

December 30, 2005

Richard Greene, Regional Administrator  
USEPA Region 6  
1445 Ross Avenue, Suite 1200  
Dallas, Texas 75202-2733

Dear Administrator Greene,

Please find enclosed the July 1 to December 31, 2005 progress report for the Tulsa Metropolitan Area 8-Hour Ozone Early Action Compact (EAC) prepared by the Indian Nation Council of Governments (INCOG). The purpose of this report is to update accomplishments occurring since our June 2005 submittal including progress toward the goals contained in the Memorandum of Agreement between the Oklahoma Department of Environmental Quality (DEQ) and INCOG. This Memorandum outlines each organization's responsibilities for the scheduled completion of certain traffic improvement projects that will improve air quality as a control strategy for the Tulsa Metropolitan Area 8-Hour Ozone EAC. Also included in this report is DEQ's update of recent ambient ozone data for the Tulsa area.

We are pleased that the Tulsa area continues to remain in compliance with the 8-hour ozone standard and deferral of nonattainment is not necessary. We do, however, remain committed to meeting EAC milestones. An electronic copy of this report is also enclosed on CD.

If your agency has any questions, or needs additional information concerning this submittal, please contact Leon Ashford, of the Air Quality Division of the Department of Environmental Quality at 702-4100.

Sincerely,

Eddie Terrill, Director  
Air Quality Division  
DEQ

ET:LA:gg

Enclosures

c: Jerry Lasker, INCOG

## **Tulsa Area Early Action Compact December 31, 2005 Progress Report**

The Tulsa Metropolitan Statistical Area was designated attainment of the revised 8-hour National Ambient Air Quality Standard for ozone in April 2004. We elected to remain in the EAC program because we have exceeded the 8-hour ozone standard in the past and because improving air quality through continued reduction of ozone forming emissions remains a priority.

This progress report is provided in accordance with G.T. Helms memorandum of October 17, 2005 to document completion of the December 31, 2005 EAC milestone.

To this end, INCOG is pleased to provide support documentation concerning the implementation of the Tulsa Area Transportation Control Strategy in compliance with the EAC to the Oklahoma Department of Environmental Quality and the US EPA.

### **PUBLIC REVIEW AND OUTREACH**

Public outreach remains an important component of the EAC process. INCOG has continued to maintain an open and systematic dialogue with local businesses, media public and private partners concerning EAC implementation efforts and progress. EAC and air quality improvement efforts have been presented in the following venues:

- a. The INCOG Transportation Technical Advisory Committee. INCOG staff briefed the committee on various air quality updates including EAC progress and associated EAC discussion.
  - July 20, 2005
  - August 17, 2005
  - October 19, 2005
  - November 16, 2005
  
- b. The INCOG Transportation Policy Committee. INCOG staff briefed the committee on various air quality updates including EAC progress and associated EAC discussion.
  - July 28, 2005
  - August 25, 2005
  - October 17, 2005
  - December 1, 2005
  
- c. The Tulsa Area Clean Cities Stakeholder Meeting included discussion about local air quality improvement issues. INCOG staff briefed the committee on the following stakeholder meeting dates:

- August 18, 2005
  - December 15, 2005
- d. Tulsa Area Ozone Alert Public Relations Team Meetings, etc., Air Quality media Updates; and other media air quality awareness
- July 13, 2005: PR Team Meeting
  - July 27, 2005: PR Team Meeting
  - August 12, 2005: PR Team Meeting
  - August 24, 2005: PR Team Meeting
  - September 14, 2005: PR Team Meeting
  - September 27, 2005 Ozone Alert! Season End Event at Philbrook
  - October 12, 2005: PR Team Meeting
  - November 17, 2005: PR Team Meeting
  - December 20, 2005: PR Team Meeting
- e. The Tulsa area had thirteen Ozone Alert! Days called during the 2005 ozone season. The resulting media attention provided much opportunity for EAC public education and outreach.

## **INCOG TRANSPORTATION PLANNING DIVISION**

INCOG was designated by the Governor of Oklahoma, as the Metropolitan Planning Organization (MPO) for the Tulsa metropolitan area, in accordance with federal law (PL 102-240), the Intermodal Surface Transportation Efficiency Act (ISTEA), of 1991. As the MPO, INCOG, in cooperation with the Oklahoma Department of Transportation (ODOT), is responsible for the development of regional transportation plans and programs for the Tulsa urbanized area. The process of developing transportation plans and programs provides for consideration of all modes of transportation and shall be continuing, cooperative, and comprehensive to the degree appropriate, based on the complexity of the transportation problem. The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), ODOT, the Metropolitan Tulsa Transit Authority (MTTA), and local units of government serve as sponsors.

