California Environmental Protection Agency
AIR RESOURCES BOARD

Colusa County Air Pollution Control District Program Review

Report of Findings and Recommendations

Prepared by the
California Air Resources Board
Stationary Source Division
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ACKNOWLEDGMENT

The findings and recommendations contained in this report were developed based on a review of office programs and field inspections. In conducting the program evaluation, Colusa County Air Pollution Control District (District) staff assisted the Air Resources Board (ARB) staff through interviews and file reviews in addition to performing their normal duties. We acknowledge the professionalism and cooperation of the District staff and management.

We also express thanks to the management and staff of the facilities we inspected as part of the program evaluation. Staff of all facilities were patient and accommodating during our field inspections.

This report covers many program areas and was made possible by the assistance and support of ARB staff from the Enforcement Division, the Planning and Technical Support Division, and the Monitoring and Laboratory Division.

Colusa County Air Pollution Control District Program Review

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Colusa County Air Pollution Control District Program Review

REPORT OF FINDINGS AND RECOMMENDATIONS

Introduction

Air pollution control and air quality management district (district) program reviews are conducted as part of the Air Resources Board's (ARB) oversight role of the districts in California. The reviews are conducted in accordance with section 41500 of the Health and Safety Code (HSC). The purpose of district program reviews is to evaluate the effectiveness of a district's air quality program. Findings and recommendations specific to each program area reviewed are included in the report.

From May through August 2005, ARB staff conducted a review of the Colusa County Air Pollution Control District's (District) air quality program. This is the only comprehensive review ever done by ARB staff of the District. As part of this review, ARB staff evaluated the District's compliance, permitting, rule development, AB 2588 "Hot Spots," and emissions inventory programs. Staff from four ARB divisions participated in this effort.

The review activity commenced with an entrance conference held in Chico on May 4, 2005. ARB staff presented an outline of proposed review activities that covered the scope, method and content of the program evaluation, general logistics, and time lines related to this effort. Following the entrance conference, staff initiated a review of the program areas identified above in May 2005, with the major field inspection activity finishing by August 2005. Staff examined files and records, interviewed District staff and management, and conducted inspections of permitted sources. Findings and recommendations presented in this report are based on the information gathered from this effort.

District Information

The District's jurisdiction is coincident with the area contained in Colusa County, encompassing approximately 1,150 square miles. Colusa County's population has grown in recent years, increasing from approximately 16,300 in 1990 to an estimated 20,900 in 2005. In 1990, approximately 531,000 vehicle-miles were traveled each day within the District's boundaries. In 2005, an estimated 636,000 vehicle-miles were driven daily.[1]

The District maintains its office in Colusa. The Air Pollution Control Officer (APCO) is also Colusa County's agricultural commissioner and administrates the migrant housing program. As of May 2005, the District was staffed by two full-time positions: a Deputy APCO and an Air Pollution Standards Officer. In

[1] The California Almanac of Emissions and Air Quality, 2006 Edition.

addition, two county office staff assist the District on a part-time basis. The District has approximately 245 permitted facilities, including five Title V/major sources. Agricultural and open burning operations constitute an important emissions source in the District. It is our finding that the District has an extensive workload for its relatively small staff.

Attainment Status

Ozone

Colusa County is designated as unclassified/attainment for the federal 8-hour ozone standard, with no recorded days exceeding the federal 8-hour standard in 2005 and 2006.

Colusa County is a nonattainment-transitional area for the State ozone standards. State air quality standards are more health protective than the federal standards.[2] Colusa County did not have any recorded days that exceeded the State 1-hour ozone standard in 2005 or 2006. Preliminary data indicate that two days exceeded the State 8-hour ozone standard in 2006.

Particulate Matter

Particulate matter consists of a mixture of fine airborne solid particles and liquid droplets (aerosols). The size of particulate matter can vary from coarse wind blown dust particles to fine particles directly emitted or formed from chemical reactions occurring in the atmosphere. Federal and State particulate matter standards focus on PM10 and PM2.5. PM10 comprises particles with an aerodynamic diameter less than or equal to 10 microns, while PM2.5 are particles less than or equal to 2.5 microns in aerodynamic diameter.

The federal 1990 Clean Air Act Amendments established air quality standards for PM10 that consist of a 24-hour standard and an annual standard. In 2004, U.S. EPA published final designations for the federal PM2.5 standards. Colusa County is designated as a federal unclassified/attainment area for both PM10 and PM2.5. However, Colusa County is designated as a nonattainment area for the State PM10 standards and the State PM2.5 standard. As with ozone, the State air quality standards for particulate matter are more health protective than the federal standards.

Overall Findings

This section summarizes the main findings of the program review.

[2] ARB approved a new State 8-hour ozone standard in April 2005, with special consideration for children's health. The State 1-hour ozone standard is retained.

The District adequately administers its agricultural burning and open (nonagricultural) burning program. However, substantial improvement is needed in all other program areas. An evaluation of the District's programs showed the need for additional staff resources. At a minimum, one additional staff person is required to ease the workload in program areas such as compliance, permitting, emissions inventory, and rule development. The District can also request assistance from ARB and other Sacramento Valley air districts to accomplish tasks related to inspection backlog, permit processing, rule development, and institution of policies and procedures.

The District needs to have written policies and procedures for all program areas. Also, District actions should be documented in the form of activity logs and written reports. Better documentation and tracking is needed to adequately administer the inspection, complaint, and equipment breakdown reporting programs. The District's lack of documentation made it difficult for ARB staff to review individual program areas. For example, it was not possible to determine if inspection results were followed through, if all air quality complaints were addressed, and if all equipment breakdown reports were evaluated.

With respect to its source inspection program, the District is currently unable to inspect all of its permitted sources annually. For example, one major source by the District's definition (hexane emissions at this source exceed ten tons per year) was not inspected in either 2003 or 2004. Another major source, operating under a Title V permit, was not inspected in 2003. As resources allow, the District should strive for annual inspections at all permitted sources and quarterly inspections of major sources.

The District does not always take appropriate enforcement action for violations of District rules or permit conditions. Only two notices of violation (NOV) were issued as the result of stationary source inspections in 2003 and 2004, which is atypical considering that the District has about 245 permitted sources operating in its jurisdiction. We believe that these two NOVs do not accurately reflect the actual noncompliance at permitted sources. For example, the District has not issued NOVs for emission-related violations at Wadham Energy. The source failed an emissions test for SO_2 on November 20, 2003. The source then passed a retest on January 9, 2004. Wadham Energy also failed an emissions test for CO on May 20, 2005. The source then passed a retest on June 24, 2005. The District did not issue NOVs for either of these failed tests and no variance was obtained. As another example, Adams Specialty Oils was required by its District permit to submit a Title V application by June 2000. This facility has not complied and no enforcement action has been taken.

The District has a practice of not issuing NOVs to gasoline stations. District files contain several examples of inspection reports where Title 17 violations (torn hoses) were noted, but the District did not issue an NOV or tag the hoses out-of-order. Also, during the joint inspections, multiple Title 17 defects were observed

at one facility (four torn hoses and a hose dragging the ground). The District tagged the torn hoses out-of-order, but did not issue an NOV. The District should issue an NOV for all emission-related violations. The District needs to adopt a policy document to guide inspectors for issues such as determining which violations qualify as emission-related. The District should also participate in ARB inspection training courses in order to ensure air quality violations are cited and followed through. The District could refer to Sacramento Metropolitan Air Quality Management District and Shasta County Air Quality Management District (among others) for examples of documents that could be used to develop its compliance policies and procedures.

With regard to the District's mutual settlement compliance program, the District should adopt a mutual settlement policy document and an associated penalty matrix based on the "relevant circumstances" the District must consider as cited in the Health and Safety Code. Case files should contain an explanation of why an NOV is not pursued for mutual settlement, if applicable. Moreover, the District should reduce the number of cases that are settled for zero penalty amounts. During the review period, 58 percent of the cases were not pursued or did not result in a penalty amount. The District should strive to bring this number down to about 10 percent.

In the area of air quality complaints, the District needs to develop guidelines, log all complaints reported to the District, document investigations of incoming complaints, and provide feedback to the complainants of the results of the investigations. In the absence of a complaint log, ARB staff could not determine the overall number of complaints received or their ultimate disposition.

The District's compliance equipment breakdown program should have a policy that requires stationary sources provide the District with a detailed written report of every breakdown incident. Each breakdown should be analyzed by the District through an onsite investigation or other alternate means. The District's analysis should clearly state the reasons for either denying a breakdown or providing relief. ARB staff could not find any written reports containing the District's analysis of the breakdowns reported to the District in 2003 or 2004.

The District has two facilities equipped with continuous emission monitors. The District enforces applicable rules and permit conditions pertaining to continuous emission monitors. The District's facility permits include source testing requirements. ARB staff found the District does not always issue an NOV whenever a facility fails a source test.

The District does not meet the requirements of the Full Compliance Evaluation Program and the High Priority Violation Program. ARB staff would support a District request to U.S. EPA for funds to improve the District's capability to track AFS required reporting elements with its databases. This improvement would help the District more effectively meet the required reporting timeframe for the

five facilities it is required to submit data, and reduce the resource drain on the District.

When a violation occurs and the source cannot come into compliance immediately, then it must seek protection under the District's variance program. ARB staff found that the District did not have an established variance program. The District lacked the necessary variance documents that should be available in all districts. There was no District variance activity during 2003 and 2004. At the time of the review, a hearing board had recently been reappointed after a three-year hiatus. The District should have the tools available to offer assistance regarding variances to sources that are in need of interim operating limits. ARB staff offers variance workshops that are designed to train district staff, hearing board members and clerks on the variance process and the HSC requirements pertaining to variances, abatement orders, and the factors contributing to an effective district variance program.

The District adequately administers and has a comprehensive set of rules for its agricultural and open burning program. However, ARB staff found that several of these rules were inconsistent with the Smoke Management Guidelines in Title 17, and with the nonagricultural and agricultural burning rules in the HSC. Rule 6.17, Range Improvement Burning, states that burning may be conducted on a no-burn day if 50 percent of the land has been brush treated. This provision was eliminated from state law with the adoption of the Smoke Management Guidelines, and therefore, it must be removed from the District Rule. Rule 6.9, Ignition Hours, specifies the burn hours that are inconsistent with the Smoke Management Guidelines. The District had not been providing ARB with the most recent amended Rule 4.11, Agricultural and Open Burning Fees. The District amended the rule with increased fees and modified fee categories in 2004, but the District last provided ARB an amended Rule 4.11 in 1999.

With respect to its permitting program, the District had a backlog of 12 enhanced vapor recovery projects for gasoline dispensing facilities at the time of the review. Two of the District's major sources, Wadham Energy and Adams Specialty Oils, have not been issued Title V permits. The District has one staff person to handle the District's relatively large and increasing permitting workload. Additional resources are necessary to manage the permitting workload.

The District did not have a log of the permit applications received and was not meeting its timeline requirements outlined in its new source review rule. The District did not have any established permitting policies and procedures. ARB staff could not find any complete engineering evaluations or BACT determinations in the District's files. The District should consider referring to websites maintained by other districts to obtain example policies, forms, and evaluation templates that can be adapted for use by the District.

The District has not always been issuing authorities to construct in accordance with District rules. Files showed that the District had given approval for projects long after construction had begun, and in others, the District never signed its application for authority to construct to approve the projects. Clearly, there is a need for the District to receive training to develop a comprehensive permitting program, and the District staff indicated they have not received this training. The District should consider participating in ARB's "California Air Pollution Control Officers Association (CAPCOA) Permitting Staff Development Workshop."

