OZONE IN NORTH TEXAS: OPPORTUNITIES FOR IMPROVEMENT

North Texas Commission
Topic: North Texas

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NCTCOG Transportation Department
Clean Air Act (CAA) last amended in 1990

Requires Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants:

- Carbon Monoxide (CO)
- Lead (Pb)
- Nitrogen Oxides (NO\textsubscript{X})
- Ozone (O\textsubscript{3})
- Particulate Matter (PM)
- Sulfur Dioxide (SO\textsubscript{2})

EPA must complete a review of NAAQS every five years
Optimum conditions for the formation of ozone include high temperatures and low winds. Sections are not to scale and are for illustrative purposes only.
EMISSION SOURCES

Oxides of Nitrogen (NO$_x$)

- On-Road Mobile: 181 tpd (49%)
- Non-Road Engines: 64 tpd (17%)
- Off-Road Engines: 37 tpd (10%)
- Point Source: 51 tpd (14%)
- Area (Excluding Oil & Gas): 18 tpd (5%)
- Oil & Gas Production & Drilling: 19 tpd (5%)

Total NO$_x$ = 370 tons per day (tpd)

**EMISSION SOURCES**

Volatile Organic Compounds (VOC)

- **Point**
  - 39 tpd (8%)

- **Off-Road Engines**
  - 6 tpd (1%)

- **Oil & Gas Production & Drilling**
  - 114 tpd (22%)

- **On-Road Mobile**
  - 80 tpd (15%)

- **Non-Road Engines**
  - 43 tpd (8%)

- **Area (Excluding Oil & Gas)**
  - 240 tpd (46%)

**Total VOCs = 522 tons per day (tpd)**

Exceedance Level indicates daily maximum 8-hour average ozone concentration. Exceedance Levels are based on Air Quality Index (AQI) thresholds established by the EPA for the revised ozone standard of 75 ppb.

= Additional level orange exceedance days under the revised standard that were not exceedances under the previous 84 ppb standard. (AQI level orange = 76-95 ppb)

*Not a full year of data, current as of 6/07/2015

Note: The 2009-2013 data has been certified by TCEQ, and is currently undergoing review by the EPA for concurrence.

Source: TCEQ, http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl
ppb = parts per billion
According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the Design Value (three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration) is equal to or less than 75 parts per billion (ppb).

1Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the Design Value (three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration) is equal to or less than 75 parts per billion (ppb).

*Not a full year of data, current as of 6/07/2015.

Source: NCTCOG TR Dept
REGIONAL TRANSPORTATION COUNCIL
LOCAL AIR QUALITY PROGRAMS

WARNING
5 MINUTE IDLE LIMIT
BUSES - MAXIMUM 30 MINUTES
STATE CODE 10 TAC 114.512
www.EngineOffNorthTexas.org

be air aware

SMARTE

PROpane Powered BY BLUE BIRD

NO TRUCKS LEFT LANE

REGIONAL SNOoKING VEHICLE PROGRAM

Don't Choke, Call #SMOKE

tryparkingit.com

HOV LANE
Diamonds are a driver’s best friend.

nct clean school bus

SHARE THE ROAD

Bike/Walk North Texas

Drive a Clean Machine

U.S. Department of Energy

Proud Supporter of
SmartWay®
Program Description
A regional clean air partnership and campaign to:
  Provide a comprehensive air quality resource and regional message.
  Leverage resources and collaborate with regional partners.
  Increase public awareness of specific opportunities for residents to make clean air choices.

NCTCOG Resources
  Comprehensive Website, Including Current Ozone Conditions
  Monthly Newsletter
  Air Pollution Alerts for Ozone
  Outreach and Advertising Campaign
  Clean Air Action Day, June 26, 2015

How to Get Involved
  Sign-up to Receive Monthly Newsletters and Alerts
  Provide Messages and Alerts to your Employees
  Participate in Air North Texas Activities
  Promote Your Air Quality Improvements Online

www.airnorthtexas.org
Description
Created by the US Department of Energy, the Coalition provides information and education on alternative fuel and advanced technology vehicles, programs, and policies with a focus on petroleum reduction and air quality benefits.

