



PHILADELPHIA ELECTRIC COMPANY

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SHIELDS L. DALTROFF
VICE PRESIDENT
ELECTRIC PRODUCTION

April 22, 1981

Re: Docket Nos. 50-277
50-278

Inspection No. 50-277/80-18
50-278/80-10

Mr. Boyce H. Grier, Director
Office of Inspection & Enforcement
Region I
US Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Grier:

Your letter of April 2, 1981, forwarded combined Inspection Report 50-277/80-18 and 50-278/80-10. Appendix A of your letter addressed "Significant Appraisal Findings" identified during review of our Health Physics program. A response to the items identified in Appendix A was requested within twenty days of receipt of your letter, however, due to the scope of this request we did not feel we could adequately respond within the allotted time. W. J. Knapp, Philadelphia Electric Company, contacted G. H. Smith, NRC Region I, on April 7, 1981, at which time it was agreed to extend our submittal date for the items in Appendix A by forty-five days. Therefore, we will provide a complete response to the Appendix A findings by June 5, 1981.

Appendix B of your letter addresses two items which do not appear to be in full compliance with Nuclear Regulatory requirements. These items, categorized as infractions, are restated below with our responses.

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10 CFR 20.201(b) "surveys," require that such surveys be conducted as may be necessary to comply with the regulations contained in each section of 10 CFR 20. A "survey," as defined in paragraph 20.201(a), means "an evaluation of the hazards incident to production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions. When appropriate, such evaluation includes a physical survey of the location of materials and equipment, and measurements of levels of radiation or concentrations of radioactive materials present."

Contrary to the above:

1. As of June 27, 1980, an alpha survey program had not been established to evaluate in-plant surface contamination levels or airborne concentrations to demonstrate compliance with 10 CFR 20.103. (See Section 3.3 of this report)

Response

During initial plant operations, alpha surveys performed indicated that alpha activity was not significant enough to require control and surveys were discontinued. Following this inspection, alpha surveys by means of alpha analysis of air particulate filters and loose contamination smears were performed. The results verified the absence of an alpha activity problem.

Periodic alpha sampling of air particulate filters and loose contamination smears is now being performed. When deemed necessary to verify results, samples will be shipped to an offsite lab for analysis. This analysis may include alpha spectroscopy for isotopic identification.

2. As of June 27, 1980, the validity of the neutron survey results could not be established because the survey meters had not been calibrated to known neutron radiation levels. Therefore, the dose information recorded on Form NRC-5 could not be substantiated to demonstrate compliance with 10 CFR 20.101. (See Section 3.3 of this report)

Response

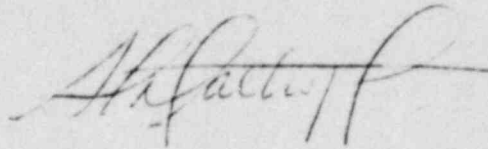
As stated above, neutron survey meters have not been calibrated to known neutron radiation levels. Calibration performed by the vendor involves an electronic check of the count rate circuit with a pulse generator. The electronic response is checked at four output frequencies. For gamma discrimination a high voltage adjustment is made in a high gamma exposure field, such as 10 -

20 R/hr. When the detectors are returned to the site they are response checked by exposure to a neutron source.

Arrangements will be made to periodically calibrate our neutron survey meters to known neutron field intensities throughout the range of the survey meter. Initial calibrations will be completed by September 30, 1981.

Should you have any questions, please don't hesitate to contact us.

Very truly yours,

A handwritten signature in cursive script, appearing to read "A. H. Grier", with a long horizontal flourish extending to the right.