



Log # TXX-88681
File # 902.3

September 28, 1988

William G. Council
Executive Vice President

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION (CPSES)
DOCKET NOS. 50-445 AND 50-446
METEOROLOGICAL DATA AVAILABILITY

- REF: 1) NRC letter from R. F. Warnick to W. G. Council dated
March 3, 1988 (NRC Inspection Report Nos. 50-445/88-07
and 50-446/88-06)
- 2) TU Electric letter TXX-88624 from W. G. Council to the
NRC dated August 19, 1988

Gentlemen:

In partial response to the letter dealing with Nuclear Regulatory Commission (NRC) open items 445/8807-02 and 446/8806-02 (Reference 1), TU Electric hereby submits a tabulation of the CPSES primary meteorological tower parameters for the period April 1, 1988, through June 30, 1988, in Table I and a cumulative percent data recovery for the first and second quarterly periods combined in Table II.

It should be noted that for each parameter in Table I, the percent recovery is well above 90 percent as specified in ANSI/ANS-2.5-1984, which is endorsed by Regulatory Guide 1.23, Second Proposed Revision 1 (April, 1986). In addition, the joint percent data recovery for 10m wind speed, 10m wind direction and 60-10m delta temperature during this period is 98 percent.

To ensure that the meteorological data are within accuracy specifications, quality checks have been performed by the computer system that generate the hourly average values and by physical examination of the data itself. Some of the various quality checks that were performed on the data include:

- o Checks for reading values outside sensor range;
- o Checks for detecting sticky sensor bearings;
- o Data checks with adjacent tower level sensors for improper range setting and/or out-of-calibration problems;
- o Checks for determining effects of day time inversions.

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As a result of the various quality checks performed on the meteorological data for this time period, the percent data recovery for each parameter presented in the attached table is considered to be valid.

TU Electric has also completed an initial review of meteorological data as recorded by the 10m backup tower at its new location near the 60m primary tower. The review consisted of comparing concurrent primary and backup hourly average wind speed and wind directional data for the 24 day (576 hour) period August 26, 1988 through September 18, 1988. Figures 1 through 6 (Attachment 3) represent actual plots of wind speed and wind directional data for three (3) selected days during the 24 day period. The days depicted represent occurrences of low, high and varying wind speed conditions. It should be noted that since the relocation and prior to September 16, 1988, the backup tower instrumentation had not been calibrated and the wind direction values were off by 11 degrees. Subsequently, for the purpose of this analysis, wind directional values were adjusted to account for this 11 degree difference. As shown in the Figures, both the backup tower wind speed and wind directional parameters are correlating well with the primary tower.

Very truly yours,

W. G. Council

W. G. Council

By: *D. R. Woodlan*

D. R. Woodlan
Docket Licensing Manager

RSB/mlh
Attachments

c - Mr. J. H. Wilson, OSP-NRC
Mr. R. D. Martin, Region IV
Resident Inspectors, CPSES (3)

