

Monterey Bay Unified Air Pollution Control District Smoke Management Program

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Background

The District had an existing burn program, which had been run in cooperation with various local fire agencies within this air basin. In 2001, the California Air Resources Board adopted revisions to Title 17 "Smoke Management Guidelines for Agricultural and Prescribed Burning," which are intended to allow increased opportunities for burning projects, while minimizing smoke impacts upon downwind populations. The revisions to Title 17 required local air districts to modify their existing burn programs to become effective smoke management programs. Implementation of the District's recently adopted smoke management program, which complies with the new requirements of Title 17, will mitigate smoke impacts from burning activities conducted to:

- improve critical habitats for endangered and/or threatened species;
- manage watersheds;
- control invasive nonnative plants;
- reduce fuel-loading which elevates wildfire dangers to residential areas;
- manage timber and forest resources;
- improve rangeland; and
- generally manage vegetation in the wildland-urban interface areas.

As recommended by the District's Open Burn Task Force, the District's existing burn program remains largely intact in the adopted Smoke Management Program. Permitting for agricultural waste burning (e.g., orchard and vineyard trimmings), household rubbish burning and yard waste burning will continue to be administered by local designated agencies. Permitting for the following types of burning will continue to be administered by the District: burning of wood wastes from developments; and prescribed burning for rangeland improvement, forest management, and wildland vegetation management.

The significant provisions required by Title 17 include:

- P annual registration for burning projects of particular sizes and purposes;
- P preparation by burners of smoke management plans that meet specific Title 17 requirements for burn projects of particular sizes and locations, including
 - smoke monitoring by burners for certain burn projects;
 - public notification for certain burn projects;
- P a daily burn authorization system run by the District to authorize prescribed burn projects;
- P allowing "test burns" approved in advance by the District and ARB to be conducted on "no-burn days";
- P eliminating the ARB 48-hour commitment to allow burns to proceed on "no-burn" days.

Other significant features necessary for implementation of the revised program include:

- P limiting the emissions from prescribed burns to the approved District Air Quality Management Plan emissions inventory for prescribed burns, with criteria by which the APCO may exceed the limit on a case-by-case basis;
- P direct public notification of sensitive downwind receptors;
- P inclusion of a "smoke action guideline" in District permits.

The District staff also prepared a programmatic Environmental Impact Report for adoption of the Smoke Management Program. Both the Smoke Management Program and the programmatic EIR were adopted by the District Board on May 15, 2002. Copies of the staff report to the District Board, the EIR on the Smoke Management Program, and the Resolution of Adoption have been included as attachments to this submittal to ARB.

District Authority and Rules

District authority evolves from California Code of Regulations, Title 17, Subchapter 2, Section 80100 *et. seq.* Revisions to existing District Rules are necessary to be made for full program implementation, as follows:

407 (Open Outdoor Fires):

- add an exemption to allow test burns to be conducted on "no-burn" days on a case-by-case basis under specific conditions approved by both the District and the California Air Resources Board;
- add a requirement for prescribed burn projects to be registered with the District annually;
- add a requirement for a Smoke Management Plan consistent with the requirements of Title 17 to mitigate and monitor smoke impacts for specified projects;
- add a requirement that prescribed burns may only be conducted after the burner has received authorization from the District within 24 hours of ignition;
- add a restriction that no prescribed burning is allowed on days when high ozone concentrations have been predicted (typically "Spare the Air Days" in the Bay Area);
- add a restriction that the total emissions from all burn projects on each day in the air basin remain within the adopted AQMP VOC and NO_x emission inventories during the ozone season;

- add a provision that the APCO may ease the above restriction on total emissions if limiting the proposed burn would: require multiple burns that would result in prolonged smoldering and expose sensitive receptors to air pollutants over multiple days; or, substantially increase costs; or, impact public services such as roadway access; or, be in an area where several smaller burns would be difficult to conduct and/or would require firebreaks that would increase erosion or landslide potential or disturb cultural resources or endangered plants or species;
- revise the list of local fire agencies authorized to issue agricultural waste permits for the District, i.e., “designated agencies.”

