

STATE OF COLORADO

Bill Ritter, Jr., Governor
Martha E. Rudolph, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

March 10, 2010

Sally Symanski, CPA
Office of the State Auditor
200 East 14th Avenue
Denver, CO 80203-2211

Subject: Status of Implementation of the Recommendations Set Forth in the Colorado
Automobile Inspection and Readjustment Program Performance Evaluation, Dated
September 2009

Dear Ms. Symanski:

In response to the Office of the State Auditor's letter dated February 17, 2010, attached is the Colorado Department of Public Health and Environment's (the department's) status report of our implementation of the recommendations, as set forth in the Colorado Automobile Inspection and Readjustment Program Performance Evaluation, dated September 2009.

The attached status report includes all of the auditor's recommendations to the department with our responses and implementation dates as presented in the audit report, together with the current implementation status of the auditor's recommendations.

Should you have any comments or questions regarding our responses, please contact Garry Kaufman, Manager of Mobile Sources at 303-692-3269 or our Internal Auditor, Scott Toland, at 303-692-2105.

Sincerely,

Martha E. Rudolph
Executive Director

Attachment

cc: Paul Tourangeau, Director, APCD, CDPHE
Chuck Bayard, Director, Administration and Financial Services Division (AFSD), CDPHE
Karin McGowan, Director, Policy and External Affairs, CDPHE
Garrison Kaufman, Program Manager, Mobile Sources, APCD, CDPHE
Douglas Lempke, Administrator, Air Quality Control Commission, CDPHE
Scott Toland, Internal Auditor, AFSD, CDPHE

**Colorado Automobile Inspection and Readjustment Program Performance Audit
Status Report
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Auditor Recommendation No. 1

The Colorado Department of Public Health and Environment should:

- a. Maintain the current AIR Program as laid out in the State's *Ozone Action Plan*, at least until Calendar Year 2010 when the Environmental Protection Agency makes a determination of whether the Program area is in compliance with the 85 parts per billion standard. The Department should also consider implementing enhancements to the AIR Program during this time to further reduce emissions and improve the effectiveness of the Program.
- b. Continue to analyze data on the cost-effectiveness of the AIR Program compared with other air pollution control strategies to identify the most cost effective set of control strategies in the longer term for the Program area to attain compliance with the 75 parts per billion ozone standard. If the Department determines that the AIR Program as currently designed is no longer needed as a control strategy, the Department should work with the Commission to evaluate whether the Program should be eliminated or modified and whether other strategies should be adopted. If the Department determines that the AIR Program is able to provide meaningful reductions in ozone levels, the Department should not only consider what other strategies could be adopted, but also what additional changes or enhancements could be made to the Program to further improve its effectiveness and, if possible, reduce costs.

Department of Public Health and Environment's Response to the Auditor

- a. Agree. Implementation date: Ongoing.
- b. Agree. Implementation date: Ongoing. In its efforts to reduce ambient levels of ozone and meet federal air quality standards, the Department will continue to identify, evaluate, select and implement the most cost-effective means of reducing ozone pre-cursor emissions. The Department recognizes, however, that achieving the 75 parts per billion standard presents a very significant challenge, requiring deep cuts in ozone precursor emissions, and that therefore the State may not have very much flexibility in choosing among cost-effective emission reduction strategies.

Implementation Status

- a. In progress. Expected implementation date: Ongoing. The Department will continue to operate the AIR Program through 2010. During this period, the Department will continue to evaluate possible enhancements to the program and propose appropriate regulatory changes to implement such enhancements.
- b. In progress. Expected implementation date: Ongoing. In its efforts to reduce ambient levels of ozone and meet federal air quality standards, the Department will continue to identify, evaluate, select and implement the most cost-effective means of reducing ozone pre-cursor emissions. The Department, working in conjunction with the Regional Air Quality Council and a private contractor is close to completing a study on the costs of potential fuels strategies, which in addition to work that has previously been completed will provide the basis for determining whether to adopt such strategies. The Department is also in the process of evaluating the costs and benefits from nitrogen oxide (NO_x)

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reduction strategies for electrical generating units. The Department recognizes, however, that achieving the 75 parts per billion standard presents a very significant challenge, requiring deep cuts in ozone precursor emissions, and that therefore the State may not have very much flexibility in choosing among cost-effective emission reduction strategies.

Auditor Recommendation No. 2

The Department of Public Health and Environment should seek to improve the Rapid Screen clean screen program by requesting that the Air Quality Control Commission add nitrogen oxides to the program's qualification criteria and updating the Low Emitter Index to include vehicles with a low probability of failing nitrogen oxides cutpoints. With this enhancement, the Department should continue to use Rapid Screen as a component of its AIR Program for identifying vehicles that meet emissions standards and thus, should be exempted from the traditional emissions test.

Department of Public Health and Environment's Response to the Auditor

Agree. Implementation date: April 2010.

Implementation Status

In progress. Expected implementation date: April 2010. The Department has developed a proposal to establish appropriate NOx cutpoints for the Clean Screen selection criteria and make corresponding changes to the Low Emitter Index. The Department is scheduled to make a Request for Hearing before the Air Quality Control Commission to adopt this proposal during the Commission's April meeting.

Auditor Recommendation No. 3

The Department of Public Health and Environment should discontinue the high emitter pilot study when the study is scheduled to terminate in early Calendar Year 2010. After completing the pilot study and as informed by the final analysis of that study, the Department should seek any appropriate and necessary amendments to House Bill 06-1302 to reflect the limitations of remote sensing technology.

