February 4, 1971

POOR ORIGINAL

P. W. Love, Chief, Section, IRL

TRIP REPORT OF VISITS TO NEWBOLD ISLAND, SMITH, LIMERICK, THREE MILE ISLAND AND PEACH BOTTOM REACTOR SITES - DECEMBER 16-17, 1970

The primary purpose of this trip was to become familiar with existing and proposed locations of meteorological towers at these five reactor locations. During the first day (December 16), I visited the Newbold Island and Limerick sites and flew over all five sites in a light airplane along with Myrand Smith, Brookhaven Laboratory, the meteorological consultant to the applicants on four of the sites. The second day (December 17) was spent traveling to and visiting the Three Mile Island and Peach Bottom sites.

Newbold Island - 72-354-365

Mr. Richard Van Brunt and Robert Scanlon, Public Service Gas & Electric Company, accompanied me to the site to inspect the proposed location for their 300 foot meteorological tower. The proposed location although it has exposure problems, is the best location on utility owned property. The utility proposes to locate wind direction, wind speed and temperature sensors at the 33, 150 and 300 foot levels of the tower. The tower will be situated in a clearing on the mainland shore as indicated in the PSAR (Amendment 2, Figure 2.1-7). The primary obstructions that may influence the meteorological data are the four storage buildings about 300 feet west of the tower. The proposed data recording and analysis procedures are adequate.

Limerick -

Mr. Al Hogan, Philadelphia Electric Company, accompanied me to the site to view the proposed meteorological tower locations for onsite data collection. A 310 tower is being erected in a cleared area on a high point about 1700 feet SE of the proposed cooling tower location. This tower will be instrumented for wind direction and speed at the 33, 175, 310 and 610 feet levels and for temperature at the 33, 175 and 310 levels. A bivane will be situated at the 150 foot level. At the present time, a wind system is situated atop a 33 foot pole and is gathering data on a temporary basis so that a comparison between the meteorology at this site and the local weather site can be attempted. This comparison is necessary to determine whether the onsite meteorological data can be used for evaluation of the site meteorology at Limerick for the construction permit.

OFFICE ▶

SURNAME ▶

DATE ▶

9101170728

AEC-318 (Rev. 9-53)

U.S. GOVERNMENT PRINTING OFFICE: 1971 O - 419-339

POOR ORIGINAL

A 100 foot tower will be erected on the bank of the Schuylkill River with wind and temperature sensors at two levels. Mr. Logan is anticipating some electronics problems with the installation of the temperature sensors due to voltage pickup from overhead 500 kv transmission lines. The proposed tower locations, instrument heights and data reduction procedures appear to be adequate to establish onsite meteorological conditions.

Three Mile Island

Mr. Jack Gerstine, Metropolitan Edison Company, accompanied me on a tour of the meteorological instrumentation locations. Since May 1967, wind direction and speed have been measured at two locations. The one location is about 2,[illegible] feet south of the reactor location on a 163 foot high mast and is presently in continuous operation. The other location (Crawford Station) is 2.5 miles N of the site 35 feet above grade and its operation has been discontinued. A 150 foot onsite tower was erected and instrumented in August 1970. My inspection of the chart records from this tower showed that there were problems with the recording of temperature data. I recommend that DRL monitor the data acquisition very closely because the applicant is not devoting enough time to this aspect of site evaluation.

Peach Bottom

Mr. Al Logan, Philadelphia Electric Company, also conducted me on a tour of the meteorological measuring facilities at this site. All instruments appeared to be in good working order. The wind vanes at the two levels on the microwave tower were recording directions that were about 30° different from each other while an inspection of the vanes showed that both should have been recording about the same direction. Mr. Logan said that to augment the sensors had been changed recently and the vanes were not oriented properly after the change. The instruments and procedures appear to be adequate enough to evaluate the site meteorology.

E. H. Markee, Jr.
Site, Environmental & Radiation
Safety Group
Division of Reactor Licensing

OFFICE ▶	DRL
SURNAME ▶	E.Markee:bc
DATE ▶	2/4/71

FORM AEC-318 (REV. 9-53) U.S. GOVERNMENT PRINTING OFFICE 16-70-865-888