In the area of prohibitory rules, the District has an established rule review process that includes workshops to discuss proposed or revised rules and an opportunity to receive public comments by interested parties. However, the District is behind schedule in adopting new rule categories as committed to in the Sacramento Valley Basinwide Air Pollution Control Council endorsed Air Quality Attainment Plan. The District should also amend its breakdown rule (Rule 1.13) to include the issues that are specified in ARB's model breakdown rule. The addition of a staff person discussed earlier would help the District meet its rule adoption schedule and its Attainment Plan commitments.

With respect to its AB 2588 Air Toxics "Hot Spots" program, the District collects annual emissions data, but most of this information is not sent to ARB. The District should provide to ARB a list of all of the facilities and their status in the "Hot Spots" program each year and make this information available to the public on an annual basis.

With regard to the District's emissions inventory program, the District submitted electronic updates for criteria pollutants to the ARB's CEIDARS database for 2002. The submittal included annual process rate information in addition to estimates of facility emissions. However, there are opportunities for improving the overall quality of the emissions inventory and management system, such as the institution of quality assurance/quality control procedures, tracking and reporting of facility operating status, and documentation of area source methodologies.

Findings and Recommendations by Program Area

As with any air pollution control program, there is room for improvement in individual program areas. This report provides findings and recommendations by program area. The recommendations contained in this report are designed to assist the District in its clean air efforts. In the case of Colusa County, additional resources would be required to accomplish many of the improvements discussed in this report. However, the report also contains recommendations which are not resource intensive and can be implemented by instituting new procedures or by changing existing policy.

The rest of this report provides detailed findings and recommendations for improvement by program area.

A. Compliance Program

This section covers the evaluation of the District's Compliance Program. The evaluation consisted of an office review of relevant records and a joint field inspection effort. Findings and recommendations are presented for each of the following areas:

- Source Inspection Program
- Legal Action Program
- Complaint Program
- Breakdown Program
- Continuous Emission Monitor Program
- Source Testing Program
- Air Facility System Program
- Variance Program
- Open and Agricultural Burning Program

A.1 Source Inspection Program

The source inspection program serves as the compliance verification component of District operations. Inspections provide feedback on the actual compliance status of permitted facilities. When a source is found to be in noncompliance, the District documents its observations and conclusions in the form of an inspection report and issues a corresponding notice to the source. The District's inspection program was evaluated with respect to its policies and procedures, inspection frequency, and inspection documentation. In addition to this records review, ARB staff conducted joint inspections of several District permitted facilities. The results are tabulated and discussed in the later part of this section.

A.1.1 Inspection Staff Resources

The District has one field inspector (Air Pollution Standards Officer) who is charged with inspecting approximately 245 stationary sources, including five Title V/major sources, 118 natural gas wells, 26 rice dryers, 25 retail gasoline dispensing facilities (GDFs), and 8 rice mills. One of the major sources has not yet applied for a Title V permit. Three of the major sources including Viking Pools and Develan (PG &E) are operating Title V facilities; however, Wadham Energy is operating under a draft Title V permit. Another facility, Oilseeds International, has a Title V permit, but its solvent extraction process using hexane has been shutdown.

In addition to conducting compliance inspections, the inspector has the responsibility to conduct complaint investigations, observe source tests at GDFs, grant burn permits, administer the Carl Moyer program, and carry out a variety of other duties. The District has an extensive workload for its relatively small staff. At the time of the review, the District's inspector had been employed with the

District for only a few months, and the District had a vacant position for an additional inspector. In an interview with ARB staff, the Deputy APCO indicated that the District could use two additional staff.

The District has some resources available for its staff that enhance the source inspection program. For example, the District has a geographical information system for mapping sources that aids inspection staff in locating remote sources. In addition, District staff has the capability to source test using an Enerac 3000 in place of a third-party traditional source test every other year, per choice by the facility. The District source tested boilers and internal combustion engines (ICE) at some sources (e.g., canneries) in 2003 and 2004.

Recommendation: The District should augment staff resources to fully meet its source inspection program requirements.[3]

A.1.2 Inspection Policies and Procedures

The District does not have written policies or guidelines for its source inspection program. During interviews, the APCO and Deputy APCO stated that the District uses its rules for guidance. However, District rules do not provide procedures for the administration of the inspection program for issues such as thoroughness of inspections and documentation of violations discovered during the inspection process. The District would benefit from adopting written procedures to guide inspectors for issues such as determining which violations qualify as emission-related.[4]

Recommendation: The District should adopt written guidelines for the administration of its source inspection program. Guidelines should address issues such as thoroughness of inspections and documentation of violations discovered during the inspection process. The District could refer to the policies of other districts such as Sacramento Metropolitan Air Quality Management District (AQMD) and Shasta County AQMD for examples.

A.1.3 Inspection Frequency

The District's verbal policy is to inspect Title V sources, gasoline dispensing facilities (GDFs), and large rice mills annually. According to verbal policy, other sources are to be inspected as resources allow. In order to determine actual inspection frequency, ARB staff relied upon a file review of 80 District facility files, representing all source categories except natural gas well facilities. The District did not keep written inspection reports for gas wells at the time of the office review. ARB staff found 45 inspection reports from 2003 and 2004 in the

[3] Subsequent to the review, the District has affirmed that it needs additional staff to fully meet its source inspection program requirements.
[4] As a result of the review, the District has agreed to review the policies of other districts and implement a policy when developed.

80 facility files. The District has not maintained an inspection activity log to track all its source inspections. Individual District files have a facility log sheet to track inspection and permit activity for that facility, but in many files the log has been left blank.

The file review indicated that the District inspected its three operating Title V sources in 2003 and 2004, except for Viking Pools, which was not inspected in 2003. However, the records indicated that Adams Specialty Oils was not inspected in 2003 or 2004. Although a Title V permit has not been issued to this facility, Adams Specialty Oils is a major source by the District's definition (Rule 3.17), because the District's files showed the source's hexane emissions exceeded ten tons per year. The District inspected GDFs and large rice mills on an annual basis in 2003 and 2004.

ARB staff found a number of facility files from other source categories with no record of annual-type compliance inspections. For example, a hospital (in operation for at least 15 years) with an ethylene oxide sterilizer, a boiler, and an internal combustion engine was not inspected until the program review (Cojsa regional Medical Center). In addition, Johnson Printing and Design, Inc., Vogue Cleaners, Colusa Laundry and Linen, and Butte Slough Farms had no inspection reports in the files. In other files, all inspection reports were dated prior to 2000. For example, Brownstone Quarry, Williams Redi-Mix, and Colusa County Farm Supply were last inspected in 1999. Simplot was last inspected in 1998.

To verify the actual compliance status of permitted facilities, ARB staff recommends that the districts conduct annual inspections, at a minimum, for all permitted sources and quarterly inspections of major sources.

Recommendations: The District should update its facility log sheets with source inspection dates and keep an inspection activity log to track all source inspections.

The District should require Adams Specialty Oils to apply for a Title V permit.[5]

As resources allow, the District should strive for annual inspections at all permitted sources and quarterly inspections of major sources.

A.1.4 Inspection Documentation and NOV Issuance

ARB staff reviewed 45 inspection reports from 2003 and 2004 for documentation of results and enforcement action taken. The objective of a good inspection report is to record observations that establish the compliance status of permitted equipment and to provide a basis for formally documenting observed

[5] Subsequent to the review, the District has indicated that Adams Specialty Oils has initiated the Title V permit application process.

noncompliance through issuance of a notice to comply (NTC) or notice of violation (NOV). ARB staff found that some inspection reports, even for major sources, did not establish the compliance of all permitted equipment.

Based on the number of NOVs issued in 2003 and 2004, the District appears to enforce its open and agricultural burning rules. A total of twenty NOVs were issued for open and agricultural burning during this two year period. However, for stationary sources, we are concerned that the District is either not conducting detailed inspections or is not documenting violations through the issuance of NOVs. Only two NOVs were issued as the result of stationary source inspections in 2003 and 2004. This is atypical considering that the District has about 245 permitted sources operating in its jurisdiction. We believe that these two NOVs do not accurately reflect the actual noncompliance at permitted sources.

ARB staff found that the District had not issued NOVs for violations at Wadham Energy. The source failed an emissions test for SO_2 on November 20, 2003. The source then passed a retest on January 9, 2004. Wadham Energy also failed an emissions test for CO on May 20, 2005. The source then passed a retest on June 24, 2005. The District did not issue an NOV for either of these failed tests. Before passing each retest, the source emitted excess emissions and did not petition for a variance.

ARB staff also conducted a joint inspection of Wadham Energy in July 2005. Staff found that the baghouse abating the rice hull receiving pit at the facility was not operating and had no bags installed. The source indicated that the baghouse had not operated since November 2004, as a result of a fire. The source had never notified the District that there had been a problem with the baghouse, which is a requirement of the District's breakdown regulation. The District issued a violation on August 31, 2005 that resulted in a $1,000 penalty. Obviously, this penalty is not commensurate with the magnitude of the violation. The source operated in violation without controls for over eight months.

The District's files also showed that noncompliance was not always formally documented by issuing an NOV or NTC. In particular, the District has a practice of not issuing violation notices at GDFs. Some examples are given below.

- The District inspected Full Stop Tosco Facility #1329 on February 23, 2004. The inspector noted two Title 17 violations of the phase II system in the inspection report but did not issue an NOV or NTC or tag equipment out-of-order. The inspection report states that the inspector verbally notified the facility of the violations and gave the source one week to fix them.

- The District inspected Jensen's Chevron on January 10, 2003. The inspection report describes five tears of ¼ inch long in hoses (Title 17 and District Rule 2.27 "Retail Service Station" violations). The District did not

issue an NOV or NTC or tag the equipment out-of-order. This facility also failed dynamic pressure tests on January 13, 2004, and on April 3, 2004.

- The District inspected Tri-County Petroleum – Williams Cardlock on February 6, 2004. The inspection report documented "various violations found at the facility such as hoses with holes in them and nozzles that were leaking vapors." The report stated that the inspector gave a representative from Tri-County a note, but there is no evidence in the file of an NOV, NTC, or tag out-of-order (Title 17 and District Rule 2.27 violations).

- District Rule 3.1 requires that a facility obtain an authority to construct before constructing, altering, or replacing any source of air contaminants. The District file for Cimarex Energy showed that the facility installed and operated an air compressor without receiving approval. This is a violation of District Rule 3.1. The District did not issue an NOV or NTC for this violation.

- As discussed in Section A.7, the District's permit for Adams Specialty Oils (permit #9906-250, condition #24) required the source to submit a Title V application by June 1, 2000. ARB staff did not find evidence in the District's files that this source submitted an application for a Title V permit. The District did not take enforcement action for this violation.

To improve the effectiveness of source inspections, the District may wish to have new inspectors receive more on-the-job training or participate in ARB inspection training courses.

Recommendations: The District's inspection reports should be thorough and document the compliance status of all permitted equipment. The District should issue NOVs for all emission-related violations and NTCs for minor procedural violations. To make inspections more effective, District inspectors should receive more on-the-job training or have access to ARB inspection training courses.

A.1.5 Compliance Results of ARB and District Staff Source Inspections

Joint inspections were conducted at 34 facilities to obtain information on the compliance status of sources inspected. In order to obtain an adequate understanding of the compliance of sources located in the District, ARB staff selected sources that varied in size and type.

ARB staff observed that the District did not verify compliance with all permit conditions and applicable District rules during the course of the joint inspections. For example, the District did not confirm that spray guns at the automotive and metal coating shops were HVLP compliant.

During one of the joint GDF inspections, multiple Title 17 defects were observed (four torn hoses and a hose dragging the ground). The District tagged the torn hoses out-of-order, but issued a NTC rather than an NOV. At other GDFs, ARB staff observed there was some confusion about enforcing the Title 17 requirement of no more than 100 ml of liquid in the vapor path of the hoses.

The District did not use visible emission evaluation forms or source specific forms during the joint inspections. However, as a result of our review, the District developed inspection forms for GDFs and natural gas wells.