Department of Public Health and Environment's Response to the Auditor

Agree. Implementation date: January 2011. Based on the Air Pollution Control Division pilot study to date and in light of the Denver Metropolitan Area's and North Front Range Area's ozone non-attainment status, replacement of the current AIR Program with a stand-alone remote sensing-based high emitter program does not appear to be a viable option. It appears that the emission reduction benefits from a stand-alone remote sensing-based high emitter program would be an order of magnitude less than the emission reduction benefits of the current AIR Program. The Department believes, however, that use of remote sensing devices to identify high emitting vehicles should be further evaluated as a potential supplement to the current program as a way to increase the emission reduction benefits and the cost effectiveness of the program at little or no additional testing cost. The Department anticipates completing the pilot program in early 2010, and then assessing what role, if any, remote sensing-based high emitter identification could play in the AIR Program no later than August, 2010. As informed by this assessment, the Department will work with stakeholders involved in the implementation and assessment of

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HB06-1302 including the Air Quality Control Commission and the Transportation and Legislative Review Committee, to identify appropriate changes, as may be necessary, that reflect the limitations on the use of remote sensing technology for effective high emitter identification and move forward to propose any needed amendments to HB06-1302.

Implementation Status

In progress. Expected implementation date: January 2011. The Department discontinued high emitter notifications in December 2009. The Department is in the process of analyzing the 2009 data from the study and is on target to make recommendations regarding the future use of remote sensing technology to identify high emitting vehicles by the fall of 2010.

Auditor Recommendation No. 4

The Department of Public Health and Environment should consider incorporating on-board diagnostic system testing, utilizing specific emissions-related diagnostic trouble codes, into the current AIR Program as an enhancement to the traditional emissions test.

Department of Public Health and Environment's Response to the Auditor

Agrec. Implementation date: June 2010.

Implementation Status

In progress. Expected implementation date: June 2010. The Department is developing a study protocol to analyze the use of on-board diagnostics (OBD) including utilizing specific diagnostic trouble codes as an enhancement to the traditional emissions test. The study protocol is close to complete, and the Department anticipates that the study will commence on or before June 2010.

Auditor Recommendation No. 5

The Department of Public Health and Environment should continue to analyze other air pollution control strategies as alternatives to the current AIR Program to help further reduce ozone levels in the Program area. These strategies could include implementing controls on non-road vehicles and electrical generating units, eliminating the ethanol waiver, and identifying vehicles with excessive evaporative emissions. The Department should continue to work with stakeholders and the Air Quality Control Commission to develop a cost effective package of control measures to achieve attainment of the 75 parts per billion ozone standard.

Department of Public Health and Environment's Response to the Auditor

Agree. Implementation date: Ongoing. Reducing ambient levels of ozone in the Denver Metropolitan Area has been and continues to be one of the Department's most important air quality goals. Since the early 2000's the Department has actively considered a myriad of air pollution control strategies designed to reduce ozone concentrations. As part of these efforts, the Department has proposed, and the Air Quality Control Commission has adopted, regulatory programs that have reduced ozone precursor emissions by hundreds of tons per day. While the Department and the Air Quality Control Commission have achieved great success in lowering ozone precursor emissions over the past several years, during this time period EPA has lowered the national ozone standard to 75 part per billion, and is currently considering lowering the

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standard even further. In response to these additional challenges, the Department is actively evaluating the additional emission reduction strategies identified by the auditor, and is working to further develop and refine its understanding of the associated costs, benefits and implementation issues associated with these strategies. As part of this analysis, the Department will consider any legal barriers to enacting any of these strategies, such as federal preemption requirements that might bar State action, notwithstanding the fact that the strategy may be a cost-effective method to reduce ozone. The Department is also considering other potential strategies that include several alternative methods to reduce gasoline volatility and thereby reduce volatile organic compound (VOC) emissions from vehicles, nitrogen oxide (NO_x) emission reductions from large industrial sources, more stringent controls on VOC and NO_x sources at oil and gas exploration and production facilities, VOC controls at gas stations, and vehicle miles traveled (VMT) reduction strategies. Achieving the 75 parts per billion ozone standard presents a very significant challenge requiring significant reductions in ozone precursor emissions. If EPA further lowers the ozone standard, additional dramatic emission reductions will be required. Accordingly, while the Department will strive to adopt the most cost-effective package of emission control strategies possible, given the significance of the challenge in meeting a 75 parts per billion or even lower standard, the State may not have very much flexibility in choosing among cost-effective emission reduction strategies.

Implementation Status

In progress. Expected implementation date: Ongoing. In its efforts to reduce ambient levels of ozone and meet federal air quality standards, the Department will continue to identify, evaluate, select and implement the most cost-effective means of reducing ozone precursor emissions. The Department, working in conjunction with the Regional Air Quality Council and a private contractor is close to completing a study on the costs of potential fuels strategies, which in addition to work that has previously been completed will provide the basis for determining whether to adopt such strategies. The Department is also in the process of evaluating the costs and benefits from NO_x reduction strategies for electrical generating units. The Department recognizes, however, that achieving the 75 parts per billion standard presents a very significant challenge, requiring deep cuts in ozone precursor emissions, and that therefore the State may not have very much flexibility in choosing among cost-effective emission reduction strategies.