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John L. Skolds
Vice President
Nuclear Operations

DEC 7 1990

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Attention: Mr. G. F. Wunder

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
TECHNICAL SPECIFICATION CHANGE - TSP 880015-4
L* ALTERNATE PLUGGING CRITERIA

As discussed during a telephone conversation on December 3, 1990, by Mr. H. F. Conrad of your staff, Mr. C. V. Dodd, your consultant, and several members of my staff, the following responses address the NRC questions relative to the data acquisition and analyses capabilities for implementing the L* criteria:

**NRC Question 1 - Can we get a commitment that the scan will encompass 100 points around the circumference taken with a pitch of 0.050 inch?**

SCE&G Response - Implementation of the L* criteria at the Virgil C. Summer Nuclear Station (VCSNS) requires the use of the rotating pancake coil (RPC) eddy current technique to characterize anomalies inside the tube sheet region of the steam generators. The RPC system, hardware and software, will facilitate graphics display of each scan of each tube at a minimum of 100 points per tube circumference. The rate of probe withdrawal and probe RPM shall be such that a pitch of .050 inch or less will be maintained during data acquisition.

**NRC Question 2 - Discuss the need for a standard addressing cracks at an angle to the tube axis, not just those that are either parallel or perpendicular to the axis.**

SCE&G Response - An eddy current tube standard shall be used for analysis set-up and calibration. This standard will contain at least two electric discharge machined (EDM) notches, at angles other than 0 to 90 degrees from center line. The enclosed drawing shows a proposed typical standard for use with L* implementation. The standard shows two EDM notches, one at 20 degrees and one at 45 degrees from center line as well as other machined anomalies to be contained in the set-up standard. This standard shall provide set-up of the inspection system and demonstration of sensitivity of the system to flaws originating on both the inside diameter and outside diameter of the tube wall.



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**NRC Question 3 - What assurance will be provided that data analyst's training is itself qualified?**

SCE&G Response - In addition to the vendor's qualification and certification program, the eddy current data analysis staff at VCSNS will be required to attend and successfully pass a site specific familiarization course prior to being allowed to analyze eddy current data. The site specific familiarization course and examination to be used to test analysis personnel meets or exceeds the recommendations outlined in EPRI document 6201, "PWR Steam Generator Examination Guidelines, Revision 2." This course and the site specific guidelines document used for analysis activities will be revised, upon the approval of L* by the USNRC, to include the approach and logic used for L* implementation at VCSNS. Practical examinations to be given at the conclusion of the course will include eddy current data from the standards described above, as well as data from actual tube examinations.

Should you have any questions concerning this issue, please call Mr. M. W. Gutierrez of my staff at (803) 345-4392 at your convenience.

Very truly yours,

John L. Skolds

MWG:REK:JLS:lcd
Enclosure

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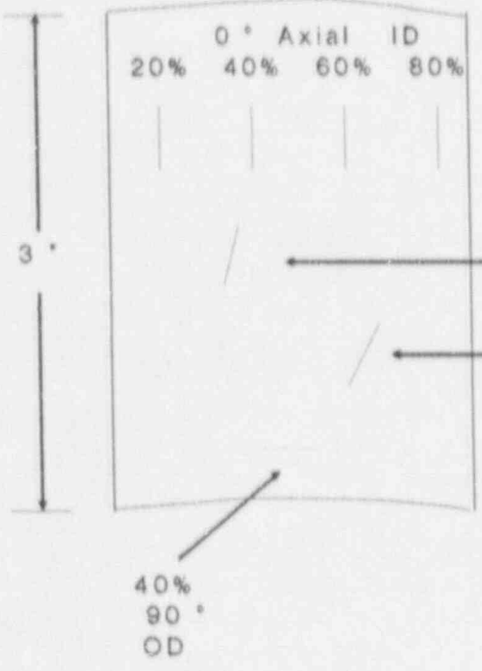
Enclosure to Document Control Desk Letter
TSP-880015-4

# Eddy Current EDM Notch Standard
## E-360/MRPC Calibration
## For L* Implementation




0 ° EDM notches are 90° apart around circumference

Machined anomalies are square bottom EDM notches

All notches are .5" in length
± .005"

All notches are .006" in width
± .001"

Angularity of notches is ± 2 °