

**Carl Moyer Air Quality Standards Attainment Program  
Audit Report**

**Butte County Air Quality Management District  
Fiscal Years 2002/2003 and 2003/2004**

**Prepared by:  
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Attachment 1: List of Projects Reviewed

## Executive Summary

The Carl Moyer Air Quality Standards Attainment Program (“Carl Moyer Program” or “Program”) is a voluntary grant program that funds the extra capital cost of cleaner than required vehicles and equipment in order to reduce air pollution. The Carl Moyer Program is implemented through a partnership between the Air Resources Board (ARB or the Board) and the 35 local air districts. The ARB distributes state funds to local districts, develops statewide guidelines, and has oversight responsibility. The air districts select and pay for clean air projects in their local areas that meet the requirements of the Health and Safety Code and the statewide Program guidelines. Districts also provide resources to administer the Program, and in some cases, local match funds.

The Butte County Air Quality Management District (BCAQMD or “District”) is responsible for air quality in Butte County. Butte County’s air quality does not meet federal or California health-based standards for ozone (smog), nor does it meet California standards for particulate matter. Emission reductions from the Carl Moyer Program will be reflected in the region’s federally required State Implementation Plan – a road map for describing how the region will achieve healthful air.

The BCAQMD has participated in the Carl Moyer Program since the second year (fiscal year 1999-2000). Over the past seven years, ARB has provided the District with over \$900,000 in Carl Moyer Program funds. The BCAQMD has contributed staff resources and leveraged the state dollars with over \$100,000 in local funds. The majority of the District’s Carl Moyer Program funds have been used to pay for new replacement engines for agricultural pumps.

To date, all of the Carl Moyer Program funds from Years 2 through 7 have been obligated (promised to projects by contract). The Carl Moyer Program funds from Years 2 through 6 have been expended on projects and have funded 63 cleaner engines, reducing smog-forming nitrogen oxides (NO<sub>x</sub>) emissions by over 300 tons and diesel particulate matter (PM) by 17.3 tons over the life of the projects with an average cost-effectiveness of about \$3,100 per ton of NO<sub>x</sub>.

As part of ARB’s oversight authority, ARB staff audited the BCAQMD’s implementation of the Carl Moyer Program to ensure compliance with state law and ARB’s applicable Program guidelines. The audit focused on the 2002/2003 and 2003/2004 fiscal year funds (Years 5 and 6, respectively). ARB staff also reviewed the District’s implementation of fiscal year 2004/2005 and 2005/2006 (Years 7 and 8, respectively) funds to determine whether the District is complying with the requirements of the expanded program and the 2005 Carl Moyer Program Guidelines approved by the Board in November 2005.

The audit found that the District implements a highly effective and efficient Carl Moyer Program that meets almost all of the requirements of the Health and Safety Code and the applicable Carl Moyer Program Guidelines. As a result of the audit, ARB

is making three findings that require action from the District. These findings are limited to administrative issues. All projects reviewed during the audit met eligibility requirements and achieved real emission reductions in a timely manner.

The District has demonstrated commitment to the Program through many years of participation. BCAQMD has developed a number of exemplary administrative practices to facilitate project implementation. Additionally, the District implemented program requirements to help ensure emission reductions are real prior to their inclusion in the 2005 Guidelines such as project post-inspection and scrapping of the old engine. The District also serves as a resource to other rural districts for Carl Moyer Program implementation.

## I. Background

The Carl Moyer Program is a grant program that funds the incremental cost of cleaner-than-required engines, equipment, and other sources of pollution, providing early or extra emission reductions. The Carl Moyer Program can also accelerate the development and commercialization of advanced emission control technology, accelerate the turnover rate of old equipment to newer and cleaner equipment, and help reduce costs to the regulated community. The Carl Moyer Program is implemented by a partnership of ARB and local air districts. The local districts have the responsibility of implementing the local Carl Moyer Program by soliciting applicants and selecting, funding, and monitoring projects, while the ARB has the responsibility of overseeing the statewide program to ensure funds are expended as required by the Health and Safety Code and the Carl Moyer Program Guidelines ([www.arb.ca.gov/msprog/moyer/guidelines/current.htm](http://www.arb.ca.gov/msprog/moyer/guidelines/current.htm)). ARB has the authority to audit each district's implementation of its local Carl Moyer Program to ensure funds are expended as required. In addition, the audits provide ARB with a mechanism for identifying potential improvements to the statewide program.

