
Exceedance days during OCT 2005-

Total=	0	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
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Health Watches issued during OCT 2005-

Total=	0	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
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High Pollution Advisories issued during OCT 2005-

Total=	0	<u>Date</u>	<u>Max AQI</u>	<u>Pollutant</u>	<u>Site/s</u>
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Concentration Recap:

Days in the Good category:	4
Days in the Moderate category:	27
Days in the Unhealthy for Sensitive Groups category:	0
Days in the Unhealthy category:	0
Total Forecast Days:	31

Narrative:

From an air pollutant concentration standpoint it was a rather uneventful month for both ozone and carbon monoxide, whose highest readings were in the good range of the Air Quality Index each day. On the 21st one PM-2.5 monitor hit the moderate range of the index; otherwise, all readings of that pollutant were in the good range as well. Meanwhile, PM-10 concentrations were in the moderate range of the Air Quality Index on all but four days – the 17th, 18th, 23rd, and 30th. The only widespread rain event of the month occurred on the 17th and 18th in the form of a Pacific trough and frontal passage. Both the 23rd and 30th were Sundays, which tend to have lower PM-10 levels due to less traffic and construction activities – both significant sources of PM-10 in the Phoenix metro area. A near-exceedance of the PM-10 24-hr average standard occurred at the West Forty Third site on the 8th. A strong but dry Pacific trough and frontal passage occurred on that day, accompanied by afternoon wind gusts in the 30-45 mph range that managed to cause widespread blowing and airborne dust over the south central portion of Arizona. The highest 1-hour concentration at West Forty Third was 682ug/m3 at 1600 hrs; the 24-hour average was 153.9ug/m3. On ten other days PM-10 readings reached the 70's and 80's on the Air Quality Index. Most of them coincided with episodes of air mass stagnation – warming temperatures aloft due to ridging aloft as well as surface-based radiation inversions that formed overnight. On the 12th, 13th, and 27th the density of suspended particles (locally known as *Valley Brown Cloud*) was sufficient to lower the prevailing visibility at local airports to between four and nine statute miles.

-Reith