Rule 410 (Range Improvement Burning):

- remove the existing exemption allowing range improvement burning on “no-burn” days;
- add an exemption to allow test burns to be conducted on “no-burn” days on a case-by-case basis under specific conditions approved by both the District and the California Air Resources Board;
- require a Smoke Management Plan consistent with the requirements of Title 17 to mitigate and monitor smoke impacts for specified projects.

Rule 411 (Forest Management Burning):

- remove the existing exemption allowing forest management burning on “no-burn” days;
- add an exemption to allow test burns to be conducted on “no-burn” days on a case-by-case basis under specific conditions approved by both the District and the California Air Resources Board;
- require a Smoke Management Plan consistent with the requirements of Title 17 to mitigate and monitor smoke impacts for specified projects.

Rule 422 (Burning of Wood Wastes from Developments):

- require a Smoke Management Plan consistent with the requirements of Title 17 to mitigate and monitor smoke impacts for all projects.

Rule 432 (Wildland Vegetation Management Burning):

- add an exemption to allow test burns to be conducted on “no-burn” days on a case-by-case basis under specific conditions approved by both the District and the California Air Resources Board;
- require a Smoke Management Plan consistent with the requirements of Title 17 to mitigate and monitor smoke impacts for specified projects.

Most of these provisions are being implemented by District policy until the rules are officially amended. Draft versions of these rules are expected to be publicly circulated beginning December 2002, and are expected to be adopted by the District Board in March 2003. The impact of these rule revisions is covered under the previously prepared programmatic EIR.

Description of the Air District (excerpted from the District's 2000 AQMP)

The North Central Coast Air Basin, consisting of Monterey, Santa Cruz, and San Benito Counties, forms an area of more than 5,100 square miles with varied vegetation, climate and geography. The area includes portions of several mountain ranges: the Santa Lucia and Gabilan Ranges in Monterey and San Benito Counties, the southern portion of the Santa Cruz Mountains in Santa Cruz County, and the Diablo Range in the eastern half of San Benito County. The coastal terraces in the Santa Cruz area, the flat plains surrounding Watsonville, Salinas, and King City, and the southern Santa Clara Valley are sharply defined by the various mountain ranges.

The area consists of one of the smallest and one of the largest counties by population in the state. As of 2000, the air basin was home to approximately 704,100 people with 57 percent residing in Monterey County, 36 percent in Santa Cruz County and seven percent in San Benito County. The Association of Monterey Bay Area Governments forecasts the area to grow to about 921,000 persons by 2020.

The dominant land use in the region is agriculture with approximately 1,626,000 agricultural acres or 393,000 farmed acres (pasture land excluded). About 81 percent of farmed agricultural land is in the Salinas Valley with 14 percent in San Benito County and five percent in Santa Cruz County. The gross agricultural crop value for 1999 was \$2.5 billion in Monterey County, \$180 million in San Benito County and \$256 million in Santa Cruz County for a total of more than \$2.9 billion.

Institutional land uses occupy significant portions of the land area within the region. Military land uses in Monterey County include Fort Hunter-Liggett, Camp Roberts, the Naval Postgraduate School, and the Presidio of Monterey. Other major institutional uses are the University of California at Santa Cruz (UCSC) and the Soledad Correctional Facility. Fort Ord, comprising almost 28,000 acres, was closed in 1993. The California State University at Monterey Bay and UCSC have received more than 2,000 acres of Fort Ord land for education and research uses.

The region has a significant amount of land in open space and recreation uses, including several large State Parks, the Ventana Wilderness (164,503 acres), the Los

Padres National Forest (304,035 acres) and the Pinnacles National Monument. More than 17,000 acres of Fort Ord have been dedicated to open space and recreational uses. The California Department of Parks and Recreation operates more than 25 visitor facilities in the region.

In Monterey and Santa Cruz Counties, urbanized development occupies about three percent of the land area, with approximately 65 percent of regional urban development in Monterey and Santa Cruz Counties extending around Monterey Bay on the coastal plain from the Cities of Santa Cruz to Carmel-by-the Sea. Salinas is an exception, lying more than 10 miles inland from Monterey Bay. Nearly three-quarters of the urban development is for residential purposes. Commercial land uses are concentrated in the major urban centers of the counties, including Santa Cruz-Capitola, Monterey Peninsula, and Salinas. Tourism is also a major segment of the economic market in these areas.