As the Tulsa MPO, INCOG's Board of Directors represents the principal elected officials of the general purpose local governments in the Tulsa metropolitan area and, consequently, serves as a forum for cooperative decision-making.

The Transportation Policy Committee (TPC) is the forum in the local decision-making process for policy development and adoption related to urban transportation planning, its program development, and its operation within the Tulsa Transportation Management Area. Upon approval by the TPC, transportation plans and programs are forwarded to the sponsoring local governmental units for information and review, and to the INCOG Board of Directors for endorsement, and the Tulsa Metropolitan Area Planning Commission (TMAPC) for inclusion in the *Comprehensive Plan*.

The Transportation Technical Advisory Committee (TAC) serves as an advisory group to the TPC, providing technical expertise in the development of urban transportation plans and programs for the Tulsa metropolitan area. If transportation plans or programs are deemed unsatisfactory by the TPC, these products may be returned to the TAC for additional review, analysis, and any additional recommendations. The TAC's representation allows it to receive input from federal, state, and local governments and agencies, state authorities, and modal interests.

**I. Summary of Final EAC Control Measure and Schedule for Implementation; December 31, 2004 Milestone**

**a. Control Measure**

Transportation Emission Reduction Strategy - roadway expansion and intersection improvement projects

**b. Summary description of control measure**

The Tulsa area EAC emission reduction strategy is a cumulative compilation of transportation improvement projects, implemented and quantified as a single control strategy.

The transportation travel demand model determines a system-wide affect on all roadway links. As previously identified, emission reductions obtained for each unique transportation improvement project cannot be uniquely or effectively estimated on a project by project basis. EAC technical support documentation MOBILE 6 estimated the emission reductions as a result of a cumulative system-wide improvement. To model cumulative transportation improvements, a link-by-link analysis is performed on the entire transportation network. The link-based transportation model attempts to reach equilibrium in travel time for each trip loaded. Numerous parameters such as volume, capacity ration, speed etc. contribute to the overall modeled emission reductions.

Revisions to the State Implementation Plan for the Control of Ozone Air Pollution, submitted by the ODEQ on behalf of the Tulsa Metropolitan Area 8-hour Ozone Early Action Compact, Section 2 Control Strategies provides full description of the control strategy. The technical support documentation in the same SIP plan, Section 3, provides emission reduction demonstration.

**c. Program/Measure Status**

Implementation of the Transportation Emission Reduction strategy continues with approximately 98% fully implemented. Status is provided in the following project summary table:

<b>Capacity Improvement Projects</b>				
<b>Project Title</b>	<b>Description</b>	<b>Total Lanes When Complete</b>	<b>Completion Date</b>	<b>STATUS</b>
<b>EXPRESSWAYS</b>				
<b>US-169 S.</b>	<b>I-244 to 21st Street S.</b>	<b>6 Lanes</b>	<del>Dec-05</del> <b>Extended to 15 Mar 06</b>	<b>Under Final Construction</b>
BA EXPRESSWAY (S.H. 51)	193rd E Ave to Muskogee Turnpike	6 Lanes	COMPLETED	COMPLETED
BA EXPRESSWAY (S.H. 51)	I-44 to 161st E Avenue	6 Lanes	COMPLETED	COMPLETED
Creek Turnpike East	Will Rogers Turnpike to Muskogee Tpk	4 Lanes	COMPLETED	COMPLETED
Broken Arrow South Loop	US-169 to 161st E Ave	4 Lanes	COMPLETED	COMPLETED
Broken Arrow South Loop	Muskogee Tpk to 161st E Ave	4 Lanes	COMPLETED	COMPLETED
Creek Turnpike West	US-75 to Turner Turnpike	4 Lanes	COMPLETED	COMPLETED
Gilcrease Expressway North	US-75 to Lewis	4 Lanes	COMPLETED	COMPLETED
Tisdale Expressway	Apache to 36th Street N	4 Lanes	COMPLETED	COMPLETED
<b>PRIMARY ARTERIALS</b>				
E 91st St S (Washington St.)	Garnett to Main Elm (the 1/2 mile section from Elm to Main project was substituted by an added 1/2 primary arterial section of 61st street - West of Garnett and East of US 169)	3 Lanes	COMPLETED	COMPLETED
61st Street	Garnett to US 169	3 Lanes	COMPLETED	
S.H. 20	Lennapah to US-75	4 Lanes	COMPLETED	COMPLETED
S.H. 67 (151st Street S)	US 75A to US 75	4 Lanes	COMPLETED	COMPLETED
US-64/S MEMORIAL	E 151st St S to E 161st Street	4 Lanes	COMPLETED	COMPLETED
71st Street	Lewis to Florence	6 Lanes	COMPLETED	COMPLETED
71st Street	Harvard to Yale	6 Lanes	COMPLETED	COMPLETED
71st Street	US-169 to Garnett	6 Lanes	COMPLETED	COMPLETED
71st Street	Yale to US-169 S	6 Lanes	COMPLETED	COMPLETED
11th Street	129th E Ave to I-44	4 Lanes	COMPLETED	COMPLETED
<b>SECONDARY ARTERIALS</b>				
E 61st Street South (Albany)	161st E Avenue to 177th E Avenue	3 Lanes	COMPLETED	COMPLETED
S GARNETT ROAD	E 61st Street to E 71st Street South	5 Lanes	COMPLETED	COMPLETED
Admiral	Garnett to 145th E Ave	4 Lanes	COMPLETED	COMPLETED
E 91st Street South	Mingo Rd to US-169 S	4 Lanes	COMPLETED	COMPLETED
E 81st Street South	Garnett Rd. to Main Street (Broken Arrow)	3 Lanes	COMPLETED	COMPLETED
S MINGO ROAD	51st Street to 61st Street	4 Lanes	COMPLETED	COMPLETED
MINGO ROAD	61st Street to 71st Street	4 Lanes	COMPLETED	COMPLETED
S MINGO ROAD	91st Street to US-169 S	4 Lanes	COMPLETED	COMPLETED
Sheridan	61st Street to 71st Street	5 Lanes	COMPLETED	COMPLETED
Sheridan	71st Street to 81st Street	5 Lanes	COMPLETED	COMPLETED
129th E Ave	21st Street S to 31st Street S	4 Lanes	COMPLETED	COMPLETED
Garnett Road	41st Street to 51st Street	4 Lanes	COMPLETED	COMPLETED
Garnett Road	I-244 to 21st Street	4 Lanes	COMPLETED	COMPLETED
<b>PARKWAYS</b>				
RIVERSIDE PARKWAY	81st Street to 101st Street	4 Lanes	COMPLETED	COMPLETED

## ROADWAY INTERSECTION IMPROVEMENT PROJECTS

N-S Street	E-W Street	Description	Completion Date	STATUS
S. Memorial Dr.	93rd Street	Signal Install	COMPLETED	COMPLETED
Riverside Drive	31st Street	Signal Install	COMPLETED	COMPLETED
71st Street S	S. Canton	Signal Install	<del>December-05</del> ★ PROJECT DELAY; New completion date of 15 March 2006	50% Complete
41st Street S	102 E Ave	Signal Install	<del>December-05</del> ★ PROJECT DELAY; New completion date of 15 March 2006	50% Complete
I-44 EB off/on ramp	E 31st St S.	Signal Install	<del>December-05</del> ★ PROJECT DELAY; New completion date of 15 March 2006	50% Complete
S Mingo Rd	E 55th Pl S.	Signal Install	COMPLETED	COMPLETED
S Harvard Av	E 27th Street	Signal Install	COMPLETED	COMPLETED
91st Street S.	S 101st E Av	Signal Install	<del>December-05</del> ★ PROJECT DELAY; New completion date of 15 March 2006	50% Complete
S Mingo Rd	E 66th Street S.	Signal Install	COMPLETED	COMPLETED
Riverside Drive	41st Street	Signal Install	COMPLETED	COMPLETED
51st Street Exit	SH-51 Exit	Signal Install	COMPLETED	COMPLETED
Mingo Road	91st Street	Intersection	COMPLETED	COMPLETED
Union Ave	61st Street	Intersection	COMPLETED	COMPLETED
S. Memorial Dr.	51st Street	Signal Modification	COMPLETED	COMPLETED

★ Roadway intersection improvement project delays likely due to shortages caused by hurricane weather events. Although these previously planned EAC projects will not be completed by December 31, 2005, the completed additional intersection and signal projects provided in the table below are substituted. These projects have similar technology and the off-model quantified emission reductions to the transportation system resulting from the substituted projects is at least equal to (in fact exceeds) those for the projects pending completion.