The District issued three NOVs and one NTC as a result of the joint inspections. Table I summarizes the joint inspection results.

Table I
Summary of Joint Inspection Results

Facility Name	Equipment Description	Compliance Status and District Findings	ARB Staff Comments
Major Sources			
Wadham Energy	Biomass Boiler	-Failed CO and SO_2 emissions tests on 5/20/2005 and 11/20/03 respectively. -NOV issued for failure to report the equipment breakdown & maintain baghouse Receiving Pit Baghouse not operational since 11/13/2004 due to a fire.	-District should have issued NOVs for the failed tests and required the source to petition for a variance. -$1000 penalty was not commensurate with the magnitude of the violation (a duration of 8 months)
PG & E	Turbines	In compliance	
Viking Pools	Fiberglass Pool Manufacturing	In compliance	
Oilseeds International	Rice Dryer (Hexane extraction system not operating)	In compliance	Hexane extraction system is not operating. Hexane is still being stored onsite.
Adams Specialty Oils	Hexane extraction system for vegetable oil	In compliance	Facility records for Jan – June 2005 showed hexane emissions exceeded 30 tons for six months. Facility should apply for Title V permit as permit condition #24 requires.
GDFs			
Boyd's Auto Parts	Phase I, phase II retail; Cardlock -phase I, phase II	Cardlock nozzle #4 > 500 ml retained in nozzle	District staff did not correctly understand the Title 17 requirement of no more than 100 ml in vapor path of hose.
Davies Oil Company, Inc.	Phase I, phase II retail	Pump #1 > 150 ml; pump #4 > 200ml	District staff did not correctly understand the Title 17 requirement of no more than 100 ml in vapor path of hose. No action taken.
Tri County Petroleum	Cardlock – phase II	NTC, hoses tagged out Torn hoses (#3,#5, #7,#8); defective retractors	The District should have issued an NOV for these multiple Title 17 defects.
General and Automotive Coatings			
Colusa Body & Paint	Paint booth	In compliance	
Selovers Auto	3 Paint booths	In compliance	
Renuel	Paint spray booth	In compliance	
Hardy Harvester	Paint spray booth	In compliance	
Rice Dryers and Mills			
5 Rice dryers - one with rice mill also. (Oilseeds not included as listed above)	Typical equipment: baghouses, cyclones	NOV issued- Burn barrel violation at one source. Other sources in compliance	
Natural Gas Wells			
Gas wells at 8 locations	Typical equipment: ICEs, separators, process heaters	In compliance	

Facility Name	Equipment Description	Compliance Status and District Findings	ARB Staff Comments
Other Sources			
Williams Redi Mix	Concrete batch plant	In compliance	
Clear Lake Redi Mix	Gravel plant	NOV issued - Unpermitted generator	
Colusa County Canning	Tomato cannery	In compliance	
Morning Star	Tomato cannery	In compliance	
Colusa County Hospital	Ethylene oxide sterilizer; boiler; back-up ICE	In compliance	
Colusa County Farm Supply	Anhydrous NH_3 Tanks; Aqua NH_3 Tanks; Converter	In compliance	
Agrisource	Anhydrous NH3 Tanks; Aqua NH3 Tanks; Dry Blender	In compliance	At time of inspection, the District had not given permit conditions to this source, which has been operating since May 2004.
Johnson Printing & Design	Printing presses	In compliance	
Vogue Cleaners	Petroleum solvent dry cleaner	In compliance	

Recommendations: The District should conduct thorough inspections and verify a source's compliance with all permit conditions and applicable rules. For instruction in properly documenting Title 17 defects (violations of State law), District inspectors should participate in ARB's Vapor Recovery training courses. The District should use its recently developed GDF and gas well inspection forms to facilitate conducting thorough inspections of GDFs and natural gas wells.

A.2 Legal Action Program

The legal action program encompasses enforcement actions taken by the District after a facility is documented to be in violation of applicable rules and regulations. In particular, the program covers the mutual settlement of NOVs issued to non-compliant sources and any civil actions that may follow as a result of an unsuccessful mutual settlement process. The goal of the legal action program is to ensure that a facility returns to compliance before settlement, and that NOVs are settled for penalties that are commensurate with the magnitude of the violation.

A.2.1 Policies and Procedures

The District does not have a written policy document for the administration of its mutual settlement program. Even though District Rule 1.5, "Penalties," provides a general framework for mutual settlement, it does not provide procedures for handling issues such as multi-day violations and transfer of cases to the County Counsel or District Attorney's office. The District also does not have a penalty schedule for its legal action program. The District would benefit from adopting a

penalty matrix based on the "relevant circumstances" the District must consider as cited in HSC section 42403. These factors relate to: the extent of harm caused by the violation; the nature and persistence of the violation; the length of time over which the violation occurs; the frequency of past violations; the record of maintenance; the unproven or innovative nature of the control equipment; any action taken by the defendant to mitigate the violation; and, the financial burden to the defendant.

As mentioned previously, Wadham Energy operated for eight months without a functioning baghouse, resulting in many days of excess emissions. A violation involving excess emissions at a "large" facility over an extended period of time should include multipliers for these factors applied to a baseline penalty amount. The $1,000 penalty settlement was far less than the amount allowable under HSC sections 42402, 42402.1, 42402.2, and 42402.3. In order for the District's mutual settlement program to have a deterrent effect on future violations, penalty amounts need to be set high enough to discourage further noncompliance.

According to District staff, the District generally follows unwritten procedures for mutual settlement. The District issues a mutual settlement letter that includes a penalty amount and an offer of a conference. The NOV and mutual settlement letter are typically placed in the same envelope and sent by certified mail. A case file is normally opened for NOVs and associated documentation.

Recommendation: *The District should adopt a mutual settlement policy document and an associated penalty matrix based on the "relevant circumstances" cited in HSC section 42403.*[6]

A.2.2 NOV Log

The District's NOV log contains most of the information needed to track NOVs from issuance to settlement. However, many NOVs and NTCs are not numbered. Assigning a unique number to each NOV and NTC would facilitate tracking. ARB staff found that the disposition of several dropped NOVs[7] was not updated in the log. Also, the log does not contain a field for a brief reason why NOVs are dropped or settled for zero. ARB staff believes that the utility of the NOV log could be improved by adding this information.

Recommendation: *To facilitate tracking, the District should assign a unique number to each NOV and NTC. The District should keep its NOV log updated. The District should add a field in its database for a brief reason why NOVs are dropped or settle for zero.*

[6] As a result of the review, the District has agreed to develop a mutual settlement policy.
[7] A dropped NOV means an NOV that is not pursued for mutual settlement purposes. NOVs that settle for zero include dropped NOVs or NOVs where the penalty is not collected.

A.2.3 Case Disposition

The District uses its mutual settlement program to settle violations. Table II shows the approximate NOV tally, number of NOVs dropped or settled for zero penalty amount, and penalty ranges for NOVs issued in 2003 and 2004. Figures are based on file review and a report provided by the District.

Table II
Penalty Settlement Information for 2003 and 2004 by Rule Category

Category	# of NOVs	# of NOVs Dropped or Settled for Zero Penalty	Penalty Amounts	Penalty Range (from actual case settlements)	
				Low (non-zero)	High
Open Agricultural Burning Rules: 2.1; 6.0; 6.2; 6.3	20	5 (25%)	$4,006	$100 (Open Burning)	$ 500 (Open Burning)
Based on Facility Inspection (Stationary Sources) Rule: 2.10; Permit Conditions	2	0	$2,250	$250 (Nuisance - Odors)	$2,000 (2 ICEs Failed source test and fuel usage not according to PTO)
Failure to submit reports (Stationary Sources) Rule: 1.9	26	23 (88%)	$300	($100 requested in all mutual settlement letters)	($100 requested in all mutual settlement letters)
Total	48	28 (58%)	$6,556		

As shown in Table II, staff found that approximately 25 percent of the NOVs issued in 2003 and 2004 for open and agricultural burning were dropped or resulted in zero penalty amounts. This figure is comparable to other districts recently reviewed in the Sacramento Valley Air Basin. However, 88 percent of the NOVs issued to stationary sources for failure to submit reports resulted in zero penalty amounts. The District should strive for maintaining the number of NOVs that settle for zero at or below 10 percent of the total. This figure is based upon our experience and is accepted by many districts as an acceptable level to have in a mutual settlement program.

For the 48 NOVs issued in 2003 and 2004, the District initially requested $28,325 and actually collected $6,556. For example, the $5,700 penalty in the mutual settlement letter dated November 17, 2003, to Myers Rice Joint Venture was

reduced to $500, with no explanation in the file. For NOVs issued in 2003 and 2004, the median penalty paid was $100, and the average was $137 (including NOVs that are voided, dropped, or settled for zero penalty). These figures are lower than those of the other districts recently reviewed in the Sacramento Valley Air Basin. For example, the median penalty for Butte County AQMD and Tehama County APCD, respectively, is $180 and $250. The average penalty amount for Butte County AQMD is $629 and for Tehama County APCD is $504.

In order to keep the County Counsel informed, the District sends them a copy of the mutual settlement letter. County Counsel did not take action against violators who did not pay the requested penalties during 2003 or 2004. The District has not had a criminal case in recent years. The Colusa County District Attorney's office has written second notice letters for some larger cases where there is no response to the mutual settlement letter. However, the District Attorney's office does not pursue cases where mutual settlement is unsuccessful. Additional support from the County Counsel or District Attorney's office could strengthen the District's legal action program.

Recommendation: The District should reduce the number of cases settled for zero penalty amounts. The District should review penalty reductions to ensure that penalties are commensurate with the magnitude of the violation. The District should consider meeting with County prosecutors to discuss developing written protocols or memoranda of understanding.

A.2.4 Case File Documentation

ARB staff found that most District case files for the 20 NOVs issued as a result of burn violations contained adequate documentation for further legal action, if necessary. However, some case files did not include a reason why NOVs were not pursued for mutual settlement. For example, the mutual settlement letter to Charles Lagrande Farms stipulated a penalty of $1,500 for an agricultural burning violation. The case was dropped without explanation in the file, even though there was a history of prior violations.

It appeared that case files for the two NOVs issued as a result of stationary source inspections did not contain copies of all correspondence with the responsible party.

No case files were opened for the 26 NOVs issued to stationary sources in response to Rule 1.9 reporting violations. The District relies on the sources to submit annual reports so that the District can verify compliance with permitted limits and compute permit renewal fees. Our review of the District's source files indicated that compliance with reporting requirements was not obtained for some of the 26 cases, after the NOVs were issued. Five of the facility files did not contain completed survey forms for 2003 or 2004 at the time of the review, and no response was indicated in the NOV log.

Recommendation: *Case files should contain an explanation of why an issued NOV is not pursued for mutual settlement, if applicable. The District should keep copies of all correspondence associated with NOV issuance and mutual settlement in case files. The District should open and maintain case files for all NOVs.*

A.3 Complaint Program

The District's complaint handling program governs the investigations of complaints received from the general public. Air pollution complaints received by the District are an essential source of information. Timely and attentive response to air pollution complaints is critical to ensure protection of public health and to maintain public trust. The District's complaint program was evaluated with respect to the framework of best management practices to respond to complaints as described in the ARB/CAPCOA Complaint Resolution Protocol of October 2002. These include the receipt, evaluation, response, and resolution of air quality complaints and feedback to the complainant.

Complainants contact the District either by letter, in person, email, or dialing the District's main number. This number is found in local telephone books, the District's website, and letters. The District staff is aware of the ARB language line service. The District staff obtains the complainant's name and telephone number and reviews the complaint. The District does not investigate after hour or weekend complaints until the next day of business. The District staff conducts complaint investigations in the field and completes investigation reports when they return to the office. However, during the course of an investigation in the field, District inspectors are not authorized to issue NOVs.