NCTCOG Resources
- Comprehensive Website
- Vendor Directory
- Meetings/Trainings/Workshops
- Monthly Newsletter
- Video Success Stories
- Annual Report on Alternative Fuel Usage

How to Get Involved
- Become a Member and Participate in Annual Report
- Participate in One or More Alternative Fuel Subcommittees
- Sponsor the Coalition
- Attend Workshops and Trainings
- Sign-up for Monthly Newsletter and Informative Emails

www.dfwcleancities.org
Program Description
Created by the North Texas Commission, this program helps clean the air, promote clean vehicles, provides an incentive to those driving those vehicles, and allows buildings to earn credits toward LEED certification with free signage to designate parking space for alternative fuel vehicles (AFVs). An smartphone app was created to support this program through the North Texas Apps Challenge in 2014.

NCTCOG Resources
Website
Sign Art Work
Link to Approved Vehicles

How to Get Involved
Place Signs at Your Business
Promote Program Incentives to Employees and Customers
Use Smartphone App, Juxt, and Upload Photo and Information

www.dfwcleancities.org/greenparking
Goal/Description
Promote Adoption & Use of Electric Vehicles (EVs) by Offering On-site Charging at Places of Employment

NCTCOG Resources
EV Fact Sheet
Guide to Claiming EV Incentives
Upcoming Workshops & Meetings

How to Get Involved
Attend EVNT & DFW Clean Cities Meetings
Sign-up to Receive Email Announcements
Join the Workplace Charging Challenge
Install On-site Charging
Upcoming Event: Texas Triangle Workplace Charging Road Show

Who should attend
Managers, Planners, & Others Interested in Learning About EVs & Charging Stations for Their Workplace

Why should You Attend
Get a General Introduction to EVs & Charging Stations
Discover Available Resources
Learn How to Leverage as a Valuable Employee Incentive
Hear Best Practices
Meet Vendors & Test Drive EV Models

Dates & Locations
Monday, July 27 – Houston
Tuesday, July 28 – San Antonio
Wednesday, July 29 – Austin
Thursday, July 30 – Dallas Fort Worth

www.dfwcleancities.org/evnt
Goal/Description

Reduce Emissions from Tourism and Business Travel and Facilitate Behind-the-Wheel Experiences with SmartWay Elite Vehicles

NCTCOG Resources

Information to Identify “Green” Vehicles
Industry Contacts
Assistance with Participatory Events

How to Get Involved

Commit to Going “Green” for Vehicle Rentals, Company Cars
Host Employee “Ride and Drive,” “Lunch and Learn,” or Similar Events

www.northtexasgreenandgo.org
CLEAN FLEET POLICY

Goal/Description
Reduce Emissions and Overall Fuel Consumption From Fleet Activities

NCTCOG Resources
Funding Eligibility
Template Policy
Template Idle Reduction (IR) Policy
Guidance
DFW Clean Cities Recognition Program

How to Get Involved
Adopt the Clean Fleet Policy and Submit to NCTCOG
Submit IR Policy/Standard Operating Procedure to NCTCOG
Become a DFW Clean Cities Coalition Stakeholder
Submit Annual Reports

www.nctcog.org/fleetpolicy
Program Goals
Encourage Regional Idle Reduction by Promoting Idling Restrictions, Anti-Idling Policies, and Development of Outreach Materials for Idle Reduction Campaigns

NCTCOG Resources
Idling Complaint Hotline: 877-NTX-IDLE
Informational Brochures
Posters and Street Signs

How to Get Involved
Create No-Idle Zone
Report Idling Vehicles
Adopt Anti-Idling Measures for Own Fleet
Partner with City/County (if in Area with Idling Restrictions)

google.com
Program Goals
Reduce Fleet Emissions, Improve Fuel Economy, and Increase Energy Efficiency in the Freight Industry

NCTCOG Resources
Informational Factsheet
SmartWay Meetings or Webinars
Assistance with Identifying EPA Tools or Joining as a Partner

How to Get Involved
Become a SmartWay Partner
Include SmartWay Partnership in Contracts/Purchasing
Purchase EPA SmartWay Verified Technologies and SmartWay Certified Vehicles

www.nctcog.org/SmartWay
SAVING MONEY AND REDUCING TRUCK EMISSIONS

Program Goals
Reduce Emissions and Fuel Costs in the Trucking Industry by Providing Outreach and Education on Regional Initiatives that Improve Efficiency

NCTCOG Resources
Informational Brochure
Driver, Fleet Manager and Vendor Information Folders
Meetings and Outreach Events
Individual Technology Assistance
Funding Assistance

