

SAFETY EVALUATION REPORT SUPPLEMENT
CRYSTAL RIVER - UNIT 3
DOCKET NO. 50-302

2.3

Meteorology

The applicant has submitted six months (January - June 1975) of meteorological data from an onsite measurement program established to conform to the recommendations and intent of Regulatory Guide 1.23. Our evaluation of the onsite meteorological measurements program appears in Supplement No. 1, January 13, 1975.

We have reviewed the six months of data, and have calculated relative concentration (X/Q) values using joint frequency distributions of wind speed and direction by atmospheric stability for this six month period. Wind speed and direction were measured at the 35-ft level, and atmospheric stability was determined by the vertical temperature gradient between the 35-ft and 175-ft levels. Data recovery for the joint frequency measurements was 94%.

In the calculation of short-term accidental releases from building and vents, a ground level release with a building wake factor, C_A , of $1015m^2$ was assumed. This factor was increased from the value of $925m^2$ used in the SER due to the applicant's reevaluation. The relative concentration value for the 0-2 hour time period for onshore flow conditions (defined as those winds blowing from the southeast clockwise through north directions) which is exceeded 5% of the time was calculated to be $9.1 \times 10^{-5} \text{ sec}/m^3$. This value is a factor of 2.4 lower than the value presented in the SER. Similar reductions were obtained for calculations at the LPZ distance. Although these values are based on only six months of onsite data, it is unlikely that values calculated using a complete year of data would exceed the conservative values presented in the SER. However, we will examine the complete year (January - December 1975) as soon as it is available.