TABLE I

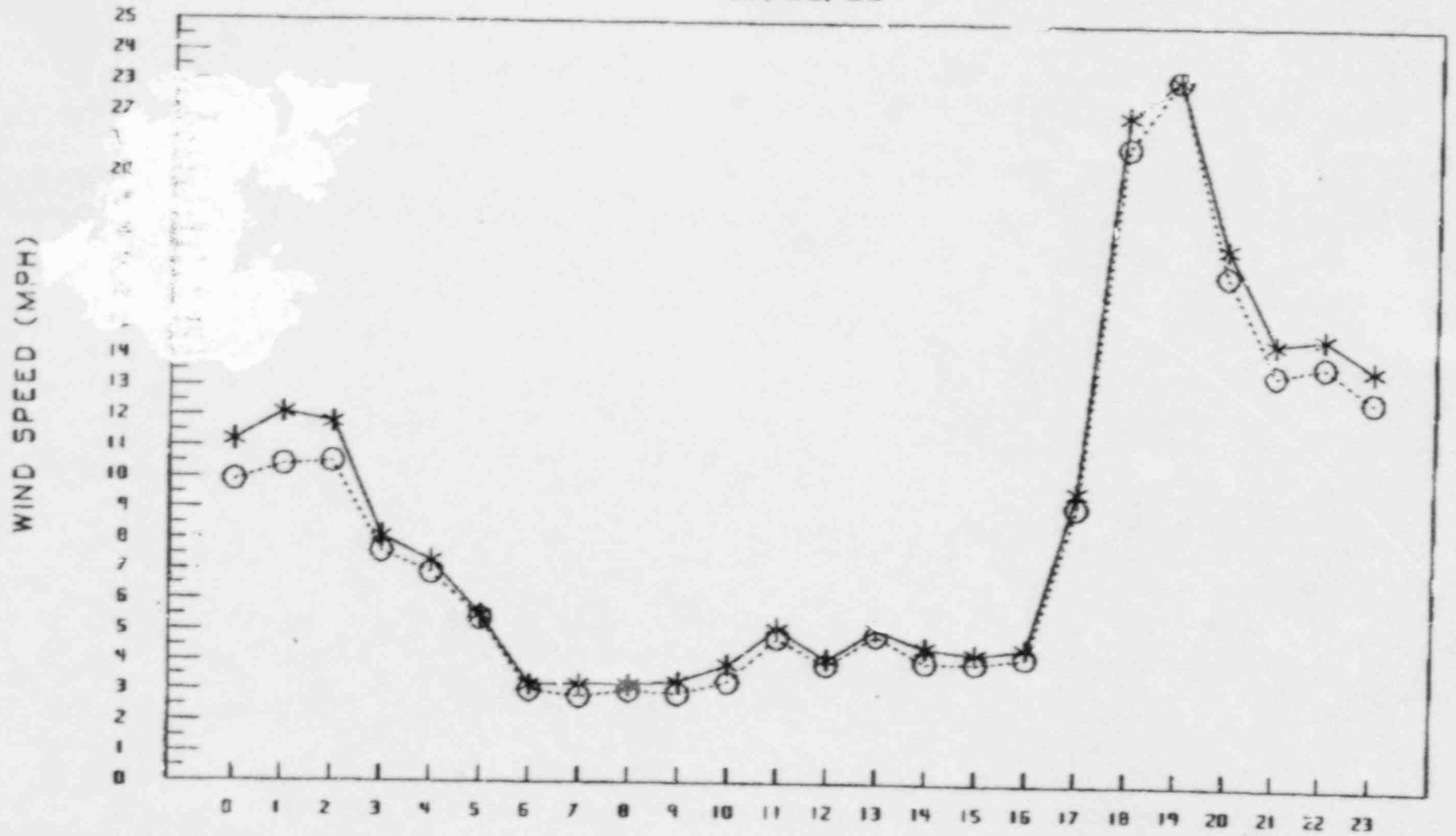
CPSES PERCENT DATA RECOVERY
FROM PRIMARY METEOROLOGICAL
TOWER FOR THE PERIOD
APRIL 1, 1988 TO JUNE 30, 1988

<u>Primary Tower Parameter</u>	<u>Total Hours</u>	<u>Bad Hours</u>	<u>Good Hours</u>	<u>Percent Data Recovery</u>
10 m Wind Speed	2,184	35	2,149	98
10 m Wind Direction	2,184	34	2,150	98
10 m Ambient Temperature	2,184	34	2,150	98
10 m Sigma Theta	2,184	34	2,150	98
60 m Wind Speed	2,184	58	2,126	97
60 m Wind Direction	2,184	69	2,115	97
60-10 m Delta Temperature	2,184	49	2,135	98
Precipitation	2,184	33	2,151	98
Combined 10 m Wind Speed 10 m Wind Direction, and 60-10 m Delta Temperature	2,184	50	2,134	98

TABLE II
CPSES PERCENT DATA RECOVERY
FROM PRIMARY METEOROLOGICAL TOWER
FIRST AND SECOND QUARTERLY 1988 PERIODS COMBINED

<u>Primary Tower Parameter</u>	<u>Total Hours</u>	<u>Bad Hours</u>	<u>Good Hours</u>	<u>Percent Data Recovery</u>
10 m Wind Speed	4,368	56	4,312	98.7
10 m Wind Direction	4,368	51	4,317	98.8
10 m Ambient Temperature	4,368	49	4,319	98.9
10 m Sigma Theta	4,368	51	4,317	98.8
60 m Wind Speed	4,368	125	243	97.1
60 m Wind Direction	4,368	105	,263	97.6
60-10 m Delta Temperature	4,368	89	4,279	97.9
Precipitation	4,368	47	4,321	98.9
 Combined 10 m Wind Speed 10 m Wind Direction, and 60-10 m Delta Temperature	 4,368	 95	 4,275	 97.9

