TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

January 23, 1985

U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - RESPONSE TO NRC REGION II INSPECTION REPORT 50-390/84-71 AND 50-391/84-47

This letter is in response to J. A. Olshinski's letter dated November 7, 1984 concerning both previously identified deficiencies that had not been satisfactorily addressed and a new deficiency in our emergency preparedness program. Enclosed is our response to these deficiencies.

Please note that a several week delay of this submittal was discussed with NRC-OIE Inspector P. E. Fredrickson on December 7, 1984.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

J. A. Domer

for J. W. Hufham, Manager
Licensing and Regulations

85 JAN 28 P2:52

Enclosure

cc: Mr. Richard C. DeYoung, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Records Center (Enclosure)
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

IE01

ENCLOSURE

Deficiency 390/84-22-27 and 391/84-17-27 Part B

The Notification of Unusual Event (NOUE) Initiating Condition (IC) 10 EAL requires that the fire brigade leader make a positive report of a fire lasting greater than 10 minutes in order to trigger a NOUE. Failing a specific report from the fire brigade leader charged to combat a fire, no classification is required. NUREG-0654 requires a NOUE for a fire lasting greater than 10 minutes; the presumption that the fire continues until it is reported extinguished is implicit in that definition.

Response

An Emergency Action Level (EAL) as listed in the WBN-REP is the information used by the Site Emergency Director to classify an event into one of the four emergency categories. Should a fire alarm be received in the control room at Watts Bar, a fire brigade, under the leadership of an Assistant Shift Engineer, is immediately dispatched by the operator. The fire brigade leader is in constant voice contact by radio with the Shift Engineer/Site Emergency Director. Based upon the information received by the Site Emergency Director from the fire brigade leader he will classify the event as a Notification of Unusual Event if the fire lasts longer than 10 minutes. Since the EAL column of the WBN-REP correctly reflects the information needed by the Site Emergency Director to make this decision no revision will be necessary.

ADDITIONAL DEFICIENCIES

Notification of Unusual Events

Item

REP IC-15 does not include ". . . plant shutdown under Technical Specification requirements or . . .". The EAL corresponding to REP IC-15 would require declaration of a NOUE for "any condition which has the potential for escalating into a NOUE." This is inappropriate and should be reviewed by the licensee.

Response

NUREG-0654 states ". . . or require plant shutdown under technical specification requirements . . .". The REP ICs-2, 4, 5, 8, and 9 include the EALs to satisfy this example. TVA has reviewed REP IC-15 and has decided to maintain our current EAL which gives us the flexibility to declare a NOUE at the earliest possible time consistent with the TVA philosophy of emergency planning.

ALERT

Item

REP IC-2 EAL does not provide a specific leak rate to define a rapid gross failure of one steam generator (SG) tube.

Response

It is technically impossible to determine the number of steam generator tubes that have failed from instrumentation immediately available to the operator in the control room.

Should the leakage rate from the primary system via a steam generator tube leak be less than 50 gpm with loss of offsite power the event would be classified as an alert by IC-2. However, should primary system leakage exceed 50 gpm no matter what the cause it would be classified as an alert by IC-5. Should the primary system leak rate exceed the capacity of the makeup pumps regardless of the cause the event would be classified as a Site Area Emergency by IC-1.

This system allows the operator to immediately classify the event based on primary system leakage which can be easily and quickly calculated rather than spending valuable time trying to determine the number of steam generator tubes that are leaking. Therefore no change to the EALs will be initiated.

Item

IC-3 EAL should also provide an associate leak rate.

Response

See the response for the previous item.

Item

IC-10 EAL improperly limits applicability to the condition where the plant is in cold shutdown since it states "failure to maintain primary system temperature <200° . . .". The NUREG-0654 EAL is for complete loss of any function needed for plant cold shutdown; e.g., it could apply with the unit in any of modes 1-5.

Response

TVA will modify the EAL for this item to indicate a failure to maintain the primary system temperature <200°F or maintain adequate shutdown margin for modes 5 and 6. For modes 1, 2, 3, and 4 TVA will declare an alert on loss of any function needed for plant cold shutdown and cold shutdown anticipated within one hour. This EAL will then be in concert with the limiting condition for operation for loss of both trains of an ESF function in the Watts Bar technical specifications.

Item

IC-13 EAL is contingent upon the unit not being in a stable condition; according to licensee procedures given stable conditions an alert need not be declared regardless of how long the loss of alarms persists. Stability is not a part of the corresponding NUREG-0654 definition.

Response

Control room annunciators are only one method the plant operator has of detecting an abnormal event. Annunciators indicate to the operator that a problem may exist and he should look at other control room instrumentation to determine the nature of the problem. Under stable plant conditions there is no cause for alarm should one or all annunciator panels be lost, because other control room indicators are available. TVA has had several occasions in the past where loss of an inverter has caused a loss of annunciator panels. In each case an alert was declared and terminated in about 10 minutes with a resulting high level of concern from the State and local governments and the public. TVA has learned that the level of concern of the public and government organizations at the alert level is not commensurate with the level of seriousness of this event; therefore, TVA has inserted the qualifier in the EAL of the plant not being in a stable condition. Only if the plant was in an unstable condition would there be cause for alarm. TVA feels this addition to the EAL is necessary and is in keeping with the intent of NUREG-0654 and the continuing refinement of the concepts stated in that document. For this reason TVA does not contemplate any change in the EAL.

Item

IC-20 EAL "any reactor trip with failure to maintain subcriticality" includes only part of the NUREG-0654 definition of "initiate . . . and complete" a scram. For example, although the NUREG definition would require alert if a rod failed to insert on scram, the TVA EAL would not, provided that the reactor was subcritical with the stuck rod.

Response

The example initiating condition from NUREG-0654 reads, "Failure of the reactor protection system to initiate and complete a scram which brings the reactor subcritical." This means that if the reactor protection system fails to bring the reactor to a subcritical state when necessary you have a problem. Therefore, if the reactor operator cannot maintain subcriticality when a trip occurs because of any reason he must declare an alert. Conversely, if subcriticality can be maintained (which it can be with a rod that failed to insert) there is no cause for alarm. Therefore, no change will be made to the TVA EALs.

SITE AREA EMERGENCY

Item

IC-3 EAL lacks a specific leak rate.

Response

See the response to the REP IC-2 item under Alert.

Item

IC-4 EAL 1, 2, and 3, should be "and" or "or" gated.

Response

An "and" will be inserted between items 3 and 4 of the EAL in the next revision of the WBN-REP prior to fuel loading.

Item

The EAL for IC-9 is identical to the IC-11A EAL for the Alert classification (e.g., "Notification by fuel handling SRO of dropped or damaged fuel assembly as indicated by AOI-29").

Response

The only way the control room will be aware of an incident on the refueling floor involving a fuel assembly is through notification by the fuel handling SRO. This applies whether there is a fuel handling accident involving release of radioactivity to the containment or Auxiliary Building or major damage to a spent fuel assembly. These EALs correctly reflect a major control room indication of a fuel handling incident and need no modification.

Item

The EAL for IC-9 does not address the "water loss below fuel level" as included in NUREG-0654.

Response

TVA will revise the EAL to include the possibility of water loss below the fuel level in the spent fuel pool in the next revision of the WBN-REP prior to fuel loading.

Item

IC-11 EAL requires a semicolon before "based" to ensure the correct meaning.

Response

TVA will insert a semicolon as suggested in the next revision of the WBN-REP prior to fuel loading.

Deficiency 390/84-22-27, 391/84-17-27 part C. WBN IP-1 vs. NUREG-0654

NOTIFICATION OF UNUSUAL EVENT

Item

The failed fuel monitor NOUE Code, should reflect the "within 30 minutes" guidance of NUREG-0654.

