

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of Philadelphia
Electric Company
(Limerick Generating Station,
Units 1 and 2)

Docket Nos. 50-352-OL

50-353-OL

SECRETARY
DOCKETING & SERVICE
BRANCH

STATEMENT OF THE CITY OF PHILADELPHIA
PURSUANT TO ORDERS OF JULY 26, 1983 AND SEPTEMBER 2, 1983

As suggested by the Board in its Order of September 2, 1983 and in an effort to amicably resolve possible differences, the City and the Applicant met on September 13, 1983 to discuss various aspects of the SARA. As a result of this meeting, a number of concerns previously identified by the City were satisfied. However the City continues to have concerns and desires to participate in this proceeding, pursuant to 10 CFR 2.715(c) in three areas;

- (1) The impact of human errors of commission during accidents or transient migration as initiators of accidents.
- (2) The health effects on residents of the City if a radioactive plume moves at least 50 miles outward into sectors covering the City under the likely circumstances of bad weather, non-normal behavior and difficult evacuation within and beyond ten miles.
- (3) The health effects of contamination of the Schuylkill and Delaware Rivers, the primary sources of drinking water for the City.

These issues are set forth with greater specificity in Appendix "A" attached hereto.

With regard to Points 2 and 3 the City maintains its objections because the Applicant has not to date presented any data sufficient to adequately support a cost benefit analysis of the possible scenarios associated with these concerns as required by NEPA and 10 CFR §§51.20, 51.21, 51.23 and 51.26. It is

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only with this additional information in hand that the City can determine its final position on this SARA.

The City desires to participate in this proceeding in order to protect its present interests or interests that may develop as the matter progresses. Except to the extent addressed above, the City of Philadelphia does not at this time take any position on the issues raised by Limerick Ecology ("LEA") in filing its September 1, 1983.

It should be noted the parties have agreed to continue their dialogue regarding these matters and are optimistic that an informal resolution is still possible.

The City's failure to file its statement by September 1, 1983 was for good cause and is excusable 10 CFR 2.74(a)(1)(i). Under Duke Power Co., (Catawba) Nuclear Station Units 1 and 2, ALAB-687, 16 NRC 460, 469 (1982) good cause is shown where a filing although late, is such that it:

- (1) is wholly dependant upon the interests of a particular document
- (2) could not be addressed with any degree of specificity (if at all) in advance of the public availability of that document.
- (3) was tendered with requisite promptness once the document comes into existence and is accessible for public examination.

The City's first concern was previously raised by LEA. The second and third concerns address the previously unavailable SARA document and are timely filed in response to that document. The City could obviously not know with any degree of specificity how the Applicant prepared its SARA in advance of its filing. After receipt of the SARA, the City promptly engaged a consultant to review the document and initiated discussions with the Applicant in an attempt to identify its positions in regard thereto. Had the City moved more quickly, it would have been forced to raise needless issues.

Unless this filing is allowed, the City's interest in the matter will not be protected. 10 CFR 2.714(a)(1)(i). The second and third concerns were not raised by LEA. Unless these concerns are addressed in the Draft Environmental Statement, the City's interests will not be protected.

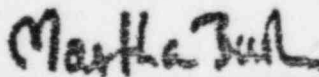
The City's interest will not be adequately represented by the existing parties, 10 CFR 2.714(a)(1)(i). No other party has raised the second and third concerns. The City has a particular and direct interest in the healthful maintenance of its water supply and in its potential liability for any costs associated with possible major accidents at Limerick.

The City's participation in the proceeding will not unnecessarily broaden the issues before the Board or delay the proceeding. The concerns raised by the City are relevant and material to the proceeding and will involve issues clearly within the statutory framework. While addressing these points will certainly take time, such an inquiry is essential to the fashioning of a Statement which will properly address the impact of Limerick upon the environment and the health and safety of the public, particularly the 1.8 million citizens of the City of Philadelphia.

The Applicant has previously indicated that it would have no objection to this late filing by the City.

Accordingly, the City respectfully requests that this Board accept this statement as timely and address the issues raised herein.