FIGURE 1
WIND SPEED
08/28/88



* PRIMARY TOWER WIND SPEED
○ BACKUP TOWER WIND SPEED

FIGURE 2
WIND SPEED
09/10/88

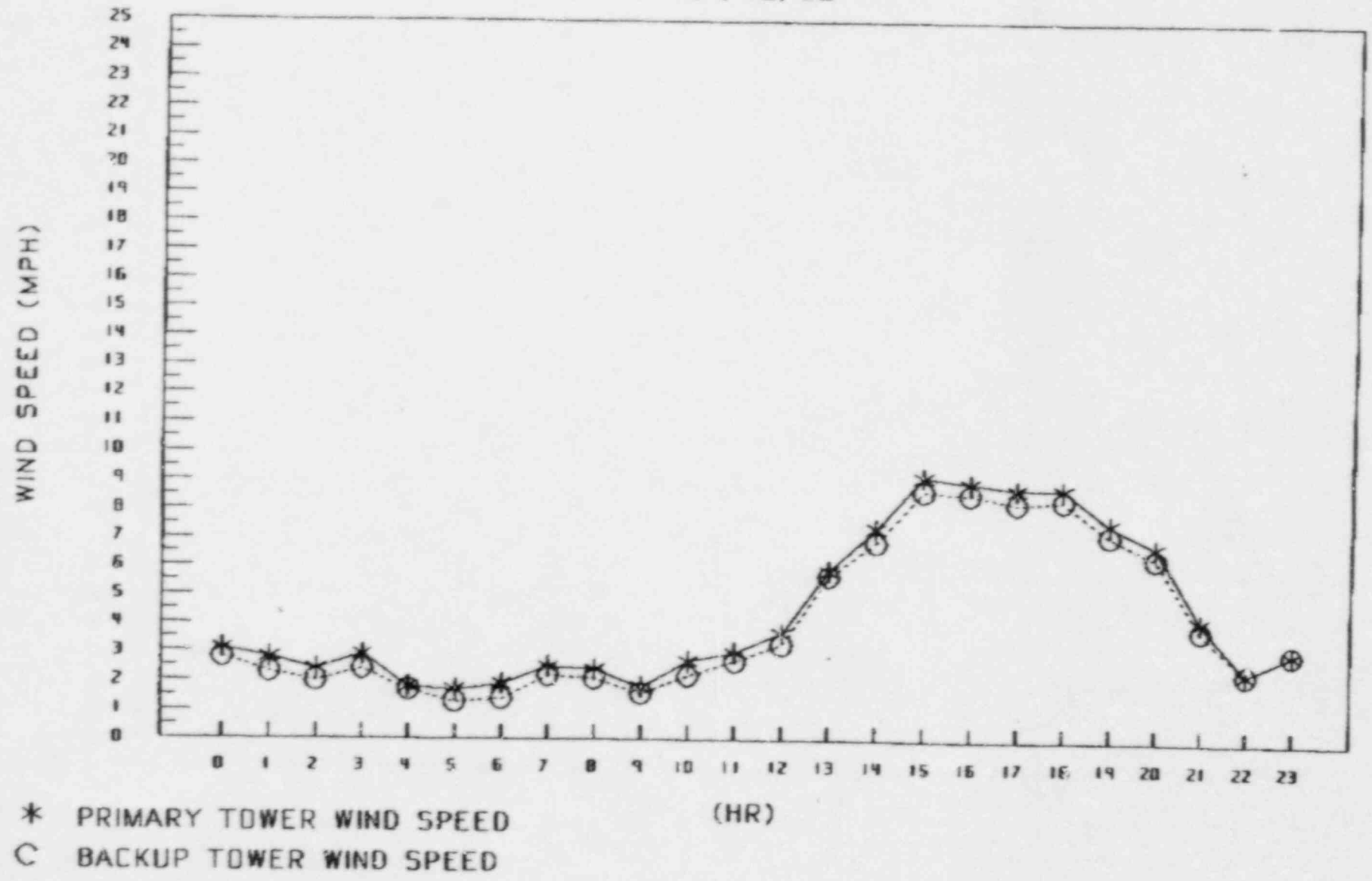