Response

The failed fuel monitor is a continuous reading instrument. Should the instrument indicate greater than 2×10^4 cpm but less than 1×10^5 cpm a NOUE will be declared irregardless of the time involved. If the instrument indicates greater than 1×10^5 cpm an alert will be declared. Each of these indications would be verified later by laboratory analysis.

ALERT

Item

The qualification ". . . with unit not in stable condition" shown in alarms is inconsistent with NUREG-0654, Appendix 1, Initiating Condition (IC) 14.

Response

See response for REP Alert IC-13 EAL above.

Item

The loss of cooldown capabilities EAL statement ". . . to maintain . . ." is inconsistent with NUREG-0654, Appendix 1, IC-10 ". . . needed for . . ."; the former would apply only if in cold shutdown while the latter would apply in every mode except mode 6. (Refer to discussion of REP Alert IC-10 above.)

Response

See response for REP Alert IC-10 above.

Item

The 30 minute time period is missing from the IP EAL for failed fuel monitor.

Response

See response to IP-1 Notification of Unusual Event item above.

GENERAL EMERGENCY

Item

The NUREC-0654, Appendix 1, IC-2 condition of failed fuel and containment barriers with a challenge to the primary barrier does not appear to be addressed in the WBN IP-1.

Response

TVA will address this condition in the next revision to IP-1 prior to fuel loading.

Item 390/84-22-34 and 391/84-17-34 Part 8a

The inspector reviewed the licensee's response to the deficiency and determined that the approach described for the release mode appeared reasonable but that further questions should be addressed to provide for a more complete evaluation.

Question:

a. Although the release is predicted on an exit velocity of 9.5 m/s:

   1. Can the exit velocity specified be maintained during an emergency?

   2. What happens if the flow monitor is unavailable - will the release still be considered as exiting at 9.5 m/s?

Response:

   1. This exit velocity would not be maintained in all emergency situations.

   2. If the exit velocity (or flow rate) is unavailable, of if it is substantially less than 9.5 m/s, the release will not be considered as exiting at 9.5 m/s. The effective release height will instead be assumed to be the same as the physical vent hight (i.e., no credit will be taken for plume rise.)

Question:

b. The methodology for determining plume rise should be specified.

Response:

The nonbouyant (i.e., momentum) plume rise is estimated using the methodology described by J. F. Sagendorf in NOAA Technical Memorandum ERL-ARL-42, "A Program for Evaluating Atmospheric Dispersion from a Nuclear Power Station," 1972.

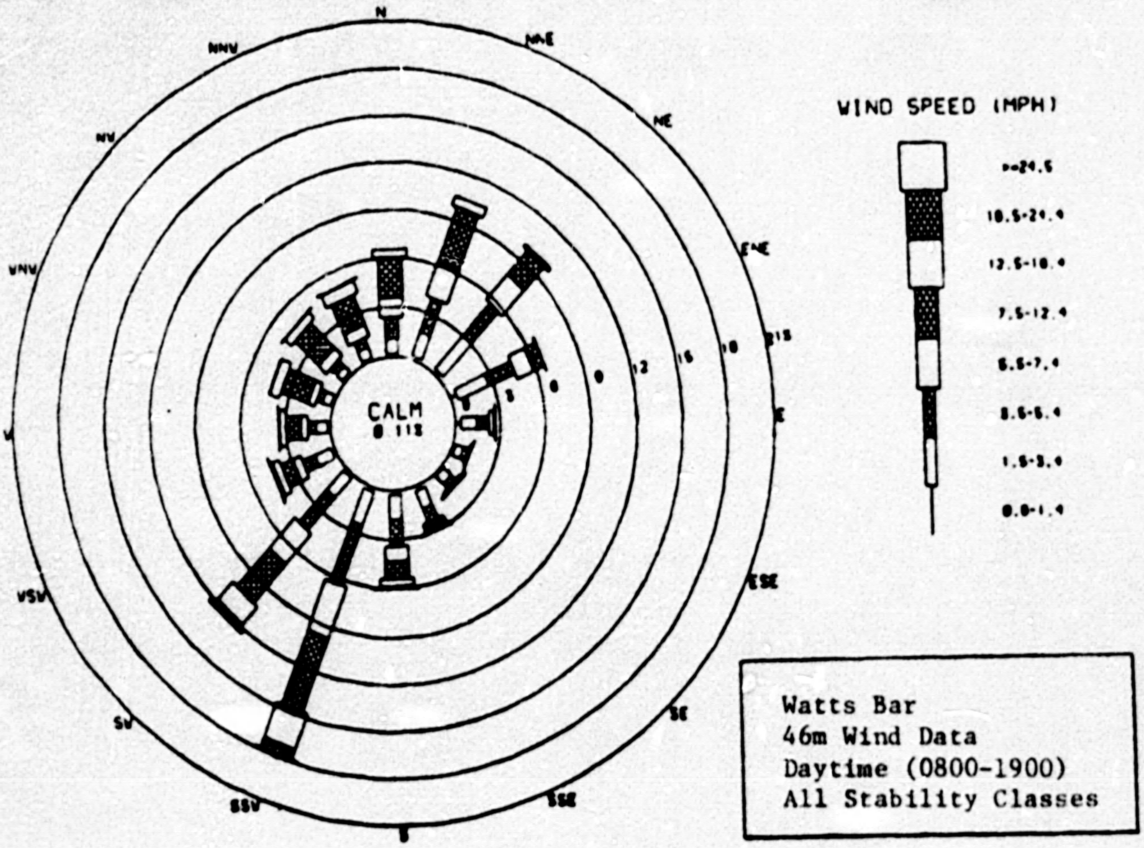
Question:

c. The use of 46m wind speed and direction information in lieu of 10m information should be substantiated.

Response:

TVA has elected to use 46m wind data in lieu of 10m wind data in emergency preparedness procedures. Use of the 46m data is expected to result in better estimates of plume transport in the Watts Bar Nuclear Plant area by avoiding local influences which are reflected in the 10m wind data.

In figure 1, daytime wind roses for both levels (based on January 1, 1981-December 31, 1983 onsite data) are noted to be quite similar. The most noticeable difference is a higher