The District's complaint program needs improvement in several areas. The District has no written complaint procedures or guidelines in place to receive, process, or investigate complaints. There is no mechanism in place to ensure consistent handling and tracking of complaints. The District has not been maintaining a complaint log. Hence, ARB staff could not determine the overall number of complaints received in 2003 and 2004.

ARB staff found closed complaint documents from calendar years 2003 and 2004 for review, but District staff indicated that all complaints are not documented. The District does not have an organized file for complaint documents. The District's complaint documents are filed in stationary source files, filing cabinets, and other locations in the District office. ARB staff was unable to evaluate the quality of District actions because essential information was missing from the complaint investigation forms in most cases. See Appendix A for detailed recommendations concerning complaint procedures, maintenance of a complaint log, and guidance on investigating and documenting complaints.

Recommendations: The District should develop complaint procedures and guidelines for receiving, logging, and investigating complaints. Complaint investigations should be well documented and complainants should be informed of the results of the investigation. Please refer to Appendix A for details.

A.4 Breakdown Program

If a source reports a legitimate breakdown condition, the District's breakdown regulation, Rule 1.13, protects that source from enforcement action. Pollutants can be emitted during a breakdown episode at higher concentrations than during controlled operation. Therefore, it is important that breakdowns are minimized and are corrected quickly. The District's Equipment Breakdown Program was evaluated with respect to receipt, investigation, and resolution of equipment breakdowns. It is our finding that the District's breakdown program needs major improvement in all areas.

According to District staff, there are no written procedures or guidelines for the equipment breakdown program. The District should institute written guidelines and procedures for receiving and processing reported breakdowns. For examples, the District could refer to the breakdown policies of other districts such as Sacramento Metropolitan AQMD and Shasta County AQMD.

The District's equipment breakdown Rule 1.13 lacks some of the provisions specified in ARB's model breakdown rule. For example, the rule lacks a definition of "equipment breakdown," emergency variance procedures, and provisions for false claiming of a breakdown occurrence. The District should amend Rule 1.13 Equipment Breakdown and include all the provisions specified in ARB's model breakdown rule. See Appendix B for details.

ARB staff was unable to determine the number of breakdown notifications received in 2003 and 2004 due to the lack of tracking information available. However, ARB staff did find some faxed breakdown notification documents from 2004. Some breakdown reports showed that the sources had notified the District of breakdowns more than an hour after discovery. All breakdowns reported to the District should be recorded in a breakdown log. As mentioned in section A.1.4, during a joint inspection with the District, ARB staff found an equipment breakdown incident from November 2004 that had not been reported to the District (baghouse not operational due to fire). The facility operated out of compliance for approximately 8 months. The District issued an NOV on August 31, 2005, for failure to report the equipment breakdown and maintain the baghouse.

According to the District, their sources submit breakdown reports and the District reviews them. ARB staff found that some of the breakdown reports were submitted more than ten days after the breakdown, which is a permit condition violation. However, the District has not taken any enforcement action. The

burden of proof to provide sufficient information to demonstrate that a breakdown is allowable under the District breakdown regulation is upon the source. The source reports lack critical information needed for making the determination. See Appendix B for details.

Even though District staff is familiar with the equipment and processes involved, sole reliance should not be placed on phone interviews or review of breakdown reports as a means of analyzing reported breakdowns. On-site investigations should be the preferred method of investigating breakdown reports. The District did not have any breakdown investigation reports on file for 2003 or 2004.

Recommendations: The District needs to create written procedures and guidelines for receiving and analyzing breakdowns. Current District Rule 1.13 should be amended. Sources should be required to provide a written breakdown report on every reported instance. The District should analyze every reported breakdown and provide clear reasoning in a written format for either denying a breakdown or providing relief. See Appendix B for details.

A.5 Continuous Emission Monitor Program

A comprehensive and efficient continuous emission monitor (CEM) program is an effective tool for compliance verification and a significant component of a district's compliance program. CEM reports allow District staff to verify a source's compliance status on a continuous basis.

The District enforces applicable rules, regulations, and permit conditions pertaining to continuous emission monitors. Our findings in this area are based upon a review of District files, database reports, and interviews with staff persons responsible for this program. The District has two facilities (two units) equipped with three CEMs. See Table III. These facilities are Title V sources. Permit conditions for these facilities specify calibration frequency, maintenance, quarterly challenge audits, annual relative accuracy test audits (RATA), and other reporting requirements.

Table III
Facilities with Continuous Emission Monitors

Facility	Unit	CEMs
PG & E	Turbine Unit K-3	NOx
Wadham Energy	Rice Hull Boiler	Opacity & NOx

CEMs are tested annually by the source. Facilities submit quarterly excess emissions and downtime reports that are reviewed by the District. Neither of these facilities reported excess emissions in 2003 or 2004.

Recommendation: None

A.6 Source Testing Program

Source testing of specific points in a process or its control devices is often the only way to determine whether actual emissions are in compliance with a unit's allowed emission limits. Source testing is also used to verify the accuracy of continuous emission monitors. Source testing requirements are placed on facility permits as specific conditions and define the type and frequency of test activity. Sources are required to provide test protocols, the District an opportunity to witness testing, and a detailed report after the conclusion of the test. Source testing confirms that equipment can operate in compliance with its permitted emission limits.

The District's facility permits include source testing requirements. The District requires periodic source testing of its major sources. Table IV shows the frequency of source testing at these facilities. ARB determined that in 2003 and 2004, these facilities were source tested according to this schedule, but the District does not have a tracking mechanism to ensure that testing occurs at this frequency.

Table IV
Facilities with Periodic Source Testing Requirements

Facility	Unit	Source Testing Frequency
PG & E	Turbine Unit K-3	Biennially
Wadham Energy	Rice Hull Boiler	Annually

Permit conditions require facilities to notify the District prior to source testing. Both facilities submitted source testing protocols to the District in 2003 and 2004. Due to resource constraints, the District did not witness the Emissions/RATA testing conducted at PG & E or Wadham Energy in 2003, but witnessed the tests in 2004.

As mentioned previously, Wadham Energy failed their SO_2 test on November 20, 2003 and passed their retest on January 9, 2004. They failed their CO test on May 20, 2005 and passed their retest on June 24, 2005. Variances were not obtained by the facility after failing these tests and no enforcement action was taken by the District.

Recommendations: The District should have a tracking mechanism to ensure that source testing occurs according to the frequency established by permit condition.

The District should issue an NOV for a source test that indicates excess emissions violations levels. If the source needs to continue to operate, it has the option of applying for a variance.

A.7 Air Facility System Program

U.S. EPA's compliance and permit database for stationary sources is called the Air Facility System (AFS). The requirements for AFS are governed by the Clean Air Act Stationary Source Compliance Monitoring Strategy (CMS) policy, dated April 2001. This policy requires the District to submit a CMS plan which states the District will comply with the CMS policy and will submit the appropriate data on mega, major, and synthetic minor facilities to AFS. The District is required to submit data for five of its facilities. The data must include reporting of components of a Full Compliance Evaluation (FCE) quarterly and High Priority Violations (HPV) monthly. A FCE is comprised of site inspection(s), source test(s), and an annual Title V certification review. Each of these components must be entered into AFS before an FCE code can be entered. An HPV is a District's notice of violation (NOV), which meets the standards of an HPV. The standards are spelled out in Table A-5 of the United States Environmental Protection Agency's (U.S. EPA) workbook titled "The Timely and Appropriate (T&A) Enforcement Response to High Priority Violations (HPVs)" dated June 23, 1999. A more detailed description of the reporting requirements is found in two documents, The Information Collection Request dated October 5, 2001, and The AFS Business Rules dated June 23, 2003. The AFS Business Rules contain a description of the minimum data reporting requirements.

Based on our review, it is our finding that the District is failing to meet the requirements of the Full Compliance Evaluation Program and the High Priority Violation Program. ARB would support a District request to U.S. EPA for funds to improve the District's database stationary source tracking capabilities to include the AFS required reporting elements. This improvement would help the District more effectively meet the required reporting timeframe and reduce the resource drain on the District.

Recommendation: The District should request funds from U.S. EPA to improve the District's capability to track AFS required reporting elements.

A.7.1 Full Compliance Evaluations Program

The District is failing to report compliance tests performed by the source or its contractor. The District is not updating AFS with all the source tests conducted. Source tests are required to be updated into the AFS database within 90 days after their completion. As of October 1, 2006, the reporting timeframe was reduced to 60 days.

Two of the District's major sources, Wadham Energy and Adams Specialty Oils, have not been issued a Title V permit. The District has corresponded with these sources since 1998 and informed them that they were required to have Title V permits. The Title V permit for Wadham Energy is in the draft stage. However, Adams Specialty Oils had not yet submitted a Title V permit application at the time of the program review.

Wadham Energy failed a source test in May 2005 and passed the retest in July 2005. This information was not entered into AFS until September 2006.

Adams Specialty Oils was not entered into the AFS database until ARB audit staff insisted that the source be entered as a result of this program review. The District permit required this source to submit their Title V permit application by June 1, 2000.

The District is failing to update AFS with Title V Certification Reviews for those sources with a Title V Permit.

The District's filing system does not adequately document source tests, Title V certifications, or inspections. Inspection reports and Title V certifications could be found for only some of the sources. Only a few report cover pages were found in the files, but none of the source tests reports could be found.

Recommendation: The District should expedite the process to submit the Title V permit for Wadham Energy to U.S. EPA. As noted in section A.1.3, the District should require Adams Specialty Oils to apply for a Title V permit.

The District should update all inspections and source tests into AFS within 60 days of their completion.

A.7.2 High Priority Violations Program

The District is required to compile and submit monthly NOV logs to the ARB. The majority of the monthly NOV logs are late. The District has to be constantly reminded of their failure to submit NOV logs. If an NOV meets the level of a High Priority Violation, it must be entered into the AFS database the month it is identified.

The District issued an NOV to Wadham Energy, and the NOV was not reported to ARB for three months. The NOV was settled before the NOV was reported. The NOV was an HPV, but the District failed to enter the HPV into AFS for three additional months.

As pointed out in Sections A.5 and A.7.1, Wadham Energy failed a source test in May 2005 and passed the retest in July 2005. A notice of violation was not

issued. This violation meets the standard of an HPV but was not entered into AFS.

The District does not adequately document NOVs in its filing system. Very few written notice of violation documents were found for the NOVs issued. Only a couple of mutual settlement letters or notices of mutual settlement conference were found in the District's files.

Recommendations: The District should accurately report violations to ARB the month they occur, and report NOVs that meet the level of a High Priority Violation into AFS.

The District should organize their filing system and keep all documentation.

A.8 Variance Program

The District's variance program was evaluated in order to determine its consistency with HSC requirements. To accomplish this task, ARB staff reviewed District files and interviewed District staff. The District's variance program was reviewed for the study period of calendar years 2003 and 2004. The review process was quite limited due to the District having no variance activity during the study period. Therefore, no variance files, staff reports, hearing tapes, etc. could be obtained for review.

At the time of the review interview, the District did not have any of the necessary variance documents that should be readily available in all districts. These documents included a blank variance petition, current list of hearing board members, district variance rules and hearing board rules or procedures. District staff also stated that a hearing board had just been reappointed, but prior to that the District had not had a hearing board in place for almost three years.

Although the District has not dealt with variances in the last few years, the need will eventually arise. District staff should be aware of all documents available and have a process in place that offers sound and efficient advice to a variance petitioner.

ARB offers variance workshops that are designed to train district staff, hearing board members, and clerks on the variance process and the HSC (State law) requirements pertaining to variances, abatement orders, and the factors contributing to an effective district variance program. Specific training and assistance is also available for the District staff. The HSC mandates that the District and specifically the Air Pollution Control Officer has the responsibility of enforcing the requirements of its variance program.