FIGURE 3
WIND SPEED
09/18/88

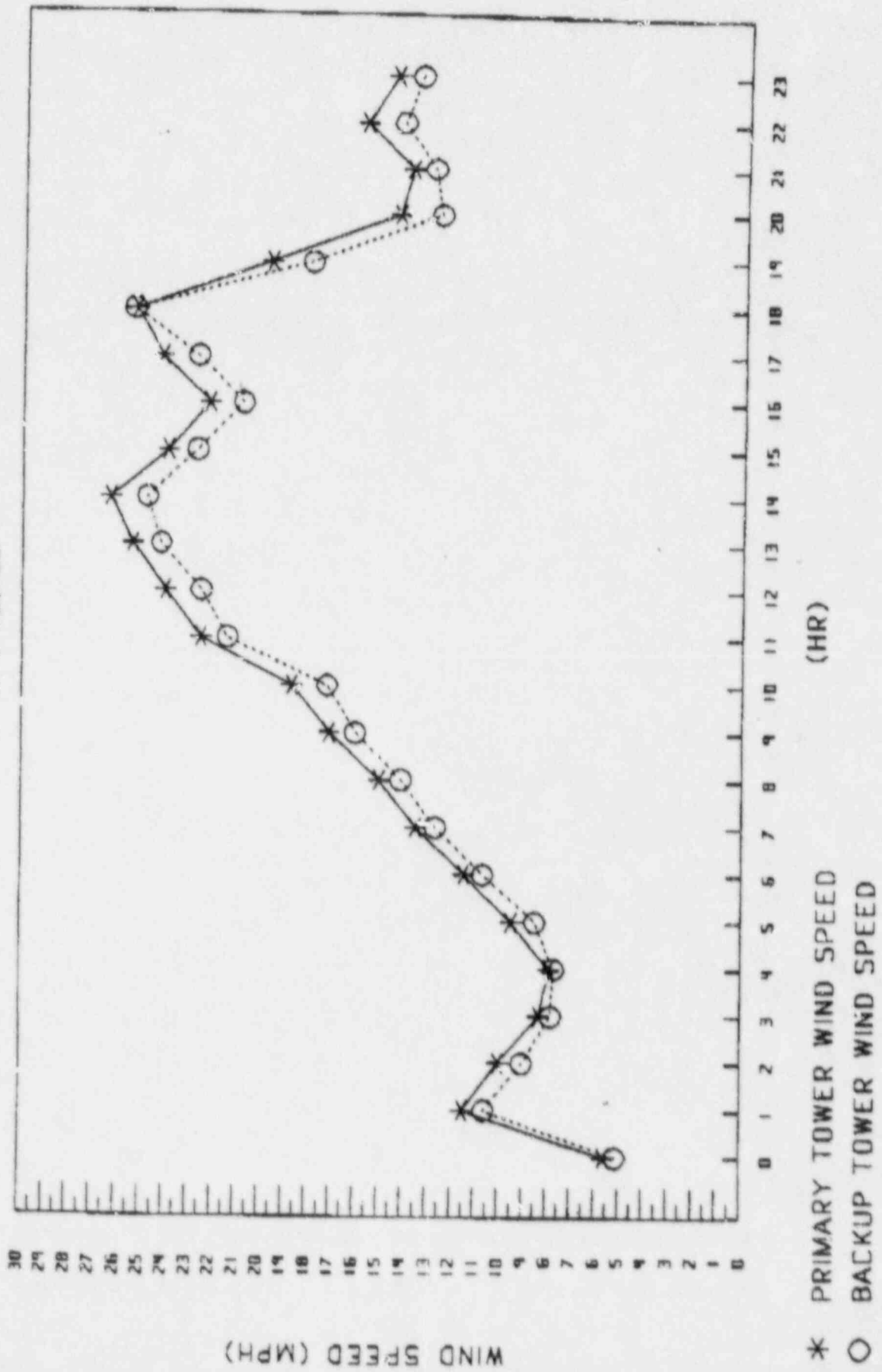