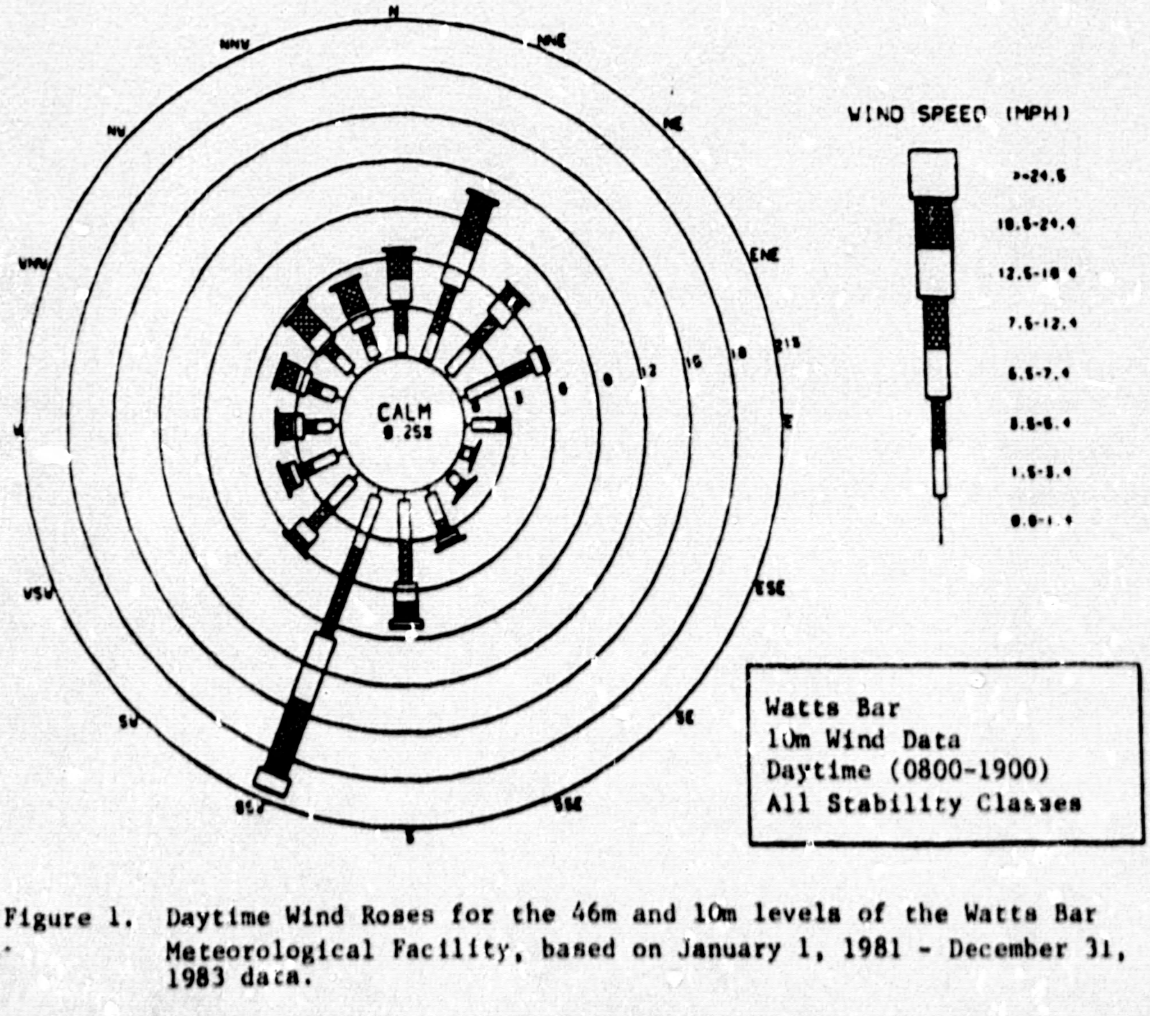


Figure 1. Daytime Wind Roses for the 46m and 10m levels of the Watts Bar Meteorological Facility, based on January 1, 1981 - December 31, 1983 data.

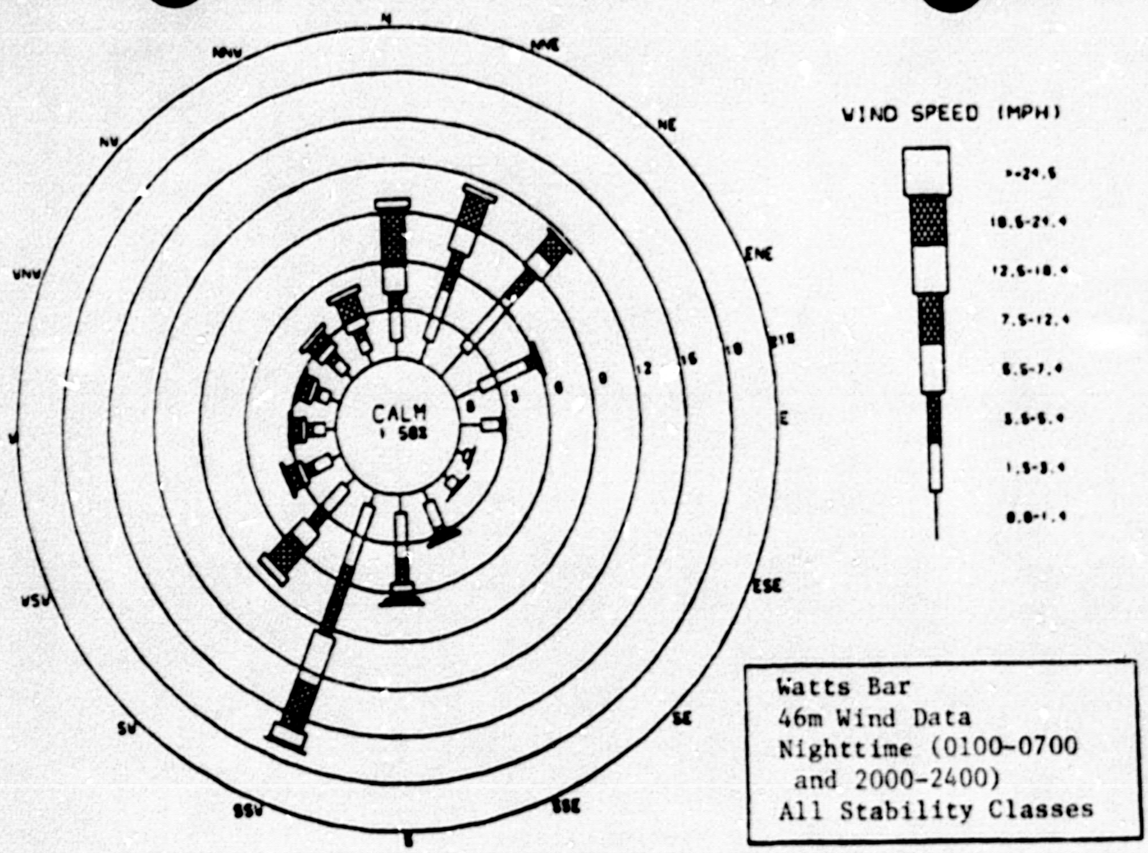
frequency of southwest winds at the 46m level. Mean daytime wind speeds for the 10m and 46m levels were 5.2 and 6.9 mi/h, respectively.

Figure 2 includes the nighttime wind roses for the two levels (note different scales) for the same data period. A much higher frequency of very light winds from the west-southwest through northwest directions is noted at the 10m level than at the 46m level. These light winds occur most frequently with F or E stability classes, which account for 56 percent of the nighttime stability observations. Airflow from these directions under stable conditions is not expected to persist very far from the plant. Mean nighttime wind speeds for the 10m and 46m levels were 2.9 and 4.8 mi/h, respectively.

The 46m wind direction data are considered to be more respresentative of the Watts Bar area for the reasons discussed above. The use of the higher 46m wind speeds may tend to overestimate dispersion somewhat for ground level releases, but will also tend to overestimate transport rate. While the effect of the former would be to reduce conservatism, the effect of the latter would be to increase conservatism.

Question:

d. The reference to "local influences" affecting data collection at the 10m level should identify the "local influence."



