

Oklahoma City Air Logistic Center (OC-ALC)

VOC Abatement Advisory

Background:

At the June 1999 AFMC/CEVV Pollution Prevention PMR (Program Management review), the P2/IPT (Pollution Prevention Integrated Product Team) requested CTIO provide assistance to OC-ALC resulting from their request to Civil Engineering for \$60 million to construct a VOC abatement facility. This military contract request was prompted by the possibility of the Oklahoma Department of Environmental Quality (ODEQ) revising the ambient air quality standards to coincide with the Environmental Protection Agency's (EPA) modified ozone (emission) standard.

The central Oklahoma area, which includes OC-ALC, currently meets all National Ambient Air Quality Standards (NAAQS). Ozone emission is one of the NAAQS parameters. In July 1997, the EPA revised its ozone emission standard from a 1-hour average concentration of 0.12 PPM to an 8-hour average concentration of 0.08 PPM. This lowered concentration standard would re-designate several areas including the central Oklahoma area as non-attainment. As a result, the ODEQ would have to submit a revised State Implementation Plan (SIP) detailing measures to reduce emissions that are precursors to the formation of ground-level ozone. Volatile organic compounds (VOCs) are precursors to the complex atmospheric chemical reaction producing ozone. OC-ALC has identified four facilities (Buildings 2211, 2122, 2280, and 3225) as their significant sources of VOCs, all of which relate to their paint and depaint operations.

Currently, the EPA is prevented from taking any action with regard to the new ozone standard. Several business groups led by the American Trucking Associations petitioned the U.S. Court of Appeals in Washington D.C. to remand the EPA's new stringent standards, contending that the cost to meet these standards would exceed their benefit. In May 1999, the Appeals Court panel invalidated the standards stating that they found no "intelligible principle" guiding the EPA's decision as to how clean the air had to be in order to be judged healthy. Furthermore, the EPA's actions amounted to an "unconstitutional delegation of legislative power." However, the Court affirmed the long-standing principle that in setting and revising the NAAQS the EPA may not consider costs, technical feasibility or alleged effects from carrying out measures to attain the standards. An industry coalition has asked the U.S. Supreme Court to re-

examine the case arguing that the EPA should use some form of a cost-benefit analysis in setting the NAAQS. While the federal government has appealed to the U.S. Supreme Court to re-examine the case since the Appeals Court decision “calls into question the ability of administrative agencies to make the day-to-day decisions critical to protecting public health and safety.” In May 2000, the U.S. Supreme Court agreed to review the ruling of the U.S. Court of Appeals for the D.C. Circuit. A decision is not expected until late this year of 2001.

Regardless of the current legal issues and activities, it's prudent to examine the operational characteristics at OC-ALC and identify reasonably available control technologies (RACTs) meeting the stringent EPA standards with minimal cost and operational impact to OC-ALC.

Period of Performance: FY02

Objective:

CTIO will meet with OC-ALC production personnel, weapons system corrosion managers, production engineering, and bio-environmental personnel to provide advisory assistance to OC-ALC in determining the feasibility of implementing cost-effective alternative stripping methodologies to obviate the need to construct and implement expensive abatement facilities for current chemical stripping technologies.

The purpose of this project is to:

- Identify critical points in the depaint/paint operations at OC-ALC generating/contributing to the majority of emissions, specifically VOCs and HAPs
- Identify technologies, including materials, processes, equipment, to reduce these emissions.
- These technologies should be cost effective, and allow OC-ALC to meet or exceed current workload.

Status:

The approach will use a survey team of individuals knowledgeable in depaint technologies, OC-ALC paint removal requirements, environmental issues, aircraft structures, and corrosion. This team will travel to OC-ALC and meet with representatives representing all interested groups, including, but not necessarily limited to: production; weapons systems managers (with support staff as necessary);

production engineering; and bio/environmental personnel. During the visit, the team members will elicit information regarding:

Concerns each group has regarding the use of non-chemical depaint processes. The results of any evaluations of non-chemical depaint processes already conducted by OC-ALC engineering, production, bio/environmental and weapons systems staff in order to determine the basis for rejection of non-chemical depaint technologies.

The weapon specific production needs and requirements at OC-ALC for current and future depaint processes. These needs will also be aligned with bio-environmental needs and requirements, which will probably set boundaries on acceptable depaint technologies.

Date: Jan 01