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Docket File
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NSIC
CRBR Reading
R. Stark
C. Thomas
W. Foster
P. Shuttleworth

November 20, 1981

Docket No.: 50-537

Mr. John R. Longenecker
Licensing and Environmental Coordination
Clinch River Breeder Reactor Plant
U. S. Department of Energy, NE-561
Washington, D.C. 20545

Dear Mr. Longenecker:

SUBJECT: CLINCH RIVER BREEDER REACTOR PLANT, REQUEST FOR ADDITIONAL INFORMATION

Pursuant to the information needs of the staff identified in Section 2.3.3 of Regulatory Guide 1.70.29, "Information for Safety Analysis Reports - Meteorology," we request transmittal via magnetic tape of onsite meteorological data for our evaluation of the radiological consequences of normal and accidental releases to the atmosphere. Please use the enclosed guidance on format and tape attributes (Enclosures 1 and 1A) and provide hour by hour data for the period of record (July 1, 1975-June 30, 1976) which you have used to construct the diffusion estimates reflected in the Tables in Section 2.3 of the PSAR. Also, please include documentation identifying the parameters measured, instrumentation, period of record and a dump of the first block of data on the tape as shown in Enclosure 2. We have assigned question number 451.1 to this request. Please provide this information by December 21, 1981.

Sincerely,

/s/ Cecil O. Thomas, Jr.
for Paul S. Check, Director
CRBR Program Office
Office of Nuclear Reactor Regulation

Enclosures:
As stated

cc: Service List

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SURNAME	RStark/bm	CThomas	WFoster	PSCheck			
DATE	11/20/81	11/20/81	11/20/81	11/20/81			

cc: Marshall Miller, Esq., Chairman
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USE

		KEYWORDS	
		IBM	CDC
Mode:	9-track, 1600bpi, EBCDIC[1]	UNIT = TAPE9, DEN = 3	NT, PE, EB, S, CM = Yes
Internal Labels:	none[2]	LABEL = (,NL)	
Record Format:	fixed length/blocked	RECFM = FB	RT = F, BT = K
Record Length:	160 characters	LRECL = 160	FL = 160
Blocking:	3200 characters/block	BLKSIZE - 3200	RB = 20

[1] 9-track, 800 bpi, EBCDIC or
7-track, 800 or 556 bpi, BCD
are also acceptable

[2] IBM standard labels are also acceptable

DO NOT USE

Variable length or unformatted records or records that span tape blocks.

e.g. IPM's RECFM = U or VBS
e.g. CDC SCOPE standard tape data format (use the S parameter on the REQUEST to avoid this)

OTHER SYSTEMS

For systems other than IBM or CDC the above information should be used as a guideline to produce tapes with similar characteristics.

Enclosure 1

MAGNETIC TAPE
METEOROLOGICAL DATA

LOCATION:

DATE OF DATA RECORD:

		ACCURACY
I6	Identifier (can be anything)	
I2	Year	
I3	Julian Day	
I4	Hour (on 24 hr clock)	
F5.1	Upper Measurements: Level = meters	
F5.1	Wind Direction (degrees)	_____
F5.1	Wind Speed (meter/sec)	_____
F5.1	Sigma Theta (degrees)	_____
F5.1	Ambient Temperature (°C)	_____
F5.1	Moisture: _____	_____
F5.1	Other: _____	_____
F5.1	Intermediate Measurements: Level = meters	
F5.1	Wind Direction (degrees)	_____
F5.1	Wind Speed (meters/sec)	_____
F5.1	Sigma Theta (degrees)	_____
F5.1	Ambient Temperature (°C)	_____
F5.1	Moisture: _____	_____
F5.1	Other: _____	_____

F5.1	Lower Measurements: Level = meters	
F5.1	Wind Direction (degrees)	_____
F5.1	Wind Speed (meters/sec)	_____
F5.1	Sigma Theta (degrees)	_____
F5.1	Ambient Temperature (°C)	_____
F5.1	Moisture: _____	_____
F5.1	Other: _____	_____
F5.1	Temp Diff (Upper-Lower) (°C/100 meters)	_____
F5.1	Temp Diff (Upper-Intermediate) (°C/100 meters)	_____
F5.1	Temp Diff (Intermediate-Lower) (°C/100 meters)	_____
F5.1	Precipitation (mm)	_____
F5.2	Solar Radiation (cal/cm^2/min)	_____
F5.1	Visibility (km)	_____
F5.1	Other: _____	_____
F5.1	Other: _____	_____

