

III. RECOMMENDATION

Adopt the proposed resolution, number 79-70, thereby amending the Agricultural Burning Guidelines and the Meteorological Criteria for Regulating Agricultural Burning, as indicated by the specific language revisions contained in Appendices A and B, respectively.

that about half the permissive-burn days would be premium permissive-burn days in the Great Central Valley, which would equate to an average of about 80 during the non-rice waste burning part of the year.

The districts in the Sacramento Valley have asked that this concept be applied year-round, even during the rice burning season.

The meteorology staff investigated the amount of acreage that can be burned under different meteorological regimes, considering the effect on ambient visibilities in the Sacramento Valley. The results indicate, during October and November, that even under the best available meteorological conditions for smoke dispersion only about 10,000 acres per day can be burned and still ensure maintenance of the state visibility standard of 10 miles. This equates to a maximum quota of about two percent of the acreage planted basinwide. Therefore, the concept of premium permissive-burn days is not being applied during the rice burning season (October 1 through November 15).

b Expected results

It is expected that the information that a day is a premium permissive-burn day can be utilized by the farming community to channel a considerable amount of burning to exceptionally good burn days.

2 Notice of exceedance of air quality standards on no-burn days

a Reason for proposed revision

Recently the EPA has proposed to restrict the issuance of special burn permits which allow agricultural burning on no-burn

days because this action conflicts with the Clean Air Act which requires primary consideration for public health impacts. In essence the EPA objects to the practice of allowing any special permit burning on no-burn days when ambient air quality standards may be exceeded.

b Expected results

This change to the meteorological criteria would require that a no-burn decision be specified as to whether or not any ambient air quality standard is expected to be exceeded during the period. By this notification the APCO would assume the responsibility to prohibit special no-burn day exceptions from being issued on no-burn days with expected air quality exceedances.

c Discussion of proposed revision

The meteorology staff proposes to implement this proposal by appending a notice to the no-burn day announcement if the ambient air quality standard for ozone, carbon monoxide, hydrocarbons, total suspended particulate, or visibility is expected to be exceeded during the burn period.

This approach will preserve local control in granting such exceptions, while providing the essential data in evaluating the effect that additional burning would have on the air quality.

This proposal has been met favorably. One comment received from the Chairman of the Sacramento Valley Technical Advisory Committee at a recent workshop was that since it is EPA that is concerned about protecting the air quality standards, why not address only the federal primary standards? The staff feels that it is the responsibility of the State and APCDs to protect the State air quality standards adopted for California. Obviously

- 1) Limit the amount of acreage which can be burned in any one day.
- 2) Require a specific explanation of the cultural practices which require immediate burning.
- 3) Require the person to wait a specified number of consecutive no-burn days, if practical, before exception may be authorized.
- 4) Require compliance with all other applicable regulations including drying times.
- 5) Require the person to specify the reason why the burning was not conducted on the previous permissive-burn day.
- 6) Require that the exception expire at the end of the day, or estimate the length of the burn and specify an expiration date.
- 7) Document that each of the above conditions has been met in a report filed with the chief of the ARB Enforcement Branch.

The criteria are based upon input from many districts on their processes of evaluation. These additions to the Agricultural Burning Guidelines are proposed to create a uniform set of guidelines for adoption by the districts.

b. Expected Results

It is anticipated that the criteria for issuance of no-burn permits will be beneficial in providing the districts with a uniform policy approved by the ARB for administering the no-burn day permit option, and it will also provide the districts with a mechanism for protecting the ambient air quality standards as EPA has requested.

c. Discussion of Proposed Revision

The list of proposed criteria has been discussed in detail at several workshops on the subject. Additions and deletions have

and 3,844 tons/year carbon monoxide emissions can be achieved in the San Joaquin Valley.

Table IV-4

Estimated emissions reductions for field crop burning beginning at 10:00 a.m. (excluding rice straw) in the Sacramento Valley Air Basin.

Emissions* if burned at 8:00 a.m. with a 10.0 percent moisture content			Emissions** if burned at 10:00 a.m. with a 8.3 percent moisture content			Emission reduction tons/year		
Particulate	HC	CO	Particulate	HC	CO	Particulate	HC	CO
22.3 lbs/ton	16.8 lbs/ton	146.7 lbs/ton	10.0 lbs/ton	5.0 lbs/ton	70.0 lbs/ton	736	501	3,261
1,161	714	6,237	425	213	2,976			

*Using emission factors developed for wheat, barley and rice straw by Dr. Ellis Darley under ARB Project 4-011.

**Using emission factors developed for wheat, barley and rice straw under ARB Project 2-017-1.

Table IV-5

Estimated emissions reductions for field crop burning beginning at 10:00 a.m. in the San Joaquin Valley Air Basin.

Emissions* if burned at 8:00 a.m. with a 10.0 percent moisture content			Emissions** if burned at 10:00 a.m. with a 8.3 percent moisture content			Emission reduction tons/year		
Particulate	HC	CO	Particulate	HC	CO	Particulate	HC	CO
22.3 lbs/ton	16.8 lbs/ton	146.7 lbs/ton	10.0 lbs/ton	5.0 lbs/ton	70.0 lbs/ton	867	591	3,844
1,368	842	7,353	501	251	3,509			

*Using emission factors developed for wheat, barley and rice straw by Dr. Ellis Darley under ARB Project 4-011.

**Using emission factors developed for wheat, barley and rice straw under ARB Project 2-017-1.

3. Proposal on Criteria for Issuing No-Burn Day Permits

a. Reason for Proposed Revision

The Health and Safety Code Section 41862 states that:

A district may issue a permit to authorize agricultural burning on days designated by the state board pursuant to Section 41855 as nonburning days when denial of such a permit would threaten imminent and substantial economic loss.

The state board shall require the districts to transmit regular reports of permits issued authorizing agricultural burning on nonburning days. The report shall include the number of such permits issued, the date of issuance of each permit, the person to whom each permit was issued, and any other information requested by the state board.

The Environmental Protection Agency (EPA) has issued a notice in the Federal Register of proposed rule making regarding its

stricter standards are needed in California, and it would be negligent on the part of the State to ignore them.

3 Reversal of burn/no-burn day decisions

a Reason for proposal

It is proposed that the meteorological criteria be expanded to include a provision allowing the agricultural burn decision, already disseminated, to be reversed if the technical information on hand overwhelmingly suggests that it would be prudent to do so. It is suggested that this decision be disseminated as quickly as possible but no later than 10:00 a.m. the day of the event.

Input received at the workshops indicates that the public would like the ARB to have the authority to reverse a burn or no-burn day decision.

On occasion agricultural burn decisions made at an earlier time have not turned out as anticipated and in the case of a burn decision a smoke episode was imminent or in the case of a no-burn decision a good opportunity to burn was missed. In both cases the effectiveness of the control program is lessened. A provision to change the decision after it has been disseminated would minimize these ineffective emission management situations.

b Discussion of proposed revision

The proposal to reverse permissive-burn/no-burn decisions, as appropriate, has merit. Communications will probably be the biggest problem. It is suggested that any revised decision be made on the morning of the event and disseminated as soon as possible, but not later than about 10:00 a.m. A decision reversal could be telephoned to the APCD s involved and to the Department

of Forestry for further dissemination. To be effective this option will need to be used judiciously and sparingly.

Districts in both the Sacramento and San Joaquin Valley Air Basins have expressed a concern for the enforceability of such a regulation. The staff agrees that there may be enforcement problems associated with the burn decision reversal. This proposal is really designed to remedy situations which develop differently than anticipated. If a burn day turns out to be particularly poor any amount of burning that can be prevented will be beneficial. Conversely, on exceptionally good days which should be permissive-burn days the growers should be allowed to take advantage of them.

C. PROPOSED REVISIONS TO THE METEOROLOGICAL CRITERIA FOR REGULATING AGRICULTURAL BURNING IN THE SACRAMENTO VALLEY

1. Burn/No-Burn Day Declaration for the Valley Floor of Placer County

a. Reason for Proposed Revision

Since the formation of the Mountain Counties Air Basin in 1975, agricultural burning in Placer County has been governed by the meteorological criteria for the Mountain Counties Air Basin. Figure IV-8 illustrates that the western portion of Placer County actually lies on the valley floor of the Sacramento Valley Air Basin. The agricultural wastes burned and the meteorological structure of this portion are more like those in the Southeast Section of the Sacramento Valley Air Basin than that of the Mountain Counties Air Basin. Many complaints have been received about the burning of rice straw/stubble and other agricultural wastes in the western portion of Placer County which has caused extreme degradation of visibility in Sacramento County where burning was not allowed.

been made in the process. Several persons expressed the concern that these additional criteria will add unnecessary paperwork. The staff feels however that special consideration should be given to each request for burning on a no-burn day since the day has already been declared a poor quality day for burning. Extensive information is necessary for the air pollution control officer (APCO) to make a sound decision on whether or not to permit such burning.

4. Proposal for the Addition of Rice Straw Burning Regulations

a. Reason for Proposed Addition

In 1975 the Sacramento Valley Air Basin Control Council adopted regulations into the Sacramento Valley Air Basin Plan for stricter control on the burning of rice straw. Since that time, each of the districts in the Sacramento Valley which have rice growing within their jurisdiction have adopted the rice burning regulations.

This addition will formalize the requirements already present in the Sacramento Valley Air Basin Basinwide Plan, and will expand the use of these techniques to the rice stubble burned in the San Joaquin Valley.

High moisture content is the chief cause of smoke, so residue should be burned when it is driest. In keeping with this, the regulations to be adopted specify methods of straw distribution to maximize drying, drying times for each type of distribution, testing procedures for determining straw dryness (the "crackle" test), burning after a rain, limiting burning hours, and specifying backfiring or into-the-wind striplighting as the method of ignition

(burning hours and backfiring are covered separately in this report, please see Sections IVA1 and IVA2).

These guidelines were developed from research performed for ARB under contract with the Agricultural Engineering Extension Service, at the University of California at Davis.

b. Expected Results

As the Sacramento Valley has been implementing these regulations since 1975, emission reductions have been realized. Emission reductions for backfiring and burning hours are covered in Sections IVA1 and 2. Implementation of these drying times and use of the crackle test in the San Joaquin Valley will ensure optimum drying of rice residues before burning and aid enforcement by standardizing the requirements.

B. PROPOSED REVISIONS TO THE METEOROLOGICAL CRITERIA FOR REGULATING AGRICULTURAL BURNING IN THE SACRAMENTO AND SAN JOAQUIN VALLEY AIR BASINS

1. Proposal for Modifications to the Current Burn Day System

a. Reason for Proposed Revisions

Data compiled by the staff for the last 5 years show that approximately 85 percent of the over 5 million tons of reported statewide agricultural waste burned annually is burned in the Sacramento Valley and San Joaquin Valley Air Basins. Emissions from agricultural burning, therefore, exert a large influence on the air quality of these air basins, particularly in terms of the ambient air quality standard for visibility reducing particles.

The meteorological criteria were designed to identify permissive-burn days on the assumption that the burning of an average amount of agricultural waste on such a day could be accomplished without

Several Sacramento Valley districts have adopted or noticed public hearings to adopt this regulation. The regulation they have adopted contains a provision for exception to the rule given by the APCO. If, for example, a wheat farmer had a specific need to burn off the wheat stubble in his field and hadn't burned before October 1, the APCO would have the authority to make an exception.

The staff supports the concept of this proposal and foresees an emission reduction during rice burning season when it is needed. The staff recommends that specific guidelines apply to the granting of exemptions from this requirement including that the total daily average burned of all crops not exceed five percent of the rice acreage. The crop material will be burned at other times of the year but the impact should be lessened as the emissions will not be added to an already critically overloaded atmosphere during October 1 through November 15.

E. PROPOSED REVISION TO THE METEOROLOGICAL CRITERIA FOR REGULATING AGRICULTURAL BURNING AND PERTAINING TO THE SAN FRANCISCO AIR BASIN ONLY

1. Proposal on the Repositioning of the North/South Boundary of the San Francisco Bay Area Air Basin

a. Reason for Proposed Revision

The San Francisco Bay Area Air Basin was separated into a North Section and a South Section on April 27, 1978. At that time Contra Costa County was made part of the South Section except for some eastern portions, namely, the Byron-Bethany and East Contra Costa irrigation districts, which were included in the North Section. Since then it has been noted that this designation has caused fragmentation of the agricultural burn areas because the irrigation districts' boundaries are not always contiguous. This

has caused problems in enforcement and identification when the agricultural burning decisions were different in the two sections.

b. Expected Results

The proposed boundary delineation is a continuous, well-defined line which will eliminate any confusion in identifying burning areas and will facilitate enforcing burning regulations when the two sections are assigned different agricultural burning decisions.

c. Comments on Proposed Revision

The request for this change came from the Bay Area Air Quality Management District (Appendix H) and the meteorology staff of the ARB supports it. There has been no opposition to this proposal.

F. PROPOSED REVISIONS TO THE METEOROLOGICAL CRITERIA FOR REGULATING AGRICULTURAL BURNING AND PERTAINING TO THE SAN DIEGO AIR BASIN

1. Applying the Meteorological Criteria for the Southeast Desert Air Basin to the Desert Portion of the San Diego Air Basin

a. Reason for Proposed Revision

Conditions favoring burning may prevail in the desert portion of the San Diego Air Basin but because the existing meteorological criteria are applicable to the entire basin, conditions along the coast may necessitate declaring a no-burn day.

b. Expected Results

More than 50 additional days per year would become available to burn in the desert portion of the basin.

c. Discussion of Proposed Revision

This proposed amendment has been requested by the San Diego County APCD and is supported by the ARB's Meteorology Section.

There has been no opposition to this proposal.

2. Division of the San Diego Air Basin into Two Parts, the Division To Be Set at 3,000 Feet msl, Adjustable Downward as Appropriate with New Criteria for Each Part

a. Reason for Proposed Revision

The existing meteorological criteria for the San Diego Air Basin reflect conditions in the coastal zone. Although ventilation at altitudes above 3,000 feet may provide excellent burn conditions, coastal criteria may preclude declaring a burn day.

b. Expected Results

Over 50 additional days per year would be made available for burning without any adverse effect on air quality basinwide. Presently several State and federal agencies are together developing a pilot project on chaparral management (recently authorized by AB 1006, the Wildlands Fire Protection Act) in San Diego County, the Laguna-Morena Demonstration Area. Prescribed burns, designed to reduce catastrophic wildfires, are an integral part of the project. All the prescribed burns will take place above 3,000 feet, and will be monitored and evaluated to develop new methodology and meteorological criteria for this type of range management. These burns would be facilitated by adopting new elevation criteria.

c. Comments on Proposed Revision

This amendment has been requested by the San Diego County APCD. The ARB staff supports this proposal. There has been no opposition.

G. REQUEST BY SAN DIEGO COUNTY APCD TO MAKE ITS OWN METEOROLOGICAL FORECASTS

San Diego County APCD has requested authorization to make its own forecasts for the San Diego Air Basin except for the desert

a recommendation to the ARB that the Agricultural Burning Guidelines be amended to add a provision limiting non-rice waste burning during the critical rice burning season. This provision would restrict the burning of crop acreages which were harvested earlier in the year (before September 10) from being burned during the rice burning season of October 1 through November 15.

One of the reasons for this suggestion is that each of the districts in the Sacramento Valley has adopted acreage limitations during October 1 through November 15. Some districts have adopted a total acreage limit for all burning, such as Yolo-Solano APCD with a limit of 1,250 acres per day and Sacramento County APCD with a limit of 1,235 acres per day. Other districts have taken a somewhat more variable approach by adopting regulations which reduce the acreage of agricultural waste burning to 50 percent of the allotment which is permitted during other times of the year (the daily allotment during other times of the year is 10 percent of the total acreage within the district of any agricultural crop waste).

b. Expected Results

In either case this acreage reduction has been very difficult for some growers to work under. It is hoped that by limiting the other crop wastes that can be burned during the rice burning season only essential rice burning will occur, and an overall reduction in burning will result in emission reductions during that time.

Review of Table IV-7 showing ARB statistics on the amounts of other waste burning compared to rice straw burning in October and November reveals an average of 117,000 tons of other waste material

has traditionally been burned along with the 809,000 tons of rice straw burned during this time. Although this amounts to only a 15 percent difference, it could mean a 800 ton redirection in particulate emissions, a 900 ton redirection in hydrocarbon emissions and a 5,000 ton redirection in carbon monoxide emissions during this overloaded time of the year.

