

ABSTRACT

Strategies for the Selection of Substitute Meteorological Data

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The Nuclear Regulatory Commission provides guidance for the collection of meteorological data to support dose calculations for routine and emergency releases of airborne radioactivity. Safety Guide 23 lists wind speed, wind direction, and atmospheric stability classification as parameters important to such efforts, in support of routine effluent monitoring summarized in Regulatory Guide 1.21, and for emergency response efforts described in Regulatory Guide 1.97, NUREG-0654, and NUREG-0737.

During 2003, problems occurred with the upper level wind direction sensor on the primary meteorological tower at Pilgrim Station that resulted in the loss of this indication for an extended period of time. This loss of data would have adversely affected the 90% data recovery goal for meteorological data to support dose calculations, as specified in Safety Guide 23. In order to achieve more suitable data recoveries, upper level wind direction data from a backup tower were substituted for the missing primary tower data. This presentation describes some of the factors that were evaluated in the decision process to select substitute meteorological data.

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