Industrial activities include oil production (San Ardo oil field), power generation (Moss Landing) commercial fishing (Moss Landing), cement manufacturing (Davenport), quarrying activities (all three counties), agricultural processing in the Salinas and Watsonville areas, sand mining (Hollister, Marina, Scotts Valley and the North Coast of Santa Cruz Count), asbestos mining (San Benito County), food processors (Salinas, Watsonville and Santa Cruz) and electronic manufacturing firms (Scotts Valley, Santa Cruz, Watsonville and Salinas).

Approximately 97 percent of San Benito County is unincorporated land, with 90 percent being used as farmland, rangelands, forest, and public lands. The bulk of the county's population resides in the central region near the incorporated cities of Hollister and San Juan Bautista. Hollister serves as the major commercial center for the county.

Development of the Program

Between May 2000 and May 2002 the District staff held the following meetings and workshops to collect input from the different stakeholders, including members of the public, institutional burners, fire agencies, private burners, agricultural groups and large landowners:

- 9 Open Burn Task Force meetings
- 3 general information meetings
- 2 meetings on the EIR
- 1 public workshop before Advisory Committee and Board consideration
- 2 District Advisory Committee meetings
- 2 District Board meetings

District staff also participated on several ARB/CAPCOA committees on Title 17-related issues.

As recommended by the District's Open Burn Task Force, the District's existing burn program will remain largely intact in the adopted Smoke Management Program. Permitting for agricultural waste burning (e.g., orchard and vineyard trimmings), household rubbish burning and yard waste burning will continue to be administered by designated agencies. Permitting for the following types of burning will continue to be administered by the District: burning of wood wastes from developments; and prescribed burning for rangeland improvement, forest management, and wildland vegetation management.

Staff for Program Implementation

Compliance

The Compliance Division consists of one division manager, one supervising inspector, one division secretary, five field inspectors, one mutual settlement officer, and one senior planner. Complaint response, enforcement, and inspection duties for the open burning program are shared by all inspectors. Permit issuance, Smoke Management Plan review, and daily burn authorizations are handled by the senior planner, who is backed up by the supervising inspector or division manager or area inspector. The District receptionist is a key staff member in directing complaint calls to the appropriate Compliance Division staff.

Monitoring

The District has a monitoring network to conduct standard ambient air quality monitoring, including measurements of particulates. There are one supervising air monitoring technician, four air monitoring technicians, and one project assistant who run the monitoring network. There are also portable pieces of meteorological and particulate monitoring equipment used for complaint monitoring and special studies by the field inspectors or air monitoring technicians.

Planning

The District has one planner/meteorologist who is available for working with ARB and project proponents for special test burns, and who will, as needed, participate in daily burn authorization decisions. However, the District will continue to rely upon ARB staff for daily burn day designations for the air basin. The District also has one supervising planner who reviews projects for CEQA requirements.

Permit Applications, Smoke Management Plans and Permits

Applicants for prescribed burning projects must complete a permit application, which also serves as the Smoke Management Plan. The application includes the following information about activities intended to help mitigate air quality impacts of prescribed fires in wildland and wildland/urban interface areas:

- project description (for all burn projects)
- additional data for burns with the potential to impact Smoke Sensitive Areas (including smoke monitoring methods, procedures for public notification and education , and for addressing complaints from the public)
- for burns less than 100 acres or 10 tons of PM₁₀, meteorological conditions for ignition, projections of where the smoke from burns is expected to travel, contingency plans if there are serious smoke impacts
- for burns larger than 100 acres or 10 tons of PM₁₀, an evaluation of alternatives to burning considered
- for burns greater than 250 acres or burns for which smoke complaints were received the public, a post-burn evaluation form, which would describe if there was smoke touch-down, if there were complaints, and how much fuel was actually consumed. An alternative would be other standard fire agency reports, such as After Action Reports.