Table IV-7

Comparison of amounts of rice straw and other crop wastes burned during rice burning season, October 1 through November 30.

District	1975 Tons		1976 Tons		1977 Tons	
	Rice Straw	Other Waste*	Rice Straw	Other Waste*	Rice Straw	Other Waste*
Butte	272,000	16,000	202,000	37,000	158,000	35,000
Colusa	311,000	3,000	196,000	-	136,000	2,000
Glenn	164,000	19,000	121,000	18,000	86,000	8,000
Sacramento	23,000	21,000	19,000	27,000	12,000	31,000
Sutter	233,000	13,000	119,000	11,000	73,000	13,000
Tehama	-	16,000	1,000	7,000	-	11,000
Yolo-Solano	78,000	19,000	42,000	10,000	33,000	24,000
Yuba	57,000	4,000	51,000	2,000	41,000	4,000
Total Tons	1,138,000	111,000	751,000	112,000	539,000	128,000

*Other - includes orchard prunings, field crops other than rice straw, range improvement, forest management and weed abatement burning.

NOTE: Average of 117,000 tons of other waste was burned during October and November. Average for rice straw = 809,000. 1976 and 1977 were drought years.

c. Discussion of Proposed Revision

This regulation has recently been adopted by the Sacramento Valley Control Council into the Sacramento Valley Air Basin Plan.

portion. In turn, the District would then determine whether a day was a burn or no-burn day.

The District staff is familiar with the San Diego climate and topography, and is in a position to monitor weather patterns at the local level as well as regionally. In addition, the District has adequate technical staff to operate a forecasting program and the ARB staff has no technical objection to letting the District do so.

Allowing the District to make its own forecasts would not involve a revision to the Agricultural Burning Guidelines or to the Meteorological Criteria for Regulating Agricultural Burning. Rather, a contract agreement similar to that now in effect between the ARB and the Bay Area Air Quality Management District and the South Coast Air Quality Management District will be drawn up, specifying that the criteria to be utilized by the San Diego County APCD meteorologists will be those in the Meteorological Criteria for Regulating Agricultural Burning.

H. PROPOSED REVISION TO THE METEOROLOGICAL CRITERIA FOR REGULATING AGRICULTURAL BURNING AND PERTAINING TO THE LAKE TAHOE AIR BASIN

1. Proposal for the Official Adoption of the Experimental Criteria Used To Determine Agricultural Burn Days in the Lake Tahoe Air Basin

a. Reason for the Proposed Addition

When the Lake Tahoe Air Basin was established in April 1975, it was included with the Mountain Counties Air Basin as far as agricultural burning was concerned. In 1977, when the Board adopted a more stringent visibility-reducing particulate standard for the Lake Tahoe Air Basin, it was decided to make the meteorological criteria for agricultural burning more stringent. Accordingly,

new meteorological criteria were established for the Basin which were similar to the criteria for the Mountain Counties Air Basin but more stringent. These new criteria were used for making the daily agricultural burn decisions on a trial basis. They have been in use for over two years and have been deemed satisfactory.

b. Expected Results

The existing criteria have worked well to identify permissive-burn days. The proposed new criteria are based on the same principles and were designed to permit the selection of days with superior smoke dispersion characteristics in areas where agricultural burning is extensive and to incorporate more flexibility in designating burning areas.

I. PROPOSED REVISION TO THE AGRICULTURAL BURNING GUIDELINES TO APPLY STATEWIDE

1. Proposal for the Revision of the Definition of "Brush Treated" in Agricultural Burning Guidelines

a. Reason for Proposed Revision

Section 80120(e) of the Agricultural Burning Guidelines states that:

Each district may designate a period between January 1 and May 31, during which time range improvement burning may be conducted by permit on a no-burn day, providing that more than 50 percent of the land has been brush treated.

Section 80100 Definition (e) states that "Brush treated" means that the material to be burned has been felled, crushed or uprooted with mechanical equipment, or has been desiccated with herbicides. This definition does not take into account the amount of brush present that is already dead. The purpose of the 50 percent brush treatment requirement is to lower emissions of air contaminants by burning material with as low a moisture content as practical. The

criteria apply to different portions of the Sacramento Valley, San Joaquin Valley, San Francisco Bay Area and North Coast Air Basins.

The staff disagrees with the concern expressed by the Placer County Rice Growers that adding the burning of their acreage to the Sacramento Valley would compound the burning problem. No more acreage would, in fact, be burned. It would be burned when meteorological conditions are more favorable. At present, Placer County is burning when conditions in the Sacramento Valley will not support the intrusion of smoke into the stagnant air.

At a workshop the staff held in Colusa, California on August 31, 1979 this proposal was discussed. No adverse comments were received about it.

2. Proposal for Dividing into Two Levels the Air Shed Above the Sacramento Valley for the Purpose of Declaring Separate Burn and No-Burn Days for Each of These Levels

a. Reason for Proposed Revision

When the Sacramento Valley Air Basin was established, the meteorological criteria divided it into a high and a low part for purposes of determining agricultural burning days. The elevation division was set at 3,000 feet above msl with a winter feature which allowed the elevation division to be adjusted downward to conform with the top of the temperature inversion. When the Mountain Counties Air Basin was formed in 1975, the need for this elevation division feature was considerably lessened and it was eliminated from the meteorological criteria.

Recently the Sacramento Valley Basinwide Air Pollution Control Council informed the ARB that the agriculturalists in the higher parts of the several APCDs with sizeable land areas above the

b. Expected Results

It is anticipated that restructuring the criteria for burning in the lower portion of Placer County will aid in preventing the intrusion of smoke into the Sacramento Valley on no-burn days.

As illustrated in Table IV-6 there will be approximately an 18 percent reduction in the number of available burn days, but it is still anticipated that 75 percent of the days will be permissive-burn days.

Table IV-6

Percentage of permissive-burn days in the Sacramento Valley Southeast Section and the Mountain Counties Air Basin yearly average.

Year	Sacramento Valley Southeast Section	Mountain Counties Air Basin
1972	72	-
1973	83	-
1974	78	-
1975	79	92
1976	75	91
1977	72	92
1978	72	95
Average	75	93

c. Discussion of Proposed Revision

As indicated in Appendix D the Placer County Board of Supervisors has objected to this proposed change. It feels that having two separate burn classifications would cause considerable public confusion and would be impossible to implement. Furthermore, it has questioned the legality of such a change.

Second, Appendix E from the Placer County Rice Growers also expresses opposition to this proposal. They feel that by adding their acreage (approximately 9,000 to 10,000 acres yearly) to the Sacramento Valley Air Basin the problem of stubble burning would be compounded.

valley floor would like to allow burning during periods of extended stagnation when they are frequently situated above the inversion and the dispersion in their area is good. The staff feels this is a reasonable request and should tend to reduce overall emissions in the valley because the emissions from this higher elevation burning would not be as great when burning resumed on the valley floor after an extended no-burn period.

b. Expected Results

Based on historical data, it is calculated that the elevation division feature would provide an average of about 40 more permissive-burn days per year in those areas above the inversion.

c. Discussion of Proposed Revision

This proposal was suggested by and receives support from the Sacramento Valley Control Council and agriculturalists in higher elevations of the Sacramento Valley. The only opposition received on this proposal was from Placer County APCD. Placer County is concerned that if the lower portion of the County is placed into the Sacramento Valley for burn/no-burn declarations and also if the burn decision is made at variable elevations, enforcement of the regulations would be extremely difficult. The staff feels that enforcement for Placer County would be no more difficult than for other counties and that once the growers learned their elevations the program will work well.

D. PROPOSED REVISIONS TO THE GUIDELINES APPLICABLE TO THE SACRAMENTO VALLEY ONLY

1. Sacramento Valley Restriction on Non-Rice Waste Burning During Rice Burning Season

a. Reason for Proposed Revision

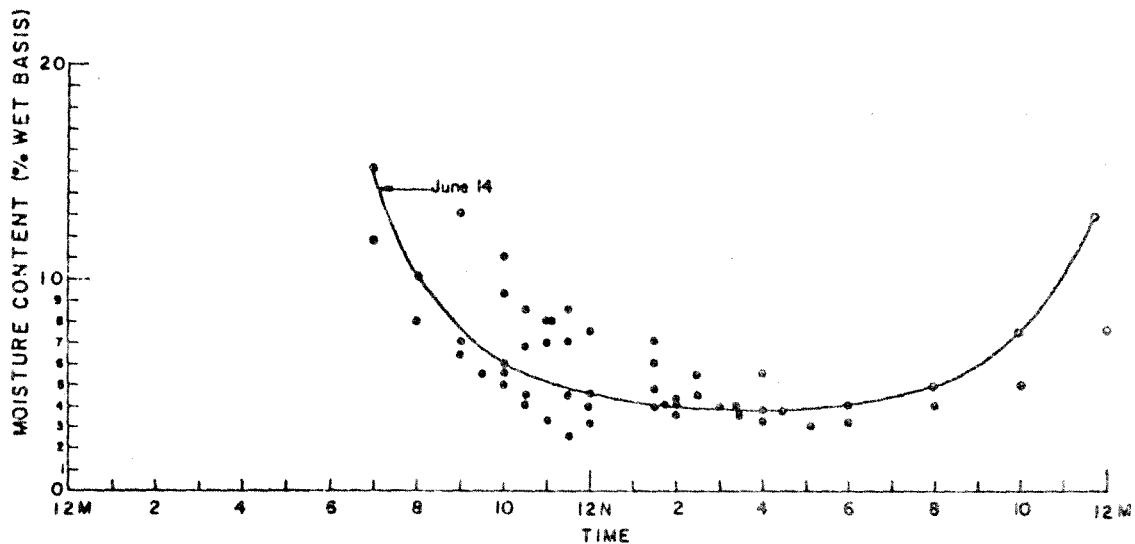
The Sacramento Valley Technical Advisory Committee has made

indicates, wheat and barley straw residues are burned under different field conditions than rice straw. These grains are harvested after the plant becomes senescent (mature) and consequently the straw residues are usually very dry. Also these residues are burned in the summer when drying conditions are excellent. However, the report identifies a moisture pattern that indicates that even on summer nights with little or no dew the residue can absorb moisture because of increased relative humidity and the moisture content may reach as high as 15 percent. The residue will begin to dry again as soon as the sun comes up and as Figure IV-7 indicates will have dried sufficiently by 10:00 a.m. to begin burning.

Figure IV-7

Barley residue drying on typical summer days.

Data taken: June 14, 19, 21, 22, 23, 27, 28 - 1972



Although there will be some days when the waste material would be dry enough for clean burning before 10:00 a.m., there does not appear to be a reliable and enforceable means of determining the moisture content of the wastes in the field. Hand held wood

moisture meters have been used to determine moisture content. They can be calibrated for straw, but have the inherent limitation of measuring the moisture of only a very few stems at a time. Extensive sampling may be required to get a representative sample. Another type of moisture meter which can be calibrated for use on straw is the type which is used on forage crops. It uses a windrow probe which could be inserted into a handful of straw instead of a windrow of hay.

The use of the "crackle test" which is now used on rice straw would not be sufficient for use on barley or wheat straw. The crackle test means that a handful of straw when bent sharply makes an audible crackle. The crackle is audible at approximately 12 percent moisture content which is acceptable for burning rice straw, but not for wheat or barley straw. Wheat and barley straw should be burned below eight moisture content.

b. Expected Results

The result of requiring the 10:00 a.m. start-up time for all cereal crops will effect an emission reduction between 8:00 a.m. (the time now generally authorized by district regulations) and 10:00 a.m. It is difficult to estimate the exact emission reduction possible as the staff does not have information on how much burning begins at 8:00 a.m., the legal start-up time. However, as shown in Table IV-4 Sacramento Valley and Table IV-5 San Joaquin Valley, if it is assumed that one quarter of the burning of field crops begin at 8:00 a.m. an emission reduction of 736 tons/year of particulate, 501 tons/year of hydrocarbon, and 3,261 tons/year of carbon monoxide emissions can be achieved in the Sacramento Valley and 867 tons/year particulate, 591 tons/year hydrocarbon

Table IV-1

Particulate emissions factors for barley, oats, rice and wheat straw developed by Dr. Ellis Darley, University of California, Riverside.

Crop type	Headfire (25* percent slope)	Backfire (25* percent slope)	Percent reduced
Barley	21.5 lbs/ton	8.2 lbs/ton	62
Oats	44.3 lbs/ton	19.7 lbs/ton	56
Rice	9.9 lbs/ton	6.3 lbs/ton	36
Wheat	28.0 lbs/ton	11.3 lbs/ton	60

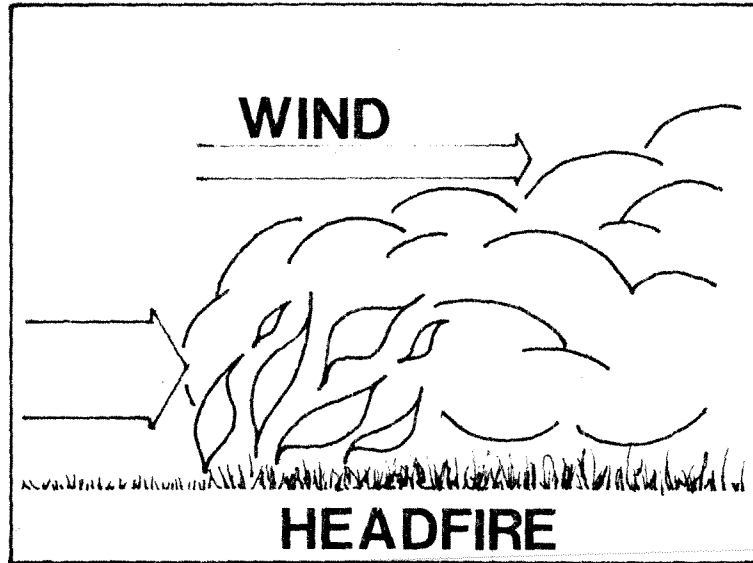
*Estimated to simulate a 3-5 mph wind.

As Table IV-1 indicates, the difference in burning techniques can mean up to a 62 percent reduction in particulate emissions for burning barley straw, 56 percent reduction for oat straw, 60 percent reduction for wheat straw, and 36 percent for rice straw. Backfires work best with an adequate quantity of dry waste material. As Dr. Darley reports in ARB Project 2-017-1 the slower burning backfire develops more complete combustion of the volatile organic aerosols which are produced in close proximity to the fire. In the backfire these combustibles are carried into the flame area and consumed. In the headfires these aerosols are also produced on the upwind side of the fire but the flame is moving away from the aerosols and there is essentially no potential for combustion of this airborne material. Other factors that affect combustion or may enhance the quality of burn in a backfire are: longer flame-fuel contact period, which can aid in preheating and predrying the fuel, and greater potential for oxygen supply.

Adoption and implementation of regulations requiring backfiring or into-the-wind striplighting will mean a 2,051 tons/year reduction

Figure IV-1

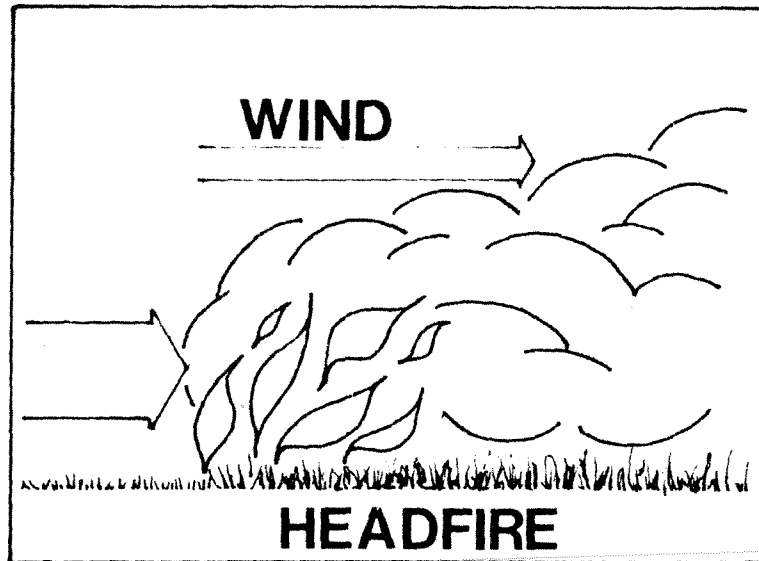
Illustration of the relationship between wind direction and direction of burn advance - headfire technique.