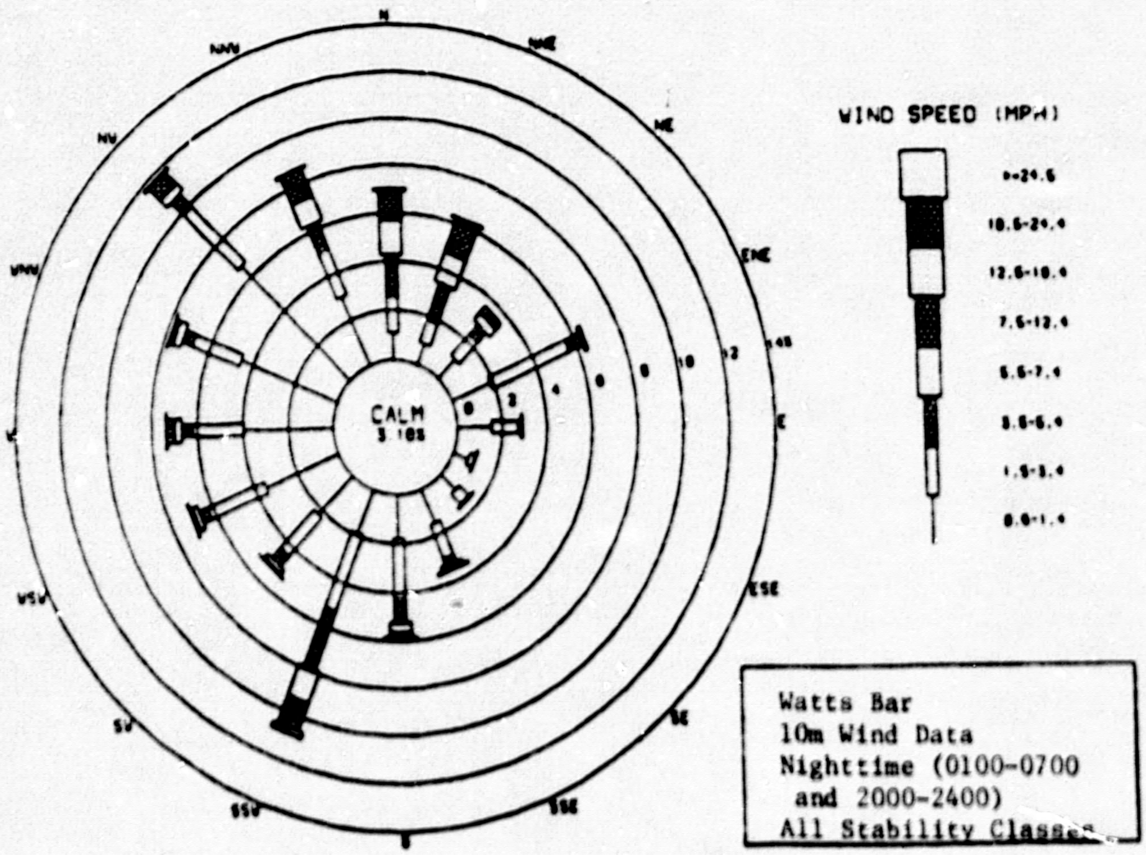


Figure 2. Nighttime Wind Roses for the 46m and 10m levels of the Watts Bar Meteorological Facility, based on January 1, 1981 - December 31, 1983 data.

Response:

The local influence on dispersion of primary concern at Watts Bar is the high frequency of light winds, from the west-southwest through northwest directions, measured at the 10m level but not the 46m level of the meteorological tower under nighttime stable conditions (see figure 2). This influence may result from a flow of cool air downslope from a low northeast-southwest aligned ridge located about 1.5km northwest of the meteorological tower. Under stable conditions, the closest ridge on the opposite side of the river would block these light winds and would tend to divert them, most probably in a downvalley manner. For this reason, the influence is considered to be local.

Question:

e. Failure to use 10m data for ground level releases, a deviation from standard procedures, should be justified.

Response:

The response to question c. above provides a partial response to this item. Further justification is provided by several examples.

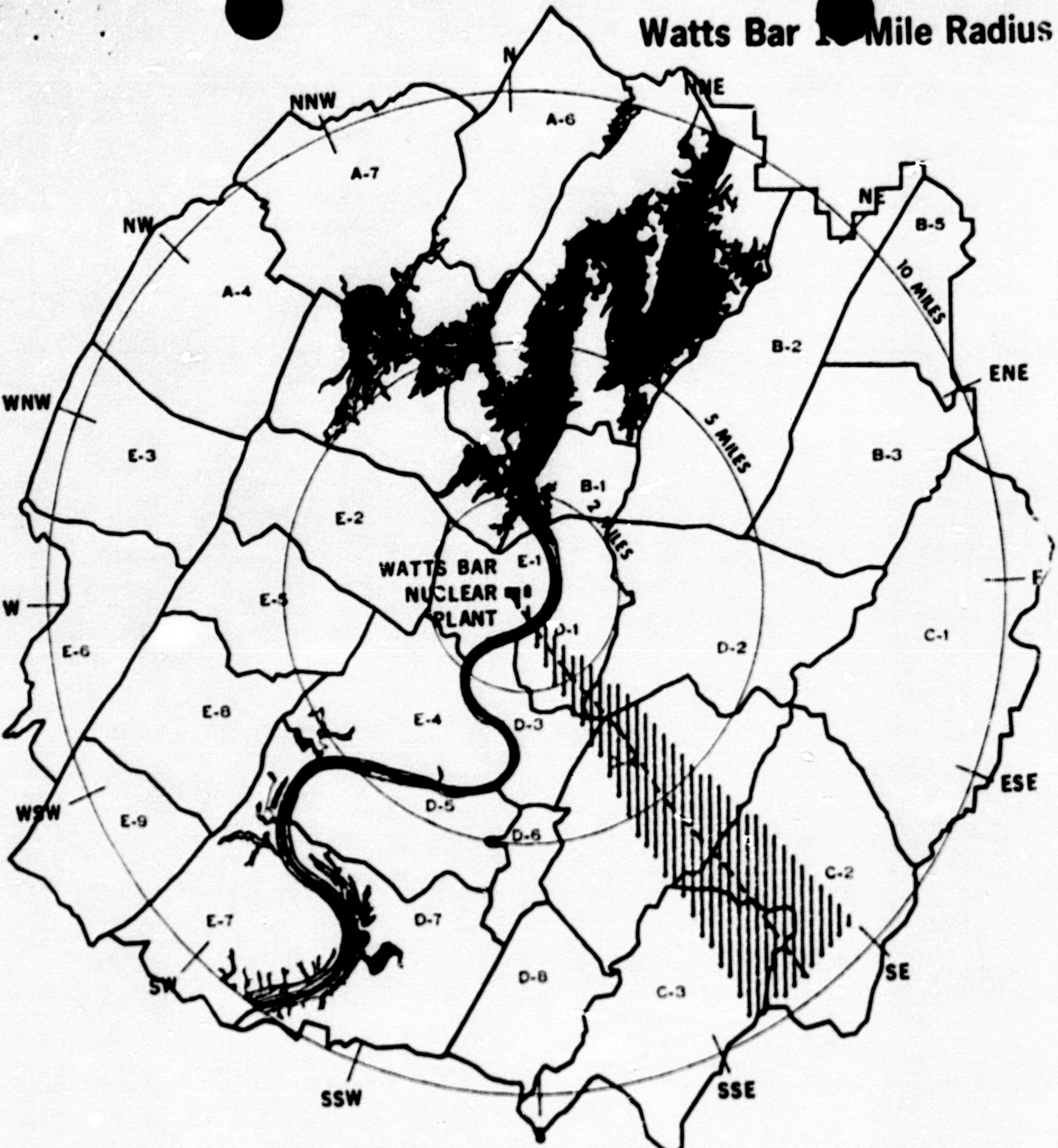
A segmented plume model with hourly time segments was used to generate plume plots from a ground level release for three cases with different meteorological conditions. Release rates were the same for all cases. Each case was run twice, first using 10m winds and second using 46m winds. Stability class based on the 46-10m temperature difference was used in all cases.

Figures 3 and 4 are plume plots based on onsite data for 2100 on January 21 through 0400 on January 22, 1984. The 10m plot (figure 3) shows the plume apparently moving over the higher terrain to the southeast. This plot shows the effect of the local influence, discussed in question d. above, on the model calculations. The 46m plot in figure 4 gives a more realistic indication of potential plume transport under these conditions.

