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March 24, 1982

Mr. A. Schwencer, Chief
Licensing Branch #2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555



Subject: LaSalle County Station Units 1 and 2
Evaluation of 6 Months of Data from
the 10 Meter Meteorological
Measurements System
NRC Docket Nos. 50-373 and 50-374

- References (a): LaSalle County Station Units 1 and 2
Emergency Preparedness Appraisal
Response to Notice of Apparent
Deficiencies, L. O. DelGeorge letter
to J. G. Keppler dated August 10, 1981.
- (b): Request for Additional Information
Concerning LaSalle Meteorological
Monitoring Program, C. E. Sargent
letter to A. Schwencer dated October 8,
1981.
- (c): NUREG 0519, Supplement No. 2, "Safety
Evaluation Report related to the
Operation of LaSalle County Station
Units 1 and 2," Section 22.2,
Item III.A.2, Improving Licensee
Emergency Preparedness-Long Term

Dear Mr. Schwencer:

The purpose of this letter is to provide Commonwealth Edison Company's evaluation of the representativeness of 6 months of data from the 10 meter meteorological measurement system. The commitment to perform this evaluation was made in Reference (b) and is also documented in Reference (c).

As previously reported (Reference (b)), 33 ft. (10m) wind speed and wind direction systems were implemented on the LaSalle meteorological tower on September 1, 1981. In order to verify that the 10m winds were not inhibited by the building structures, statistical comparisons were made using the first month data collection. These results were submitted to the NRC in Reference (b).

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To further substantiate the reliability of the 10m wind system, the period from September 1, 1981, through February 28, 1982, was used to determine if the 10m wind direction exhibited significant distortion due to building effects.

First, the 200 ft (60m) wind direction was compared to the 33 ft (10m) wind direction on an hour-by-hour basis, and a linear regression was performed using 4319 pairs of data. The results are listed in Table 1.

A similar comparison was made using the 375 ft (114m) wind direction and the 33 ft (10m) wind direction. The results are also presented in Table 1.

It can be seen from the statistics that there is a good correlation between levels on the tower and there is no indication that the 33 ft (10m) level is affected by the Reactor Building. Plots of these comparisons are shown in Figure 1 and 2. Both plots continue to depict the typical shear seen between levels on the tower and there is not obvious distortion in the zone of possible building effects. Furthermore, little, if any, distortion was observed in the numerical review of the data.

Therefore, since the records do not show significant distortion due to building effects, alternative siting for the 33 ft (10m) level wind instrumentation is not required. The transmittal of this information fulfills Commonwealth Edison Company's commitment for further evaluation and indicates no further action is required in this regard.

If there are any further questions in this matter, please contact this office.