2 Backfire: A backfire results when a field is lighted on its downwind side and is forced to burn against the wind, thus slowing it down and allowing for more complete combustion than exists when the headfire technique is employed. Figure IV-2 illustrates the relationship between wind direction and the direction in which the burn advances when the backfire technique is employed.

Figure IV-1

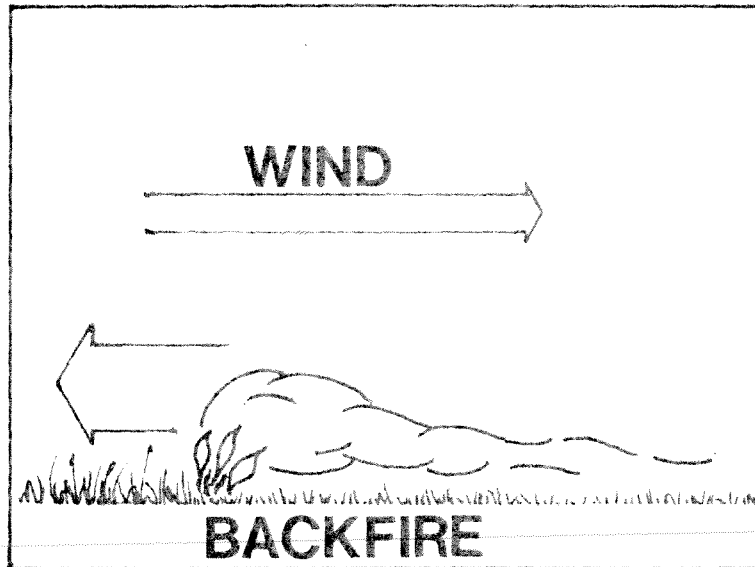
Illustration of the relationship between wind direction and direction of burn advance - headfire technique.



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Figure IV-2

Illustration of the relationship between wind direction and direction of burn advance - backfire technique.



3 Into-the-wind striplighting: Striplighting is employed when faster burning is desired but headfiring is not to be employed. Striplighting produces emission levels between headfiring and backfiring (about 20 to 30 percent of the field will burn with a headfire and 70 to 80 percent with a backfire), but the field burns in a shorter length of time. Figure IV-3 illustrates the paths followed by two persons employing the into-the-wind striplighting technique on a field and the relative wind direction.

in particulate emissions in the Sacramento Valley and 1,671 tons/year reduction in the San Joaquin Valley. Tables IV-2 and IV-3 show these possible reductions.

Table IV-2

Expected particulate emission reduction due to backfiring regulations in Sacramento Valley.

Average tonnage burned annually*		Tons of emissions from headfiring	Tons of emissions from backfiring	Annual reduction tons/year
Barley	30,000	323	123	200
Oats	10,000	222	99	123
Wheat	207,000	2,898	1,170	1,728
TOTAL				2,051

*Based upon a three year average ('75, '76, '77).

Table IV-3

Expected particulate emission reduction due to backfiring regulations in San Joaquin Valley.

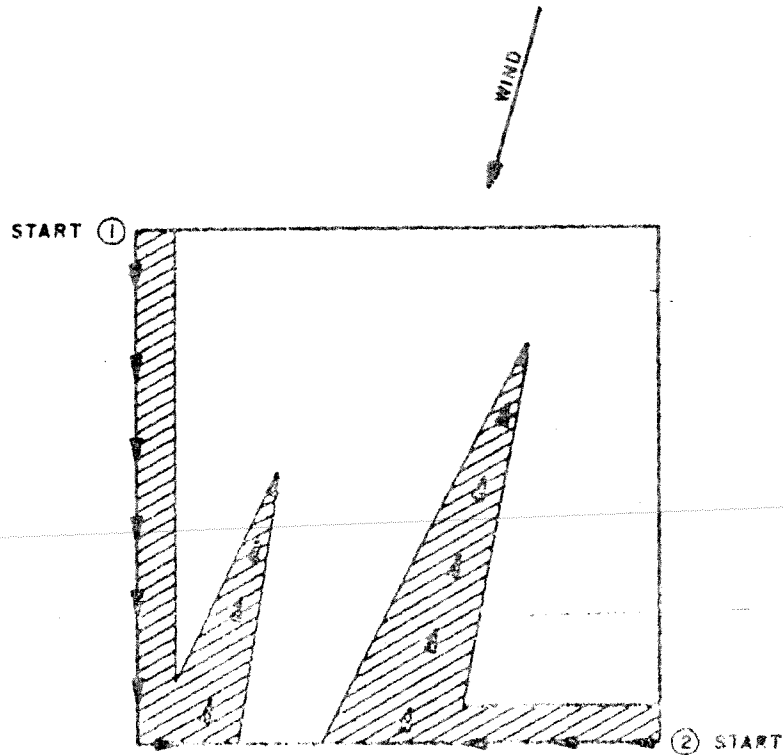
Average tonnage burned annually*		Tons of emissions from headfiring	Tons of emissions from backfiring	Annual reduction tons/year
Barley	83,000	893	340	553
Oats	4,000	89	39	50
Rice	120,000	594	378	216
Wheat	102,000	1,428	576	852
TOTAL				1,671

*Based upon a three year average ('75, '76, '77).

This proposal has received widespread support from the agricultural community as well as the air pollution control districts (APCDs). The Sacramento Valley Air Pollution Control

Figure IV-3

Illustration of the paths of two workers igniting a field by the into-the-wind striplighting technique with respect to wind direction.



b. Expected Results

Emission factors for rice, barley, wheat and oat straw (among other crop wastes) were developed at the Statewide Air Pollution Research Center by Dr. Ellis Darley (Table IV-1). His research shows the difference in particulate emissions from headfires and backfires. There were no significant differences in the emissions of carbon monoxide or hydrocarbons between the two methods.

and 3,844 tons/year carbon monoxide emissions can be achieved in the San Joaquin Valley.

Table IV-4

Estimated emissions reductions for field crop burning beginning at 10:00 a.m. (excluding rice straw) in the Sacramento Valley Air Basin.

Emissions* if burned at 8:00 a.m. with a 10.0 percent moisture content			Emissions** if burned at 10:00 a.m. with a 8.3 percent moisture content			Emission reduction tons/year		
Particulate	HC	CO	Particulate	HC	CO	Particulate	HC	CO
22.3 lbs/ton	16.8 lbs/ton	146.7 lbs/ton	10.0 lbs/ton	5.0 lbs/ton	70.0 lbs/ton	736	501	3,261
1,161	714	6,237	425	213	2,976			

*Using emission factors developed for wheat, barley and rice straw by Dr. Ellis Darley under ARB Project 4-011.

**Using emission factors developed for wheat, barley and rice straw under ARB Project 2-017-1.

Table IV-5

Estimated emissions reductions for field crop burning beginning at 10:00 a.m. in the San Joaquin Valley Air Basin.

Emissions* if burned at 8:00 a.m. with a 10.0 percent moisture content			Emissions** if burned at 10:00 a.m. with a 8.3 percent moisture content			Emission reduction tons/year		
Particulate	HC	CO	Particulate	HC	CO	Particulate	HC	CO
22.3 lbs/ton	16.8 lbs/ton	146.7 lbs/ton	10.0 lbs/ton	5.0 lbs/ton	70.0 lbs/ton	867	591	3,844
1,368	842	7,353	501	251	3,509			

*Using emission factors developed for wheat, barley and rice straw by Dr. Ellis Darley under ARB Project 4-011.

**Using emission factors developed for wheat, barley and rice straw under ARB Project 2-017-1.

3. Proposal on Criteria for Issuing No-Burn Day Permits

a. Reason for Proposed Revision

The Health and Safety Code Section 41862 states that:

A district may issue a permit to authorize agricultural burning on days designated by the state board pursuant to Section 41855 as nonburning days when denial of such a permit would threaten imminent and substantial economic loss.

The state board shall require the districts to transmit regular reports of permits issued authorizing agricultural burning on nonburning days. The report shall include the number of such permits issued, the date of issuance of each permit, the person to whom each permit was issued, and any other information requested by the state board.

The Environmental Protection Agency (EPA) has issued a notice in the Federal Register of proposed rule making regarding its

Figure IV-4

Particulate emissions vs. moisture (laboratory data).

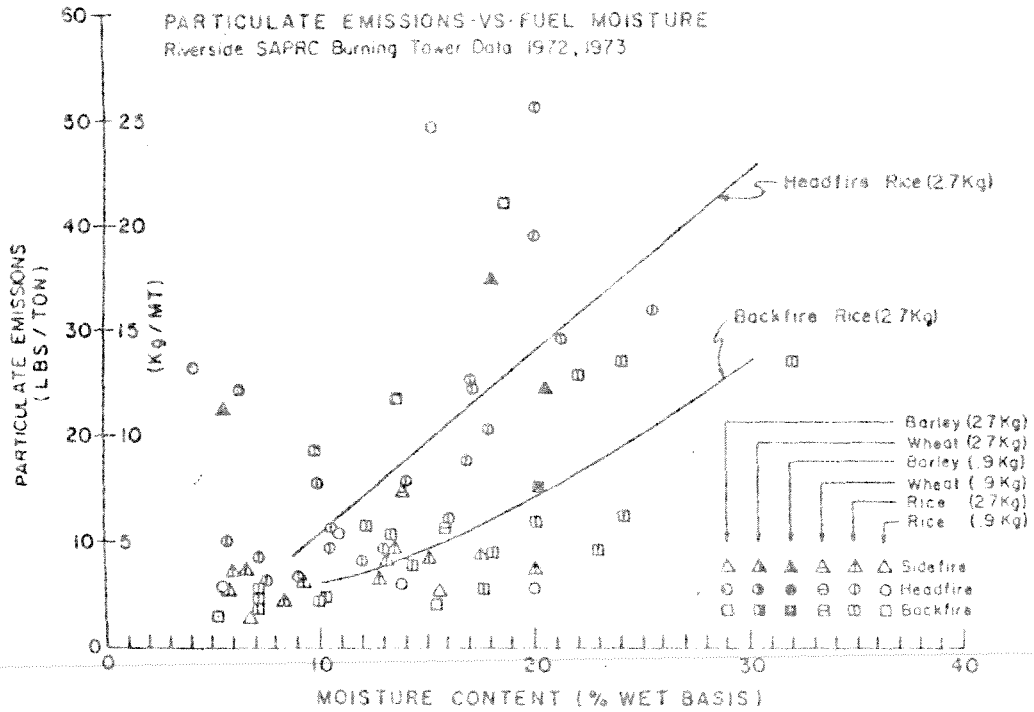


Figure IV-5

Gaseous hydrocarbon emissions vs. moisture (laboratory data).

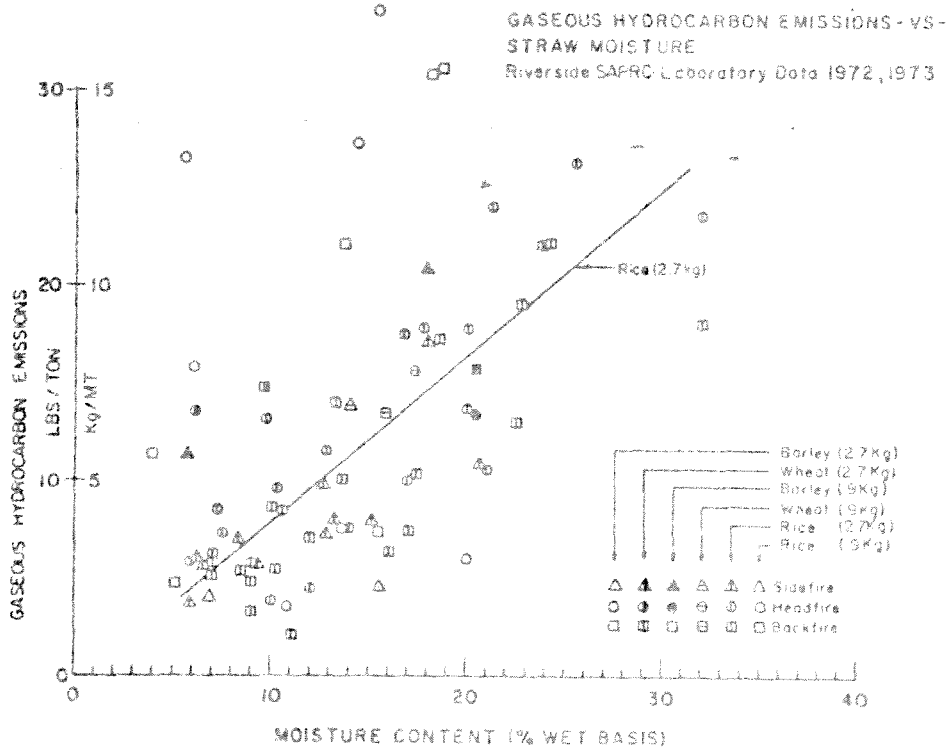
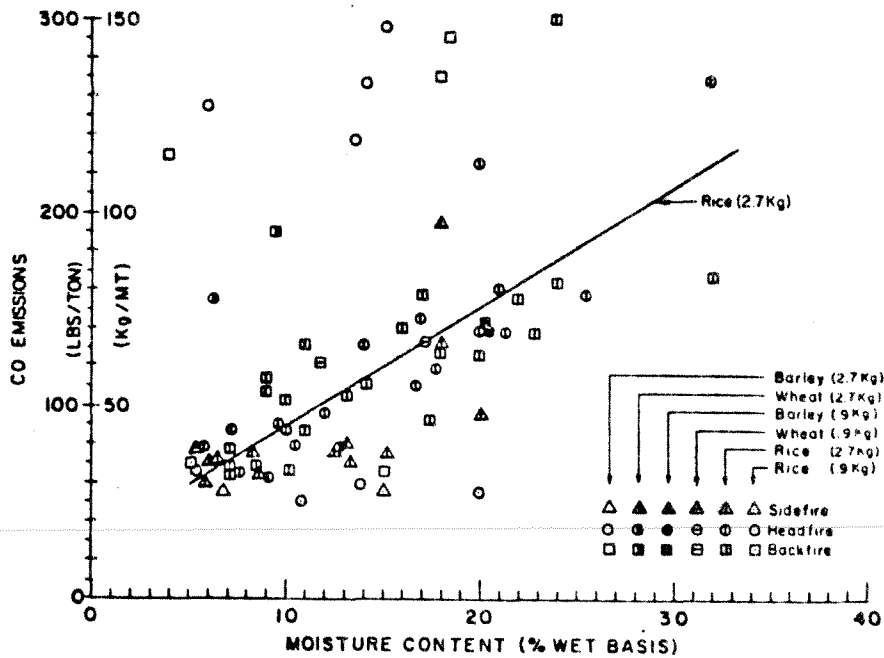


Figure IV-6

Carbon monoxide emissions vs. moisture (laboratory data).



The moisture content of cereal straw and stubble has been found to be strongly related to relative humidity, as well as influenced by solar radiation, air temperature, wind speed, residue loading and residue placement. Minimum moisture levels are generally reached between 2:00 p.m. and 3:00 p.m. when the relative humidity is at its low point for the day.

The Sacramento Valley Air Basin has adopted regulations which require burning hours beginning at 10:00 a.m. and ending at 5:00 p.m. for rice straw burning. In addition, research supports the 10:00 a.m. start-up time for burning of other cereal crop wastes such as wheat and barley.