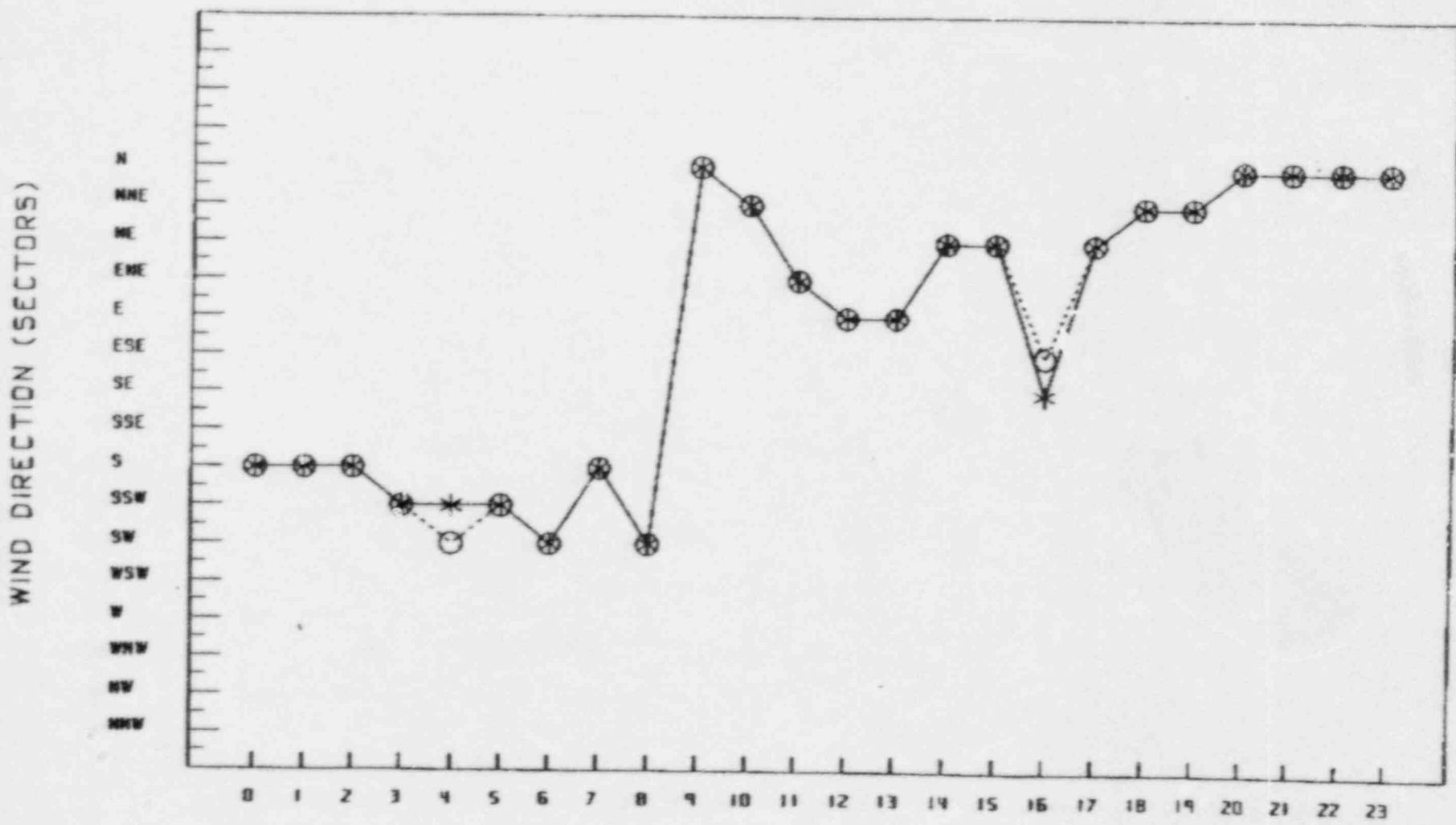
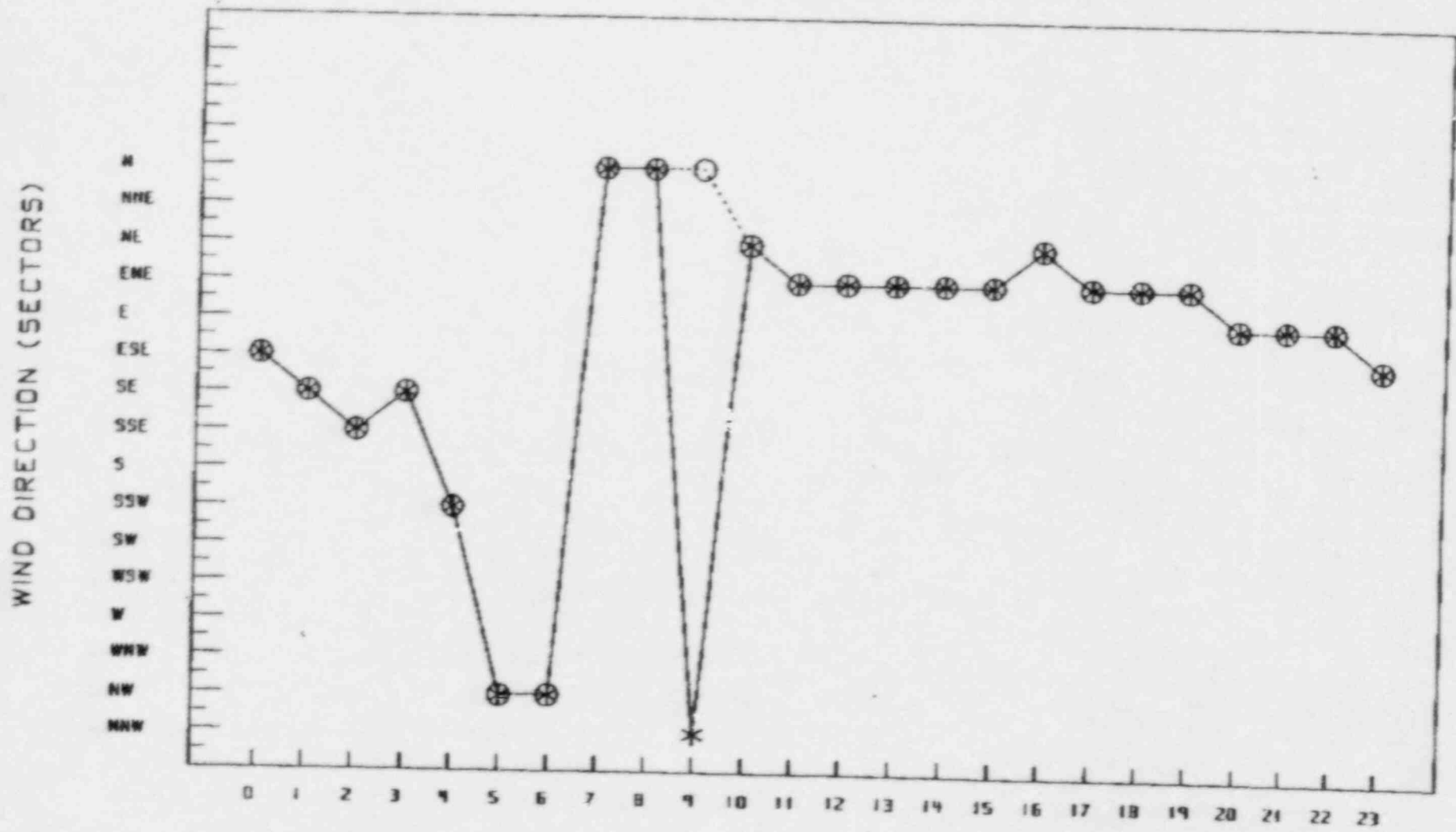