Very truly yours,

C. W. Schroeder 3/24/82

C. W. Schroeder
Nuclear Licensing Administrator

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Enclosure

cc: NRC Region III Inspector - LSCS

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TABLE 1

Linear Regression Results

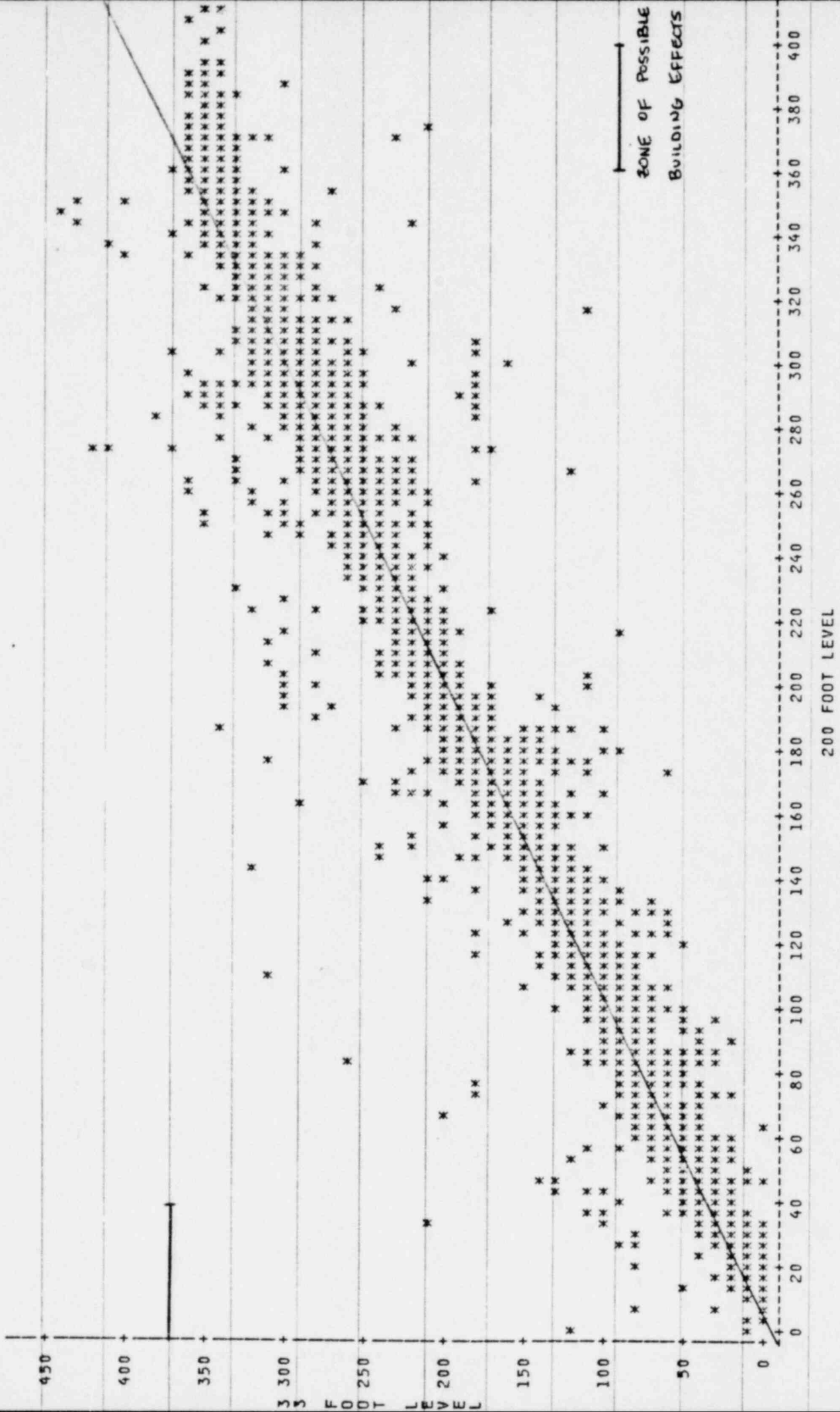
	<u>X = 200 WD</u> <u>Y = 33 WD</u>	<u>X = 375 WD</u> <u>Y = 33 WD</u>
Slope	0.981	0.973
Intercept	0.537	1.905
Std. Dev.	23.9	28.845
R - Square	0.946	0.922

Each regression was based on 4319 hours of data.

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FIGURE 1
 COMPARISON OF THE WIND DIRECTION MEASURED AT 33 FEET AT LA SALLE AND THAT MEASURED AT 200 FEET
 WIND DIRECTION IS MEASURED IN DEGREES
 DATA IS FOR THE PERIOD 09/01/81 TO 02/28/82

