**Commonwealth Edison**
One First National Plaza, Chicago, Illinois
Address Reply to: Post Office Box 767
Chicago, Illinois 60690

February 14, 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Braidwood Station Units 1 and 2
Additional FSAR Information
NRC Docket Nos. 50-456/457

Reference (a): B. J. Youngblood letter to L.O. DelGeorge dated January 14, 1983

Dear Mr. Denton:

Reference (a) requested that the Commonwealth Edison Company provide, by March 1, 1983, certain additional information concerning our FSAR for Braidwood Station Units 1 and 2.

The Attachment to this letter provides our response to questions 372.21 and 372.22 as requested in Reference (a). We expect to submit our response to the remaining Reference (a) questions in the near future. Additionally, our FSAR will be amended to include the information contained in the Attachment to this letter.

Please address any questions that you or your staff may have concerning this matter to this office.

One (1) signed original and fifteen (15) copies of this letter with Attachment are provided for your use. However, only one (1) copy of the meteorological data tape is being provided, and has been sent directly to Ms. Janice A. Stevens.

Very truly yours,

E. Douglas Swartz
Nuclear Licensing Administrator

Attachment

cc: J. G. Keppler RIII
RIII Inspector - Braidwood

B001

5991N

ATTACHMENT

Braidwood Station Units 1 and 2

QUESTION 372.21

"Provide a meteorological data tape covering the January 1, 1974 through December 31, 1976 time period. The data from measurements made onsite should provide hourly observations in accordance with the attached format."

RESPONSE

Under separate transmittal, E. Douglas Swartz letter to H. R. Denton dated February 14, 1983, a meteorological data tape was provided covering the time period January, 1974 through December 31, 1976. The hourly observations were made in accordance with the specified format.

QUESTION 372.22

"Describe the meteorological measurement program to be used for emergencies in accordance with Regulatory Guide 1.101, Revision 2."

RESPONSE

The meteorological tower is 320 ft. high and is instrumented at two levels. Wind direction and speed are measured at 34 ft. and 203 ft. above grade elevation. Air temperature and dew point temperature are measured at 30 ft. and 199 ft. levels. The 199 ft. level corresponds to the elevation of possible points of airborne effluent release.

The wind speed sensors have a starting speed of 0.75 mph, a range of 100 mph and a system accuracy of $\pm$ 1 mph. The wind direction sensors have a threshold of 0.75 mph, a range of 540 degrees and a system accuracy of $\pm$ 2.5 degrees. Temperature is measured with a range of -22 to +122$^{o}$F and an accuracy of $\pm$ 0.5$^{o}$F. The differential temperature range is -10.0 to 10.0$^{o}$F with an accurancy of $\pm$0.25$^{o}$F. The dew point temperature range is -58 to +122$^{o}$F with an accuracy of $\pm$ 2.0$^{o}$F.

For all parameters, the primary data acquisition system is a Microtel-II Meteorological Data Acquisition System. The system measures the analog voltages of the sensors and records the digital equivalent within the range of 0 to +5 volts. It has the capability of storing 10 hours of minute data and 24 hours of hourly data. As a backup to the Microtel, all parameters are maintained on analog recorders.

A comprehensive field program is maintained. Routine visits are made to the tower once each week to retrieve analog data and inspect equipment. Those instruments equiped with internal calibration capabilities are also checked. Bimonthly calibrations are performed as part of the maintenance program. All systems are checked and calibrated; worn or damaged wind sensors are replaced with working spares. All analog recorders are checked for proper operation. The Microtel is checked for proper operation and its output verified.

Besides the routine meteorological maintenance program, several independent methods are used to verify quality data transmissions and recovery. The corporate computer polls the meteorolcgical tower throughout the day. Data are screened by a validation program which flags all missing and/or suspect values. The meteorological contractor is notified of persistent outages and the proper restoration procedure is followed.

As an independent method of data retrieval, the meteorological contractor also interrogates the tower during the day. Data are passed through validation procedures and suspect data are closely examined. Field teams are then assigned for restoration of the system.

Cooperation between the corporate office and the meteorological contractor assures that a timely restoration of any outage can be made. Emergency field visits to the site are made as quickly as possible after detection of a failure.

Should a disaster of sufficient magnitude occur to destroy the tower structure, a contract is maintained to have a temporary tower erected within 72 hours, weather conditions permitting. Further, the meteorological contractor maintains two levels of sensors (wind speed, wind direction and temperature) in a state of readiness for use on the temporary tower.

Additionally, CECo.'s existing instrumented towers at other nuclear sites provide a high-density measurement network with multiple backup opportunities.

Finally, the meteorological consultant provides a 24-hour a day, 7 days per week data source consisting of all routinely available National Weather Service information plus all CECo. meteorological network data. This allows for the detailed preparation of forecasts for the duration of an emergency.

Meteorological data are available to the station control room, technical support center and emergency operations facility for use in the Offsite Dose Calculation System (ODCS), a computer-based method for estimating the environmental impact of unplanned releases of radioactivity from the station.