The ARB's audit of the BCAQMD's Carl Moyer Program satisfies the requirements of Health and Safety Code section 44291 with regard to ARB's audit responsibilities. This audit focuses on Year 5 and Year 6 projects that the District paid for with Proposition 40 funds, California's Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act (Public Resources Code section 5096.650). ARB reviewed the District's program for Years 5 and 6 to determine if the District followed the Health and Safety Code as well as the 2003 Carl Moyer Program Guidelines, the required guidelines for these two program years.

This audit also reviewed the status of the District's implementation of Year 7 and Year 8 funds. These years mark the expansion of the Carl Moyer Program, when SB 1107 and AB 923 went into effect and the Program experienced a significant influx of funding. Although Years 7 and 8 funds are not required to be fully expended until June 30, 2007 and June 30, 2008, respectively, ARB staff reviewed the implementation of these funds to evaluate the impacts of the expanded program and the 2005 Carl Moyer Program Guidelines.

Staff from both the ARB and BCAQMD participated in this audit. The ARB audit team included ARB management - Jack Kitowski and Edie Chang - and ARB's Carl Moyer Program staff – Elise Keddie (district liaison to BCAQMD) and Bruce Tuter. The ARB audit team wishes to thank the participating BCAQMD management and staff – Jim Wagoner, Gail Williams (Carl Moyer Program Manager), Robyn Sousa, Aleah Ing, and Patricia Cummings.

## II. Audit Procedure

ARB's audit of BCAQMD's Carl Moyer Program was conducted in two phases: 1) a desk review and 2) an on-site review. The desk review began on August 18, 2006 and the on-site review began on September 11, 2006.

The desk review included a review of the District's application, contract language, outreach, and selection process of projects for Years 5 and 6. During the desk review ARB staff also analyzed the District's implementation of the expanded Carl Moyer Program by reviewing the same documents for Years 7 and 8. The following documents were reviewed to determine if the District is following the new administrative procedures with its Year 8 funds as required in the 2005 Carl Moyer Program Guidelines:

- District Application
- Boiler Plate Contract Language for Year 8 projects

The desk review also included selecting a sample of Carl Moyer Program projects for the file review that would take place as part of the on-site review. The sample was taken from projects that were paid for with state funds and included:

- Two Year 5 projects representing projects in the agricultural pump source category.
- Two Year 6 projects representing projects in the agricultural pump source category.

While at the District's office, ARB staff randomly selected three additional projects: one to verify that the District's files were maintained consistently, one to evaluate the district's implementation of Year 7 funds, and one Year 8 project to assess the District's implementation of the additional requirements in the 2005 Carl Moyer Program Guidelines.

The ARB audit team completed a review of the program and fiscal files for these seven projects. Field visits were only conducted for the four originally selected projects. To provide District staff with sufficient time to set up the field visits, ARB staff notified District staff of the four originally selected projects on August 31, 2006. Attachment 1 contains a list of the sampled projects reviewed.

During the on-site review, the ARB audit team also reviewed fiscal files to document the District's practices for processing payments and for tracking and expenditure of earned interest and administrative funds.

The results of this audit are presented below. Section III provides a description of the BCAQMD's implementation of the Carl Moyer Program. Section IV includes a description of the District's commendable efforts. Section V outlines recommended program improvements for the District's continued success. Section VI provides the

findings, conditions and required actions based on the ARB audit team's review of the District's files and project site visits. "Findings" are brief descriptions of practices that are inconsistent with state requirements under the Carl Moyer Program Guidelines and/or the District's written policies and procedures, including its contract with the engine owners. "Conditions" are more detailed descriptions of the practices the ARB audit team observed during the audit period. "Required Actions" are the minimum actions the District must take to remedy the findings. The District must respond to the findings detailed in Section VI within 30 days of notification, but may respond to any recommendation provided in this report.