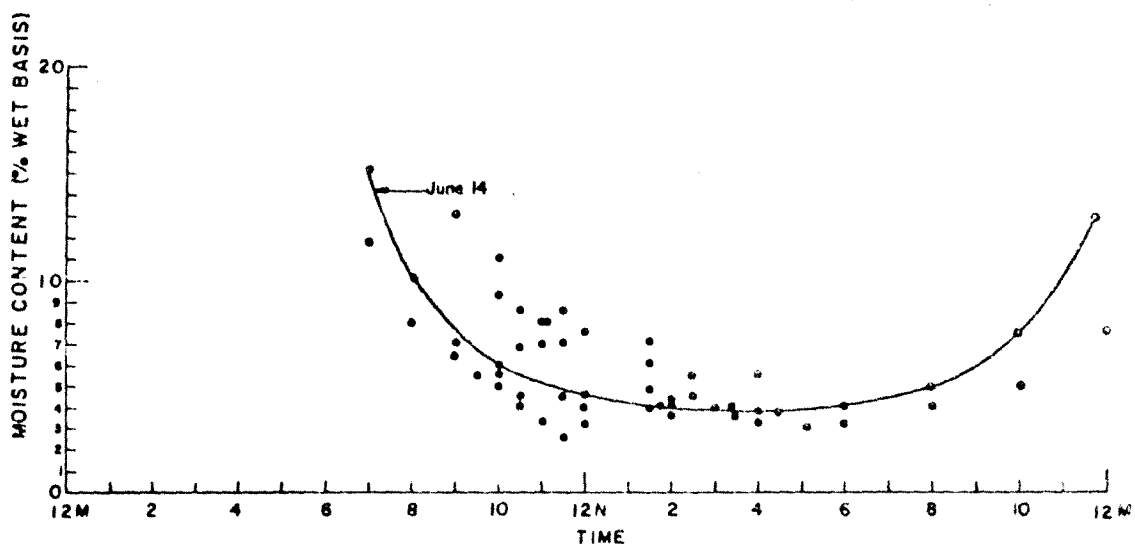
As the research conducted under one of Air Resources Board's (ARB's) contracts with the University of California, Riverside

indicates, wheat and barley straw residues are burned under different field conditions than rice straw. These grains are harvested after the plant becomes senescent (mature) and consequently the straw residues are usually very dry. Also these residues are burned in the summer when drying conditions are excellent. However, the report identifies a moisture pattern that indicates that even on summer nights with little or no dew the residue can absorb moisture because of increased relative humidity and the moisture content may reach as high as 15 percent. The residue will begin to dry again as soon as the sun comes up and as Figure IV-7 indicates will have dried sufficiently by 10:00 a.m. to begin burning.

Figure IV-7

Barley residue drying on typical summer days.

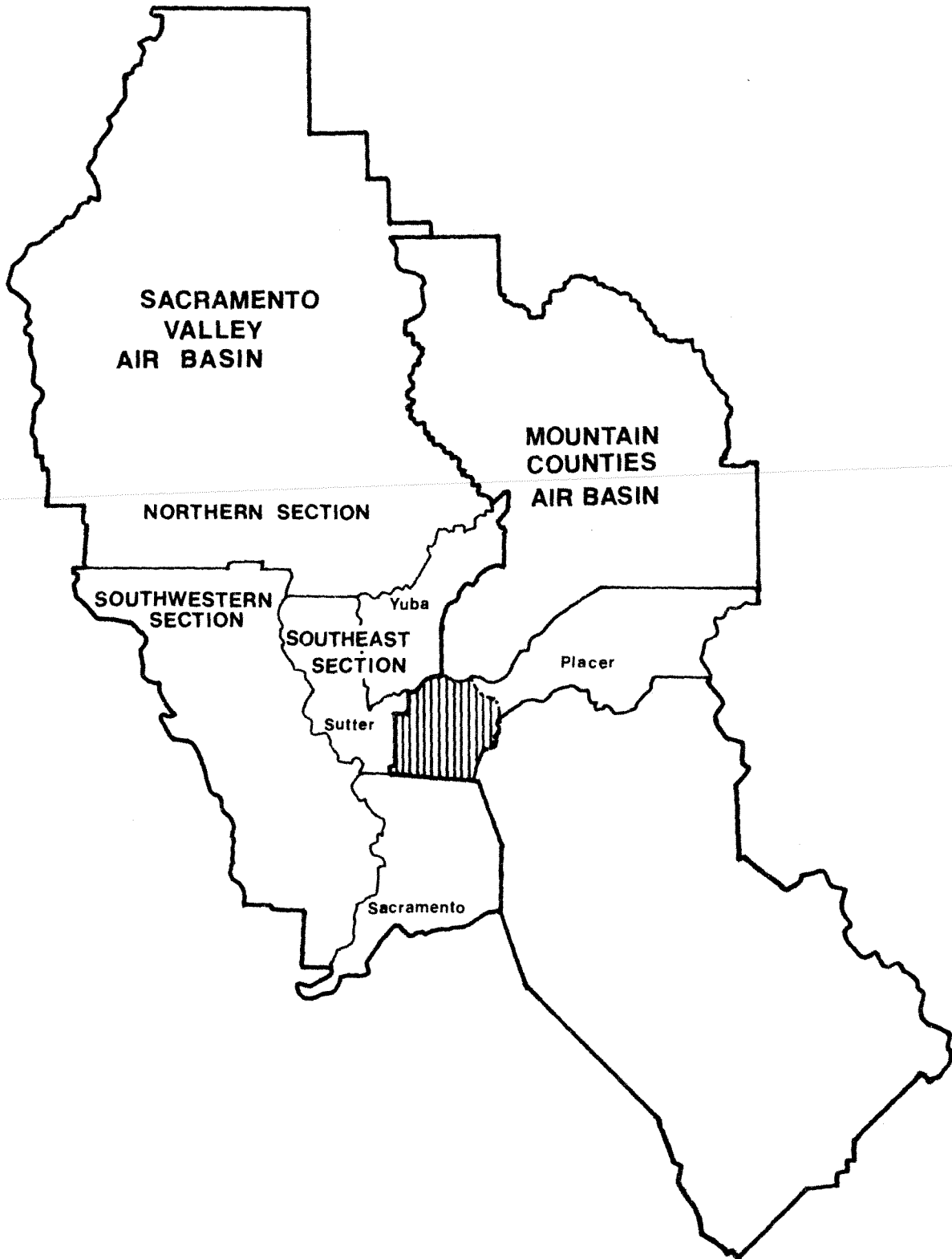
Data taken: June 14, 19, 21, 22, 23, 27, 28 - 1972



Although there will be some days when the waste material would be dry enough for clean burning before 10:00 a.m., there does not appear to be a reliable and enforceable means of determining the moisture content of the wastes in the field. Hand held wood

FIGURE IV-8

Maps showing location of Placer County in relation to the Sacramento Valley Air Basin.



Council has recently adopted this proposal into the Sacramento Valley Air Basin Plan, and each of the districts in the Sacramento Valley has, begun or completed hearing processes to adopt this regulation into their district regulations. The Sacramento Valley regulation included a provision that allows for an exception to be allowed to the backfiring or striplighting requirement in the case of a fire hazard situation. A few comments were received opposing the backfiring requirement because it is slower than the traditional headfiring technique. However, the inclusion of into-the-wind striplighting should alleviate these concerns as it has proven to be much faster than backfiring while still achieving an emission reduction.

2. Proposal for Adopting Burning Hours for Cereal Crops

a. Reason for Proposed Revision

Research has shown the moisture content of fine fuels such as cereal straw and stubble to be the major factor in affecting the levels of emissions from agricultural burning. When the moisture content of these fuels is increased above 12 percent wet basis for rice straw and 8 percent for wheat and barley, there is a definite increase in emissions of particulate matter (Figure IV-4), hydrocarbons (Figure IV-5), and carbon monoxide (Figure IV-6). The improved burning techniques discussed in the first proposal are dependent upon low moisture content to be effective.

Figure I-1

COMPARISON OF TONS OF CARBON MONOXIDE EMISSIONS
FROM MOBILE SOURCES, STATIONARY SOURCES,
AND AGRICULTURAL BURNING
SAN JOAQUIN VALLEY AIR BASIN - 1975

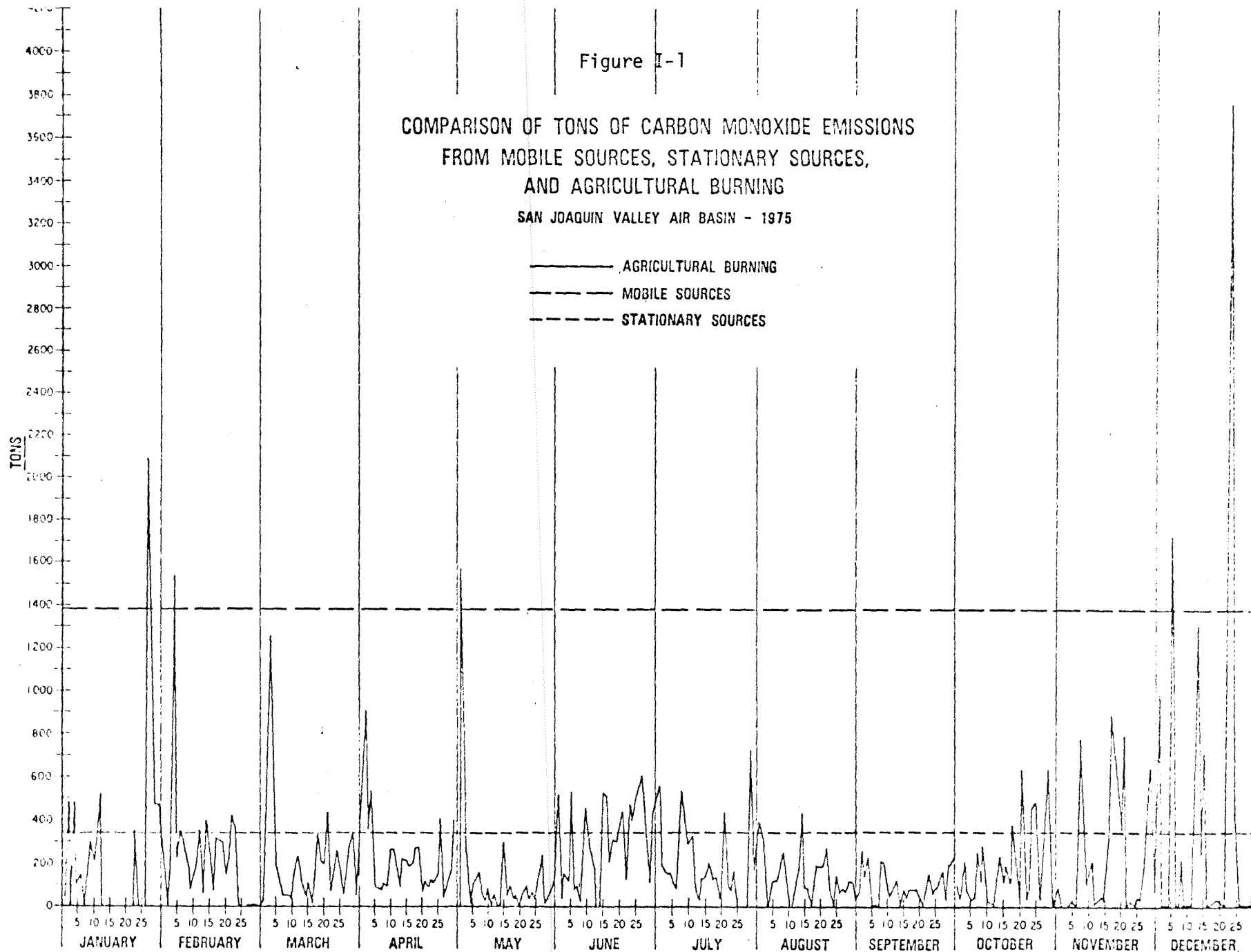
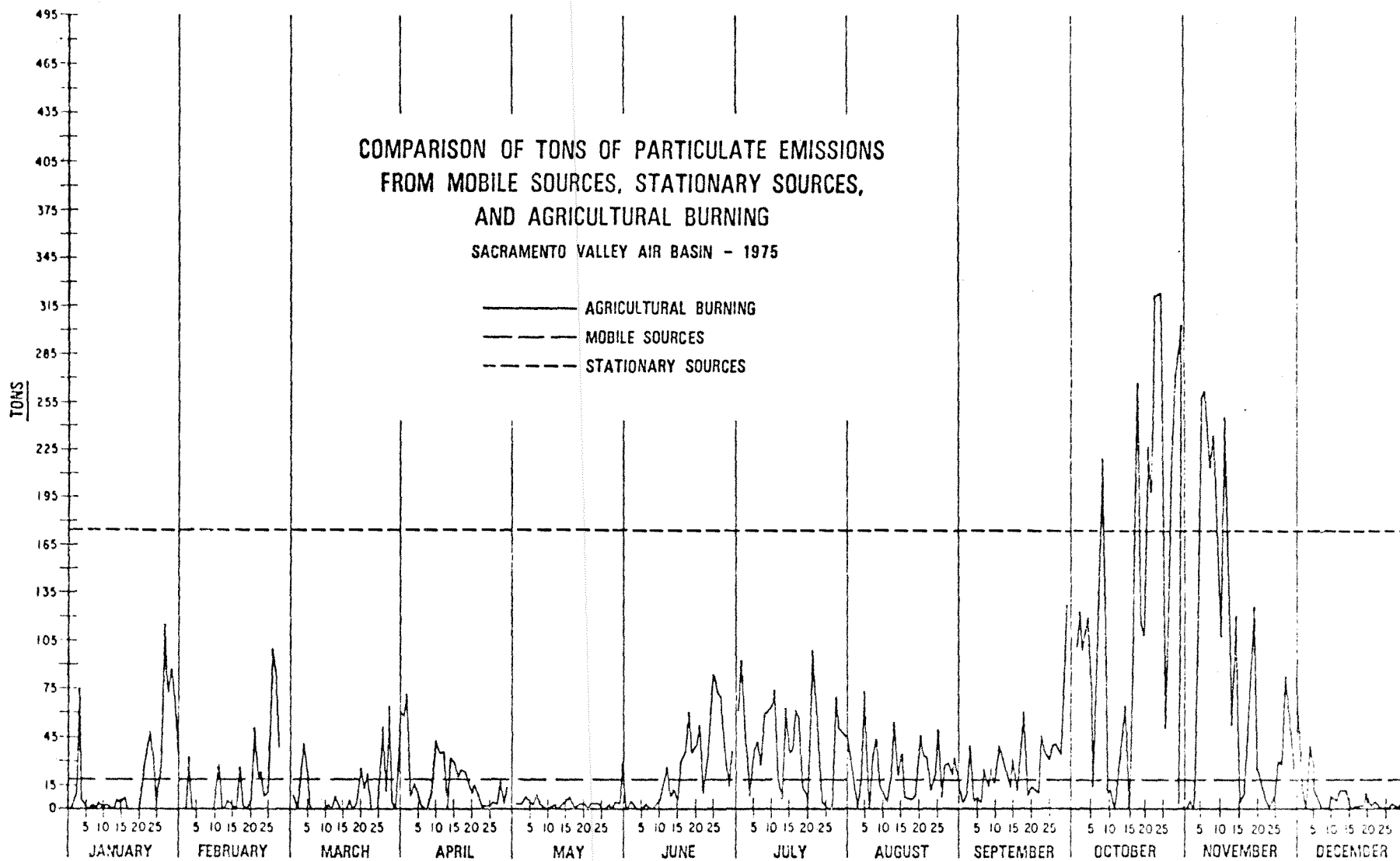
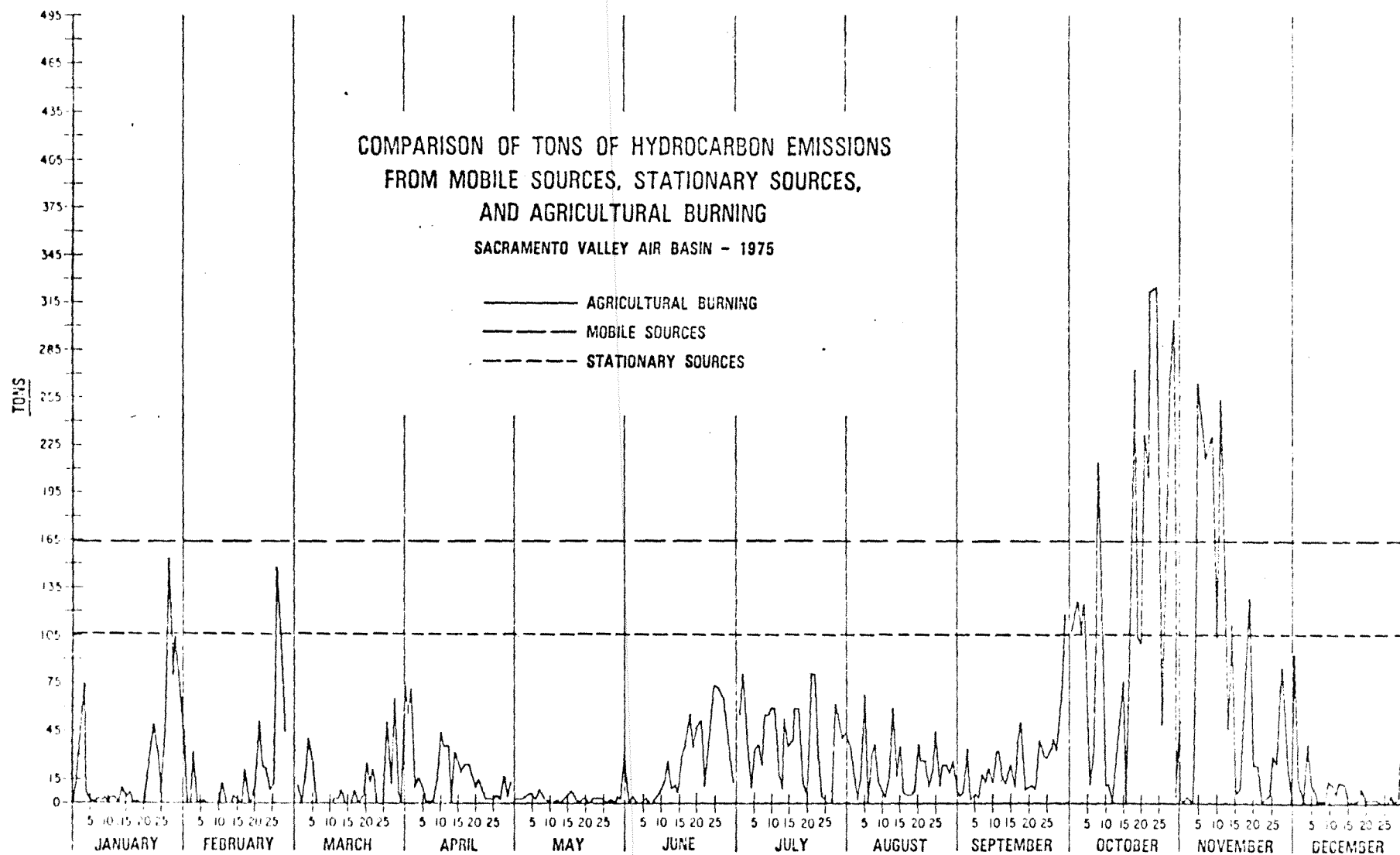