To reduce paperwork, the applicant may reference the locations of information contained in other documents, such as an operational burn plan prescription, as an acceptable alternative. For projects that have NEPA or CEQA documents, the applicant can reference those documents.

Once approved by the District, the completed Smoke Management Plan becomes part of the District's Smoke Management Permit for the project. The District has already tested this process with large institutional burners with success.

Document Organization

The rest of the document is arranged according to the sections in the California Code of Regulations, Title 17, Subchapter 2, Section 80100 *et. seq.*

Section 80110

The District will continue to rely upon the ARB for making the daily permissive-burn, marginal burn, and no-burn day designations. However, there is a provision within the revised Title 17 that ARB may test alternative meteorological data for a three-year period in making burn day decisions. In cases where meteorological conditions are favorable for smoke dispersion for a particular burn project (due, for example, to its size, location, terrain, or local meteorology) but not for the rest of the air basin, the ARB would declare the day a “no-burn” day for the air basin, but grant the project a “test burn” status. This would be done in consultation with this District. In the future, the ARB may be able to make separate declarations for inland versus coastal areas of the air basin, based on the results of these test burns.

District staff has already cooperated with a few burners and the ARB on successful test burns conducted under this process.

Section 80130

Permit holders are required to submit reports of actual material burned as a permit condition. See the District’s permit template for standard language. This information is collected in a District database and is provided to ARB annually.

Sections 80145(a), (b) & (g)

For prescribed burns, the revisions to Title 17 require that the burner receive a daily burn authorization from the District within 24 hours of ignition. This is to prevent too many burn projects from happening in the same general area simultaneously. This is the District’s normal procedure, with the burners calling the day ahead of a proposed burn being conducted to receive authorization. The District has made a minor modification to this requirement for the convenience of the burners who may need to conduct a prescribed burn on a holiday or the weekend. If receiving authorization within 24 hours of ignition is not possible for the burner, because the District office will not be open, the burner must contact District staff within 72 hours ahead of a potential burn date to receive “provisional authorization.” Provisional authorization would be District approval up to 72 hours in advance to allow the burn to occur on a specific future date because there will be no District staff available to authorize the burn within 24 hours of the burn. However, the burn may only be conducted if the day chosen for the burn has been declared to be a permissive burn day by the ARB. In other words, in special cases the District’s daily authorization could be provided up to 72 hours ahead of the actual burn, but the approval would be contingent upon ARB’s declaration of a permissive burn day. Tests of this provisional authorization procedure this year have been met favorably by burners. The District may be able to modify the authorization procedure when PFIRS or another electronic database is available to transmit this information.

The number of burn authorizations granted per day for prescribed burns depend on the size and location of the burn projects requested. Priorities will be determined by the order received.

Emissions from prescribed burns are to be limited to the approved AQMP emission inventory for prescribed burns. Provisional authorizations granted will be included in how much burning may be conducted on a particular day. However, the Air Pollution Control Officer would have discretion to approve burns more than the approved emission inventory if limiting the proposed burn project would:

- require multiple burns at the same location that would result in prolonged smoldering and exposure of sensitive receptors to air pollutants over multiple days; or
- substantially increase cost of vegetation removal; or
- impact public services such as roadway access; or
- be in an area where several smaller burns would be difficult to conduct and/or would require firebreaks that would increase erosion or landslide potential or disturb cultural resources or endangered plants or animals.

Since few impacts have been reported from the following types of burning, burners would not be required to receive a daily burn authorization from the District for:

- agricultural waste burning;
- household rubbish burning; or
- yard waste burning.

Note that these permits have been and will continue to be issued by the local designated agencies. As is the current practice, such burning would continue to be conducted only on burn days. Burners would continue to call the current toll-free number to find out the burn day status for the following day.

Sections 80145(c) - (f)

The District will continue to depend upon the Meteorology staff at ARB for forecasting permissive burn days and providing 48-hour forecasts, 72-hour outlooks, and 96-hour trends for specific prescribed burns. When necessary, the use of ARB meteorological staff, internet-based weather data and forecasting tools, and other reasonably available resources, such as the Naval Post-Graduate School profiler and the Interagency Fire Forecast and Warning Unit, will provide support to the District's planner/meteorologist for assessing meteorological conditions and for making smoke management burn authorization decisions before ignition.