Recommendations: District staff should make certain they have all documents and a process in place to offer sound and efficient advice to a variance petitioner.

The District should consider attending the variance training courses provided by the ARB.

A.9 Open and Agricultural Burning Program

Open burning can be a significant source of criteria pollutant emissions, whether from legally sanctioned open burning, agricultural burning, or wildland burning for fire prevention and forest management. The District's open/agricultural burning program was evaluated for consistency with HSC requirements, the Smoke Management Guidelines in Title 17 of the California Code of Regulations (CCR), and with the ARB program evaluation criteria document. Documents reviewed for this evaluation included District rules, burn permits, maps, and computer summary reports.

The District adequately administers and has a comprehensive set of rules for its agricultural burning and open [nonagricultural] burning program. Except for District rules 2.1, 6.9, and 6.17, the rules are consistent with the Smoke Management Guidelines in Title 17, and with the nonagricultural and agricultural burning rules in the HSC.

Section "g" of District Rule 2.1, Exceptions, states that tires may be burned for the purpose of producing a smoke column when applying specified types of restricted herbicides. Health and Safety Code section 41800 prohibits the open burning of tires and the District rule cannot be less stringent than state law. The District should remove this exemption from Rule 2.1 to be consistent with the HSC.

Section "a" of Rule 6.9, Ignition Hours, states that permits shall specify the hours from 8:00 a.m. to 5:00 p.m. as burn hours. The Smoke Management Guidelines, Title 17 of the California Code of Regulations, section 80150, states that no field crop burning shall commence before 10:00 a.m. or after 5:00 p.m. on any day. The District should amend Rule 6.9 to be consistent with Title 17 so permits will reflect that field crop burning shall not commence before 10:00 a.m.

Section "g" of Rule 6.17, Range Improvement Burning, states that burning may be conducted on a no-burn day if 50 percent of the land has been brush treated. This provision was eliminated from state law with the adoption of the Smoke Management Guidelines, and therefore, it must be removed from the District Rule.

The District has not provided ARB a current version of Rule 4.11, Agricultural and Open Burning Fees, which was last amended on August 31, 2004. The last version of Rule 4.11 provided by the District was amended in 1999. The current rule contains increased fees and modifications to the fee categories.

The District issues burn permits for Butte City residents and fire districts issues the balance of burn permits free of charge. Permittees are only charged for the agricultural acres burned. All types of open burning are covered by the fire district permits. Each grower who burns pays a $15 administrative fee to the District, plus $2.50 per acre of field crops burned ($1.50/acre if the field was harvested and baled, or $0.75 if the field was harvested, swathed and baled). Orchard prunings are $1.00 an acre burned, and other open burning is $2.50 an acre.

Most of the agricultural burning conducted in the District (by acreage) is rice straw, followed by other field crop stubble and orchard prunings. Growers call the District Burn Line and leave a recording of their field information and desire to burn, and also contact their local fire district. District staff log into the computer all burns over an acre.

The District no longer meets annually with the rice growers, as there is little new information to impart, and only 16 percent of the growers still burn their fields; 84 percent are now incorporating the straw without burning.

During the fall burn season, the District creates a Ready List, and the growers may list their fields as soon as the harvesting equipment is out of the field. The Ready List is posted daily in six locations around the county. The District calls the growers and authorizes their fields to burn, spacing the burning by zones and ignition times.

Weekend burning is allowed in the fall and the spring for rice burns, but not for other agricultural burning. The District does not issue permits to burn on a No Burn day.

There are one or two prescribed burns in the District a year, typically marsh burns in the wildlife refuges.

The three fire districts which have full-time chiefs are very helpful to the District in reporting illegal fires.

<u>Recommendation:</u> The District should amend its rules to be consistent with the Smoke Management Guidelines in Title 17. More specifically, the District should remove the exemption in Rule 2.1 that allows the burning of tires. The District should amend Rule 6.9 to reflect that field crop burning shall not commence before 10:00 a.m. The District should remove the provision from Rule 6.17 that allows burning on a no-burn day if 50 percent of the land has been brush treated.

The District should provide ARB a copy of its Agricultural and Open Burning Fees rule.

B. Permit Program

The districts adopt permitting regulations to govern the construction of new sources and modifications to existing sources that emit air contaminants within their jurisdiction. The primary objective of the review was to determine whether the District has been issuing permits in accordance with their regulations and with State law and to assist the District in identifying specific areas for improvement.

ARB staff reviewed permit files, reviewed guidelines and policy documents, and interviewed District staff and management. The review of permit files focused on the quality of the engineering evaluations and the resulting operating permits issued to the facilities. Guidelines and policy documents were reviewed to ensure that they were consistent with the intent of District rules and provided clear and adequate guidance for permit processing. Interviews covered areas such as general administration, permit processing, filing, computer support, staff resources, and emission calculation procedures.

The ARB staff reviewed approximately 34 of the District files including projects for new facilities and modifications to existing permitted facilities, with a focus on those issued from 2002 to early-2005 timeframe. A conscious effort was made to cover a broad spectrum of the District's permitting actions by reviewing files for different source types and sizes.

The following discussion covers:

- Permit Administration – General
- Permitting Policies
- Best Available Control Technology (BACT) Determinations
- Adequacy of Permit Conditions
- Organization and Adequacy of Permit Evaluations
- Offsets and Emission Reduction Credits (ERCs)

B.1 Permit Administration - General

At the time of the program review, the District had 245 permitted facilities. These facilities consisted of 118 permitted gas well operations, 26 rice driers, 25 GDFs, 8 rice mills, and a dry cleaner as well as other miscellaneous sources. The District has three operating Title V facilities including Wadham Energy, Viking Pools and a PG&E natural gas compression station, but the Title V permit for Wadham Energy is draft. In the year 2003 and 2004, the District received 11 and 32 applications, respectively, and had received 22 in 2005 as of the time of the program review. A majority of the District permitting workload involves the construction and operation of natural gas wells and associated equipment.

At the time of the program review, the District had a backlog of 12 authority to construct applications. These applications were for the installation of enhanced vapor recovery at gasoline dispensing facilities. The District must also submit the draft Title V permit for Wadham Energy to U.S. EPA and require Adams Specialty Oils to submit an application for a Title V permit.

The District has a personal computer with a database using a Lotus software program that stores information of all the District facilities. The information includes the facility name, address, source type, Standard Industrial Classification (SIC) code, company contact person, phone number, billing date, and emissions based on activity data from the source. The District database can also generate reports by source category such as gas wells or gasoline dispensing facilities.

ARB staff found that the District did not have a status checklist of new permit applications received. In order to determine the District's permitting activity, ARB staff had to review county billing records. The records showed each transaction where a facility in the District had paid for an authority to construct.

The District's New Source Review Rule, Rule 3.6, requires that the District determine application completeness within 30 days of receipt of a permit application. The District did not monitor the receipt and application status, so they are unable to easily determine whether the application completeness requirement has been met.

Recommendation: The District should develop a log to track the new permit applications received to verify that the meeting of the 30-day timeline requirement of the New Source Review Rule.

As mentioned previously, the District should expeditiously submit the draft Title V permit for Wadham Energy to U.S. EPA and require Adams Specialty Oils to apply for a Title V permit.

B.1.1 Staffing

At the time of the program review, the District employed three total staff including an APCO (who is also the agricultural commissioner), an assistant APCO, and an inspector. The District has a fourth position for an inspector, but it was vacant at the time of the audit. The District has often operated with only an APCO, an assistant APCO and a single inspector. The APCO is not involved in the daily administration of permitting activities. At the time of the audit, the inspector had recently been hired and therefore was not involved in the permitting program. The assistant APCO is responsible for the permitting program. However, the District can use the services of a consultant on an as needed basis.

Though the assistant APCO had been at the District for seven years, the District inspector positions have had a lot of turnover with the average person's term of employment being about a year. For example, the previous inspector at the District left after a short period of time to seek employment at another district in the Sacramento Valley Air Basin.

The District indicated that their workload has been increasing especially because of the staff time required to administer the Carl Moyer engine replacement program. The assistant APCO indicated he could use at least two more staff.

The assistant APCO indicated that he had taken ARB training classes, but he needed training on how to run the District's permitting program. The District has agreed to send the permitting staff to the CAPCOA Permitting Staff Development Workshop.

Recommendation: As funding resources allow, the District should consider filling its vacant inspector position and hiring a staff person to help with the District's increasing permitting workload.

B.1.2 District Permit files

ARB staff had easy access to the District's files. The District has facility files for each of its gas well facilities in binders organized by the name of the source. The rest of the District files were in file drawers roughly in alphabetical order in categories including gasoline retailers, gasoline bulk dealers, landfills, solvents, coatings, and agricultural processors.

The District issues a single-page cover sheet that serves as the permit to operate and a separate listing of permit conditions. ARB staff found that some of the District's facility files were incomplete (i.e. missing conditions and permits).

Some of the District's files are outdated and do not have the most recently issued permit. For example, the latest permit found in the file for Bob's Auto and Body Shop was issued on April 1, 2000. Nearly all the District's files have a log sheet to track permitting activity for a given file, but in most files, the log sheet has not been used.

Recommendation: The District should ensure that its permitting files are complete and have the most recently issued permit to operate.

B.1.3 District Application Review

ARB staff found several applications where construction had been initiated prior to receiving approval from the District. These applications were neither deemed complete or incomplete and many were approved months after the 30-day deadline defined in the District's New Source Review Rule.

For example, an application from Colusa Canning Company, dated August 1, 2001, showed that construction had started June 1, 2001 and would be completed September 17, 2001, but the application was not approved until June 17, 2002, more than one year after construction had begun. The facility should have not begun construction until receiving approval from the District. The District should have reviewed the application to determine completeness and issued the authority to construct in a reasonable timeframe.

ARB staff found that the District had not always complied with District Rule 3.1 – Permits Required, which requires that written authorization shall first be obtained before building, erecting or altering any equipment or contrivance which may cause the issuance of air contaminants. Gas well facilities would be allowed to install equipment or complete modifications before filing for the authority to construct application. For example, an application from Cimarex Energy Company for installation of a compressor engine included a construction start date on September 12, 2003, and an anticipated completion date on September 14, 2003. This application shows that the filing fee was paid, but an authority to construct was never issued by the District.

Royale Operating Company (permit #2206-0083) applied to install a 60 bhp Ajax engine at a new well site on June 16, 2003. The District received the application and associated fees on June 18, 2003. The application/authority to construct was never signed, yet subsequent permit calculation sheets show that this engine was added to the permit.

The District did not always require new source review for projects and allowed them to proceed without installation of controls. In a project for Venoco, Inc., District staff stated in a letter to the file (dated November 2, 1999) that they had spoken with a Venoco employee regarding a change in compressor engines. The change involved the replacement of two Ajax DPC-60 internal combustion engines with a single Ajax DPC 115 engine. District staff documented that an authority to construct was waived since the emission factors would not change significantly. This type of replacement is not considered an identical replacement and would have been subject to new source review. Uncontrolled emissions from this engine would have triggered BACT requirements. Permit conditions indicate the new engine has no controls and is required to meet a NOx emissions limit of 740 ppm. BACT emissions should have been limited to a NOx emissions limit of approximately 9 ppm.

The District has an “Application for Authority to Construct” form that serves as an application for new or modified equipment. The form provides a section for applicant information including the company name and address, list of proposed equipment changes, construction start and completion date, the signature of the responsible member of the company and the signature of the APCO. The District uses this single page application form as the authority to construct for nearly

every authority to construct application. Staff found only one application that had supplemental conditions.

The “Application for Authority to Construct” form does not qualify as a complete authority to construct. An authority to construct should at a minimum contain emission and/or process conditions associated with the operation of the new or modified equipment.