Figure I-2



Revised-August 1979

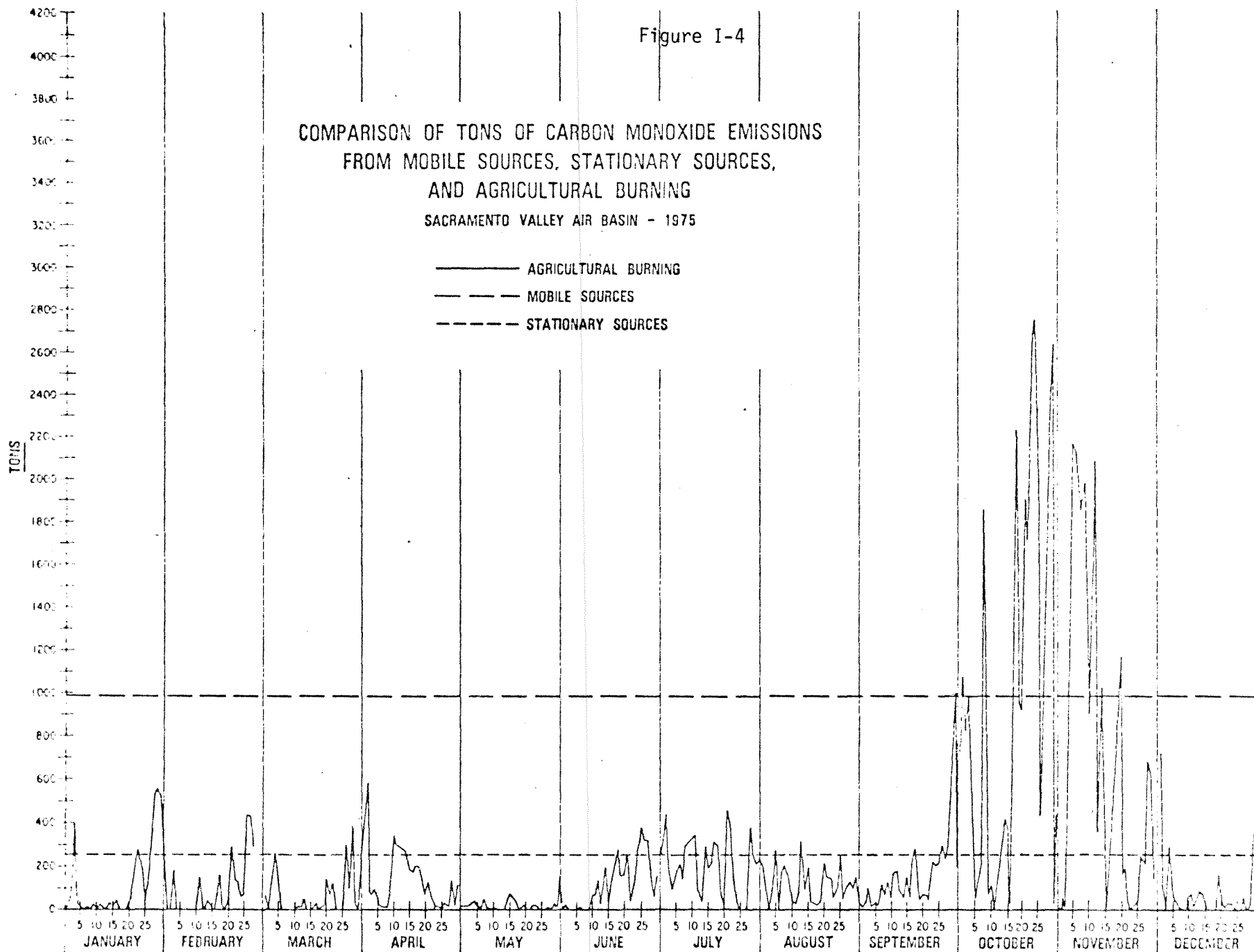
Figure I-3



Revised-August 1979

Figure I-4

COMPARISON OF TONS OF CARBON MONOXIDE EMISSIONS
FROM MOBILE SOURCES, STATIONARY SOURCES,
AND AGRICULTURAL BURNING
SACRAMENTO VALLEY AIR BASIN - 1975

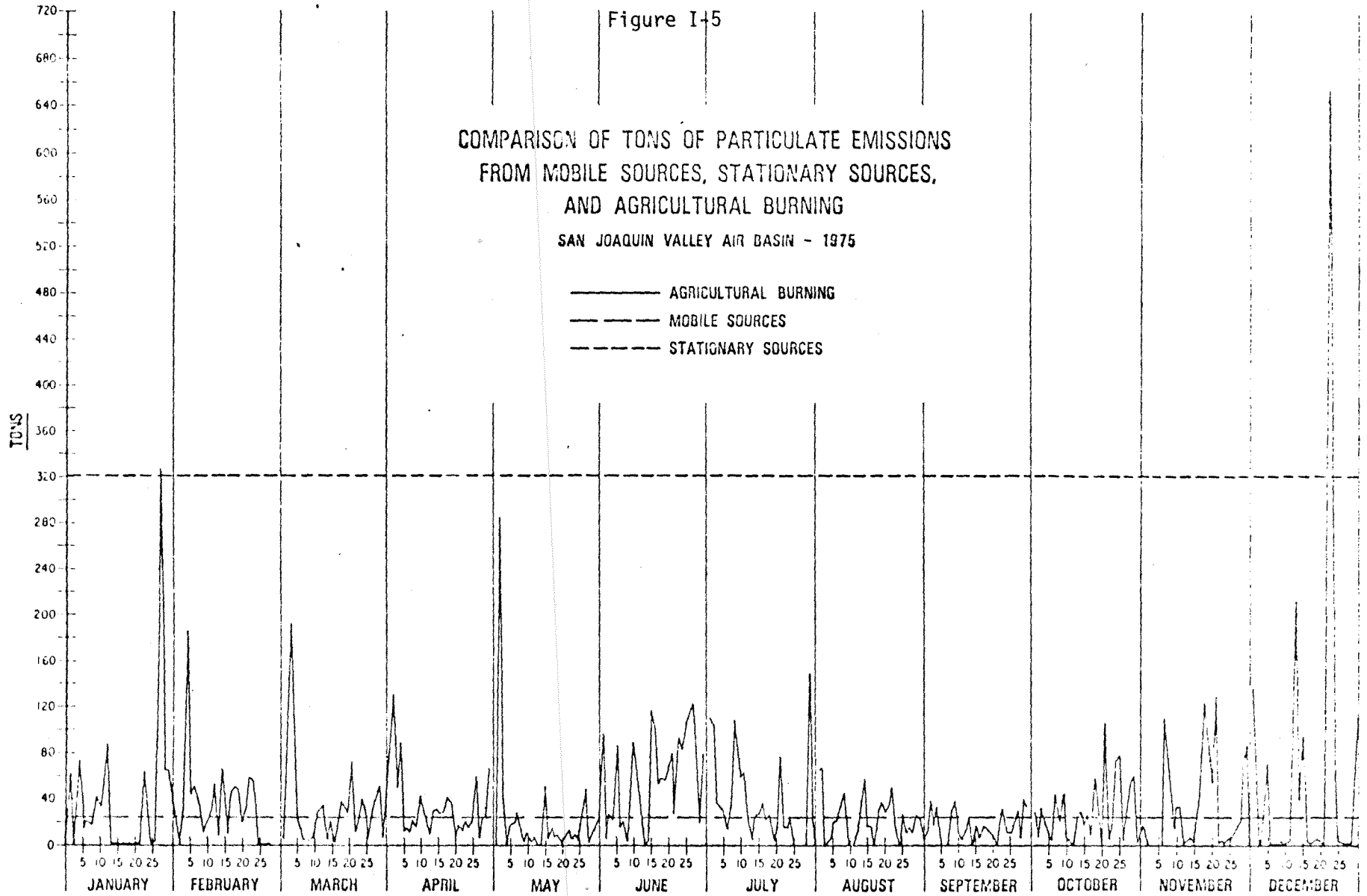


Revised-August 1979

Figure I-5

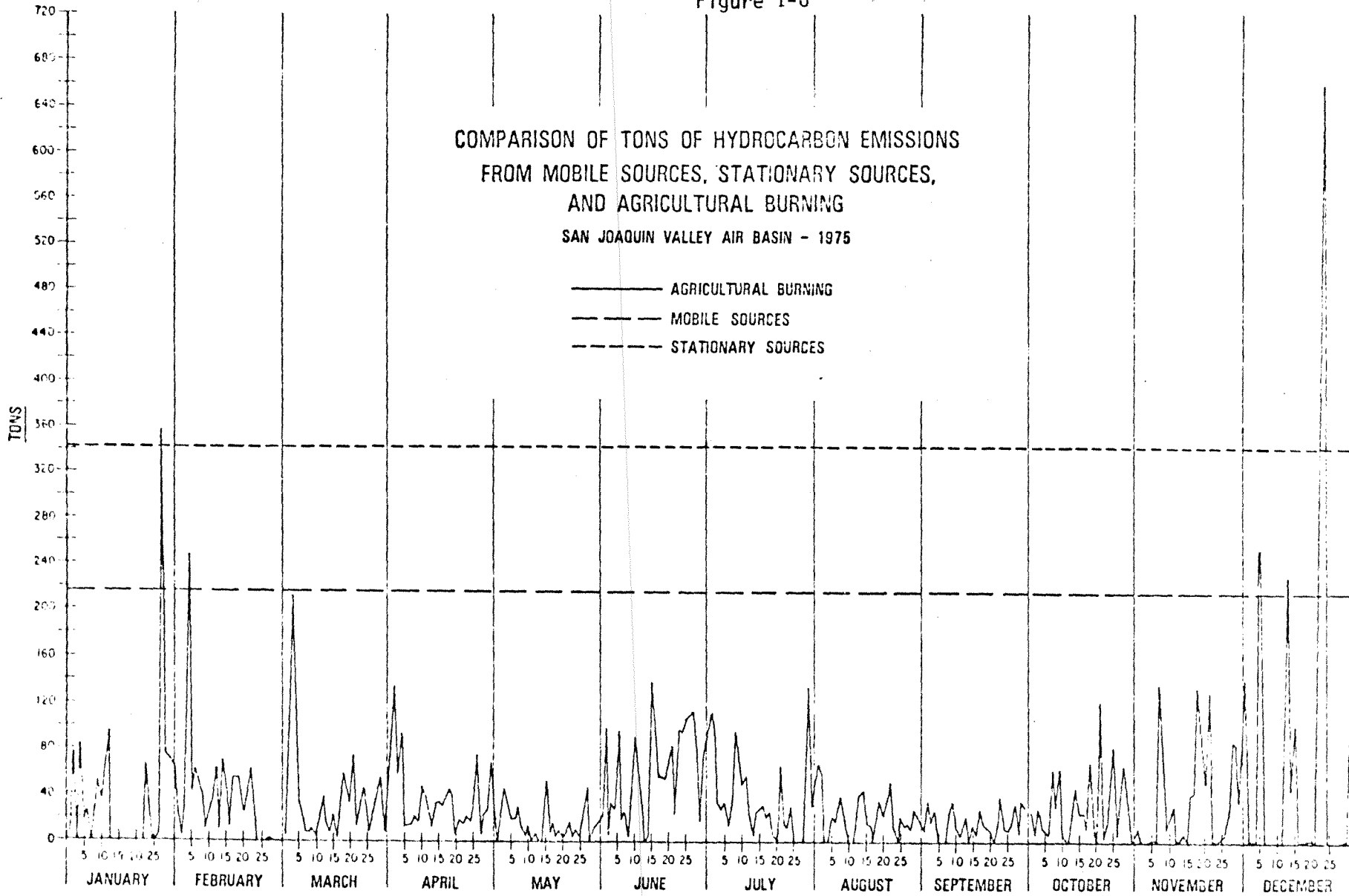
COMPARISON OF TONS OF PARTICULATE EMISSIONS
FROM MOBILE SOURCES, STATIONARY SOURCES,
AND AGRICULTURAL BURNING

SAN JOAQUIN VALLEY AIR BASIN - 1975



Revised-August 1979

Figure I-6



Revised-August 1979

Special Situations

Pursuant to the Board's Agricultural Burning Guidelines, burning control notices for certain specific burning operations may be issued up to 48 hours in advance. In such a case, the criteria used will be a modification of the above criteria so as to give consideration to the specific site and its location relative to populous areas, the stated amount of material to be burned, and the expected impact that the burn will have on air quality.

XII. Mountain Counties Air Basin: *All counties in the air basin except that portion of Placer County below 1500 feet msl which is governed by the meteorological criteria for the Southeast Section of the Sacramento County Air Basin.*

A permissive-burn day will be declared when the following criteria are met:

1. Near 4 a.m., the mean 500 mb height over the basin is less than the limiting mean height given in Table 1.
2. The expected 4 p.m. mean 500 mb height over the basin is less than the limiting mean height given in Table 1.

Special Situations

Pursuant to the Board's Agricultural Burning Guidelines, burning control notices for certain specific burning operations may be issued up to 48 hours in advance. In such a case, the criteria used will be a modification of the above criteria so as to give consideration to the specific site and its location relative to populous areas, the stated amount of material to be burned, and the expected impact that the burn will have on air quality.

XIII. Lake County Air Basin

A permissive-burn day will be declared when the following criteria are met:

1. Near the time of day when the surface temperature is at a minimum, the temperature at 3000 feet above the surface is not warmer than the surface temperature by more than 10 degrees Fahrenheit, except that during July through November it is not warmer by more than 18 degrees Fahrenheit.
2. The expected daytime temperature at 3000 feet above the surface is colder than the expected surface temperature by at least 11 degrees Fahrenheit for 4 hours.
3. The expected daytime wind speed at 3000 feet above the surface is at least 5 miles per hour.