Figures 5 and 6 are based on onsite data for 0900 through 1600 on January 22, 1984. Plots for these low wind speed daytime conditions are much more similar than for the nighttime case.

Figures 7 and 8 are based on onsite data for 1400 through 1600 on April 24, 1984 (note different scale from previous plots). The predicted plume shape based on these high wind speed daytime conditious is quite similar for both plots. The 46m plot (figure 8) extends farther downwind as a result of the higher wind speed.

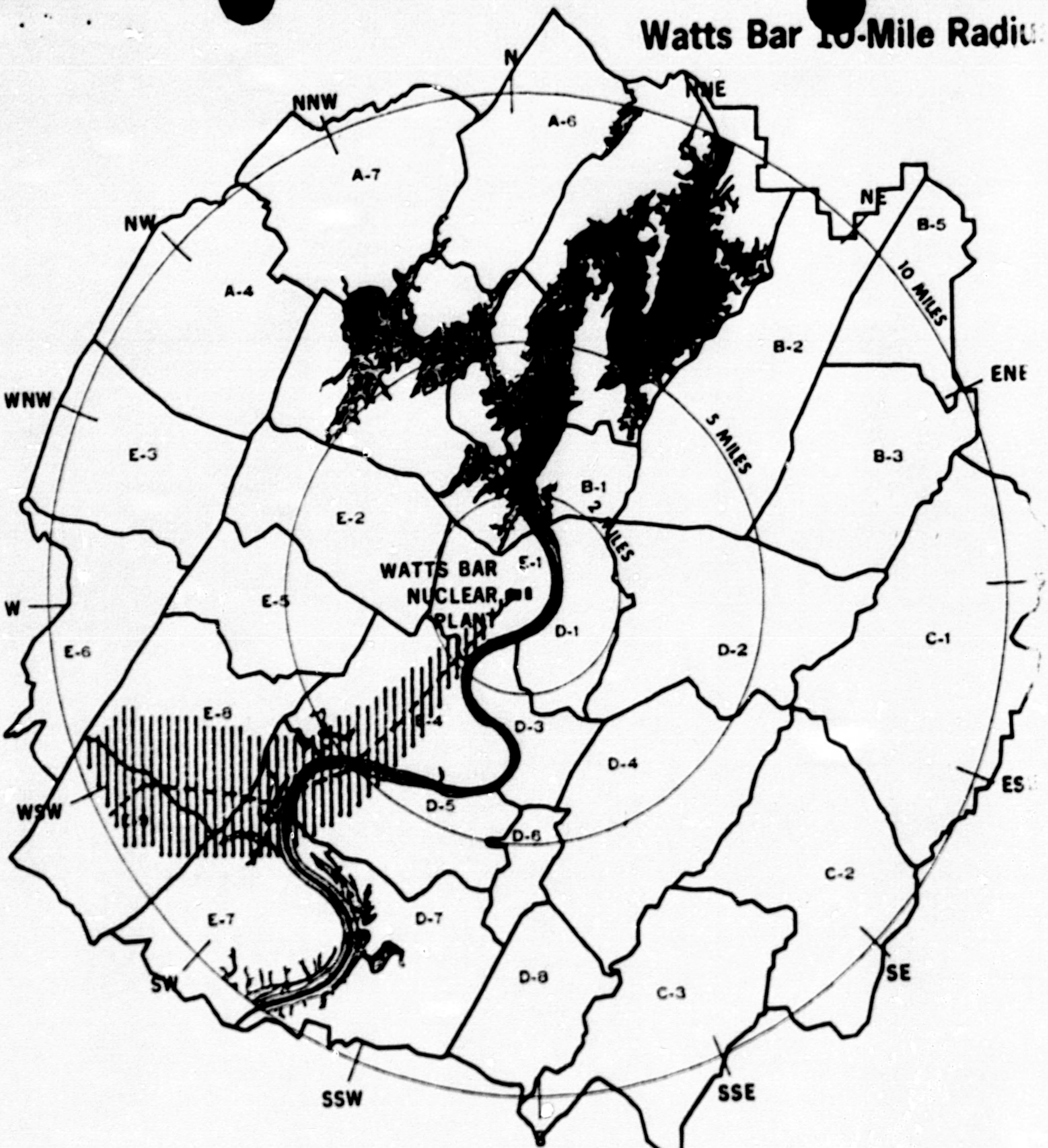
The plume plots indicate that the 46m and 10m wind data are reasonably consistent under neutral or unstable conditions, with either low or high wind speeds. However, a significant difference



MODEL PLUME LOCATION AT 04:00 ON JANUARY 22, 1984

Figure 3. Plume location based on the following meteorological data:

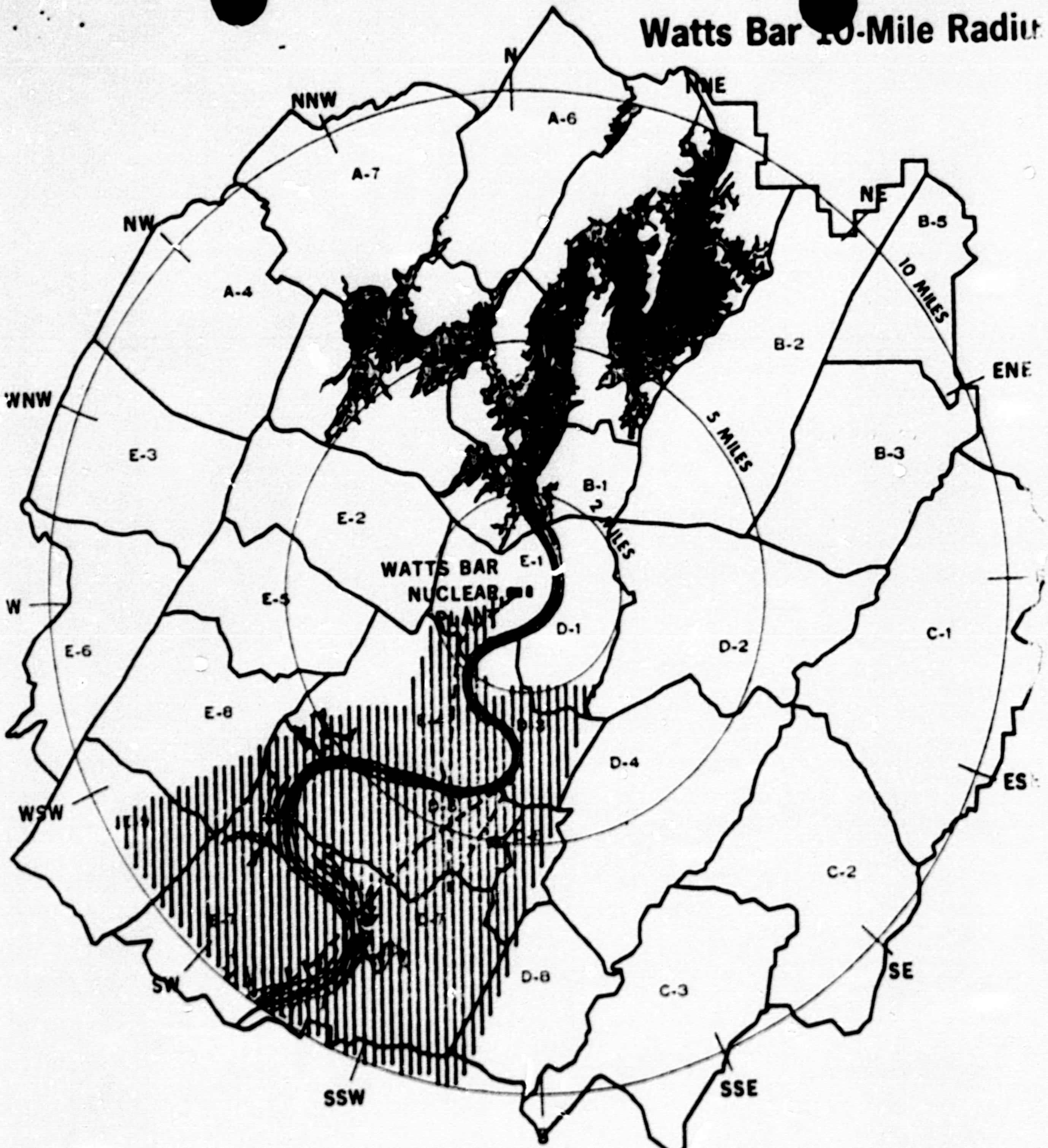
Time	10m Wind Direction	10m Wind Speed (m/s)	Stability Class
2100 (1/21/84)	310	0.6	F
2200	307	0.7	F
2300	322	0.7	F
2400	321	0.7	F
0100 (1/22/84)	315	0.8	F
0200	324	0.8	F
0300	315	0.7	F
0400	322	0.9	F