Enclosure 2

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[redacted] NUCLEAR POWER FACILITY - METEOROLOGICAL DATA TAPE          DATA PERIOD : JULY 1  REC    1, LENGTH  3200
974-JUL 1975   /////     TAPE CREATED MARCH 1977        LOCATION: LATITUDE [redacted] DEG [redacted] MIN [redacted] SEC N     LO
NG [redacted] DEG [redacted] MIN [redacted] SEC W     WIND DIRECTION: 150 FT AND 33 FT     DATA TO NEAREST 1.0 DEG
REE     WIND SPEED: 150FT AND 33FT     DATA TO NEAREST 0.1 METER/SEC     TEMPERATURE: 150 AND
DELTA T (150-33FT):    DATA TO NEAREST 0.1 DEGREE C/100 METERS
33 FT     DATA TO NEAREST 0.1 DEGREE C          THIS IS A COPY OF THE ORIGINAL [redacted] TAPE
WITH THE FORMAT CHANGED AND THE UNITS     CHANGED AS FOLLOWS: DEGREES F TO DEGREES C ; MPH TO METER
S/SEC ; FT TO METERS OTHER FIELDS: WIND DIRECTION PERSISTENCE (%)
  74182 100  457 1980  22  ...  73  ...        74182 200  457 1600   26       221
  214  ...                                     212         0   23
  1000                      100 1900    8      1000
            74182 300  457 1900   29    215                       74182 400  457
  100 1700    8   291         0   39            100 1700    9     195        0
1890   35   211   1000                          37         205    960
  44                 74182 500  457 1900
            100 1600    9   191        0   41                     100 1700    9
  74182 600  457 1950   43   197   1000          74182 700  457 2050   36   194
  186         0   31                            187         0   20
  1000                 100 1800    9            980
            74182 800  457 2100   30   204                        74182 900  457
  100 1800    8   271         0    9            100 2000   11     220        0
2140   31   218   860                           38         245    830
  -6                 741821000  457 2170
            100 2000   22   249        0  -11                     100 2300   31
  741821100  457 2420   51   250   710          741821200  457 2340   53   266
  262         0  -11                            271         0  -12
  750                  100 2300   36   276      590
            741821300  457 2440   50                          741821400  457
  100 2100   36   280         0  -12            100 2100   27     285        0
2210   44   281   660                           44         287    590
  -12                741821500  457 1970
            100 1900   22   291         0  -11                    100 1700   22  REC    2, LENGTH  3200
  741821600  457 1930   42   288   730          741821700  457 1917   45   292
  292         0   -9                            295         0   -9
  960                  100 1800   22   291      960
            741821800  457 1930   42
  100 1800   18   292         0   -5            100 1700
1740   32   286   950                           29
  -3                 741822000  457 1800
            100 1600    8   276         0    2
  741822100  457 1770   30   266   1000         741822200
  260         0   16                            248
  930                  100 1700    8   248      1000
            741822300  457 1700   35
  100 1500    8   239         0   25            100 1700
1760   30   241   980                           33
  22                 74183 100  457 1820
            100 1600    8   228         0   20
  74183 200  457 1790   33   230   1000         74183 300
  221         0   26                            215
  940                  100 1600    8   222      1000
            74183 400  457 1830   26
  100 1500    8   214         0   20            100 1500
1810   24   219   980                           25
  17                 74183 600  457 1780
            100 1400    8   218         0   25
  74183 700  457 1810   26   213   960          74183 800
  205         0   23                            216
  780                  100 1600    9
```

The first data record gives the following:

Year: 1974
Day: 182
Time: 0100

Height: 45.7 meters
Wind Direction: 198 degrees
Wind Speed: 2.9 m/sec
Ambient Temperature: 22.5°C
Wind Direction Persistence: 73%

Height: 10.0 meters
Wind Direction: 170 degrees
Wind Speed: 0.4 m/sec
Ambient Temperature: 21.8°C
Wind Direction Persistence: 0%

Temperature Difference (Upper-Lower): 1.9°C/100 meters