Special Situations

Pursuant to the Board's Agricultural Burning Guidelines, burning control notices for certain specific burning operations may be issued up to 48 hours in advance. In such a case, the criteria used will be a modification of the above criteria so as to give consideration to the specific site and its location relative to populous areas, the stated amount of material to be burned, and the expected impact that the burn will have on air quality.

XIV. Lake Tahoe Air Basin

A permissive-burn day will be declared when the following criteria are met:

- 1. Near 4 a.m., the mean 500 mb height over the basin is less than the limiting mean height given in Table 3.*
- 2. The expected 4 p.m. mean 500 mb height over the basin is less than the limiting mean height given in Table 3.*

Special Situations

Pursuant to the Board's Agricultural Burning Guidelines, burning control notices for certain specific burning operations may be issued up to 48 hours in advance. In such a case, the criteria used will be a modification of the above criteria so as to give consideration to the specific site and its location relative to populous areas, the stated amount of material to be burned, and the expected impact that the burn will have on air quality.

Notwithstanding the criteria listed above for each air basin, the Board may announce permissive-burn or no-burn day based on expected meteorological conditions and on the estimated effect on air quality of the agricultural burning.

(6) Require that the exception expire at the end of the day, or estimate the length of the burn and specify an expiration date.

(7) Document that each of the above conditions has been met in a report filed with the chief of the Air Resources Board's Enforcement Branch.

(e) Each district may designate a period between January 1 and May 31, during which time range improvement burning may be conducted by permit on a no-burn day, providing that more than 50 percent of the land has been brush treated. If the burn is to be done primarily for the improvement of land for wildlife or game habitat, the Department of Fish and Game may specify the amount of brush treatment required.

~~(f) -- Each district may designate a period between February 1 and June 30 inclusive, during which time cotton-gin-waste-burning may be conducted by permit in accordance with Section 80180-(b) of these Guidelines. The burning shall be commenced only on permissive burn days but will be allowed to continue to burn should any subsequent days be no-burn days.~~

(f)(g) Notwithstanding the provisions in subdivision (e) and ~~(f)~~ of this Section, the State Board may prohibit range improvement ~~or cotton-gin-waste~~ burning during the period designated by the district if, in the opinion of the State Board, such prohibition is required for the maintenance of suitable air quality.

(g)~~(h)~~ Permits issued by designated agencies shall be subject to these Agricultural Burning Guidelines and to the rules and regulations of the district.

(h)~~(i)~~ Each applicant for a permit shall provide information required by the designated agency for fire protection purposes.

(i)~~(j)~~ Each applicant for a permit shall provide information requested by the district.

(j)~~(k)~~ No person shall knowingly set or permit agricultural burning unless he has a valid permit from a designated agency. A violation of this subdivision is a violation of Section 41852 of the California Health and Safety Code.

Note: Authority Cited: Health and Safety Code
§§ 41854, 41862 and 41852.

80130. Burning Report. (a) A report of burning pursuant to these Guidelines during each quarter of a calendar year shall be submitted to the State Board by the district within 20 days of the end of the quarter. The report shall include the date of each burn, the type of waste burned, and the estimated tonnage or acreage of waste burned. In the future if in the judgment of the State Board, quarterly reports are no longer necessary, the State Board may require reports at less frequent intervals.

(b) A report of permits issued pursuant to subdivision (d) of Section 80120 during each quarter of a calendar year shall be submitted to the State Board within 20

days after the end of the quarter. The report shall include the number of such permits issued, the date of issuance of each permit, the person or persons to whom the permit was issued, an estimate of the amount of wastes burned pursuant to the permit, and a summary of the reasons why denial of such permits would have threatened imminent and substantial economic loss. In the future if in the judgment of the State Board, quarterly reports are no longer necessary, the State Board may require reports at less frequent intervals.

Note: Authority Cited: Health and Safety Code § 41862.

Article 2. Implementation Plan

80140. General. (a) In accordance with Section 41863 of the California Health and Safety Code, each district in the State shall adopt an implementation plan consistent with these Agricultural Burning Guidelines. Each district shall develop its implementation plan in cooperation with the appropriate fire protection agencies having jurisdiction within the district.

(b) Districts that have an approved implementation plan for regulating "agricultural burning" (as defined in the Agricultural Burning Guidelines adopted on June 21, 1972, filed as Administrative Code regulations with the Secretary of State on July 7, 1972) need not submit an implementation plan for regulating open burning in agricultural operations in the growing of crops or raising of fowl or animals, forest management, or range

improvement, or used in improvement of land for wildlife and game habitat as defined in these Guidelines. Such approved implementation plans shall remain effective under this subdivision until modified and approved pursuant to subdivision (i) of this section. Districts shall submit modifications to their implementation plans by ~~March 17, 1977~~ *February 1 1980*, to include provisions for regulating agricultural burning ~~for disease-or-pest-prevention~~ *which conform to the amendments to these Guidelines adopted on October 12, 1979.*

(c) The form of permit(s) required under subdivision (a) of Section 80120 and the form of information required under subdivision (c) of Section 80120 shall be part of the plan.

(d) Each plan shall specify enforcement procedures.

(e) Each plan shall be submitted to the State Board for approval within ten days after adoption by the district.

(f) The State Board shall either approve, modify and approve, or reject any plan or modification of such plan submitted. Prior to disapproval or modification of any such plan the State Board shall hold a public hearing. Approval of any plan or any part of such plan is hereby delegated to the Executive Officer of the State Board.

(g) If the plan or modification of such plan is rejected, or if no timely plan is submitted, or if the plan is economically or technically not feasible, the

State Board, after a public hearing held in the basin affected, shall adopt an alternative plan.

(h) The approved implementation plan shall be enforced by the district.

(i) After a district implementation plan is approved by the State Board, modifications to the plan shall be submitted to the State Board for its approval, and shall not be effective until approved.

Note: Authority Cited: Health and Safety Code § 41863.

80150. Open Burning in Agricultural Operations in the Growing of Crops or Raising of Fowl or Animals.

(a) A district with no agricultural operations in the growing of crops or raising of fowl or animals within its jurisdiction may request to be exempted from the requirements of this section.

(b) Where an implementation plan for open burning in agricultural operations in the growing of crops or raising of fowl or animals is required, the plan shall include rules and regulations which:

(1) Require the material to be burned to be free of material that is not produced in an agricultural operation.

(2) Require the material to be arranged so that it will burn with a minimum of smoke.

(3) Require material to be reasonably free of dirt, soil and visible surface moisture.

(4) Require the material to be dried for minimum periods to be specified in the implementation plan, with separate specifications for the following: (1) trees and large branches, (2) prunings and small branches, (3) wastes from field crops that are cut in a green condition, and (4) other materials.

(5) Regulate the total amount of material that may be burned each day.

(c) In developing the rules and regulations each district shall consider additional provisions with respect to the following:

(1) Hours of burning.

(2) No-burning season or seasons.

(3) Regulating burning when the wind direction is toward a nearby populated area.

(4) Limiting the ignition of fires to approved ignition devices.

(5) Permitting on no-burn days the burning of empty sacks or containers which contained pesticides or other toxic substances, providing the sacks or containers are within the definition of "open burning in agricultural operations in the growing of crops or raising of fowl or animals," as specified in Section 80100(b)(2) ~~(B)~~ *ii*.

(d) Districts within the boundaries of the Sacramento Valley Air Basin and districts within the boundaries of the San Joaquin Valley Air Basin shall include in the plan rules and regulations which:

(3) Require rice, barley, oat and wheat straw to be ignited only by stripfiring into-the-wind or by backfiring except under a special permit of the district issued when and where extreme fire hazards are declared by a public fire protection agency to exist, or where crops are determined not to lend themselves to these techniques.

(4) Require burning hours to be set so that no field crop burning shall commence before 10:00 a.m. nor after 5:00 p.m. of any day.

(e) In addition to the regulations required in Section (d), above, districts within the boundaries of the Sacramento Valley Air Basin shall also include in the plan rules and regulations which:

(1) Require that during the critical period from October 1 through November 15 of each year, the daily acreage of agricultural burning shall be reduced to at most five (5) percent of the total acreage of rice planted within the district.

(2) Require that no crop acreage which was harvested prior to September 10 shall be allowed to be burned during the period October 1 through November 15 of each year, unless written authority is given by the district. In granting such written authority the district shall:

i) Ensure that the amount of acreage which is to be burned shall be included in the district's rice acreage allotment specified in (1) above.

ii) Require a specific explanation of the cultural practices which require immediate burning.

iii) Require the person to specify the reason why the burning was not conducted prior to October 1.

iv) Require the exception to be valid only on permissive-burn days.

Note: Authority Cited: Health and Safety Code § 41856 and 41863.

80160. Range Improvement Burning. (a) A district with no range improvement burning within its jurisdiction may request to be exempted from the requirements of this section.

(b) Where an implementation plan for range improvement burning is required, the plan shall include rules and regulations which:

(1) Limit the ignition of fires to approved ignition devices.

(2) Regulate the total amount of waste that may be burned each day.

(3) Require the burn to be ignited as rapidly as practicable within applicable fire control restrictions.

(4) Regulate burning when the wind direction is toward a nearby populated area.

(5) Require brush to be treated at least six months prior to the burn if economically and technically feasible.

(6) Require unwanted trees over six inches in diameter to be felled and dried prior to the burn. The minimum drying period shall be specified in the implementation plan.

(7) Specify the period, if any, in accordance with subdivision (e) of Section 80120.

(8) If the burn is to be done primarily for improvement of land for wildlife and game habitat, require the permit applicant to file with the district a statement from the Department of Fish and Game certifying that the burn is desirable and proper.

Note: Authority Cited: Health and Safety Code §§
41863 and 41861.

80170. Forest Management Burning. (a) A district with no forest management burning within its jurisdiction may request to be exempted from the requirements of this section.

(b) Where an implementation plan for forest management burning is required, the plan shall include rules and regulations which:

(1) Limit the ignition of fires to approved ignition devices.

(2) Regulate the total amount of waste that may be burned each day.

(3) Require the waste to be ignited as rapidly as practicable within applicable fire control restrictions.

(4) Regulate burning when the wind direction is toward a nearby populated area.

(5) Require the waste to be dried for minimum periods to be specified by the designated agency.

(6) Require the waste to be free of tires, rubbish, tar paper or construction debris.

(7) Require the waste to be burned, to be windrowed or piled where possible, unless good silvicultural practice dictates otherwise.

(8) Require the piled waste to be prepared so that it will burn with a minimum of smoke.

(9) Require the piled waste to be reasonably free of dirt and soil.

Note: Authority Cited: Health and Safety Code § 41863.

~~80180.---Cotton-Gin-Waste-Burning.---(This-section will-expire-on-January-17-1979.)~~

~~(a)---A-District-with-no-cotton-ginning-within-its jurisdiction-is-exempt-from-the-requirements-of-this section.~~

~~(b)---Where-an-implementation-plan-for-cotton-gin waste-burning-is-required, the-plan-shall-include-rules and-regulations-which:~~

~~(1)---Require-that-burning-be-commenced-only between-10-a.m.--and-12-noon-on-a-permissive-burn-day only-during-the-months-of-February-through-June,--inclusive.~~

~~(2)---Require-that-the-material-to-be-burned be-arranged-in-such-a-way-as-to-minimize-surface-area of-the-cotton-gin-waste-burned.~~

* * *

The above regulations submitted for filing do not include any "building standard" as defined in the State Building Standards Law (Sections 18900-18717, Health and Safety Code).

* * *

CERTIFICATE

The Air Resources Board has determined that the foregoing regulations create no cost to local government under Section 2231 of the Revenue and Taxation Code.

STATE AIR RESOURCES BOARD

Thomas C. Austin
Executive Officer

APPENDICES

- A. Proposed Revisions to the Agricultural Burning Guidelines
- B. Proposed Meteorological Criteria for Regulating Agricultural Burning
- C. Federal Register, Vol. 43, No. 209 - Friday, October 27, 1978
[40 CFR Parts 52] [FRL 995-7] Approval and Promulgation of
Implementation Plans - California Plan Revisions: Agricultural
Burning Regulations.

- D. Letter from Alex Ferreira, Chairman, Placer County Board of
Supervisors to Mr. Thomas Austin, Executive Officer, Air Resources
Board, dated March 14, 1979.
- E. Letter from Placer County Rice Growers to Mr. Thomas Austin, Executive
Officer, Air Resources Board, dated February 28, 1979.
- F. Letter from Shan Patterson, Chairman, Sacramento Valley Air Pollution
Control Council to Mr. Thomas Austin, Executive Officer, Air Resources
Board, dated March 7, 1979.
- G. Letter from the Sacramento Valley Technical Advisory Committee to
James Morgester, Chief, Enforcement Branch, Air Resources Board,
dated April 26, 1979.
- H. Letter from D. J. Callaghan, Air Pollution Control Officer, Bay Area
Air Pollution Control District to Mr. Thomas Austin, Air Resources
Board, dated November 10, 1978.

APPENDIX A

Proposed Revisions to the Agricultural Burning Guidelines

APPENDIX B

Proposed Meteorological Criteria for
Regulating Agricultural Burning*

*(The portions of the Meteorological
Criteria affected by the proposed
revisions are shown by italics.)

APPENDIX C

Comments in the Federal Register by the
Environmental Protection Agency on
California's Agricultural Burning
Regulations.

the exemption could be interpreted to exempt stationary sources to which the visible emission rule applies. Since the exemption could render the visible emission rule unenforceable, it should be disapproved.

In addition, the corresponding State laws are being disapproved for the reasons mentioned above.

It is the purpose of this notice to propose disapproval of the following APCD rules:

1. Amador County APCD Regulation V, Rule 4(G), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
2. Butte County APCD Rule 3-15, Special Permit, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
3. Calaveras County APCD Rule 203(G), Exceptions; and Rule 307(A)(1), Exceptions to Rule 306, both submitted on July 22, 1975, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 416.1(III)(A), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
4. Colusa County APCD Rule 4.4(D), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
5. El Dorado County APCD Rule 51(e), Exceptions to Rule 50; and Rule 60(c), Exceptions to Rule 59; submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions; and Rule 217-51(E), Exceptions to Rule 217-50; submitted on November 4, 1977.
6. Great Basin Valley Unified APCD Rule 405(E), Exceptions; and Rule 408(A), Burning of Agricultural Wastes, submitted on April 21, 1976, and previously approved under 40 CFR 52.223 (42 FR 28883).
7. Humboldt County APCD Rule 55(e), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
8. Imperial County APCD Rule 148(F), Miscellaneous Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 402(E), Exceptions, submitted on November 4, 1977.
9. Kern County APCD Rule 102(e), Exceptions; and Rule 117(III)(A), Exceptions; both submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
10. Kings County APCD Rule 402(e), Exceptions; and Rule 117(III)(A), Exceptions; both submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Rule 402(e), Exceptions, submitted on November 4, 1977.
11. Lake County APCD Part V(1)(D)(6), Prohibitions and Standards—Exclusions, submitted on October 23, 1974, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 402(F), Exclusions, submitted on February 10, 1977.
12. Lassen County APCD Rule 4.5(C), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Appendix A—Implementation Plan for Agricultural Burning—Exceptions (D), submitted on July 25, 1975, and previously approved under 40 CFR 52.223 (42 FR 42219).
13. Los Angeles County APCD Rule 55(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
14. Mariposa County APCD Rule 4.3(f), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions; and Rule 307(A)(1), Exceptions to Rule 306; both submitted on January 10, 1975.
15. Merced County APCD Rule 416.1(c)(1), Agricultural Burning; and Rule 402(e), Exceptions, both submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
16. Modoc County APCD Rule 3.5(d), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Rule 5.2, Burning Permits—Exceptions (D), submitted on July 25, 1973, and previously approved under 40 CFR 52.223 (42 FR 42219).
17. Monterey Bay Unified APCD Rule 405(e), Exceptions, submitted on October 23, 1974, and previously approved under 40 CFR 52.223 (42 FR 56605).
18. Nevada County APCD Rule 55(d), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions, submitted on April 10, 1975.
19. Northern Sonoma County APCD Rule 51(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
20. Orange County APCD Rule 55(f), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
21. Placer County APCD Rule 55(d), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions, submitted on October 13, 1977.
22. Plumas County APCD Rule 55(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Rule 203(G), Exceptions, submitted on June 6, 1977.
23. Riverside County APCD Rule 55(e), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
24. Sacramento County APCD Rule 96 (a), Emergency Permits, submitted on February 10, 1976, and previously approved under 40 CFR 52.223 (42 FR 42219).
25. San Diego County APCD Rule 102(c), Open Fires, Western Section; Rule 103(c), Open Fires, Eastern Section; and Rule 109(a) Temporary Suspension Permits; submitted on July 25, 1973, and previously approved under 40 CFR 52.223 (42 FR 23805).
26. San Luis Obispo County APCD Rule 502(J)(1-2), Agricultural Burning, submitted on November 10, 1976.
27. Santa Barbara County APCD Rule 22(e), Exceptions; Rule 40(4)(a), Agricultural Burning; and Rule 42, Burning Permit for Non-Burn Days; submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
28. Shasta County APCD Rule 2.6(i)(b)(iii)(c); (1)(c)(vii); and (5)(a); Agricultural Burning, submitted on October 13, 1977. The October 13, 1977, submittal supersedes the July 19, 1974 submittal.
29. Sierra County APCD Rule 203(G), Exceptions; and Rule 307(A)(1), Exceptions to Rule 306; submitted on January 10, 1975, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 203(G), Exceptions; and Rule 307(A)(1), Exemption to Rule 306, submitted on June 6, 1977.
30. Siskiyou County APCD Rule 4.1-1(B)(3), Exceptions to Visible Emissions Section 24242, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Implementation Plan for Agricultural Burning—Exceptions (D) submitted on July 22, 1973, and previously approved under 40 CFR 52.223 (42 FR 42219).
31. Stanislaus County APCD Rule 402(e), Exceptions, submitted on July 19, 1974, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 416.1(c)(1), Agricultural Burning, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
32. Sutter County APCD Rule 4.5, Standards for Granting Applications, submitted on July 25, 1973, and previously approved under 40 CFR 52.223 (42 FR 8377).
33. Tehama County APCD Rule 4.1, Visible Emissions—Exceptions (f), submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 3.10, Burning on No-Burn Days, submitted on July 22, 1973, and previously approved under 40 CFR 52.223 (42 FR 42219).

the exemption could be interpreted to exempt stationary sources to which the visible emission rule applies. Since the exemption could render the visible emission rule unenforceable, it should be disapproved.