How to Get Involved
Purchase Smartway Verified Technologies
Institute a Driver Training Program
Implement Clean Fleet Policy and Join DFW Clean Cities
Encourage Transportation Providers to Reach Out

www.nctcog.org/SMARTE
**Program Goals**

- Offers Financial Assistance to Low-Moderate Income Vehicle Owners Whose Vehicles Fail Emissions Inspection Test
- Helps Vehicle Owners Comply with Vehicle Emissions Standards to Reduce Ozone-Forming Pollutants Created by On-Road Motor Vehicles
- Targets the Highest Polluting Vehicles and Provides an Incentive for Citizens to Contribute to the Regional Air Quality Solution

**NCTCOG Resources**

- Program Applications, Informational Brochure, Banners

**How to Get Involved**

- Place Applications at Business
- Promote Program Assistance

www.nctcog.org/airchecktexas
AIR QUALITY FUNDING OPPORTUNITIES

NCTCOG Assistance Available
Funding
Help Completing Applications

Looking for Grant Funding?

- 2015 Clean Diesel Call for Partners
- Vehicle Funding Opportunities
- Other Air Quality Funding Opportunities
- Funding Opportunity Archive

Already received Grant Funding from NCTCOG?

- Agreements & Forms
- Usage Reporting

www.nctcog.org/aqfunding
Employer Trip Reduction (ETR) Program

Overview
A Voluntary Educational Program that Targets Vehicle Trips of Employees in North Central Texas
Aimed at Reducing the Number of Vehicles on the Road and Improving Air Quality
Promotes Alternatives to Driving Alone on Commute Trips
Alternatives include carpooling, vanpooling, telecommuting, flexible work hour programs, transit pass subsidies, biking and walking
NCTCOG Staff Available for Employee Information Sessions, Lunch and Learns, Program Development and Setup, Training, and Program Maintenance

Resources
ETR Employer Manual for North Texas in development
A guide to alternative commuting, employer programs, rewards, and more

Get Involved
Contact Tori Wilson at (817) 695-9249 or twilson@nctcog.org for Details
Try Parking It Website

Overview
Regional Commuter Tracking and Ride-Matching System for North Central Texas
Self-Reporting by Individual Commuters

Site Features
Carpool and Vanpool Ride-Matching
Coming Soon – Transit, Walking, and Cycling Buddy Matching
Daily Trip-Logging Capabilities
Personal Savings Reports (Environmental and Financial)
Integrated Savings Calculator – Coming Soon
Integrated Reward System – Coming Soon
Regional Points of Interest
Employees
Option to Participate in Trip Logging, Ride-Matching or Both
Registered Users can Specify Rideshare Preferences
(i.e. commute schedule, co-workers only, non-smokers)

Registered Employers
Designated Employer Administrator Access
Track Employees’ Alternative Commute Activities and Savings
Generate Company-Specific Reports (Environmental and Financial)
Customizable Employer Portal
Include Company Logo and Messages for Employees
Promote Company-Specific Incentives and Rewards
Goal/Description

Complete the first mile / last mile pedestrian and bicycle connections around transit stations.

Why Is this Important to Business?

Helps provide transportation options for workers to access places of employment and other destinations.

www.nctcog.org/RoutesToRail
COMPLETE STREETS
Accommodate All Modes of Transportation

Goal/Description
Design and operate roadways to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities.

How Do Complete Streets Improve Air Quality and Benefit Business?
Provides options for non-motorized travel to major destinations including employment, education, medical, and transit stations.

Graphic Source: City of Dallas Complete Streets Initiative

www.nctcog.org/BikePed
OTHER CLEAN AIR STRATEGIES

Organizations/Businesses/Governments

Move Construction Activities to Evening Hours
Postpone Mowing to a Day with Healthy Air
Conserve Electricity and Retrofit to Efficient Lighting
Limit Testing of Emergency Generators
Coordinate On-site Employee Lunches
Use Audio and Video Conference Call Technology
Reduce Water and Use EPA’s WaterSense
Use Solar and Other Renewables for Power Needs When Possible
Use SmartScape Plants

Photo Sources: Thinkstock
CLEAN AIR ACTION DAY

First Friday of Summer Every Year
June 26, 2015

People Commit to Adopting at Least One Clean Air Strategy for the Day

Organizations and Businesses Promote the Day with Contests and Events for Employees

Asking Participants to Wear Green and Post Photos of Their Commitments on Social Media Using #CAAD2015 for a Chance to Win Prizes

www.airnorthtexas.org/cleanair.asp
Questions?