★ SUBSTITUTED ROADWAY IMPROVEMENT PROJECTS				
N-S Street	E-W Street	Description	Completion Date	STATUS
108th East Avenue	91st Street	Signal Install	COMPLETED	COMPLETED
Harvard Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Tulsa County Fair Grounds Gate 12	Tulsa County Fair Grounds Gate 12	Signal Modification	COMPLETED	COMPLETED
Pittsburg Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Yale Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Cincinnati Avenue	Pine Avenue	Signal Modification	COMPLETED	COMPLETED
Trenton Avenue	Apache Avenue	Signal Modification	COMPLETED	COMPLETED
Utica Avenue	21st Street	Signal Modification	COMPLETED	COMPLETED
Yale Avenue	31st Street	Signal Modification	COMPLETED	COMPLETED
Garnett Avenue	61st Street	Signal Modification	COMPLETED	COMPLETED
Garnett Avenue	81st Street	Signal Modification	COMPLETED	COMPLETED

**d. Specific Implementation Date**

The Tulsa Area Transportation Emission Reduction strategy is estimated to be 98% complete and will be 100% and fully implemented by 15 March, 2005. The factors which have likely caused the delay in the intersection projects and the remaining capacity improvement project were natural disasters and obviously unavoidable. Intersection project have been substituted for and the emission impact achieved is at 100% of commitment. The emission impact of the remaining US 169 Expressway project is significant. Consequently, there is no achievable substitution for a project of this emission reduction potential.

**e. VOC Reduction & NOx Reductions**

<b>Control 12 – TRANSPORTATION EMISSION REDUCTION STRATEGY</b>			
	<b>On-Road Mobile Emissions Inventory</b>	<b>Tulsa TTMA</b>	
<b>NOx-wkday (Tons Per Day)</b>	New Base 07	50.231	
	Control 12	47.603	
	Difference	-2.628	
	% difference	-5.23%	
<b>VOC-wkday (Tons Per Day)</b>	New Base 07	39.258	
	Control 12	39.238	
	Difference	-0.020	
	% difference	-0.05%	

**Source: Environ**

**f. Additional Information**

**Roadway improvement and intersection improvement project photos:**

61st & Garnett Intersection; Garnett to US 169



71st & Garnett Intersection;  
Garnett 61st to 71st



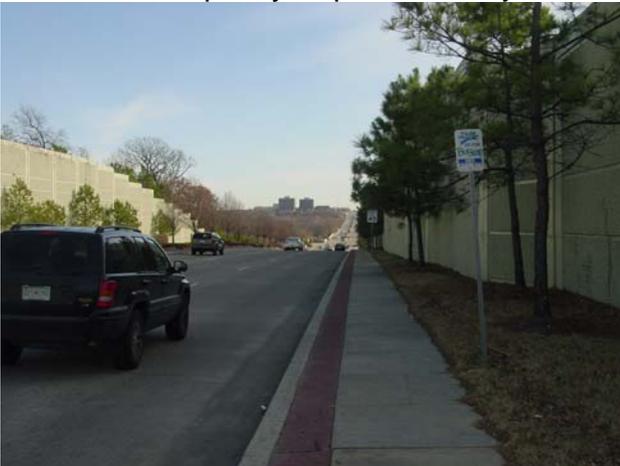
71st & Yale Intersection; Yale to Harvard



Riverside Parkway; 81st to 101st



71st Street Capacity Expansion Project



Harvard Ave. & 27th Street



41st & Riverside



## Monitoring update for 2005

<b>2005 TULSA OZONE</b>								
<b>Highest 8 Hour Averages</b>								
<b>Site</b>			<b>1st</b>	<b>2nd</b>	<b>3rd</b>	<b>4th</b>	<b>02-04 Avg*</b>	<b>03-05 Avg*</b>
02 4th	03 4th	04 4th	(date)	(date)	(date)	(date)	4th Highs	4th Highs
<b>Tulsa West</b> <small>(144)</small>			<b>0.096</b>	<b>0.086</b>	0.079	0.076		0.076
0.081	0.071		29-Jul	1-Sep	31-Aug	20-Jun		
<b>Tulsa East</b> <small>(178)</small>			<b>0.092</b>	0.084	0.082	0.081	0.079	0.079
0.080	0.084	0.073	21-Jun	15-Jun	6-Aug	29-Jul		
<b>Tulsa Central</b> <small>(1127)</small>			<b>0.091</b>	0.083	0.083	0.082	0.076	0.076
0.080	0.080	0.068	1-Sep	20-Jun	21-Jun	29-Jul		
<b>Tulsa North</b> <small>(137)</small>			<b>0.090</b>	<b>0.087</b>	<b>0.087</b>	0.083	0.079	0.079
0.083	0.083	0.071	8-Aug	22-Jun	2-Sep	20-Jun		
<b>Tulsa South</b> <small>(174)</small>			<b>0.085</b>	0.077	0.073	0.072	0.079	0.076
0.082	0.086	0.071	29-Jul	14-Jul	30-Aug	20-May		

\*0.085 or greater indicates exceedance of National Ambient Air Quality Standards