Respectfully submitted,



MARTHA W. BUSH

September 19, 1983

APPENDIX "A"

CITY-1

The SARA has not considered the range of accident scenarios necessary to produce a reliable and realistic cost-benefit analysis as required by 10 CFR 51.20 and 10 CFR 51.21. As currently formulated the SARA does not provide sufficient analysis to allow compliance with 10 CFR 51.23 and 51.26. The specific scenarios which are omitted include the following:

- A. Human errors of commission during accident or transient mitigation have not been considered as an initiator.

CITY-2

The SARA methodology does not accurately reflect the Limerick conditions and the conservative assumptions necessary to make a realistic cost-benefit analysis and thus does not comply with 10 CFR 51.20 and 10 CFR 51.21 or allow compliance with 10 CFR 51.23 and 26. The following specific deficiencies exist.

- A. The evacuation scenarios assumed for the SARA (Section 10.3.2) are not representative of the conditions which would be expected if the plume is moving in the direction of Philadelphia. Thus the values used in the cost-benefit comparisons do not accurately reflect a realistic estimate of the radiological effects (both median and upper estimates) which could result from an accident at either of the two Limerick plants.
- B. The evacuation scenarios assumed for the SARA (Section 10.1.6) in the event of a seismically-initiated accident are unrealistic for the following reasons:
 - 1. The assumption of "normal behavior" beyond the EPZ is unrealistic following an earthquake-initiated accident. The earthquake would result in disruptive behavior such as, for example, uncalled for evacuation, abnormal activity, more people outside shelters.
- C. The SARA uses assumptions from WASH 1400 and the LGS-PRA for critical factors in the calculation of consequences which are not representative of the realistic conditions in the vicinity of Limerick, particularly as pertains to the direction toward Philadelphia. These include (Section 10.1.6 of SARA):
 - 1. Unrealistic assumption of complete evacuation of 10 mile circle around the plant.
 - 2. Unrealistically assumption of "normal" behavior beyond 25 miles.

3. Assumption of good weather during evacuation; no scenario is derived for evacuation in bad weather.
- D. The SARA uses health effects modeling which is not representative of those applicable to Limerick and are not sufficiently conservative to produce a reliable cost benefit analysis. These include (SARA Section 10.3.3):
1. People beyond 10 mile EPZ are unrealistically assumed to be involved in "normal behavior" for 12 hours, then evacuated.
 2. A single breathing rate is assumed for all people which would not be the case.
 3. The SARA assumes the low value from a range of values for latent-cancer fatalities, expressed in fatalities/person-rem., (SARA Section 10.3.3).

CITY-3

The SARA does not contain the necessary information for making decisions and policies necessary to reduce the radiological effects of an accident and thus its results and cost-benefit analysis do not comply with the requirements of 10 CFR 50.20 and 10 CFR 50.21 nor does it ~~provide sufficient basis for analysis~~ pursuant to 10 CFR 51.23 and 10 CFR 51.26. The specific reasons are as follows:

- A. The dose distance relationship is missing from the analysis in SARA. The SARA states that a bone-marrow dose of 200 Rem, where hospitalization is often required, "is rarely exceeded beyond 40 miles downwind...", (SARA at p. 12-16). However, it does not give the likelihood of receiving this serious dose at 25-35 miles which is the distance a plume would travel to reach major population of the City of Philadelphia.
- B. The absence of dose-distance curves does not allow the assessment of the likelihood of exceeding the EPA Protective Action Guides (PAG's) at locations within the EPZ and at locations in the Ingestion Pathway which includes the City of Philadelphia.
- C. The consideration of evacuation only up to 25 miles from the plant does not give the true indication of possible reductions in public risk in the case where the plume is moving toward a large population zone beyond this distance (such as the City of Philadelphia which is 25-35 miles from Limerick).
- D. The comparisons of alternate evacuation strategies show that it is possible to reduce the number of fatalities by different evacuation strategies (SARA figures 10-23, 10-24) and reducing evacuation delay time (SARA figure 10-25) but it does not provide the necessary information to assess if this is true in all directions of plume travel, including toward the City of Philadelphia.