MODEL PLUME LOCATION AT 04:00 ON JANUARY 22, 1984

Figure 4. Plume location based on the following meteorological data:

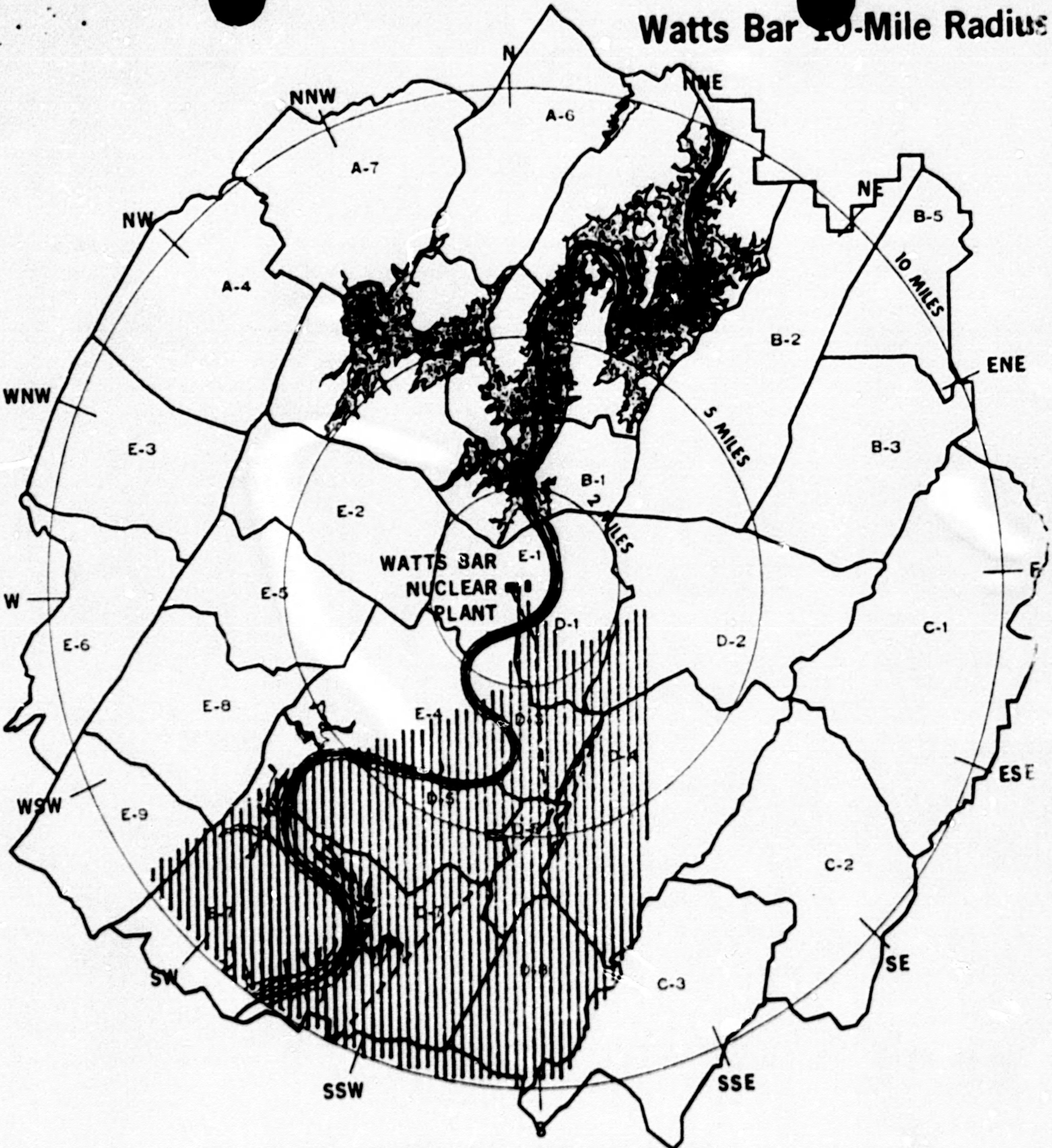
Time	46m Wind Direction	46m Wind Speed (m/s)	Stability Class
2100 (1/21/84)	337	0.4	F
2200	51	0.5	F
2300	95	0.9	F
2400	103	0.4	F
0100 (1/22/84)	66	0.4	F
0200	71	0.4	F
0300	50	0.7	F
0400	45	1.6	F



MODEL PLUME LOCATION AT 16:00 ON JANUARY 22, 1984

Figure 5. Plume location based on the following meteorological data:

Time	10m Wind Direction	10m Wind Speed (m/s)	Stability Class
0900	40	1.8	D
1000	55	1.9	C
1100	45	1.5	C
1200	58	1.1	D
1300	214	1.2	D
1400	2	1.1	D
1500	5	1.0	D
1600	53	0.7	D