The District has a monitoring network to conduct standard ambient air quality monitoring. There are one supervising air monitoring technician, four air monitoring technicians, and one project assistant who run the monitoring network. There are portable pieces of meteorological and particulate monitoring equipment used for special studies and complaint monitoring by the field inspectors and air monitoring technicians.

Permit issuance, Smoke Management Plan review, and daily burn authorizations are handled by the senior planner in the Compliance Division, who is backed up by the supervising inspector or division manager or area inspector. The District also has one planner/meteorologist who is available for working with ARB and project proponents for special test burns, and who will, as needed, participate in daily burn authorization decisions.

The District provides a toll-free number for all burners to use to find out the daily burn day designations, as declared by the ARB. The information for the next day is posted by 4:00 P.M. each day on this number.

Sections 80145(h) & (i)

Applicants are required to submit a District Smoke Management Plan and Permit Application Form, which was adapted from the statewide form developed by ARB and CAPCOA. If a burn project may impact other air basins, the other air basins are required to be notified as part of the Smoke Management Plan. The District staff provides contact persons and information for the other air basins as appropriate to applicants. A copy of the District's form is included as an attachment to this submittal.

Sections 80120 and 80145(j)

The District permit format includes the necessary wording. A copy of the permit template is provided as an attachment to this submittal.

Section 80145(k)

The District has had a long-standing inspection program to enforce the nuisance prohibitions contained in the District Smoke Management Permit (formerly "Burn Permit"). Burn sites will continue to be inspected by District staff for prescribed burns as staff resources allow, to determine compliance with Permit conditions and other District requirements. District staff will use fixed-site ambient air monitors (including particulate matter and ozone monitors), portable particulate monitors and meteorological equipment, and/or visual field checks to monitor smoke impacts and transport from agricultural and prescribed burning. Complaints of smoke impacts are a high priority for each area Inspector, who investigates complaints and issues notices of violations as appropriate.

Section 80145(l)

This information contained in the District Smoke Management Plan and Permit Application Form is part of the review by District staff.

Section 80145(m)

Emissions from prescribed burns are limited to the approved AQMP emission inventory for prescribed burns. However, the Air Pollution Control Officer would have discretion to approve burns more than the approved emission inventory if limiting the proposed burn project would:

- require multiple burns at the same site that would result in prolonged smoldering and exposure of sensitive receptors to air pollutants over multiple days; or
- substantially increase cost of vegetation removal; or
- impact public services such as roadway access; or
- be in an area where several smaller burns would be difficult to conduct and/or would require firebreaks that would increase erosion or landslide potential or disturb cultural resources or endangered plants or animals.

Sections 80145(n) & (o)

These provisions are part of the existing District Rules on open burning.

Section 80150(a)

There is no burning of rice, barley, oat or wheat straw known to be conducted in this air basin. Permits issued by the local designated agencies limit the hours of burning to daylight hours.

Section 80160(a)

Burn project information for registration will be submitted to the District annually by prescribed burners. The information to be submitted will include the type of vegetation to be burned, the expected amount, general location, and estimated dates for the burn. The District will initially provide forms that may be used to transmit this information. The project proponent may make revisions to the estimated schedule of burn projects throughout the year, as necessary. The District may modify this procedure when the Prescribed Fire Incident Reporting System (PFIRS) or another Statewide electronic database is available to transmit this information.

Sections 80160(b) - (g), and (j) - (l)

This information is contained in the District Smoke Management Plan and Permit Application Form and is part of the review by District staff.

Sections 80160(h) & (i)

These requirements will be included as part of the revision of the District's open burning rules for consistency with Title 17.

Sections 80160(m) - (p)

These provisions are part of the existing District Rules on open burning.

ATTACHMENTS

Staff Report to District Board (May 15, 2002)
MBUAPCD Smoke Management Plan and Permit Application Form
MBUAPCD Smoke Management Permit template