

# Texas Natural Resource Conservation Commission

INTEROFFICE MEMORANDUM

To: PMU Staff

Date: January 31, 1997

From: Dom Ruggeri, Team Leader  
Permit Modeling Unit  
Air Quality Planning Division

Subject: Procedure for Replacing Low Mixing Height Data in Meteorological Files

The staff meteorologists developed a procedure to replace mixing heights less than 30 meters in preprocessed meteorological files. The procedure is outlined below. We will update all the current state meteorological files in the near future. Until we do, please ensure that a meteorologist reviews any changes you propose to make. In addition, ensure that applicants send us any proposed changes for PSD meteorological files.

## **Procedure:**

During the nighttime hours (i.e. ~20 to 05), and at or near sunrise (i.e. ~06 to 08).

- Single hour. Replace the mixing height with 30 meters or the next hour's mixing height, whichever is higher.
- Two or more consecutive hours. Replace all the mixing heights except the last hour's with 30 meters. Replace the last hour's mixing height with 30 meters or the next hour's mixing height, whichever is higher. For example
  - Two consecutive hours. The first hour's mixing height is 15 meters, the second hour's mixing height is 27 meters, and the third hour's mixing height is 30 meters. Replace all hour's heights with 30 meters.
  - Four consecutive hours. The first three hours have the same mixing height of 15 meters while the fourth hour's mixing height is 20 meters. The fifth hour's mixing height is 35 meters. Replace the first three hours' mixing heights with 30 meters, and set the fourth hour's mixing height to 35 meters.

Daytime hours.

- Review the observed wind speed; visibility and weather; ceiling height; and cloud cover at or near the hour(s) in question. The National Climatic Data Center's (NCDC) Local Climatological Data Summaries can be used for this review.

- Determine if there is a supporting reason for the mixing height. Do not adjust the mixing height if there is a supporting reason. If there is no supporting reason, then
  - Replace the low mixing height with 30 meters or the next hour's mixing height, whichever is higher.