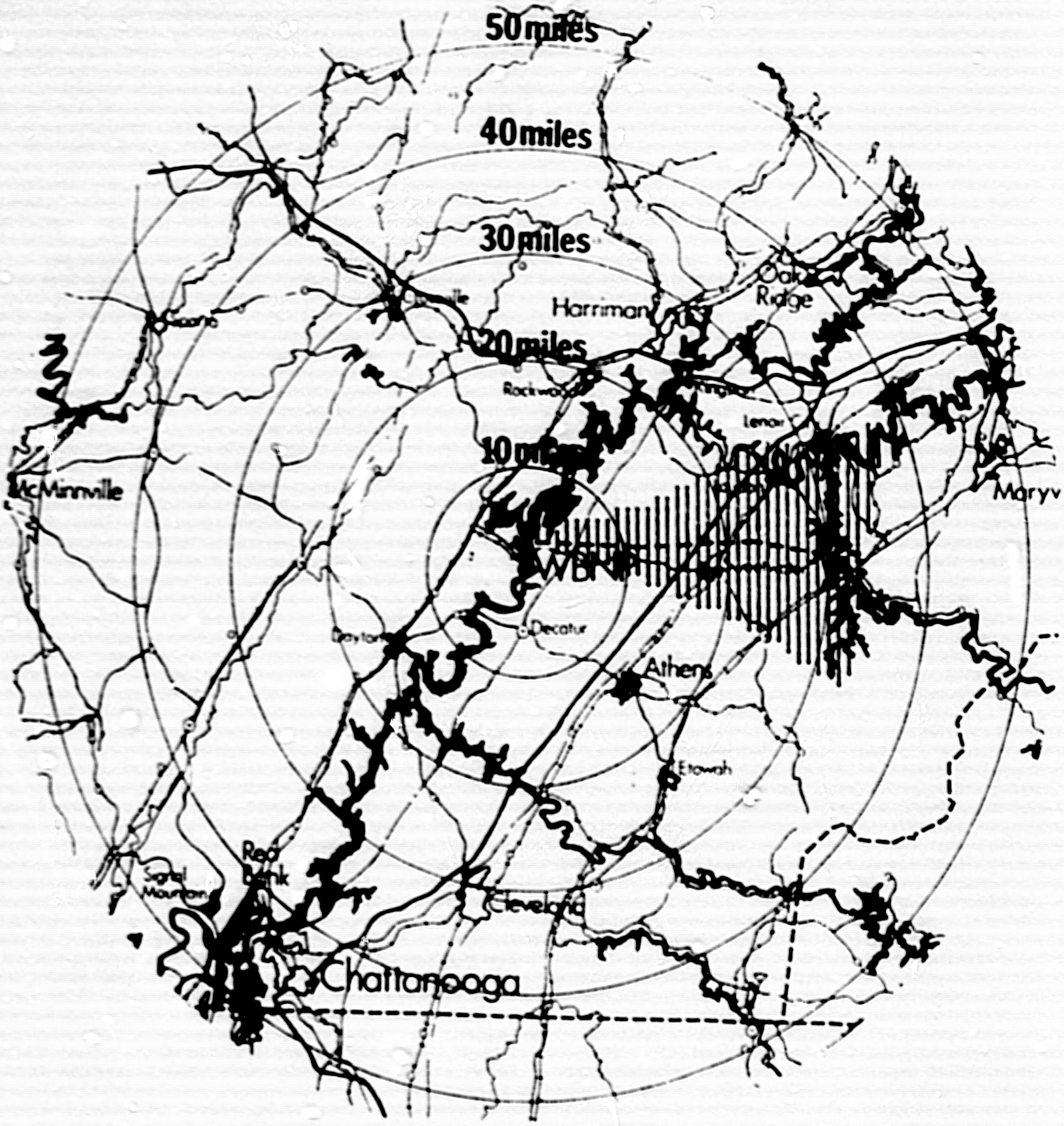


MODEL PLUME LOCATION AT 16:00 ON JANUARY 22, 1984

Figure 6. Plume location based on the following meteorological data:

Time	46m Wind Direction	46m Wind Speed (m/s)	Stability Class
0900	36	2.2	D
1000	44	2.2	C
1100	50	1.6	C
1200	32	1.1	D
1300	204	1.3	D
1400	355	1.1	D
1500	358	0.8	D
1600	332	0.5	D

Watts Bar 50-Mile Radius

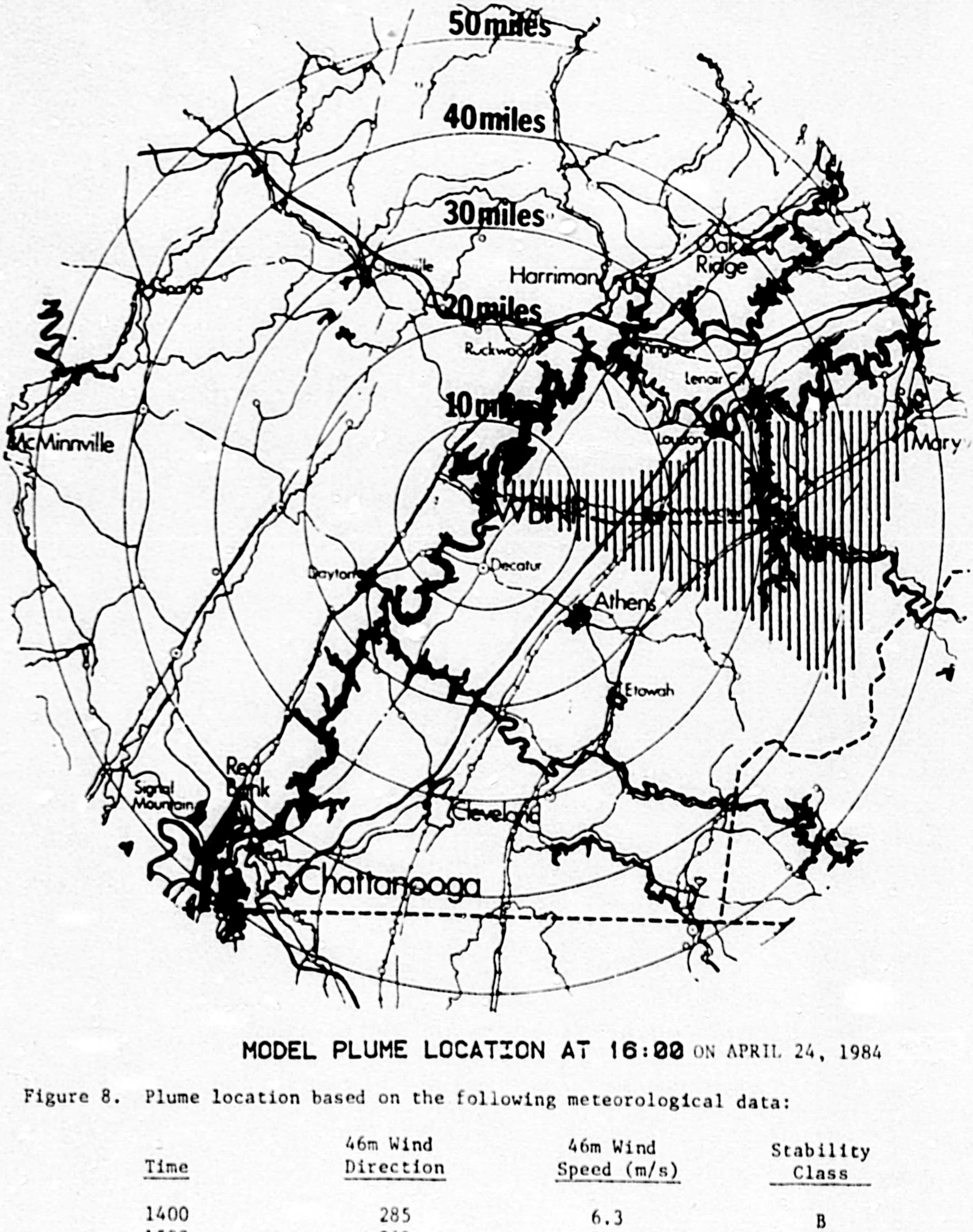


MODEL PLUME LOCATION AT 16:00 ON APRIL 24, 1984

Figure 7. Plume location based on the following meteorological data:

Time	10m Wind Direction	10m Wind Speed (m/s)	Stability Class
1400	279	5.1	B
1500	267	5.1	B
1600	273	5.3	D

Watts Bar 50-Mile Radius



MODEL PLUME LOCATION AT 16:00 ON APRIL 24, 1984

Figure 8. Plume location based on the following meteorological data:

Time	46m Wind Direction	46m Wind Speed (m/s)	Stability Class
1400	285	6.3	B
1500	269	7.0	B
1600	283	6.7	D

in plume plots for the two levels is indicated under stable conditions. Under such conditions, the 46m wind data provide more reasonable plume plots because of the local influence on the 10m data.

Question:

f. The discussion of the effects of cooling towers on the atmospheric dispersion is reasonable quantitatively, and the potential influences should be made known to the monitoring teams in the same manner as precipitation.

Response:

The potential influences of cooling towers on atmospheric dispersion will be considered in the deployment of field monitoring teams and in the interpretation of monitoring results.