The District should develop a standardized permit application form that is separate from the authority to construct. The District should have a general permit application form and forms for common equipment and source categories such as natural gas operations, rice driers, and GDFs. The District should refer to the websites maintained by other districts such as the Sacramento Metropolitan AQMD to obtain standard application forms. These can easily be adapted for use by Colusa County.

The District has a “Notification of Operation” form that it issues as a 45-day permit to operate. The form is nearly the same as the Application for Authority to Construct form described above. The applicant provides information including company name, address, list of proposed equipment, and signature and District approval is provided at the bottom of the form. The District’s Notification of Operation form does not provide any source specific conditions.

ARB staff found the District issued three Notification of Operations for drilling operations for Aspen Exploration. The source provided a listing of equipment for each drilling operation and each one included about seven diesel internal combustion engines. The equipment listing includes engines as large as a Deutz V-12 diesel engine that would operate as much as 24 hours per day, but no analysis for emission controls or Best Available Control Technology was provided. The District should issue a permit or have the source apply for a state portable equipment registration for portable engines.

The District does not issue completeness letters to applicants. Most incomplete applications are handled informally through phone calls to the applicant by the District.

<u>Recommendations:</u> The District should issue a timely and complete authority to construct and/or permit to operate for each permitting action. An authority to construct should have a complete equipment list and monitoring recordkeeping and reporting conditions specific to the source.

The District should develop standardized permit application forms that are separate from authorities to construct. The District should develop a general permit application form and a form for specific industrial categories. The District should refer to websites maintained by other districts such as Sacramento

Metropolitan AQMD (http://www.airquality.org/permits/index.shtml) to obtain forms that can be adapted for use by the Colusa County APCD.

The District should issue a permit or have a source apply for a state portable engine registration instead of issuing a Notification of Operation as a 45-day permit to operate.

B.1.4 Permit Renewals

All of the District's permits expire annually on March 31st. Every January the District sends a survey sheet to all of their permitted facilities to get their activity data for the previous year. The District uses this data to make a calculation sheet of actual emissions and puts this in the file. The District issues a new permit every year with a different color, but the conditions are not reissued to the facility.

The District does not have an official means to verify the enforceability of its permit conditions per Health and Safety Code section 42301(e) during renewal. The District indicated that they instead manage enforceability issues during the inspection of facilities.

Recommendation: Per Health and Safety Code 42301 (e), the District should annually review its permit conditions upon renewal. Upon renewal, the District should make sure its sources have a current and complete list of their permit conditions.

B.2 Permitting Policies

The District does not have any established policies or procedures for its permitting program. The District needs to develop policies to cover all the areas of its permitting program including its method of tracking permit applications received and meeting timeline requirements, the use of the Lotus facility database, the structure of its engineering evaluations, interpretations of rules, BACT and other issues.

A policy document would be beneficial for the consistent administration of the permitting program. A policy document also helps new staff come up to speed quickly on the internal workings of the permit processing program.

The District should refer to websites maintained by other districts such as Shasta County AQMD, Sacramento Metropolitan AQMD, and San Joaquin Unified Air Polllution Control District (APCD) to obtain example policy documents. These can easily be adopted for use by Colusa County.

Recommendation: The District should develop a permitting policy document by referring to websites maintained by other districts such as Sacramento AQMD,

Shasta County AQMD (http://www.co.shasta.ca.us/Departments/Resourcemgmt/drm/aqmain.htm), and San Joaquin Unified APCD (http://www.valleyair.org/busind/policies_idx.htm).

B.3 Best Available Control Technology Determinations (BACT)

The District has had very few projects that have triggered BACT (25 pounds/day). Most of the District's projects that require a BACT determination are internal combustion engines at gas wells and some boilers at food processing facilities, but ARB staff could not find any District files with a BACT analysis.

In the file for Aspen Exploration discussed in section B.1.3, which involved a drilling operation, the source sent the District an equipment listing that included seven diesel engines. The largest engine was a Deutz V-12 diesel engine and the engines would operate as much as 24-hours per day. These engines would have triggered BACT, but there was no analysis in the file and no indication that any of the engines had BACT controls such as engine timing retarding, an intercooler or aftercooler, catalyst or an emission limit.

The file for Colusa County Canning Company involved the addition of two boilers (180,000 and 120,000 pounds per hour of steam capacity). The source was issued a new permit in April 2004, but the project did not have an engineering evaluation. An analysis should have been conducted to determine potential emissions and applicable control technologies.

The emission limits for internal combustion engines requiring BACT were inconsistent. For example, the permit for Delta Petroleum has a 125 hp engine permitted at 90 ppmv NOx, but the permit for Vintage Petroleum has a 230 hp engine permitted at 740 ppm. The permit for Delta Petroleum indicates the engine has a catalytic converter for BACT, but BACT is not mentioned for the engine in the Vintage Petroleum permit. The high emission limit for the Vintage Petroleum engine represents only compliance with the District engine rule.

The District should calculate the potential to emit in the engineering evaluation for each project. If the potential to emit exceeds the BACT trigger level, the District should conduct a BACT determination. The BACT determination should include a "top down" analysis which involves the ranking of available control technologies in descending order of effectiveness. The most stringent – or "top" – alternative is examined first. That alternative is established as BACT unless the applicant can demonstrate, and the permitting authority in its informed judgment agrees, that technical considerations, or energy, environmental, or economic impacts justify a conclusion that the most stringent technology is not "achievable" in that case. If the most stringent technology is eliminated in this fashion, then the next most stringent alternative is considered, and so on. BACT clearinghouses that are researched for the determination should be referenced in

the engineering evaluation. The resulting control device and the emission limit determined for BACT should be in the engineering evaluation and transferred to the authority to construct and permit to operate as enforceable conditions.

Recommendations: The District should calculate the potential to emit for each application to determine if BACT is triggered. If BACT is triggered, the District should conduct a BACT determination. Control devices and emission limits required for BACT should be included as enforceable conditions in the applicable authority to construct and permit to operate.

B.4 Adequacy of Permit Conditions

District permits to operate have lists of conditions that facility owners or operators are required to meet in order to be in compliance with applicable rules and regulations. Permit conditions also provide a means for District inspectors to verify a source's compliance status. Permit conditions must be specific enough to inform and notify a facility owner or operator of all the conditions needed to operate in compliance.

The District's VOC sources have a monitoring and recordkeeping condition that requires that the source "provide all the data necessary to evaluate compliance" for coatings and solvents. This statement is vague leaving the source uncertain what the "necessary data" should be.

ARB staff observed that the District's permits for heaters at natural gas well operations lack source specific conditions. These permits contain the standard eleven conditions on every District permit including a breakdown condition, a condition requiring the source to follow manufacturer's recommendations, and a right of entry condition. The District should also consider including conditions limiting the amount of fuel usage and requiring recordkeeping of fuel usage.

Recommendations: During permit renewal, the District should take the opportunity to correct those permits discussed above to improve the clarity and enforceability of the permit conditions.

The District should consider making permit conditions for heaters at natural gas well operations source specific by including conditions limiting fuel usage and requiring recordkeeping.

B.5 Organization and Adequacy of Permit Evaluations

ARB staff did not find any complete engineering evaluations in the District's files. Most of the District's facility files have an "Air Pollution Emissions Calculations" sheet generated from their Lotus computer program that provides emissions based on actual activity data from the source. The sheets provide the company name and address, contact person, and columns of emission factors, actual

emissions, and throughputs for each respective process at the facility. However, this is only part of a complete engineering evaluation. An engineering evaluation should include a project description, a summary of applicable District rules, calculations of potential and permitted emissions, proposed conditions, a BACT and offset discussion/determination, a discussion concerning health risks associated with the project, and a conclusion section. The District should also include a section (per Health and Safety Code 42301.6) which discusses whether the proposed source or modification is within 1000 feet of the outer boundary of a school site.

The District tracks actual emissions with its "Air Pollution Emissions Calculations" sheet, but the District should quantify and track the potential to emit and the permitted emissions in each engineering evaluation. The District's calculation sheet has a column for the potential to emit under the "Facility Emissions Summary" table but it is usually blank. As required by the District's New Source Review Rule, the District must determine the potential to emit to decide if BACT is required. Tracking the permitted emissions and the potential to emit is also good permit writing practice and provides readily accessible information for inventory purposes.

The District's permits for internal combustion engines at gas well operations have emission limits, require source testing to verify emission limits, and may require a catalyst for BACT, but have no evaluation to show how these emission limits were derived. Similarly, some permits for boilers have conditions with emission limits that are noted as being BACT requirements and require source testing, but also lack complete engineering evaluations.

The District should refer to the Permit Handbook on the website maintained by the Bay Area AQMD or the permitting section of the website maintained by South Coast AQMD to obtain an example template for an engineering evaluation. These can be adopted for use by the Colusa County APCD.

<u>Recommendation:</u> The District should do a complete engineering evaluation for each project. In its engineering evaluations, the District should address whether any school sites are within 1000 feet of the proposed project. The District should also quantify the permitted emissions and the potential to emit in each evaluation.

The District should refer to the Permit Handbook on the website maintained by the Bay Area AQMD (http://www.baaqmd.gov/pmt/handbook/rev02/permit_handbook.htm) or the permitting section of the website maintained by South Coast AQMD (http://www.aqmd.gov/cpp/Std-eval.html) for guidance in developing a template for its engineering evaluations.

B.6 Offsets and Emission Reduction Credits (ERCs)

The District's offset trigger levels for NOx, SOx, PM10 and reactive organic compounds (ROC) are 25 tons per year as required by District Rule 3.6, Section C(2) and HSC section 40918.

The District has not had any projects triggering offsets or ERCs. The District has a community bank though the amounts in it have not been determined. The community bank is funded by taking five percent from ERCs; however, the District has not determined its community bank balance. The District indicated that it uses actual emission data to verify that emission reduction credits are real, quantifiable, enforceable, and surplus.

The current total of ERCs in the District (as of 8/21/03) is shown in Table V:

Table V

	ROC (Tons/Yr)	NOx (Tons/Yr)	PM10 (Tons/Yr)	SOx	CO (Tons/Yr)
ERCs	11.89	20.23	7.76	7 lbs	25.26
Community Bank	District did not have community bank totals at the time of the audit				

Recommendations: The District should determine the community bank balance.

C. Rule Development Program

The Sacramento Valley Basinwide Air Pollution Control Council (BCC) is a regional coordinating body composed of members from the air districts in the air basin. There are nine council members currently sitting on the BCC. The Council is required by law to adopt an annual Agricultural Burn Plan for the air basin. The Council also reviews and endorses proposed control measures in the Attainment Plan prior to consideration of adoption by the Air Pollution Control Boards. The Council meets on a bimonthly schedule at locations throughout the air basin.

A Technical Advisory Committee (TAC) made up of air pollution control officers from districts in the air basin meet monthly to review and coordinate the development of uniform rules before submitting them to the BCC for their consideration. Once a rule has been through the BCC review process, it is then "ready" to go through the public participation and adoption process by each district's governing Board. This rule development and coordination process has allowed the basin to have uniform air quality regulations. This rule coordination effort also fosters communication of ideas among air quality professionals and encourages a sharing of limited resources. Since the Valley is designated nonattainment of the State ambient air quality standards for ozone, PM10, and PM2.5 a uniform set of rules works well for the entire basin.

The District's rule development program was reviewed with respect to the quality of existing rules and the mechanism and procedures for adopting proposed or revised rules. The primary driving force behind the Valley's rule development program appears to be measures contained in the BCC's Air Quality Attainment Plan. The District actively participates in the BCC coordinating rule development effort at the staff level by participating in a basinwide rule development group. This sharing of resources with other districts within the Valley is critical to the District's rule development program due to its limited resources available. There is currently no staff entirely dedicated to administer the rule development program. Two staff members, one a fairly recent hire, dedicate part of their time to the rule program. District management currently believes that it does not have the necessary staff resources for the administration of its rule development program.

