



UNITED STATE
NUCLEAR REGULATORY COMMISSION
REGION III
799 ROOSEVELT ROAD
GLEN ELLYN, ILLINOIS 60137

PDR

December 4, 1978

Mr. Edwin Hofstadter
20 Aquilla
Florence, Kentucky 41042

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

Dear Mr. Hofstadter:

This is in response to letters you have written to the NRC, including those sent to the attention of Mr. James E. Foster, NRC, Region III, Investigation Specialist, dated September 22, 30, October 9, 19, 20 and 31, 1978, and comments made during telephone conversations.

Your letters and comments indicate that you are concerned that our investigative effort at the Husky Products Division did not identify all existing deficiencies related to manufacture of electrical cable tray for the Zimmer and Clinton nuclear power plants. It should be noted that our effort was not meant to be an all-inclusive one, but focused on specific allegations described to us at the start of the investigation, and others which followed later. Within these areas, we feel that our effort was of sufficient depth to identify any significant deficiencies.

Other NRC regional offices have been advised of other facilities which have contracted for Husky cable trays so that they can pay particular attention to this area in future inspections. Additionally, our Vendor Inspection Branch inspects selected vendors periodically to determine whether their quality assurance programs meet applicable codes. Consideration will be given to adding the Husky Products Division to the regular Vendor inspection schedule.

You alleged the use of low strength materials during manufacture of Zimmer equipment, and improper welding. Our investigation failed to develop any evidence of low strength materials or unsound welds; however, we did identify two occasions when welding qualification procedures had not been satisfied.

You alleged improper welding on the equipment supplied to the Clinton plant. Our investigation identified the lack of a qualified procedure for welding, and indicated questions as to the soundness of welds, matters which we are continuing to pursue.

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In each case, the utility constructing the plant in question will be given an "item(s) of noncompliance" with NRC regulations, and be required to advise the NRC of the corrective action which will take place in the immediate situation, and what will be done to prevent the situation from recurring. The NRC will then review the corrective action for adequacy. The utilities, not the NRC, will have direct interface with Husky Products.

In addition to our investigative effort, your original letter has initiated several utility audits of Husky which have been broader in scope than our effort, and required corrective action on the part of Husky where deficiencies were found. Our review of the Zimmer and Clinton audits of Husky indicated that these audits were of acceptable scope and depth.

With respect to the comments in your letters, the majority of which are covered by the respective investigation reports, the following clarifications and comments are made:

1. All of the requirements of 10 CFR 50, Appendix B (Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants) must be met by utilities constructing such facilities since the effective date of the regulation. Usually, all of the requirements in this section are not imposed on vendors of equipment utilized in plant construction. Instead, the Quality Assurance program of the vendor is reviewed and approved by the utility involved, and the vendor is then required to meet the requirements of the approved program as they apply to the activities of that vendor.
2. The cable tray specification for the Zimmer plant required a side rail material with a minimum strength of 30,000 lbs/square inch, and welding was specified to be "in accordance with modern shop practice". Due to a commitment in the Husky Quality Assurance Manual, welders were to be qualified in accordance with the American Society of Mechanical Engineers Code for Boiler and Pressure Vessels (ASME), Section IX, Welding and Brazing Qualifications. No requirement was imposed that the welds themselves be of pressure vessel quality, and considering the function of the welds, which are not on a pressure boundary, there is no justification for such a requirement. The trays are not ASME qualified, and Husky does not possess an ASME stamp. None of the non-destructive examinations required for such pressure vessel welds were required of Husky for the cable tray welds.

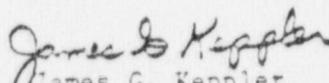
3. Husky was required to certify welders and weld procedures as outlined in Section IX of the ASME Code. Our interpretation of their qualification program for welder performance qualification (type of test, type of production weld) is that they met the intent of Section IX. As Section IX does not include tests for spot fillet welds, qualification was made to a groove weld procedure, and this is acceptable according to Article II of Section IX (QW-202). Also, Section IX (QW-321.2), does not require or specify length of training, retraining, or require a specific waiting period between performance qualification tests, nor does it limit the number of retests.
4. We have read Mr. Spievack's report of October 1974, and have discussed with him the findings contained in his report. We do not question the findings contained in the report, but recognize from his own statements that his review was performed with a view towards training Husky welders at his welding school. As training and certification of Husky welders took place subsequent to the report, it cannot be used as an accurate indication of later conditions.
5. You suggest that surprise NRC welding requalifications of Husky personnel are indicated by the results of our investigation, a view we do not share. The utilities involved have the option of requiring welder requalification if they feel it is warranted.
6. Weld testing was performed under NRC scrutiny to determine the acceptability of welding, beyond the document review already performed. In such cases where an item successfully passes a test designed to evaluate its acceptability to applicable codes, this verifies the reliability of quality documentation, and provides confidence that the item will perform as designed.
7. We did not examine the qualifications of Quality Control personnel during our investigative effort at Husky. Our review of the situation indicated that the Husky welding inspection personnel perform simple peel tests and visual examination, which do not require extensive training. If other types of nondestructive examination had been involved, documentation of training under the applicable Code would have been indicated, but this was not the case. We did review pertinent records to see that Husky personnel had performed inspections as required.

8. Through telephone contact with Husky personnel concerning an allegation contained in your letter of October 31, 1978, it was found that the TIG procedure was not qualified until 1975 when the process was qualified for use on equipment for the Clinton plant. Husky personnel advised us, and sent written notification, that this process was used to weld a small number of items for the Zimmer plant between December, 1974, and August, 1975, prior to the procedure qualification. This instance was utilized as a second example for our item of noncompliance relative to the Zimmer plant.
9. Our evaluation of the welding problems noted in equipment for the Clinton site indicated that the requirement for pre-galvanized material contributed significantly to observed resistance weld defects. There was no indication of any such defects during our inspection of Zimmer cable trays, and the material utilized was not pre-galvanized.
10. To clarify your original letter regarding equipment supplied to the Clinton plant, MIG welding is permitted by the Clinton specification, and our review of the location of the weld indicates that it is properly located. An evaluation of the amount of aluminum contained in the aluminum-bronze spot welds was performed by Sargent & Lurdy, indicating that the amount of aluminum was acceptable.

Mr. Foster indicates that he has had several telephone conversations with you, covering most of these points, and elaborating on others. Major points will be covered by our investigation reports. If you feel that we have not sufficiently investigated the information you have provided to us, or have additional information not yet disclosed, please feel free to contact us.

I would like to express my thanks to you for drawing our attention to discrepancies in the manufacture of cable trays supplied to the Zimmer and Clinton plants. Identification of the problems at this point in time assures that any questions regarding the adequacy of the equipment can be resolved prior to the operation of the plants concerned. In the case of the Clinton plant, an additional benefit was realized in that any questions of adequacy can be resolved prior to installation of the equipment in the plant.

Sincerely,


James G. Keppler
Director

Mr. Edwin Hofstadter

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December 4, 1978

cc: Michael H. Bancroft
PDR