In addition, the corresponding State laws are being disapproved for the reasons mentioned above.

It is the purpose of this notice to propose disapproval of the following APCD rules:

1. Amador County APCD Regulation 7, Rule 4(G), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
2. Butte County APCD Rule 3-15, Special Permit, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
3. Calaveras County APCD Rule 203(G), Exceptions; and Rule 307(A)(1), Exceptions to Rule 306, both submitted on July 22, 1975, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 416.1(III)(A), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
4. Colusa County APCD Rule 4.4(f), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
5. El Dorado County APCD Rule 51(e), Exceptions to Rule 50; and Rule 60(c), Exceptions to Rule 59; submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions; and Rule 217-51(E), Exceptions to Rule 217-50; submitted on November 4, 1977.
6. Great Basin Valley Unified APCD Rule 405(E), Exceptions; and Rule 408(A), Burning of Agricultural Wastes, submitted on April 21, 1976, and previously approved under 40 CFR 52.223 (42 FR 28883).
7. Humboldt County APCD Rule 55(e), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
8. Imperial County APCD Rule 148(P), Miscellaneous Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 402(E), Exceptions, submitted on November 4, 1977.
9. Kern County APCD Rule 102(e), Exceptions; and Rule 117(h)(II)(A), Exceptions; both submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
10. Kings County APCD Rule 402(e), Exceptions; and Rule 147(III)(A), Exceptions; both submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Rule 402(e), Exceptions, submitted on November 4, 1977.
11. Lake County APCD Part VI(D)(6), Prohibitions and Standards—Exclusions, submitted on October 23, 1974, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 402(F), Exclusions, submitted on February 10, 1977.
12. Lassen County APCD Rule 4.5(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Appendix A—Implementation Plan for Agricultural Burning—Exceptions (D), submitted on July 25, 1975, and previously approved under 40 CFR 52.223 (42 FR 42219).
13. Los Angeles County APCD Rule 55(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
14. Mariposa County APCD Rule 4.3(f), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions; and Rule 307(A)(1), Exceptions to Rule 306; both submitted on January 10, 1975.
15. Merced County APCD Rule 416.1(c)(1), Agricultural Burning; and Rule 402(e), Exceptions, both submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
16. Modoc County APCD Rule 3.5(d), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Rule 5.2, Burning Permits—Exceptions (D), submitted on July 25, 1973, and previously approved under 40 CFR 52.223 (42 FR 42219).
17. Monterey Bay Unified APCD Rule 405(e), Exceptions, submitted on October 23, 1974, and previously approved under 40 CFR 52.223 (42 FR 56605).
18. Nevada County APCD Rule 55(d), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions, submitted on April 10, 1975.
19. Northern Sonoma County APCD Rule 51(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
20. Orange County APCD Rule 55(f), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
21. Placer County APCD Rule 55(d), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 203(g), Exceptions, submitted on October 13, 1977.
22. Plumas County APCD Rule 55(e), Exceptions, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812). Rule 203(G), Exceptions, submitted on June 6, 1977.
23. Riverside County APCD Rule 55(e), Exceptions, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
24. Sacramento County APCD Rule 96 (a), Emergency Permits, submitted on February 10, 1976, and previously approved under 40 CFR 52.223 (42 FR 42219).
25. San Diego County APCD Rule 102(c), Open Fires, Western Section; Rule 103(c), Open Fires, Eastern Section; and Rule 109(a) Temporary Suspension Permits; submitted on July 25, 1973, and previously approved under 40 CFR 52.223 (42 FR 23805).
26. San Luis Obispo County APCD Rule 502(J)(1-2), Agricultural Burning, submitted on November 10, 1976.
27. Santa Barbara County APCD Rule 22(e), Exceptions; Rule 40(4)(a), Agricultural Burning; and Rule 42, Burning Permit for Non-Burn Days; submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842).
28. Shasta County APCD Rule 2.6(i)(b)(iii)(c); (1)(c)(vii); and (5)(a); Agricultural Burning, submitted on October 13, 1977. The October 13, 1977, submittal supersedes the July 19, 1974 submittal.
29. Sierra County APCD Rule 203(g), Exceptions; and Rule 307(A)(1), Exceptions to Rule 306; submitted on January 10, 1975, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 203(G), Exceptions; and Rule 307(A)(1), Exemption to Rule 306, submitted on June 6, 1977.
30. Siskiyou County APCD Rule 4.1-1(B)(3), Exceptions to Visible Emissions Section 24242, submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Implementation Plan for Agricultural Burning—Exceptions (D) submitted on July 22, 1973, and previously approved under 40 CFR 52.223 (42 FR 42219).
31. Stanislaus County APCD Rule 402(e), Exceptions, submitted on July 19, 1974, and previously approved under 40 CFR 52.223 (42 FR 42219). Rule 416.1(c)(1), Agricultural Burning, submitted on June 30, 1972, and previously approved under 40 CFR 52.223 (37 FR 19812).
32. Sutter County APCD Rule 4.5, Standards for Granting Applications, submitted on July 25, 1973, and previously approved under 40 CFR 52.223 (42 FR 8377).
33. Tehama County APCD Rule 4.1, Visible Emissions—Exceptions (f), submitted on February 21, 1972, and previously approved under 40 CFR 52.223 (37 FR 10842). Rule 3.10, Burning on No-Burn Days, submitted on July 22, 1973, and previously approved under 40 CFR 52.223 (42 FR 42219).

50218

PROPOSED RULES

matter will be referred to the Secretary whose determination will be final as to the amount of said damage.

§ 131.31 Cabazon, Augustine, and Torres-Martinez Reservation, Calif.

(a) Upon a determination by the Secretary that the owner or owners are not making beneficial use thereof, individually owned lands on the Cabazon, Augustine, and Torres-Martinez Indian Reservations which are or may be irrigated from distribution facilities administered by the Coachella Valley County Water District in Riverside County, Calif., may be leased by the Secretary in accordance with the regulations in this part for the benefit of the owner or owners.

(b) All leases granted or approved on tribal or individually owned lands of the Cabazon, Augustine, and Torres-Martinez Indian Reservations shall be filed for record in the office of the county recorder of the county in which the land is located, the cost thereof to be paid by the lessee. A copy of each such lease shall be filed by the lessee with the Coachella Valley County Water District or such other irrigation or water district within which the leased lands are located. All such leases shall include a provision that the lessee, in addition to the rentals provided for in the lease, shall pay all irrigation charges properly assessed against the land which become payable during the term of the lease. Act of August 23, 1959 (64 Stat. 470); Act of August 28, 1958 (72 Stat. 988).

§ 131.32 San Xavier and Salt River Pima-Maricopa Reservations.

(a) *Purpose and scope.* The Act of November 2, 1966 (80 Stat. 1112; 25 U.S.C. 416-416j), provides statutory authority for long-term leasing on San Xavier and Salt River Pima-Maricopa Reservations, Ariz., in addition to that contained in the Act of August 9, 1955 (69 Stat. 539), as amended (25 U.S.C. 415). When leases are made under the 1955 Act, the regulations in § 131.1 through § 131.8 and § 131.12 through § 131.23 apply. The purpose of this § 131.32 is to provide regulations for implementation of the 1966 Act. The 1966 Act does not apply to leases made for purposes that are subject to the laws governing mining leases on Indian lands.

(b) *Duration of leases.* Leases made under the 1966 Act for public, religious, educational, recreational, residential, or business purposes may be made for terms of not to exceed 99 years. The term of a grazing lease shall not exceed 10 years; the term of a farming lease that does not require the making of a substantial investment in the improvement of the land shall not exceed 10 years; and the

term of a farming lease that requires the making of a substantial investment in the improvement of the land shall not exceed 25 years. No lease shall contain an option to renew which extends the total term beyond the maximum term permitted by this section.

(c) *Required covenant and enforcement thereof.* Every lease under the 1966 Act shall contain a covenant on the part of the lessee that he will not commit or permit on the leased premises any act that causes waste or a nuisance or which creates a hazard to health of persons or to property wherever such persons or property may be.

(d) *Notification regarding leasing proposals.* If the secretary determines that a proposed lease to be made under the 1966 Act for public, religious, educational, recreational, residential, or business purposes will substantially affect the governmental interest of a municipality contiguous to the San Xavier Reservation or the Salt River Pima-Maricopa Reservation as the case may be, he shall notify the appropriate authority of such municipality of the pendency of the proposed lease. The Secretary may, in his discretion, furnish such municipality with an outline of the major provisions of the lease which affects its governmental interests and shall consider any comments on the terms of the lease affecting the municipality, or on the absence of such terms from the lease, that the authorities may offer. The notice to the authorities of the municipality shall set forth a reasonable period, not to exceed 30 days, within which any such comments shall be submitted.

(e) *Applicability of other regulations.* The regulations of § 131.1 through § 131.8 and § 131.12 through § 131.23 shall apply to leases made under the 1966 Act except where such regulations are inconsistent with this § 131.32.

(f) *Mission San Xavier del Bac.* Nothing in the 1966 Act authorizes development that would detract from the scenic, historic, and religious values of the Mission San Xavier del Bac owned by the Franciscan Order of Friars Minor and located on the San Xavier Reservation.

§ 131.33 Tulalip Reservation.

Any lease by the Tulalip Tribes under the Act of August 9, 1955 (69 Stat. 539), as amended (25 U.S.C. 415), except a lease for the exploitation of any natural resource, shall not require the approval of the secretary of the Interior: (1) if the term of the lease does not exceed 15 years, with no option to renew, or (2) if the term of the lease does not exceed 30 years, with no option to renew, and the lease is executed pursuant to tribal regula-

tions previously approved by the Secretary of the Interior (84 Stat. 302).

NOTE.—The Department of the Interior has determined that this document does not contain a major proposal requiring preparation of an economic impact statement under Executive Order 11821 and OMB Circular A-107.

RICK LAVIS,
Deputy Assistant Secretary—
Indian Affairs.

[FR Doc 78-30472 Filed 10-26-78; 8:45 am]

[6560-01-M]

ENVIRONMENTAL PROTECTION
AGENCY

[40 CFR Parts 52]

[FRL 995-7]

APPROVAL AND PROMULGATION OF
IMPLEMENTATION PLANS

California Plan Revisions: Agricultural Burning
Regulations

AGENCY: Environmental Protection
Agency (EPA).

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to disapprove parts of the agricultural and open burning regulations of 37 air pollution control districts (APCD) in California which were submitted to EPA by the California Air Resources Board as revisions to the California State Implementation Plan (SIP). Some regulations have been previously approved as a part of the applicable SIP and this notice proposes to rescind the previous approvals. Others were recently submitted or previously not acted upon. In addition, parts of the State law, previously approved as part of the applicable SIP dealing with agricultural burning, are proposed to be rescinded from the SIP. The intended effect of this proposal is to update the rules and regulations and to correct deficiencies in the SIP. The EPA invites public comments on these rules, especially as to their consistency with the Clean Air Act.

DATE: Comments may be submitted up to December 26, 1978.

ADDRESSES: Comments may be sent to: Regional Administrator, Attention: Air and Hazardous Materials Division, Air Programs Branch, California SIP Section (A-4), Environmental Protection Agency, 215 Fremont Street, San Francisco, Calif. 94105.

Copies of the proposed revisions are available for public inspection during normal business hours at the EPA region IX office at the above address and at the following locations:

Amador County Air Pollution Control District, 810 Court St., Jackson, Calif. 95642.

50218

PROPOSED RULES

matter will be referred to the Secretary whose determination will be final as to the amount of land damage.

§ 131.31 Cabazon, Augustine, and Torres-Martinez Reservations, Calif.

(a) Upon a determination by the Secretary that the owner or owners are not making beneficial use thereof, individually owned lands on the Cabazon, Augustine, and Torres-Martinez Indian Reservations which are or may be irrigated from distribution facilities administered by the Coachella Valley County Water District in Riverside County, Calif., may be leased by the Secretary in accordance with the regulations in this part for the benefit of the owner or owners.

(b) All leases granted or approved on tribal or individually owned lands of the Cabazon, Augustine, and Torres-Martinez Indian Reservations shall be filed for record in the office of the county recorder of the county in which the land is located, the cost thereof to be paid by the lessee. A copy of each such lease shall be filed by the lessee with the Coachella Valley County Water District or such other irrigation or water district within which the leased lands are located. All such leases shall include a provision that the lessee, in addition to the rentals provided for in the lease, shall pay all irrigation charges properly assessed against the land which become payable during the term of the lease. Act of August 23, 1959 (64 Stat. 470); Act of August 28, 1956 (72 Stat. 963).

§ 131.32 San Xavier and Salt River Pima-Maricopa Reservations.

(a) *Purpose and scope.* The Act of November 2, 1956 (30 Stat. 1112; 25 U.S.C. 416-416j), provides statutory authority for long-term leasing on San Xavier and Salt River Pima-Maricopa Reservations, Ariz., in addition to that contained in the Act of August 9, 1955 (69 Stat. 539), as amended (25 U.S.C. 415). When leases are made under the 1956 Act, the regulations in § 131.1 through § 131.8 and § 131.12 through § 131.23 apply. The purpose of this § 131.32 is to provide regulations for implementation of the 1956 Act. The 1956 Act does not apply to leases made for purposes that are subject to the laws governing mining leases on Indian lands.

(b) *Duration of leases.* Leases made under the 1956 Act for public, religious, educational, recreational, residential, or business purposes may be made for terms of not to exceed 99 years. The term of a grazing lease shall not exceed 10 years; the term of a farming lease that does not require the making of a substantial investment in the improvement of the land shall not exceed 19 years; and the

term of a farming lease that requires the making of a substantial investment in the improvement of the land shall not exceed 25 years. No lease shall contain an option to renew which extends the total term beyond the maximum term permitted by this section.

(c) *Required covenant and enforcement thereof.* Every lease under the 1966 Act shall contain a covenant on the part of the lessee that he will not commit or permit on the leased premises any act that causes waste or a nuisance or which creates a hazard to health of persons or to property wherever such persons or property may be.