Once a rule has gone through the BCC rule development process, it must still go through a public review and participation process by each district. The District has an established rule review process that includes workshops to discuss proposed or revised rules and an opportunity to receive public comments by interested parties. Rule development meetings and workshops designed to discuss and receive public comments on rule amendments are conducted.

ARB and CAPCOA have a mutually agreed protocol designed to facilitate the rule review and coordination process among ARB staff and District staff. The protocol essentially establishes deadlines by when a draft, proposed, and adopted rule needs to be sent to ARB for its review. It also specifies the time ARB has for its rule review period and the method by which comments are communicated back to the Districts. The District was not aware of the agreed ARB/CAPCOA rule review protocol. ARB staff has sent them a copy.

ARB staff also conducted a limited review of the District's adopted rules. Appendix C contains a summary of rule improvement, and clarity issues found in the District's new source review rule. The District's new source review rule, Rule 3.6 could be improved by implementing the rule improvement recommendations highlighted in Appendix C.

With respect to its prohibitory rules, the District is behind schedule in adopting new rule categories as committed to in the BCC endorsed Air Quality Attainment Plan. Some of the rule categories that should be developed and proposed for adoption are residential wood combustion, wood products coating operations, and metal parts and products coatings operations. The District also lacks a rule that regulates volatile organic compound (VOC) emissions from gas recovery (well) operations. This source category is common in the District and it may be advantageous to regulate these activities.

The District should also review its existing regulations to ensure they are clear, enforceable, and with appropriate rule stringency standards. The permitting exemption Rule 3.3 is an example that has clarity and enforceability issues. Specifically, this rule provides broad air pollution control officer discretion to exempt internal combustion engines, and natural gas fuel burning equipment from permit requirements. Further, Rule 3.3 could be improved by providing a concise definition of what constitutes a "minor significance" emission source.

Most districts outside the Valley restrict the permitted visible emissions to Ringelmann number 1; however, Rule 2.13 restricts the visible emissions to Ringelmann number 2. The District should work with other Valley districts to propose lowering the permitted visible emissions to Ringelmann number 1.

The District needs to adopt a fugitive dust emissions rule. The rule should have specific language for administrative requirements for dust control (i.e., fugitive dust control plan, track-out, active/inactive areas and storage pile management, recordkeeping). The rule should incorporate best management practices on dust control for small and large operations that are clear and enforceable.

Recommendation: The District should revisit its new source review rule and address the rule improvement issues raised in Appendix C. The District should also review its existing regulations to ensure they are clear, enforceable, and with appropriate rule stringency standards.

As mentioned in section B.1.1, the District should consider hiring an additional staff person. This staff could also help handle the workload for the rule development program in order to better meet the District's rule adoption schedule and Attainment Plan commitments. In addition to the rules already committed to in the schedule, the District should consider developing a rule that regulates VOC emissions from gas recovery operations and fugitive dust emissions. It should also consider lowering its permitted visible emissions level from Ringelmann number 2 to 1.

D. "Hot Spots" Program

The District collects annual emissions data, but most of this information is not sent to ARB. District staff should verify that their facilities have completed all of the "Hot Spots" requirements, including submitting toxics inventories, within the next year.

The District has completed the evaluation of all Phase I (greater than 25 tons/yr) and Phase II (greater than 10 tons/yr) facilities. It is unclear if the District has adequately identified additional facilities subject to "Hot Spots" that fall in a facility class in Appendix E of the "Hot Spots" EIC&G Regulation (Phase III facilities). ARB staff interviewed the District staff to determine if other classes of facilities have been evaluated under "Hot Spots." Although criteria emission inventories have been collected for some of those facilities, toxics information has not been sent to ARB. The District should evaluate all facilities subject to "Hot Spots" within the next year. ARB staff has committed to helping the District accomplish this task.

The District has identified gasoline dispensing facilities as an industrywide category. There are very few dry cleaners and other industrywide facilities in the District. The District should verify that there are no other facilities subject to Appendix E of the "Hot Spots" Guidelines.

The District submitted initial emissions data for their major facilities, but has not substantially updated their toxics data in more than 7 years. The District uses HARP to submit emission inventory information to ARB. The District should work with ARB staff to prioritize the submittal of the most important emissions data for stationary sources.

It is unclear what the District policy is for calculating a prioritization score for facilities subject to "Hot Spots." The District must adopt either the CAPCOA Prioritization Procedure, or their own method, for evaluating facility toxic emissions. The District should create a mechanism so that facilities are prioritized as part of the regular permit process.

The District collects annual facility information such as throughput for gasoline dispensing facilities, and amount of material processed for other types of facilities. The District recalculates the criteria pollutant emissions and some toxics, but does not quantify and submit toxics on a regular basis. The annual information collected by the District appears to be sufficient for the District to recalculate a toxics emission inventory, and then to provide updated inventories to ARB for facilities subject to "Hot Spots" on a more regular basis. The District should strive to compile and submit the most important inventory data to ARB whenever possible and on a regular schedule.

A large number of major facilities have gone out of business over the past seven years, and none of this information was submitted to ARB. The District does not have a process for notifying ARB when a facility is out of business. District staff should provide a list of facilities and their status in the program to ARB staff, including changes to facility name or identification number. This will allow ARB and the public to track how emissions have changed for each facility in the inventory.

The District has not added any new facilities to the "Hot Spots" program in recent years. It is unclear if new facilities should have been added to "Hot Spots." The District should determine if any new facilities are subject to "Hot Spots" before a permit to operate is granted.

The District focuses on criteria pollutant emission inventory data, and does not regularly report toxics data. Total VOCs for facilities are calculated, but toxics data is not regularly quantified. The District should strive to collect inventory data for facilities that includes stack parameters, and process and device-level data.

The District has not completed the evaluation of industrywide facilities. The District has recently submitted toxics emission data, and will submit gas station data and stationary diesel engine emissions data to ARB in the next year. The District should submit toxics data for classes of facilities for which the District has collected emissions data.

The District does not have an emission inventory database, and paper copies are difficult to compile and summarize. The District's current system may be adequate for managing data. However, some program goals are not being achieved. The District should begin using their new system as soon as possible to maintain a database of emissions and facility information.

The District states that staff analyzes the quality of the facility data to the best extent possible. The District should consider using CATEF or other sources of emission factors that can improve the accuracy of the emissions estimates.

Their regular system of permits and data surveys appears to be adequate to meet the needs of the "Hot Spots" program. The District assesses warnings and penalties (Notice to Comply and/or Notice of Violation) when facilities do not meet the requirements of their District rules.

The District has an existing annual inventory reporting requirement that allows the District to collect emissions data. It is unclear if facilities are evaluated under "Hot Spots" on a regular basis. District staff does not conduct a risk assessment for new facilities. Each year they evaluate whether the emissions have increased, and rarely does a facility get reprioritized. The District should require <u>all new and modified facilities</u> to meet the requirements of the "Hot Spots" program, including those facilities that meet the requirements in HSC 44344.5 section (b).

The District has only identified one facility that must complete an HRA. It is unclear if any other facilities should have completed an HRA. The District should strive to evaluate facility risk as part of the permit process.

The District does not publish an annual report. ARB recommends the District summarize their actions taken in response to this audit to their local Governing Board with a plan to complete all of the "Hot Spots" requirements within the next year.

Recommendations: *The District should provide to ARB a list of all of the facilities and their status in the "Hot Spots" program each year. This information should be made available to the public on an annual basis.*

The District should reevaluate facilities subject to "Hot Spots" to ensure that program requirements are being met.

E. Emission Inventory Program

The emission inventory component of the District audit consisted of an office visit by ARB staff, interviews with District personnel, and a detailed review of facility permit files maintained by the District. As of the date of the audit, the ARB's California Emission Inventory Development and Reporting System (CEIDARS) database contained 43 facilities which emit criteria pollutants and 61 facilities which emit air toxics located in the District.

Overall, the audit revealed that there are opportunities for improving the overall quality of the emissions inventory and management system, such as the institution of quality assurance/quality control procedures, tracking and reporting of facility operating status, and documentation of area source methodologies.

E.1 Criteria Pollutant Inventory

At the time of the audit, the District had submitted electronic updates for criteria pollutants to the ARB's CEIDARS database for 2002. The submittal included annual process rate information in addition to estimates of facility emissions. Process rate information is necessary for establishing and/or verifying emissions estimates provided by the District.

Point Sources: The audit revealed that the reporting and maintenance of point source data by the District could be improved. Prior to updates submitted for 2002, the last comprehensive point source update submitted by the District was for 1999. In addition, the District has not provided updated information on the operating status of point source facilities in the District. Operating status information is important in maintaining the accuracy and completeness of the inventory. As part of the annual emission inventory update submittal to the ARB, the District should provide a list of all facilities with their operating status (e.g., closed, permit revoked, closed since 2000, etc.). This will ensure that the CEIDARS database reflects the most current information regarding active facilities in the District.

The comprehensive point source facility update provided by the District for 2002 was submitted in the correct format to facilitate incorporation of the data into CEIDARS. However, important facility information (e.g., facility locations, stack parameters) was not provided for all facilities in this submittal. Although the missing information was later provided to ARB upon request following a quality assurance check by ARB staff, the District should provide location (spatial) data, stack parameters, and process rate data for all facilities each time an inventory update is provided to ARB.

Area Sources: The most recent update of area source emissions estimates by the District occurred in 2002. The 2002 update included updated emissions

estimates of six area sources categories out of 89 total categories for which the District has responsibility for providing emissions data. Prior to 2002, the last District area source emissions update was submitted in 1991.

Since only two area source emissions updates from six area source categories have been submitted to ARB over the last 15 years, the emissions information reflected in the ARB's database on area sources in the District is outdated and incomplete. The District should provide updates to area source emissions estimates for which it is responsible on a regular basis as part of the annual CEIDARS update submittals.

With respect to area source methodologies, the District has provided ARB with two area source methodologies for which the District has responsibility - agricultural burning emissions (i.e., pruning, field crops, range improvement, weed abatement) and emissions from jet aircraft. There are 89 area source categories for which the District is responsible for developing emission estimates and methodologies. The District should provide methodologies for all the area source categories for which the District is responsible.

E.2 Toxics

Toxics data are an important part of the overall inventory of air pollutants in California and the expectation is that districts will submit updated toxics information on a routine basis.

The toxics inventory for the District has not been updated in 10 years. The operating status of a large number of facilities can change (out-of-business, change in emissions, relocation, etc) in a ten year time period and none of that updated information was submitted to the ARB. District staff should provide a list of facilities and their status in the toxics program to ARB staff, including changes to facility name or identification number. This will allow ARB to track how toxic emissions have changed for each facility in the inventory and provide the data necessary for an accurate and complete inventory. The District should determine if any new facilities are subject to toxics program before a permit to operate is granted and include the facilities' emissions in annual updates to ARB.

At the time of the audit, the District staff indicated their intention to improve the frequency of submittals and quality of their toxics data in the inventory. To date, the frequency of toxics data submittals and the quality of the District's toxics data has not improved.

E.3 General Inventory Management

Growth and Control Factors: Default growth data are routinely developed by ARB staff, or via contractors, for use in developing forecasted emissions estimates. For those area source categories for which the District is responsible for providing emissions data, the District may provide growth factors in place of the ARB's default growth factors.

Control factors reflect rules and other controls on source emissions and are also used in developing forecasted emissions estimates for air quality planning. The ARB relies on local air districts to provide control factors for some source categories. If control factors are not provided, ARB assumes no controls, resulting in inaccurate emissions forecasts.