### **III. BCAQMD's Implementation of the Carl Moyer Program**

The BCAQMD solicits participation in the Carl Moyer Program through outreach directly to applicants. The District notifies potential applicants of funding availability through the District quarterly newsletter, "The Stratus Status", posting information and application material on the District's website, newspaper advertising, and a direct mailing to a district list including recipients of district permits and past Program participants.

The District administers the program through an annual Request for Proposals (RFP). The RFP includes a release date and deadline for proposals. The applications are checked for completeness when they are received. Eligible projects are ranked and selected by cost-effectiveness for NOx reductions. Cost-effectiveness for combustion PM reductions is used as a secondary determinant if needed. Prior to Year 8, the selected projects were approved by the BCAQMD Board. In Year 8, the BCAQMD Board granted authorization to the District Air Pollution Control Officer for project approval. The BCAQMD Board continues to approve each year's application process.

A project may begin after the contract is signed. The engine owner contacts BCAQMD after engine installation to schedule a project inspection. Following the inspection, the owner submits an invoice to the District for reimbursement. District program staff approves the request for payment and forwards the invoice to District fiscal staff. The invoice is also reviewed by District administrative staff before a check is prepared and signed by the Air Pollution Control Officer.

The District requires engine usage information on an annual basis until the end of the contract term. A letter and reporting form are mailed to participants in July, and followed by a phone call reminder. The District has extended contract terms in a few cases due to reductions in operating hours. The additional contract length ensures that the emission reductions originally projected will be achieved.

In the 2005 Carl Moyer Program Guidelines, ARB strongly encourages districts' solicitations of Year 8 and future funds to expand and document outreach to and obligation to zero-emission, small business, and environmental justice projects. BCAQMD staff has conducted outreach to small businesses through the District's Agriculture Outreach Committee and Butte County Farm Bureau events. The District also works directly with small business applicants. BCAQMD staff participated in

workshops promoting Pacific Gas and Electric's electric rate incentive program. The district has six agricultural electric motor projects under contract with Years 7 and 8 funds and three additional electric motor projects in process. ARB encourages the District to include these efforts in the District's policies and procedures manual as well as to document the efforts in its program files each fiscal year.

For Years 2 through 6, the BCAQMD funded 63 engines, utilizing over \$500,000 of Carl Moyer Program funding. The ARB estimates these projects will reduce NOx emissions by 303 tons and PM by 17.3 tons over the life of the projects. The District provided match funds of over \$100,000 for Years 2 through 4. Through Year 8, the BCAQMD has been allocated a total of \$929,592 in Carl Moyer Program funds. The majority of funds have been spent on stationary agricultural pump engines; a few on-road and off-road engine projects have also been funded. ARB encourages the District to pursue new project areas as regulations may impact the District's future ability to fund current project categories.

#### **IV. Commendable Efforts**

The commendable efforts included in this section are noteworthy accomplishments by the District. Commendable efforts are exceptional practices that should serve as a statewide model for the Carl Moyer Program.

##### **A. Quality Assurance/ Quality Control**

BCAQMD has developed a number of exceptional practices to ensure contracts and invoices are processed in a timely manner. The District uses a contract signature tracking sheet which follows the contract from initiation through signing and filing. Four District staff review the contract during this process: the Air Pollution Control Officer, the Administrative Analyst, the Contracts and Records Management Coordinator, and the Moyer Program Manager. The Records Management Coordinator also maintains a contract log of all District contracts and tracks the status of each contract. Invoices are reviewed by the Moyer Program Manager and the Administrative Analyst before payment. Carl Moyer Program fiscal information is maintained in an electronic database with regularly updated printouts available in a binder. The Moyer Program Manager and District fiscal staff meet every few months to reconcile the status of all outstanding projects.

The District also implemented program enhancements prior to the requirements in the 2005 Carl Moyer Program Guidelines. To ensure that the emission reductions obtained were real, District staff verified project installation and old engine removal from service through a site visit and photo documentation. In addition, BCAQMD required participants to submit annual usage reports.

ARB encourages the District to include these practices in the District's policies and procedures manual.

