TABLE 4.7.1.3–2.—*Maximum Allowable Concentration Increases Under Prevention of Significant Deterioration Regulations*

POLLUTANT	AVERAGING TIME	MAXIMUM ALLOWABLE INCREMENT ($\mu g/m^3$)		
		CLASS 1	CLASS 2	CLASS 3
PM_{10}	Annual	4	17	34
	24-hour	8	30	60
Sulfur Dioxide	Annual	2	20	40
	24-hour	5	91	182
	3-hour	25	512	700
Nitrogen Dioxide	Annual	2.5	25	50

Source: 40 CFR 52.21

Pantex Plant operations would also be less than 226.8 metric tons (250 tons) per year (see Tables 4.7.2.1–3 and 4.7.2.1–4). Therefore, Pantex Plant would not be subject to PSD requirements.

Assessment of Air Quality

Assessment Parameters. Existing ambient air quality in the region is defined by air quality data and emissions information. Air quality data were obtained from air quality monitoring stations maintained by TNRCC (TNRCC 1993c; TNRCC 1994a). Information on pollutant concentrations measured for short-term (24 hours or less) and long-term (annual) averaging periods were extracted from the monitoring station data to characterize the existing air quality background of the area. The emission inventory for the region was obtained from EPA and Pantex Plant. Inventory data are separated by pollutant and reported in pounds and tons per year to describe the baseline conditions of pollutant emissions in the area (EPA 1988). Since the TNRCC air quality monitoring stations do not operate continuously and are not placed at the borders of Pantex Plant, the monitoring data do not indicate the impacts to the public from plant air emissions.

Identifying the Region of Influence (ROI) for an air quality assessment requires knowledge of the pollutant types, source emission rates and release parameters, the proximity relationship of project emission sources to other emission sources, and local and regional meteorological conditions. For inert pollutants (all pollutants other than SO_2, O_3, and its precursors NO_2 and volatile organic compounds [VOCs]) the ROI is generally an area extending a few miles downwind from the source. The ROI for O_3 may extend much farther downwind than the ROI for inert pollutants. For the purpose of this air quality analysis, the ROI is defined as Carson County and its eight surrounding counties: Potter, Randall, Armstrong, Donley, Gray, Roberts, Hutchinson, and Moore.

The windrose in Figure 4.7.1.1–1 indicates that pollutants from Pantex Plant might be transported into any of these surrounding counties. As mentioned previously, the ROI for O_3 extends farther downwind than the ROI for inert pollutants. This greater distance occurs because in the presence of solar radiation, the maximum effect of precursor emissions on O_3 levels usually occurs several hours after they are emitted and therefore, many miles from the source.