

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

P.O. BOX 8699

PHILADELPHIA, PA. 19101

SHIELDS L. DALTROFF
VICE PRESIDENT
ELECTRIC PRODUCTION

(215) 841-5001

December 12, 1983

Docket Nos. 50-277
50-278

Mr. John F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: Peach Bottom Atomic Power Station Post-Accident
Sampling System (NUREG-0737, Item II.B.3)

Dear Mr. Stolz:

This letter was requested by the NRC staff in a telephone conversation on November 9, 1983, and describes our plans to resolve the staff's concerns pertaining to the Post-Accident Sampling System (NUREG-0737, Item II.B.3). Philadelphia Electric Company's plans for meeting the criteria of NUREG-0737, Item II.B.3, were identified in a January 31, 1983, submittal (S. L. Daltroff, PECO, to J. F. Stolz, NRC). By correspondence dated October 6, 1983, the staff accepted our proposal for meeting eight of the eleven criteria regarding Item II.B.3. The staff concluded that three criteria were not fully satisfied. A telephone conference was requested within thirty days to discuss the resolution of these issues. The unresolved issues as presented in the staff's October 6, 1983, letter and our plans for resolution as presented during the November 9, 1983, telephone conference are as follows:

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I. NRC Concern:

We find that the licensee partially meets Criterion (2) by establishing an on-site radiological and chemical analysis capability. The BWR Owners Group core damage estimate procedure, dated June 17, 1983, is acceptable as a generic procedure. The licensee should develop this procedure into one that is plant specific.

PECo Response:

A controlled Nuclear Generation Division procedure (FM-19 Procedures for Estimating Core Damage During Accident Conditions) provides for a determination of the extent of damage on the Peach Bottom core during accident conditions. The procedure is based on the BWR Owners Group core damage estimate procedure dated June 17, 1983. It is the responsibility of the Core Physics Coordinator to determine the extent of damage utilizing this procedure. As requested, a copy of the procedure is attached for your review.

II. NRC Concern:

Chloride analysis is performed within the 4-day time requirement by the turbidimetric method which has a sensitivity of 10 ppm in a diluted sample. More sensitive analyses may be made at an off-site facility that has been arranged for. An undiluted sample can also be collected in a shielded cask and retained for chloride analysis for 30 days. We determined that these provisions partially meet Criterion (5). The turbidimetric method is unacceptable for chloride analysis because of interference with iodine in the post-accident sample. Dependence on an off-site facility for chloride analysis requires a licensed shipping container. The licensee should provide a chloride procedure sensitive to 0.1 ppm levels in the presence of the standard test matrix given in Criterion (10) or confirm the availability of a licensed shipping container and discuss arrangements for off-site analysis.

PECo Response:

As stated in the January 31, 1983 submittal, the turbidimetric method of chloride analysis will only be utilized for on-site "scoping" analyses. Contractual arrangements have been made with an off-site laboratory (Babcock & Wilcox, Lynchburg, VA) for more precise measurements. The off-site laboratory has the capability of analyzing chlorides using an ion chromatograph. This

technique is accurate within $\pm 10\%$ of the measured value for concentrations between 0.5 and 20.0 ppm chloride, and ± 0.05 ppm for concentrations below 0.5 ppm, and is therefore in conformance with the NRC's recommendations (J. F. Stolz, NRC, to E. G. Bauer, PECO, August 24, 1982).

Two licensed shipping casks are presently being procured by the Pooled Inventory Management System (PIMS) program for use by the participating utilities. The casks are expected to be delivered to the PIMS facility in Memphis, Tennessee, by February 1984 and will be available for use to transport samples to the B&W laboratory. Procedures have been generated for the acquisition of the cask in an emergency and shipping samples to the B&W laboratory.

III. NRC Concern:

We find that the licensee partially meets Criterion (10). The licensee should provide additional information consistent with the guidelines in our letter dated August 24, 1981, on operator training to ensure proficient operation and performance of analyses for post-accident sampling. A minimum frequency for the above efforts is considered to be every six months if indicated by testing.

PECO Response:

By correspondence dated August 24, 1981, the staff supplemented the criteria provided in NUREG-0737, Item II.B.3. Clarification to Criterion (10) addressed the training of personnel in post-accident sampling, analysis, and transport. A training frequency of every six months was recommended. The number of personnel required to be trained in the use of this system was not identified in the staff's clarification.

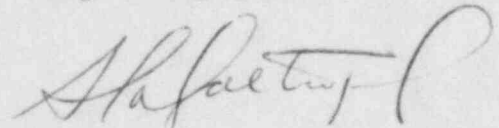
Our response in the January 31, 1983, letter went beyond the staff's clarification, in that we committed to having at least five members of the on-site organization trained in the sampling, analysis, and transport of samples. Considering the number of personnel committed to this effort, variation in work schedules, and other demands of the job, it would be impossible to assemble at least five personnel for a common training session. Therefore, at least two training sessions every six months (four per year) would be necessary to accommodate at least five personnel. The operation of the PASS is performed by the technicians in the Health Physics and Chemistry group. Considering the growth of training requirements applicable to plant technicians, we believe at least four training

sessions a year in the performance of one activity to be an unnecessary burden.

As discussed during the November 9, 1983, telephone conference, we are modifying our commitment as follows: A training session will be conducted approximately every six months in post-accident sampling, analysis, and transport. At least five members of the on-site organization shall receive the training at least annually (at least every other training session). This proposal would permit the training of at least five personnel utilizing two sessions a year (one every six months), while at the same time ensuring that at least some of the five have received the training within the past six months. It should be noted that additional on-the-job experience in the use of the sampling and analytical equipment is acquired during the periodic emergency drills and practice exercises. The staff indicated, during the telephone conference, that they would give this proposal serious consideration.

Should you have additional questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in cursive script, appearing to read "A. R. Blough", followed by a large, sweeping flourish.

Attachment

cc: A. R. Blough, Site Inspector