Item 390/84-22-34 and 391/84-17-34 Part 8b

Describe procedure for replacing unavailable meteorological data. The inspector reviewed the licensee's response with the following results: A clearly established priority for substitution should be provided such as replacing data from the primary level of the onsite tower with data from other levels on that tower (with appropriate wind speed and/or direction corrections) before going to offsite sources for information. The response leaves the impression that some sort of substitution priority exists, complete with logic and analyses (e.g., "associated confidence level based on historical data"). The data should [be] presented.

Response:

Priorities for substitution have been established for each missing parameter in the backup procedures manual. The reference parameters (i.e., some piece or pieces of available information) are arranged in order of effectiveness, with the most effective listed first. The effectiveness is based on the accuracy of reference parameters in estimating the missing values in a historical data base. The backup procedure for the Watts Bar 46 meter (m) wind speed is attached as an example. The first page lists the reference parameter priorities. Tables 7-1 through 7-7 provide the methodology for each reference parameter. The confidence level (or accuracy) is also given in these tables. Where no percentile is provided, it is 90 percent or better. For example, the estimated 46m wind speed value using the current 91m wind speed methodology (table 7-1) would be within ± 0.8 m/s of the actual measured value at least 90 percent of the time.

7. Missing Parameter - Watts Bar 46 m Wind Speed

Read down the table to locate the first reference parameter(s) for which data are available. Read across to locate the appropriate procedure to use.

	Reference Parameter*	Table No.
1.	Watts Bar 91 m WS	7-1
2.	Watts Bar 10 m WS	7-2
3.	Watts Bar 46 m WS ≤ 4 hrs old	7-3
4.	SLP from ATL, BNA, HSV, and TYS	7-4
5.	Sequoyah 46 m WS	7-5
6.	Sequoyah 91 m WS	7-6
7.	Sequoyah 10 m WS	7-7

*WS - wind speed

SLP - sea level pressure

Table 7-1 Estimated Watts Bar 46 m Wind Speed
Reference Parameter - Current Watts Bar 91 m Wind Speed

Use the current Watts Bar 91 m wind speed (U_{91w}) in the following equation:

$$U_{46w} = 0.8\ U_{91w} - 0.2\ \text{m/s}$$

Confidence Level - $\pm$ 0.8 m/s

Table 7-2 Estimated Watts Bar 46 m Wind Speed
Reference Parameter - Current Watts Bar 10 m Wind Speed

Use the current Watts Bar 10 m wind speed (U_{10w}) in the following equation:

$$U_{46w} = 1.2\ U_{10w} + 0.3\ \text{m/s}$$

Confidence Level - $\pm$ 0.9 m/s

Table 7-3 Estimated Watts Bar 46 m Wind Speed
Reference Parameter - Last Observed 46 m Wind Speed
(if less than 4 hours old)

To apply persistence, use the last available value of 46 m wind speed.

The following confidence levels apply to the use of this procedure. If the last available observation does not fall on the hour, use the lag value for the next hour. For example, if the elapsed time is more than one hour but less than two hours, use the 2-hour lag value.

Lag*	Confidence Level
1 hour	± 1.3 m/s
2 hours	± 1.8 m/s
3 hours	± 2.2 m/s
4 hours	± 1.6 m/s, 75% of the time

*Time elapsed since the 46 m wind speed was last available.

Table 7-4 Estimated Watts Bar 46 m Wind Speed Reference Parameters - Sea Level Pressures from Atlanta, Nashville, Hunstville, and Knoxville

1. Obtain the most recent sea level pressures (SLP) for Atlanta, Nashville, Huntsville, and Knoxville (designated as PATL, PBNA, PHSV, and PTYS respectively) from the forecast service contractor.

2. Calculate the components of the geostrophic wind velccity using:

$$UG = 2.89\ (PATL - PBNA)$$
$$VG = 3.52\ (PTYS - PHSV)$$

If UG = 0 and VG = 0, the wind speed cannot be estimated by this method. Select another procedure.

3. Use the following equations to calculate the eastward (EC) and northward (NC) components of the geostrophic wind velocity.

$$EC = 0.809\ UG - 0.469\ VG$$
$$NC = 0.588\ UG + 0.883\ VG$$

4. Calculate the geostrophic wind speed (WSG) in m/s:

$$WSG = (EC^2 + NC^2)^{1/2}$$

5. Apply the appropriate seasonal regression equation to get the predicted wind speed (WSP) in m/s:

		Confidence Level
Dec, Jan, Feb:	WSP = 0.9 + 0.1 WSG	$\pm$1.4 m/s, 75% of the time
Mar, Apr, May:	WSP = 1.5 + 0.2 WSG	$\pm$1.7 m/s, 75% of the time
June, July, Aug:	WSP = 1.4 + 0.1 WSG	$\pm$1.8 m/s
Sept, Oct, Nov:	WSP = 1.1 + 0.1 WSG	$\pm$2.0 m/s

Table 7-5 Estimated Watts Bar 46 m Wind Speed
Reference Parameter - Current Sequoyah 46 m Wind Speed

Use the current Sequoyah 46 m wind speed (U_{46s}) in the following equation:

$$U_{46w} = 0.01\ U_{46s} + 2.1\ \text{m/s}$$

Confidence Level - $\pm$ 1.9 m/s, 75% of the time

Table 7-6 Estimated Watts Bar 46 m Wind Speed
Reference Parameter - Current Sequoyah 91 m Wind Speed

Use the current Sequoyah 91 m wind speed (U_{91s}) in the following equation:

$$U_{46w} = 0.01\ U_{91s} + 2.1\ \text{m/s}$$

Confidence Level - $\pm$ 1.9 m/s, 75% of the time

Table 7-7 Estimated Watts Bar 46 m Wind Speed
Reference Parameter - Current Sequoyah 10 m Wind Speed

Use the current Sequoyah 10 m wind speed (U_{10s}) in the following equation:

$$U_{46w} = -0.02\ U_{10s} + 3.1\ \text{m/s}$$

Confidence Level - $\pm$ 1.9 m/s, 75% of the time

Item 390/84-22-02, 391/84-17-02

Fire protection program contract agreements. A contract proposal has been developed for local fire company support but was not in effect at the time of the inspection.

Response

Since the inspection negotiations with the fire company have been terminated by the city, another fire company has been contacted and contract negotiations have been started.

Item 390/84-22-56, 391/84-17-56

Revising WBN IPs 2-5 to define those Site Emergency Director responsibilities which may not be delegated per NUREG-0654, Section II.B.4. The inspector reviewed IPs 2-5 and determined that it is unclear that the shift supervisor is unable to delegate the responsibilities of the decision to notify and to recommend protective actions to authorities responsible for offsite emergency measures.

Response

TVA's controlling document for the delegation of responsibilities to individuals in the emergency organization is the WBN-REP. The broad responsibilities of the Site Emergency Director are specified in section 4.1.1. More specific responsibilities are specified for the plant organization in Attachment 5 of the WBN-IP-6. This indicates that the responsibility for making protective action recommendations rests with the Site Emergency Director until the CECC is staffed and the responsiblity for classifying the event always rests with the Site Emergency Director. IPs 2-5 are procedures used by the Site Emergency Director for notifying the TVA emergency organization and is not the appropriate place for delegation of responsibilities; therefore, no change to IPs 2-5 will be made.

Item 50-390/84-71-01 and 50-391/84-47-01

Revise IP-19 to include requirements for periodic WBN-REP drills involving dose assessment, protective action decisionmaking, fire in a radiation area, and transportation of a contaminated injured person. Specify the frequency for required drills.

Response

TVA will review IP-19 and the Watts Bar REP training program to make changes where necessary to include the above comments prior to fuel loading.