 - W.P.S. - QW-404 indicates 1/8" - 3/16" diameter electrodes.

Page 4 - Sketches and Welding Parameters Table - 3/16" diameter electrode is not listed. 3/32" diameter electrode is not listed for 3/8" metal thickness or 170 amps and 18 volts.

Page 6 - P.Q.R. - QW-404 indicates a 3/32" diameter electrode was used for the P.Q.R. and QW-409 indicates 170 amps and 18 volts using D.C.S.P.

There is nothing wrong with using a 3/32" diameter 2% thoriated tungsten electrode at 170 amps as used in the P.Q.R. because this electrode is good up to 250 amps on direct current, straight polarity (DCSP), but it conflicts with the specification and welding parameter table on page 4.

PCOR ORIGINAL

May 21, 1980

The welding procedure specification (S.P.S.) is intended to provide the welder with the directions he needs to weld in accordance with the Code and shall be available for reference by the welders and the authorized inspector. The contradiction in this procedure could cause problems.

If you have further questions, please contact me.

Very truly yours,

Original Signed By

M. G. Key

Christine Key
Engineer

MCK/smn

cc: Messrs. R. F. Ash/File
J. J. Jones
L. E. Titland
C. H. Linthicum
J. L. Larduskey
L. A. Sundquist

POOR ORIGINAL