(d) *Notification regarding leasing proposals.* If the secretary determines that a proposed lease to be made under the 1966 Act for public, religious, educational, recreational, residential, or business purposes will substantially affect the governmental interest of a municipality contiguous to the San Xavier Reservation or the Salt River Pima-Maricopa Reservation as the case may be, he shall notify the appropriate authority of such municipality of the pendency of the proposed lease. The Secretary may, in his discretion, furnish such municipality with an outline of the major provisions of the lease which affects its governmental interests and shall consider any comments on the terms of the lease affecting the municipality, or on the absence of such terms from the lease, that the authorities may offer. The notice to the authorities of the municipality shall set forth a reasonable period, not to exceed 30 days, within which any such comments shall be submitted.

(e) *Applicability of other regulations.* The regulations of § 131.1 through § 131.8 and § 131.12 through § 131.23 shall apply to leases made under the 1966 Act except where such regulations are inconsistent with this § 131.32.

(f) *Mission San Xavier del Bac.* Nothing in the 1956 Act authorizes development that would detract from the scenic, historic, and religious values of the Mission San Xavier del Bac owned by the Franciscan Order of Friars Minor and located on the San Xavier Reservation.

§ 131.33 Tulalip Reservation.

Any lease by the Tulalip Tribes under the Act of August 9, 1955 (69 Stat. 539) as amended (25 U.S.C. 415), except a lease for the exploitation of any natural resource, shall not require the approval of the secretary of the Interior: (1) if the term of the lease does not exceed 15 years, with no option to renew, or (2) if the term of the lease does not exceed 30 years, with no option to renew, and the lease is executed pursuant to tribal regula-

tions previously approved by the Secretary of the Interior (84 Stat. 302).

NOTE.—The Department of the Interior has determined that this document does not contain a major proposal requiring preparation of an economic impact statement under Executive Order 11821 and OMB Circular A-107.

RICK LAVIS,
Deputy Assistant Secretary—
Indian Affairs.

[FR Doc 78-30472 Filed 10-26-78; 8:45 am]

[6560-01-M]

**ENVIRONMENTAL PROTECTION
AGENCY**

[40 CFR Parts 52]

[FRL 995-7]

**APPROVAL AND PROMULGATION OF
IMPLEMENTATION PLANS**

**California Plan Revisions: Agricultural Burning
Regulations**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to disapprove parts of the agricultural and open burning regulations of 37 air pollution control districts (APCD) in California which were submitted to EPA by the California Air Resources Board as revisions to the California State Implementation Plan (SIP). Some regulations have been previously approved as a part of the applicable SIP and this notice proposes to rescind the previous approvals. Others were recently submitted or previously not acted upon. In addition, parts of the State law, previously approved as part of the applicable SIP dealing with agricultural burning, are proposed to be rescinded from the SIP. The intended effect of this proposal is to update the rules and regulations and to correct deficiencies in the SIP. The EPA invites public comments on these rules, especially as to their consistency with the Clean Air Act.

DATE: Comments may be submitted up to December 26, 1978.

ADDRESSES: Comments may be sent to: Regional Administrator, Attention: Air and Hazardous Materials Division, Air Programs Branch, California SIP Section (A-4), Environmental Protection Agency, 215 Fremont Street, San Francisco, Calif. 94105.

Copies of the proposed revisions are available for public inspection during normal business hours at the EPA region IX office at the above address and at the following locations:

Arador County Air Pollution Control District, 810 Court St., Jackson, Calif. 95642.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105

Mr. Thomas C. Austin
Executive Officer
Air Resources Board
1102 Q Street
P.O. Box 2815
Sacramento CA 95812

MAR 8 1979

Dear Mr. Austin:

This is in response to your letter concerning EPA's proposed action to restrict the issuance of special burn permits which allow agricultural burning on "no burn" days.

As you are aware, in the October 27, 1978 Federal Register, EPA proposed to disapprove parts of the agricultural and open burning regulations of many air pollution control districts which were submitted by the Air Resources Board (ARB) as revisions to California's State Implementation Plan (SIP). The October 27, 1978 proposal also included regulations previously approved as a part of the applicable SIP.

EPA's proposed disapproval action was taken in order to correct the SIP, which does not currently include assurances that the public health will be protected when special agricultural burning permits are issued. This proposed action would not restrict burning on designated burn days. However, restrictions would apply to the issuance, by air pollution control officers, of special burn permits which are based solely on economic loss and absent of public health consideration. This lack of public health consideration conflicts with the Clean Air Act which requires the primary consideration of the SIP to be that of public health impacts, and national ambient air quality standards.

APPENDIX C, Attachments 1-5

Miscellaneous Correspondence Among the Environmental Protection Agency, the California Air Resources Board, the Bay Area Air Pollution Control District, and the San Diego Air Pollution Control District on Restricting the Issuance of Special Burn Permits which Allow Agricultural Burning on No-Burn Days.

APPENDIX E

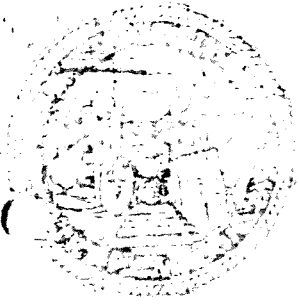
Letter from Placer County Rice Growers to Thomas Austin, Air Resources Board Executive Officer, dated February 28, 1979, Regarding Proposed Changes to the Agricultural Burning Guidelines.

APPENDIX D

Letter from Placer County Board of Supervisors to
Thomas Austin, Air Resources Board Executive Officer,
dated March 14, 1977 - Subject: Proposed Revisions
to the State Agricultural Burning Guidelines.

APPENDIX D, Attachments 1 and 2

Correspondence Between Ray Johnson, California State
Senator and Thomas Austin, Air Resources Board
Executive Officer, Regarding Proposed Changes to the
Agricultural Burning Guidelines that Affect Placer
County.



APPENDIX D

COUNTY OF PLACER

BOARD MEMBERS

A. C. FLEMMING, Chairman
D. W. HARRIS, Vice Chairman

W. H. WILSON, Member
M. J. WILSON, Member
M. J. WILSON, Member
M. J. WILSON, Member

OFFICE OF
BOARD OF SUPERVISORS

OFFICE OF THE BOARD OF SUPERVISORS
COUNTY OF PLACER, CALIFORNIA
ADMINISTRATIVE OFFICE OF THE BOARD OF SUPERVISORS, ROOM 205, 1000 N. ST.

March 14, 1979

Mr. Tom Austin, Executive Officer
Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

Re: Proposed Revisions to the State Agricultural Burning Guidelines

Dear Mr. Austin:

We have reviewed the proposed revisions to the State Agricultural Burning Guidelines and offer the following comments and suggestions:

1. We feel that to require mandatory backfiring or into-the-wind strip-firing for field crops would be problematic due to the variable winds of the Valley portion of the County. Thus, a field could be initially backfired and in a few minutes, due to a wind shift, be frontfired, a violation of District regulations. This situation would create an impossible enforcement position for District staff.
2. We object to the proposed change which would require the Valley portion of the County to adhere to the permissive burn declaration for the Southeast Section (Sacramento, Sutter and Yuba Counties) of the Sacramento Air Basin. It is our considered opinion that having two separate burn classifications for the adjacent Valley/foothill-mountain portion of the County would cause considerable public confusion and would be impossible to implement.

Further, we question the legality of such a change, as Section 41855 of the Health and Safety Code specifies that:

"The State Board shall determine and designate from meteorological data the days when agricultural burning shall be prohibited within each air basin."

Thus, it would appear that we must comply with the designation of the Mountain Counties, Air Basin, and legally could not adhere to the declaration for the Southeast section of the Sacramento Valley Air Basin.



State Senator
RAY JOHNSON
SACRAMENTO, CALIF.

- STANDING COMMITTEES
- AGRICULTURE
- AGRICULTURE AND WATER
- DEVELOPMENT
- GOVERNMENT RELATIONS
- TRANSPORTATION
- JOINT COMMITTEES
- SAVING AND INVESTMENT
- CLIMATE ACTION
- COMMITTEES
- WATER RESOURCES DEVELOPMENT
- TRANSPORTATION
- ENVIRONMENT
- POLITICAL REFORM
- ELIMINATING THE DEBT

March 17, 1977

Mr. Art Austin, Executive Officer
Placer Council Board
P. O. Box 2813
Sacramento, California 95812

Dear Mr. Austin:

I have just received a copy of a letter to you from the Placer County Board of Supervisors.

The letter contains a clearly-written and logical response to requests for backing up on into-the-wind strip-firing for field crops, along with Placer County's request that all of its territory remain in the Tehama Counties Air Basin and not have a portion included in the Sacramento Valley Air Basin.

The letter also offers what I believe to be positive suggestions regarding the development and utilization of meteorological data.

I urge you to seriously consider these comments from Placer County. I am enclosing a copy of my copy of the Placer County letter to you. You haven't yet seen it.

Thank you for giving this matter your immediate attention.

Sincerely yours,

Ray Johnson
RAY JOHNSON

APPENDIX E

Letter from Placer County Rice Growers to Thomas Austin, Air Resources Board Executive Officer, dated February 28, 1979, Regarding Proposed Changes to the Agricultural Burning Guidelines.

(2)

February 28, 1979

Mr. Tom Austin
Executive Officer
Air Resources Board
P. O. Box 2815
Sacramento, CA 95812

Dear Mr. Austin:

On February 5, 1979, the rice growers of Placer County met with Beverly Daniels of your staff and Ken Selover, Placer County Air Pollution Control Officer, to discuss the proposed agricultural burning guidelines.

We have some concerns about the proposal requiring backfiring for all field crops. Granted, this method of burning may reduce particulate matter released into the atmosphere; however, this method would take longer to burn a field, thus allowing the smoke to linger for a longer time and consequently cause a visible annoyance to the public for a greater length of time.

Additionally, wind conditions in Placer County are quite variable. Thus, should a farmer start to backfire a field, a few minutes later the wind may have shifted and the farmer would no longer be backfiring; this would be in violation of the agricultural burning rules. This could present a considerable problem of enforcement for our local Air Pollution Control Officer.

We have no qualms about the proposal regarding the time of burning as this proposal makes sense. Most of the growers in this County currently do not start burning until noon or later as the stubble is dry enough by then for more effective burning.

The proposal to place the western portion of Placer County into the Sacramento Valley concerns us greatly. Placer County grows approximately 9,000 to 10,000 acres of rice each year. We feel that by adding our acreage to the Sacramento Valley Air Basin the problem of stubble burning would be compounded as you would be requiring more acres of rice to be burned during fewer burn days, thus causing more particulate matter on those days.

We would like to make the following suggestions with regard to agricultural burning.

1. The number of burn days should be increased whenever practical. This would help reduce the concentration on a limited number of days and could help ease the problem with our urban neighbors.
2. In addition, we would like to recommend that on exceptionally good burn days that acreage limitations in the Valley be lifted or increased. By doing this, more acreage in the Valley could be burned on these days with very little effect on the urban areas, thus lessening the need for burning as much acreage on moderate to poorer burn days, these being the days that are causing the most problems.

Mr. Tom Austin
Page 2
February 28, 1979

It is hoped that our concerns will be given serious consideration.

Sincerely,

PLACER COUNTY RICE GROWERS

cc: Senator Ray Johnson
Assemblyman Eugene Chappie
Placer County Board of Supervisors
Placer County Air Pollution Control Officer

PLACER COUNTY RICE GROWERS

<u>Name</u>	<u>Address</u>
Frank L. Reols	8875 Watt ave Roseville
Richard Reols	5701 Sunset Blvd Wad RSVL
Maurice Brock	5460 Straight Rd Roseville Ca. 95678
Lawrence Vestal	8399 Locust Rd. Elverta Ca. 95626 Placer
Herald H. Daily	10515 Baseline Rd Elverta, Ca. 95626
Dorothy Gray	8070 Locust Rd Elverta Ca. 95626
Phillip Gray	RT1 BOX 4790 Elverta, Calif. 95626
Robert E. Lawrence	7495 Notomac Rd Elverta Cal 95626
Silma Scheidel	6201 S Brewer Rd Pleasant Grove 95668
Ken L. Scheidel	6201 S. Brewer Rd Pleasant Grove 95668
Paul Richmond	3142 Oakway Roseville 95678
Walter Naake	2300 Central Ave. Roseville, Ca. 95678
Jim Reols	5280 PFC Rd - Roseville, Ca 95678
Rose Reols	6520 Oyer Lane Roseville Ca.

APPENDIX F

Letter from Shan Patterson, Chairman, Sacramento Valley Air Pollution Control Council to Thomas Austin, Air Resources Board Executive Officer, dated March 7, 1979, Regarding Proposed Changes to the Agricultural Burning Guidelines.

APPENDIX F

Letter from Shan Patterson, Chairman, Sacramento Valley Air Pollution Control Council to Thomas Austin, Air Resources Board Executive Officer, dated March 7, 1979, Regarding Proposed Changes to the Agricultural Burning Guidelines.

APPENDIX F

SACRAMENTO VALLEY AIR POLLUTION CONTROL COUNCIL

P. O. Box 33
Red Bluff CA 96089

March 7, 1979

Mr. Tom Austin, Executive Officer
Air Resources Board
P. O. Box 715
Sacramento California

Dear Mr. Austin:

A group of farmers in the Sacramento Valley, meeting extemporaneously as the Sacramento Valley Rice Growers Committee, has met in response to the Air Resources Board staff's recommendations to change the agricultural burning guidelines in the San Joaquin and Sacramento Valley Air Basins.

After several meetings a number of recommendations were formulated and presented to the Sacramento Valley Wide Air Basin Control Council for consideration and support.

At the March 2nd, 1979, meeting of the Council in Red Bluff, the Council accepted the recommendations and unanimously approved them.

We, therefore, forward these recommendations to you for your careful consideration.

We would point out that recommendation number nine would require a change in the law to accomplish but we feel strongly that it should be considered since the emissions from tree crop burnings do not significantly affect the air quality whether burned on burn or no-burn days and in fact could actually lead to a reduction in emissions if allowed by law since a continuous hot fire is better than the present approach.

Please take particular note that the growers are recommending further restricting burning during the period from October 1 through November 15 which is a special concern because of poor ventilation in the Valley. Under their suggestion, burning of crops harvested before September 10 could not be burned during the October 1 through November 15 period.

This speaks highly of their concern for their city dwelling friends and their intent to do all within their power to reasonably regulate agriculture burning.

Also, note that this action was taken prior to the introduction of Mr. Leroy Greene's AB 681.

Their committee first met on January 17th in Yuba City to address the problem. There were over 65 growers present at this meeting.

We respectfully request that you consider the recommendations on their merits.

Sincerely,

Shirley Larsen, Chairman
Sacramento Valley Air Pollution Control Council

cmf

APPENDIX G

Letter from Sacramento Valley Technical Advisory
Committee to James Morgester, Chief, Air Resources
Board Enforcement Branch, dated April 21, 1979 -
Subject: Response to Agricultural Burning Proposal.

APPENDIX G

April 26, 1979

James Mergester, Chief
Enforcement Branch
California Air Resources Board
P.O. Box 2815
Sacramento, California 95812

RE: Response to Agricultural Burning Proposal

Dear Mr. Mergester:

It has been requested that the Sacramento Valley Technical Advisory Committee respond to your agricultural burning proposal on a point by point basis. We have reviewed the proposal as it was received, not as modifications have taken place.

The TAC is also requesting your presence at the May 15th, 1979 meeting in Yuba City. The purpose being to discuss your ag burning proposal and this letter.

Item 1 BACKFIRING

Response: This item is opposed. During the late evening a strong inversion frequently occurs within several hundred feet of the ground. It has been the intent of past regulations to prevent burning during this period of the day. To require backfiring only for field crops would encourage late burning.

As an example, the California Rice Research Board claims a backfire will advance in a rice field at three (3) to five (5) feet per minute. If a square 160 acre field is backfired at 12:00 noon it will be expected to burn out between 8:48 p.m. and 2:39 a.m. the following day. This is not in the best interest of the districts to support this measure as stated. However, the Basin will support the addition of strip-firing requirements to field crops if the local Air Pollution Control Officer's retain the authority to exempt the local crops that do not lead themselves to strip-firing.

APPENDIX G

Letter from Sacramento Valley Technical Advisory
Committee to James Morgester, Chief, Air Resources
Board Enforcement Branch, dated April 21, 1979 -
Subject: Response to Agricultural Burning Proposal.