FIGURE 4
WIND DIRECTION
 08/26/88



* PRIMARY TOWER WIND DIRECTION (HR)
 O BACKUP TOWER WIND DIRECTION

FIGURE 5
WIND DIRECTION
 09/10/88

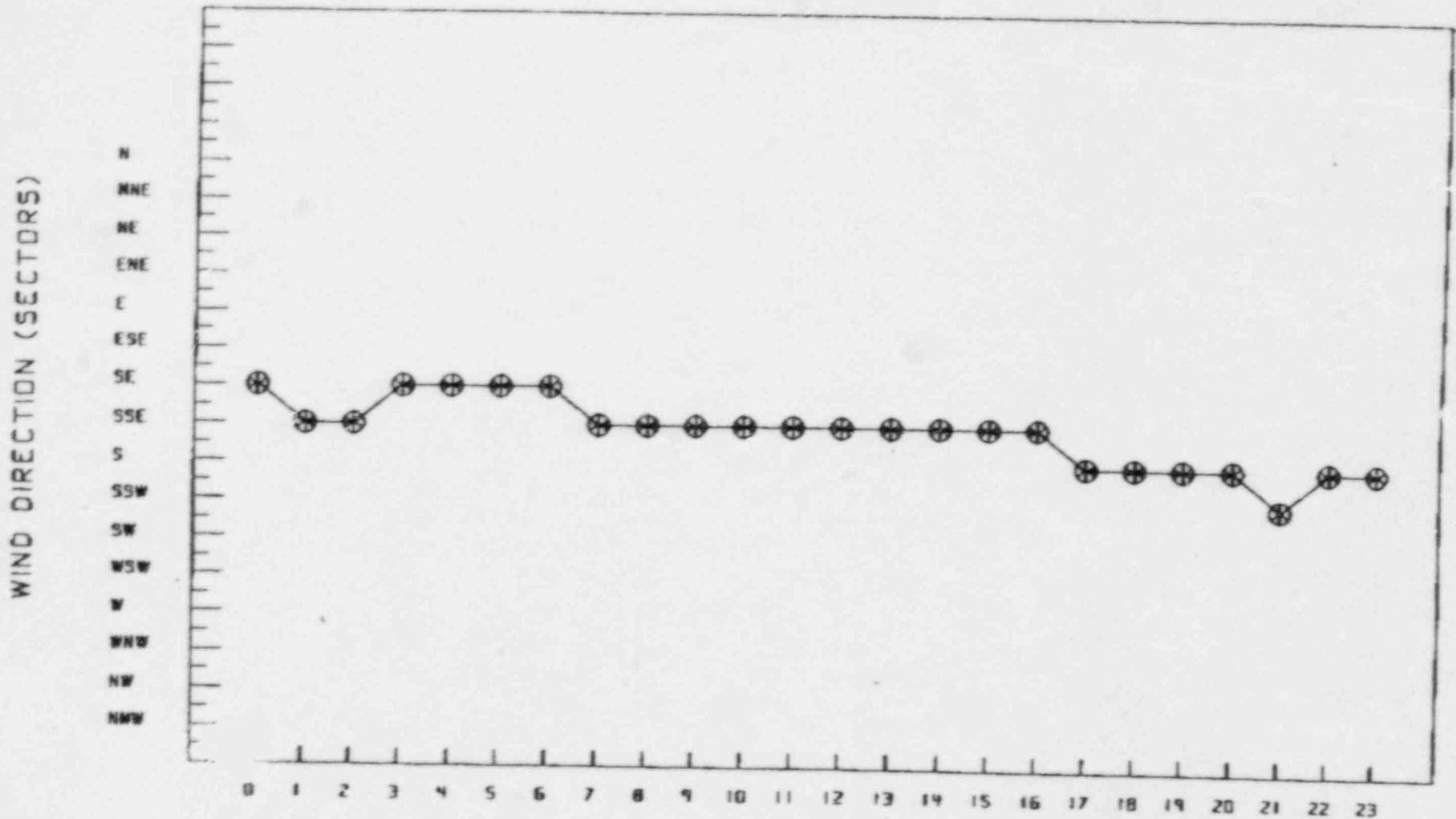


* PRIMARY TOWER WIND DIRECTION
 ○ BACKUP TOWER WIND DIRECTION

(HR)

NOTE: Hour 9 Wind Direction
 Primary Tower: 344°
 Backup Tower: 358°

FIGURE 8
WIND DIRECTION
09/18/88



* PRIMARY TOWER WIND DIRECTION (HR)
○ BACKUP TOWER WIND DIRECTION