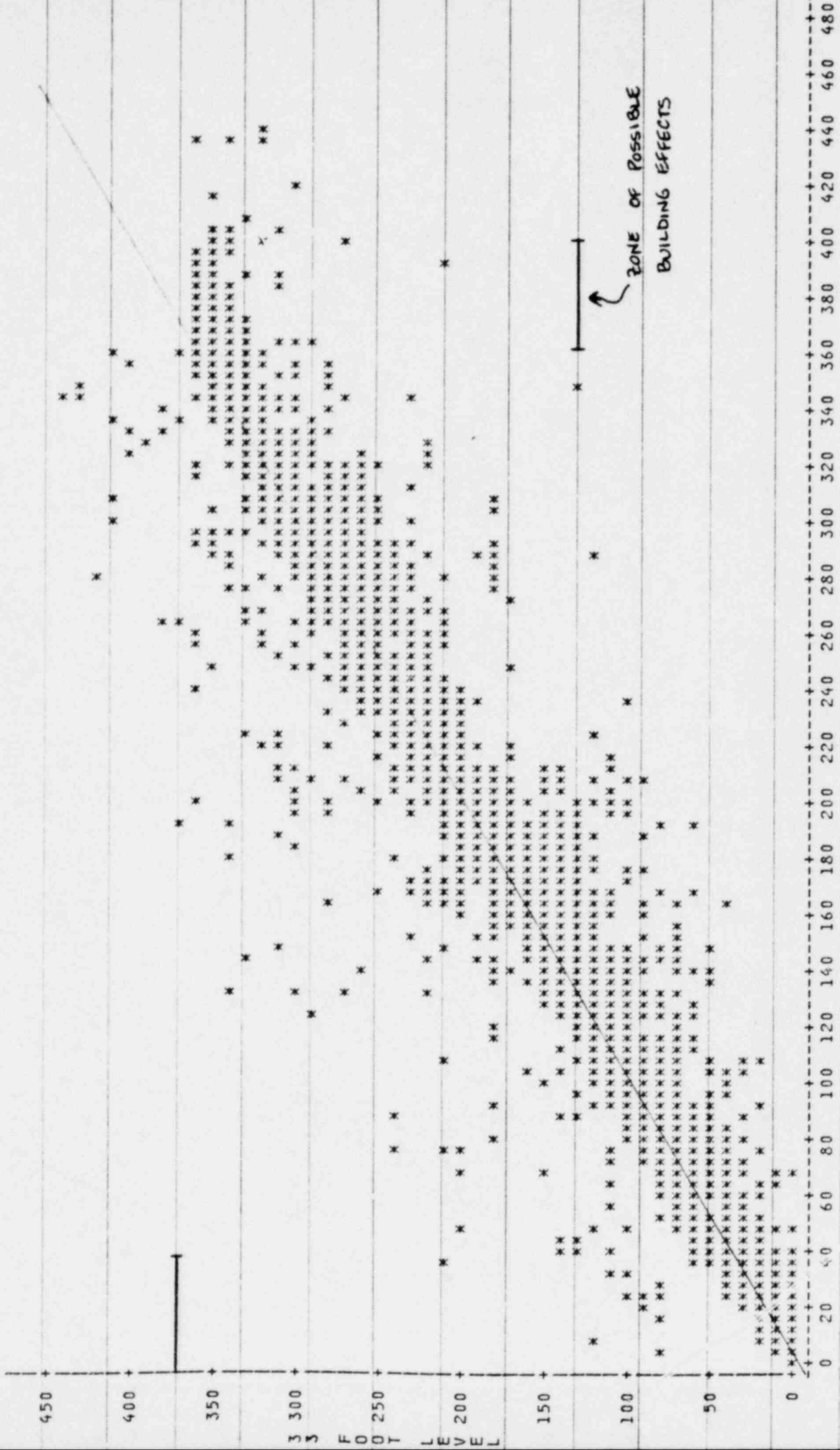
PLOT OF WD33*WD200 SYMBOL USED IS *



NOTE: 3482 OBS HIDDEN

COMPARISON OF THE WIND DIRECTION MEASURED AT 33 FEET AT LA SALLE AND THAT MEASURED AT 375 FEET
 WIND DIRECTION IS MEASURED IN DEGREES
 DATA IS FOR THE PERIOD 09/01/81 TO 02/28/82

PLOT OF WD33*WD375 SYMBOL USED IS *



NOTE: 3419 OBS HIDDEN

375 FOOT LEVEL