


TCEQ Interoffice Memorandum

To: Richard Garcia, Regional Director
Christine Bergren, Air Section Manager
Ramiro Garcia, Border and South Central Texas Area Director

From: Allison Jenkins 
Toxicology Division, Chief Engineer's Office

Date: June 23, 2011

Subject: Health Effects Review of 2010 Ambient Air Network Monitoring Data in Region 13, San Antonio

Conclusions

- Exposure to levels of volatile organic compounds (VOCs) monitored in 2010, at the Community Air Toxics Monitoring Network (CATMN) site located at 911 Old Highway 90 West in San Antonio would not be expected to cause chronic adverse health or vegetation effects.

Background

The Toxicology Division (TD) reviewed ambient air sampling data collected in 2010, at the CATMN site located at 911 Old Highway 90 in TCEQ Region 13, San Antonio. Table 1 lists the sampling location and provides a link to more information on the site.

The TD reviewed air samples for 84 VOCs collected for 24 hours every six days. The list of 84 target analyte VOCs can be found in Attachment A. The samples are designed to provide representative long-term average concentrations, thus, annual averages from the 24-hour samples were evaluated for potential chronic health and vegetation concerns. For all VOCs, the annual average concentrations were compared to long-term air monitoring comparison values (AMCVs). The TCEQ Field Operations Support Division reported data for all chemicals evaluated in this memorandum. All data evaluated from the monitoring site in San Antonio met TCEQ's 75 percent annual data completeness objective and were considered in this evaluation.

More information about AMCVs is available online at:
<http://www.tceq.state.tx.us/implementation/tox/AirToxics.html#amcv>.

Table 1. CATMN Site Located in TCEQ Region 13

City and Site Location	County	EPA Site ID	Monitored Compounds
San Antonio , 911 Old Highway 90 West	Bexar	48-029-0677	VOCs (24-hour canister samples)

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Evaluation

Long-Term Data

All 2010 annual average concentrations of the 84 VOCs evaluated at the monitoring site were below their respective long-term AMCVs. Therefore, adverse health or vegetation effects would not be expected to occur as a result of long-term exposure to the reported levels of these chemicals.

If you have any questions regarding the contents of this review, please contact me at 512.239.0656 or via email at allison.jenkins@tceq.texas.gov.

cc (via email):

Casso, Ruben- EPA Region 6, Dallas

Prosperie, Susan – Department of State Health Services

Attachment A

List 1. Target VOC Analytes in Canister Samples

1,1,2,2-Tetrachloroethane	Bromomethane	M/P Xylene
1,1,2-Trichloroethane	Carbon Tetrachloride	Methyl Chloroform (1,1,1-Trichloroethane)
1,1-Dichloroethane	Chlorobenzene	Methylcyclohexane
1,1-Dichloroethylene	Chloroform	Methylcyclopentane
1,2,3-Trimethylbenzene	Chloromethane (Methyl Chloride)	N-Butane
1,2,4-Trimethylbenzene	Cis 1,3-Dichloropropene	N-Decane
1,2-Dichloropropane	Cis-2-Butene	N-Heptane
1,3,5-Trimethylbenzene	Cis-2-Hexene	N-Hexane
1,3-Butadiene	Cis-2-Pentene	N-Nonane
1-Butene	Cyclohexane	N-Octane
1-Hexene+2-Methyl-1-Pentene	Cyclopentane	N-Pentane
1-Pentene	Cyclopentene	N-Propylbenzene
2,2,4-Trimethylpentane	Dichlorodifluoromethane	N-Undecane
2,2-Dimethylbutane (Neohexane)	Dichloromethane (Methylene Chloride)	O-Ethyltoluene
2,3,4-Trimethylpentane	Ethane	O-Xylene
2,3-Dimethylbutane	Ethylbenzene	P-Diethylbenzene
2,3-Dimethylpentane	Ethylene	P-Ethyltoluene
2,4-Dimethylpentane	Ethylene Dibromide (1,2-Dibromoethane)	Propane
2-Chloropentane	Ethylene Dichloride (1,2-Dichloroethane)	Propylene
2-Methyl-2-Butene	Isobutane	Styrene
2-Methylheptane	Isopentane (2-Methylbutane)	Tetrachloroethylene
2-Methylhexane	Isoprene	Toluene
2-Methylpentane (Isohexane)	Isopropylbenzene (Cumene)	Trans-1-3-Dichloropropylene
3-Methyl-1-Butene	M-Diethylbenzene	Trans-2-Butene
3-Methylheptane	M-Ethyltoluene	Trans-2-Hexene
3-Methylhexane		Trans-2-Pentene
3-Methylpentane		Trichloroethylene
4-Methyl-1-Pentene		Trichlorofluoromethane
Acetylene		Vinyl Chloride
Benzene		