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February 6, 1980

Alan S. Rosenthal, Chairman Atomic Safety and Licensing Appeal Board U.S. Nuclear Regulatory Commission Washington, D.C. 20555

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In the Matter of METROPOLITAN EDISON COMPANY, et al. (Three Mile Island Nuclear Station, Unit No. 2)

Docket No. 50-320

Gentlemen:

This letter reports on a program initiated by Metropolitan Edison Company and carried out in the period August 30, 1979, to January 22, 1980, in an attempt to check on the flight paths of large aircraft (potentially weighing over 200,000 pounds) using the Harrisburg International Airport. The program February 6, 1980 Page Two

used the security force at the North Gate of Three Mile Island as "spotters" and recorders of flight observations. For reasons explained more fully below, the recorded observations proved to be too inaccurate to be of any probative value. Nevertheless, in the interest of complete disclosure, we are informing the Board of the details of the program and of its results.

Security personnel at the North Gate were instructed to record on forms provided to them information as to any aircraft (including small aircraft) which they observed either landing at or taking off from the airport and passing near or over Three Mile Island. They were initially asked to record among other data the time of their observation; whether the aircraft was arriving or departing; whether or not the aircraft flew over any part of Three Mile Island (not just the plant area); and the type of aircraft. Later, the instructions were extended to include recording data on the configuration of the aircraft (number of engines, type and location, and airline marking if visible).

To assist the guards in identifying large aircraft they were provided with silhouettes (front, side and bottom) of both scheduled jet aircraft at HIA and other jet aircraft which may occasionally use the airport. Silhouettes of the B-727, DC-9, B-737 and BAC-111 (less than 200,000 pounds) were included in the hope of avoiding misidentification of these aircraft. As a check on the accuracy of observations Met Ed also planned to review flight strips at HIA listing the times of arrival and departure of all large aircraft, which data could then be checked against recordings of large aircraft by the spotters. Unfor mately, the first attempt to compile the flight strip data did not occur until early in December. Since in accordance with FAA practice flight strips are destroyed after 30 days of retention, the flight strip information obtained by Met Ed covers only the period October 31, 1979, to January 22, 1980. Thus, it has not been possible to check the spotters' data prior to October 31, 1979.

There were a number of deficiencies in the execution of the program. On some days no spotter observations were recorded although about 76% coverage of the period was accomplished. Further, information which was recorded was incomplete, although the information did regularly include at least the time of arrival or departure and whether or not the aircraft flew over the Island and in most cases included either an identification of the type of aircraft or the number and location of engines or both. Finally, as indicated below, spotter

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identifications of aircraft type proved to be highly unreliable. Met Ed attributes the foregoing deficiencies in part to the routine rotation of security personnel at the North Gate, personnel changes and conflict of the spotter program with other duties of the security force. During the data collection period, observations were recorded and initialed by at least 100 different individuals. Because of these recurring difficulties Met Ed discontinued the spotter program on January 22, 1980.

The following is a summary, with comments, on the spotters' recorded observations:

- 1. During the entire period of the program (August 30, 1979 January 22, 1980) the spotters recorded a substantial number of private and commercial planes weighing less than 200,000 pounds, including some B-727's which flew over the Island. Met Ed has made no attempt to verify the accuracy of these observations.
- During the period August 30 October 30, 1979, spotters reported a total of 26 large aircraft, mostly B-707's and B-747's, as having flown over the Island. The majority of these recordings, i.e. 18, were made in the first month of the program, i.e. from August 30 through the end of September, when the spotters were least experienced. The recordings dropped to 5 in the first half of October and to 3 in the last half of October. Met Ed cannot reconcile these observations with information as to flight paths for large aircraft obtained from FAA controllers and from discussions with TWA pilots. It also cannot reconcile the number of B-747's recorde ! with the types of planes listed as in use in commercial airline schedules. As previously noted, Met Ed has not been able to check the spotter observations against flight strips for the period in question. There is no reason, however, to believe that the pre-October 31 observations were any more reliable than the post-October 31 observations, which are described in the next paragraph, which have been checked against flight strips and all of which appear to be incorrect.
- 3. During the two and one half month period from October 31, 1979, to January 24, 1980, i.e. the period for which Met Ed obtained data from the HIA flight strips, the spotters recorded only 9 large aircraft over the Island. None of these observations appear to have been correct. In 5 cases the identification of aircraft type was inconsistent with the number and location of engines also recorded by the spotter. Further,

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in no case does the HIA flight strip show either an aircraft of the type identified by the spotter or any other large aircraft to have landed or taken off from HIA at anywhere near the time recorded by the spotter.

4. As a further check on the spotter observations, Met Ed has checked the flight strips for the period October 31, 1979 - January 22, 1980, for the time of arrival or departure of each large aircraft using HIA. The spotter recordings do not show a single observation of a large aircraft which coincides even approximately with the landing and take-off times shown on the flight strips.

We conclude from the above that the spotter identification of aircraft proved to be entirely unreliable, although the results of the program do strongly suggest that none of the heavy aircraft that were recorded by flight strips as having used the airport flew near enough to TMI to be spotted.

Sincerely,

eorge F. Trowbridge

cc: Service List