**B. Timely Obligation and Expenditure**

Local air districts are required to obligate their funds to projects by June 30 of the first year after they receive funds from ARB and expend funds by June 30 of the second year. BCAQMD has generally obligated and expended funds within twelve months of receiving funds from ARB. For Years 5 and 6, projects were selected (funds obligated) and contracts were executed within six months of the close of the RFP. Projects were completed and invoices paid within the following six months. To date, the District has obligated all of its Year 7 Carl Moyer Program funds as required; Year 8 funds are almost fully obligated over eight months early.

**C. Timely Reporting**

BCAQMD is very responsive in meeting all deadlines for reports to ARB. Local air districts are required to submit annual reports to ARB to show obligation of funds to projects by June 30 of the first year and final reports that show expenditure by June 30 of the second year. The District submits annual and final reports on time, and includes all supplemental materials requested (supporting spreadsheets and contracts). The District also submits project information as requested with disbursement requests.

**D. Documentation in Files**

BCAQMD maintains exceptional project files. During the audit, all information was easy to locate in the project file or corresponding funding cycle file. Documents in the project file included the application, signed contract with contract signature tracking sheet, post-installation photos, invoice, request for payment, copy of issued check, and annual usage reports. Documents in the funding cycle file included the RFP announcement, cost-effectiveness ranking of all proposed projects, Board approval documents, and reports to ARB. ARB encourages the District to include these practices in the District's policies and procedures manual.

**E. Tracking of Interest**

BCAQMD maintains its bank accounts separate from the County of Butte. The use of a separate Carl Moyer Program account facilitates tracking of administrative funds and interest. Carl Moyer Program funds are deposited into the Carl Moyer Program account. Administrative funds are then transferred from this account to the General account. Accrued interest is easily identified on monthly account statements.

**F. Responsiveness to Audit**

During the period of this audit, BCAQMD staff provided all requested materials in a timely manner and were readily available to address issues identified by ARB staff. Because of this responsiveness, items in the findings section include information on changes the District is in the process of implementing.

## **V. Recommendations for Future Program Improvement**

BCAQMD should consider improving the current implementation of the Carl Moyer Program as indicated below. These improvements are required starting with Year 8 funds as noted in the corresponding 2005 Guidelines sections which are cited in parenthesis. These recommendations do not require a response from the District, although the District may comment on the recommendations in the District's written response.

### **A. Invoicing Prior to Contract Execution**

During the audit, ARB noted two project files where the itemized invoice was dated prior to full contract execution. Beginning with Year 8, districts are required to include language in their contracts requiring that no work may begin on a project until the contract is fully executed (section VII.B.1). However, this was not prohibited in Years 5 and 6. ARB recommends that for future projects the District integrate sufficient checks to ensure that work has not begun prior to contract execution.

### **B. Itemized Invoices**

The District receives itemized invoices with the request for payment from participants. It is unclear which items on the invoice the District pays for with Carl Moyer Program funds and which are the responsibility of the applicant. ARB recommends that the District include a clear delineation of the costs reimbursed with Moyer funds and include the process for making this delineation in its policies and procedures manual.

## **VI. Findings, Conditions and Required Actions**

This section specifies findings, conditions and required actions as a result of ARB's review of BCAQMD's Carl Moyer Program. "Findings" are brief descriptions of practices that are inconsistent with state requirements under the Carl Moyer Program Guidelines and/or the District's written policies and procedures, including its contract with the engine owners. "Conditions" are more detailed descriptions of the practices the ARB audit team observed during the audit period. "Required Actions" are the minimum actions the District must take to remedy the findings. The District must provide ARB with a written response to required actions by submitting a plan to remedy the respective findings listed below or will be "at-risk" as defined in section XI.B. of the Guidelines. The District's written response must be submitted to ARB within 30 days of notification of the findings.

### **Finding 1: No documentation of notification of an incomplete application**

Condition: In files with incomplete applications, there was no documentation of the District informing the applicants that their applications were incomplete. The notification of an incomplete application must be dated within five days of receipt of the application [Health and Safety Code section 44288(a)].

Required

Actions: The District must include documentation in the hard copy project file of actions taken to notify an engine owner that his/her application is incomplete. The District has indicated that it will document notification to applicants in the future. According to the 2005 Carl Moyer Program Guidelines, this notification must be in writing (section V.D.1) and must clearly state what is required to make the application complete.