It is in the interest of the District to ensure that local growth data, if available, and the benefits of emissions control rules are reflected in ARB's forecasts and provide ARB staff with appropriate growth and control factors. The District has provided growth data and control factors for the agricultural burning categories. The District should provide control factors information on new adopted rules and work with ARB staff on use of the appropriate growth factors.

SIC Codes: The District has not provided ARB with updated Source Classification Codes (SCC). These codes are important to accurately assign emissions to sources categories. Based on quality assurance (QA) reports run on the 2002 CEIDARS database for the District's inventory data, there were 23 invalid SIC/SCC combinations that were improperly assigned to facilities and processes. The District should notify ARB staff of any new SCC/SIC combinations assigned to a facility and process in the updated inventory. This will prevent emissions from a source category being assigned incorrectly or aggregated into a miscellaneous category.

Data Management System: The District uses both an electronic and paper filing system for compiling emissions data. The District maintains its criteria inventory in an electronic system developed by ARB, the Hotspots Analysis and Reporting Program (HARP). However, the District maintains toxics inventory data in a paper filing system. The District should add toxics data to their existing electronic criteria pollutant emissions inventory database. The ARB also requests that the District merge criteria and toxic emission inventories and provide ARB with a single, merged emissions inventory. The most recent District emission inventory submittal at the time of the audit was provided in an electronic format (i.e., CEIDARS2.0 transaction format). The District should submit data using the most recent CEIDARS2.5 transaction format.

Data QA/QC: The District staff stated that they do not have a quality assurance (QA) program in place to check data before they are submitted to ARB, nor does the District have a written QA/QC protocol. The District should develop a QA/QC

program and a written protocol to ensure the accuracy and precision of their emission estimates.

Recommendations: The District should continue providing criteria and toxic data updates to ARB as a merged submittal.

The District should continue updating area source categories and provide the information to ARB on a regular basis and as part of the annual CEIDARS submittals.

The District should document all of their area source methodologies and make them available to the ARB and the public.

The District should provide point source updates at the device and process level including spatial, stack, and temporal data for all facilities with each inventory submittal.

As part of the annual emission inventory update submittal to the ARB, the District should provide a list of all facilities with their operating status (e.g. closed, permit revoked, closed since 2000, etc.).

The District should ensure that the facility ID assigned to a facility is unique and not used for other facilities.

The District should develop a written QA/QC protocol to ensure the accuracy and precision of their emission estimates.

The District should notify ARB staff of any new SCC/SIC combinations assigned to a facility and process in the updated inventory.

Appendix A:
Complaint Program Recommendation Details
(Refers to Section A.3)

Complaint Program Recommendation Details (Refers to Section A.3)

1. The District should develop complaint procedures and guidelines which address the following areas:

    a. Complaint relay procedures.

    b. Complaint logging procedures.

    c. Complaint investigation procedures (areas to inspect, questions to ask, inspector conduct, sampling procedures, etc.).

    d. Processing and filing of complaint documents. The complaint files shall be organized such that complaint reports can be retrieved quickly.

    e. Public nuisance procedures which include the number of complaints necessary to pursue a public nuisance. These shall include a system for aggregating complaints linked to a single incident or recurring incidents.

    f. After-hour complaints.

    g. Assigned priority of complaints.

    h. Complaint referrals (to and from agencies).

2. All complaints reported to the district shall be logged and the log shall include the following information:

    a. Complaint number.

    b. Date and time complaint reported to the district.

    c. Inspector assigned to complaint.

    d. Date and time complaint investigated.

    e. Nature of complaint.

    f. Name, address, and phone number of complaint.

    g. Name and address of suspected source of complaint, if known.

h. Whether ongoing complaint or recurring complaint.

i. Enforcement action taken.

j. Disposition of complaint (closed, further surveillance warranted, etc.).

k. Complaint report submitted.

l. Date and time complainant notified.

3. Adequate documentation shall be provided for all complaint investigations. Complaint report shall include the following information:

a. Statement from complainant.

b. Note of all areas inspected, including names, addresses, phone numbers, and contact persons of all suspected sources.

c. Note of time and date of investigation, including permit numbers of units inspected, operating or equipment parameters checked and visible emissions evaluations conducted.

d. Note of names and titles of all persons interviewed at source.

e. Frequency of annoyance or occurrence of emissions.

f. Duration of occurrence.

g. Location and description of property damage.

h. Description of health problems resulting from complaint source.

i. Description of emissions from complaint source.

j. Meteorological conditions.

k. Violations observed and NOV(s) issued and any other enforcement action taken.

l. New, recurring chronic complaint.

m. Investigating inspector.

n. Any other findings.

o. Investigation results, conclusions and recommendations.

Appendix B:
Breakdown Program Recommendation Details
(Refers to Section A.4)

Breakdown Program Recommendation Details (Refers to Section A.4)

1. All breakdown notifications reported to the District should be recorded with essential information for immediate review in the breakdown log. ARB staff recommends the District include the following essential information in the breakdown log:

    a. Time and date breakdown occurred,

    b. Time and date breakdown reported by source,

    c. Time and date breakdown investigated by District,

    d. Source proposed action,

    e. District investigator assigned to the case,

    f. Time and date breakdown was corrected,

    g. Breakdown number,

    h. Date breakdown correction report was filed by source, and

    i. Indicate if a variance was requested and issued.

2. As part of the stationary source reporting requirements, ARB staff recommends that within one week after a breakdown occurrence has been corrected, the owner or operator shall submit a written report to the air pollution control officer which includes:

    a. A statement that the occurrence has been corrected, together with the date of correction and proof of compliance;

    b. A specific statement of the reason(s) or cause(s) for the occurrence sufficient to enable the air pollution control officer to determine whether the occurrence was a breakdown condition;

    c. A description of the corrective measures undertaken and/or to be undertaken to avoid such an occurrence in the future (the air pollution control officer may, at the request for submitting the description required by this subparagraph);

    d. An estimate of the emissions caused by the occurrence; and

e. Pictures of the equipment or controls which failed, if available.

3. All District on-site breakdown investigations should be adequately documented in a breakdown report. On-site breakdown investigation reports should include the following information:

    a. Time and date on site breakdowns investigated,

    b. Permit units inspected and operating and equipment parameters checked,

    c. Specific equipment affected breakdown,

    d. Specific equipment failure,

    e. Detailed description of problem causing the breakdown,

    f. A determination that the breakdown was beyond the reasonable control of the source and is allowable under district rules or a determination that the breakdown was disallowed,

    g. A statement of which rules are being violated,

    h. Determination of excess emissions resulting from breakdown and all operating parameters needed to determine emissions under the breakdown conditions,

    i. Source contact,

    j. Source proposed action,

    k. Inspector evaluation,

    l. Date and time breakdown corrected,

    m. Date inspector re-inspected breakdown to verify that breakdown was corrected,

    n. Steps taken to correct the breakdown, including equipment replacement, repairs, or modifications,

    o. Variance application and issuance, if any, and

p. All data necessary to determine final compliance confirmation.

Appendix C:
Review of Colusa County APCD NSR Rule
(Refers to Section C)

Review of Colusa County APCD New Source Review Rule for 2005 Audit

(Refers to Section C. Rule Development Program)

How this review was done:

Air Resources Board (ARB) staff looked at Colusa County Air Pollution Control District's New Source Review rule listed in Table 1 below, keeping in mind applicable requirements based on the District's attainment status with regard to State and federal ambient air quality standards.

Table 1
Air Quality Status of Districts for State and Federal Ambient Air Quality Standards for Ozone

District – NSR Rule Number	State O_3 attainment status	Federal 8 hr O_3 attainment status
Colusa - Rule 3.6	Non-Attain – Transitional	Attain

Our comments on the rule are categorized according to topic area. Table 2 lists comments on offsets. Table 3 lists comments on definitions, and Table 4 lists other, miscellaneous comments.

The nature of each comment is indicated by a notation printed in bold at the end of the comment. For example, such notations include ones that indicate if the comment reflects an inconsistency found between the District rule and State or federal requirements. Other notations indicate if a comment reflects an inconsistency found between the District rule and that of other comparable districts, or if improvements are recommended for increased clarity or completeness. Also, one notation highlights areas that will likely be impacted by federal requirements that have implementation dates in the near future and may require rule changes.

Table 2 – Comments on Offsets	
Colusa Rule 3.6	• The section that covers general offset requirements would be clearer if "offsets" were well defined in the rule. While some of the five districts (i.e. Feather River, Glenn, and Colusa) currently have a definition of "offsets," it refers simply to an "emission decrease" and not the fact that such a decrease needs to meet certain criteria, such as being banked as an emission reduction credit, to qualify for use as an offset. **(CL)** • The calculation procedure for "actual remission reductions" is unclear because it does not mention the subtraction of emissions that are not surplus. Even though "actual emission reductions" is defined in the different districts' rules, the equations in the calculation procedures are not completely consistent with that definition. One way to remedy this is to include in the calculation procedure a reference to the definition for "actual emission reductions" (or to "surplus," where it is defined). **(CL)** • Section d.2.B.2 should include a reference to section c.3 (offset ratios) to determine the amount of offsets required. **(CL)**

*Abbreviations used to characterize nature of comments: **(IS)** = Inconsistent with State law, **(ID)** = Inconsistent with rules of other comparable districts, **(IF)** = Inconsistent with federal requirements, **(CL)** = Improvement to clarity and/or completeness, **(UP)** = Upcoming - federal requirements taking effect in near future

Table 3 – Comments on Definitions	
Colusa Rule 3.6	• The definition of non-reactive halogenated hydrocarbons should be updated using the attached "ARB's Definitions of TOG and ROG (as of November 2004)" **(CL)** • With the exception of Feather River, all the districts need to add the word "Pollutant" after the words "Secondary Air" to the definition of "Precursor." **(CL)** • The definition for "affected pollutant" should also cover those pollutants listed in section E.1. **(CL)** • The definition for "emissions unit" should be made less broad by changing "An identifiable operation or process….." to "An identifiable operation or piece of process equipment" **(ID)** • The definition of "historic actual emissions" needs to include a requirement that emissions in excess of allowed emission levels will not be included in the computation. Also, specifically tying the calculation period to the two years prior to the date of application *for an Authority to Construct* doesn't work for applications to bank emission reduction credits. The phrase "for an Authority to Construct" should be deleted from this definition. **(CL), (ID)** • The definition of "modification" improperly exempts the replacement of equipment with "functionally identical" equipment. This potentially allows circumvention of BACT for such equipment, which is inconsistent Health and Safety Code 40918(a)(1). That section requires BACT for any new or modified stationary source that has the potential to emit 25 or more pounds per day of any nonattainment pollutant or its precursors. **(IS), (ID)** • The definition of "reconstructed source" improperly exempts "modifications involving only replacement equipment." This would allow a source to be substantially rebuilt without applying BACT. **(IS), (ID)**

*Abbreviations used to characterize nature of comments: **(IS)** = Inconsistent with State law, **(ID)** = Inconsistent with rules of other comparable districts, **(IF)** = Inconsistent with federal requirements, **(CL)** = Improvement to clarity and/or completeness, **(UP)** = Upcoming - federal requirements taking effect in near future

Table 4 – Other Comments	
Colusa Rule 3.6	• The State exemption of agricultural operations from NSR and other permit requirements was removed from Health and Safety Code Section 42310 and replaced by permit requirements for agricultural sources in Health and Safety Code Section 42301.16, effective January 1, 2004. This change does not appear to be reflected in the district rules. **(IS)**

*Abbreviations used to characterize nature of comments: **(IS)** = Inconsistent with State law, **(ID)** = Inconsistent with rules of other comparable districts, **(IF)** = Inconsistent with federal requirements, **(CL)** = Improvement to clarity and/or completeness, **(UP)** = Upcoming - federal requirements taking effect in near future