**Finding 2: Minimum contract requirements for projects funded with Year 8 funds were not included in the District's Year 8 contract**

Condition: The contract language (between the District and engine owners) used to obligate Year 8 funds does not include a number of the minimum requirements outlined in the 2005 Carl Moyer Program Guidelines. The specific requirements that were not included in the boilerplate contract are outlined below with the Guideline citations in parenthesis.

- A statement that that no work may begin until the contract is fully executed (section VIII.B.1.)
- Specifying project life (number of years of surplus emission reductions) (section VIII.B.2.)
- Payment terms requiring itemized invoices must be received prior to district payment (section VIII.C.2.)
- A disclosure of funds statement for the owner to sign or initial (section VIII.C.3.)
- Performance requirements must state annual requirements within California or the district (section VIII.F.)
- A statement allowing the district or ARB to fine the owner or seek other remedies under the law for noncompliance (section VIII.G.)
- A statement requiring retention of records for three years after the term of the contract (section VIII.J.)

Required

Actions: Revise contract language: BCAQMD must revise its current boilerplate contract used to obligate the Year 8 Carl Moyer Program funds to include all of the minimum requirements in the 2005 Guidelines. The District must submit a revised copy of the boilerplate contract to the ARB. The District has agreed to amend its boilerplate contract language on future contracts.

Ensure current Year 8 contracts are enforceable for all 2005 Guidelines requirements: The most straightforward method of ensuring enforceability is through contract amendment. The District believes that the minimum requirements are incorporated in its existing Year 8 contract and that the 2005 Carl Moyer Program Guidelines may be enforced through the existing Year 8 contract. The District must confirm with its legal counsel that the minimum requirements in the 2005 Guidelines can be enforced

through the existing Year 8 contract. The District's written response must include a copy of this legal opinion.

If legal counsel determines that the minimum requirements can not be enforced through the existing contract, BCAQMD must amend the Year 8 contracts that have already been executed to include all of the minimum requirements, and provide ARB with a timeline for including the minimum requirements in every Year 8 contract. Upon completion, the District should provide the ARB with written notification of completion.

**Finding 3: Minimum application requirements were missing from Year 8 applications**

Condition: The District's Year 8 application was missing some items required in the minimum application requirements of each source category in the 2005 Carl Moyer Program Guidelines. These items include, but are not limited to, percent operation in California, ARB Executive order number or engine family, project life, name of person filling out application, and several items specific to particular source categories.

**Required**

Action: ARB is requiring the District incorporate the following items on its application:

- Percent operation in California
- Name of person who filled out application
- Signed disclosure statement that the project has not been funded or is being considered for funding by another air district, ARB, or another agency
- Separate section for retrofit projects
- For electric agricultural pump projects: Applicant participating in the Ag ICE program and/or currently under Moyer contract

In addition, ARB is requiring that the District have available in its hard copy project files all information requested in the specific minimum application requirements for each source category. The District has agreed to revise its application to incorporate the required items.

**ATTACHMENT 1**

**Butte County Air Quality Management District  
2006 Carl Moyer Program Audit**

**List of Projects Reviewed**

| <b>Contract Number</b> | <b>Project Name</b>                 | <b>Source Category</b> | <b>File Review</b> | <b>Site Visit</b> |
|------------------------|-------------------------------------|------------------------|--------------------|-------------------|
| <b>Year 5</b>          |                                     |                        |                    |                   |
| 3172.03.1              | Davit Dayton Rice Partnership       | Ag pump                | X                  | X                 |
| 3172.03.10             | Jacob Konym                         | Ag pump                | X                  | X                 |
| <b>Year 6</b>          |                                     |                        |                    |                   |
| GCM2004-4              | Ed McLaughlin                       | Ag pump                | X                  | X                 |
| GCM2004-8              | Robert Belden                       | Ag pump                | X                  | X                 |
| GCM2004-9              | Starkey Ranch                       | Ag pump                | X                  |                   |
| <b>Year 7</b>          |                                     |                        |                    |                   |
| GCM7-2004-1            | Gary Justeson                       | Ag pump                | X                  |                   |
| <b>Year 8</b>          |                                     |                        |                    |                   |
| 3172-05.19             | Pantaleoni Fruit & Nut Harvesting 2 | Off-road               | X                  |                   |