

**State of California  
AIR RESOURCES BOARD**

**Final Statement of Reasons for Rulemaking,  
Including Summary of Comments and Agency Responses**

**PUBLIC HEARING TO CONSIDER ADOPTION OF AMENDMENTS TO  
CALIFORNIA'S AGRICULTURAL BURNING GUIDELINES**

**Considered on: March 23, 2000  
Agenda Item No: 00-3-1**

## **TABLE OF CONTENTS**

<b><u>Contents</u></b>		<b><u>Page</u></b>
I. INTRODUCTION .....		1
II. MODIFICATIONS TO PROPOSED STATE REGULATION.....		1
A. Summary of Modifications.....		1
B. Availability of Modified Text.....		3
C. Costs to Local Agencies and School Districts .....		3
D. Consideration of Alternatives .....		4
III. SUMMARY OF COMMENTS AND AGENCY RESPONSE .....		5
A. Comments Received During the 45-Day Comment Period .....		5
B. Comments Received During the 15-Day Comment Period .....		84
C. Comments Received During the 15-Day Comment Period that are not Germane to the 15-Day Notice Changes .....		89

## **APPENDICES**

**APPENDIX A. Staff Report**

**APPENDIX B. Board Resolution 00-8**

**APPENDIX C. Notice of Decision and Response to Significant  
Environmental Issues**

**APPENDIX D. Executive Order G-00-057**

## **I. INTRODUCTION**

On February 4, 2000, the Air Resources Board (ARB or Board) published a public notice proposing the adoption of amendments to title 17 California Code of Regulations (CCR), sections 80100 through 80330. The public notice summarized the proposed amendments and announced a public comment period prior to the Board hearing on March 23, 2000. The Initial Statement of Reasons for Rulemaking (also referred to as the Staff Report) entitled "Proposed Amendments to California's Agricultural Burning Guidelines" (Guidelines) described the revisions in detail and was also made available to the public on February 4, 2000. The Staff Report, which is incorporated by reference herein, also provides a description of the rationale and necessity for the action proposed.

On March 23, 2000, the ARB held a public hearing at which it received written and oral comments on the proposed regulations. At that time, the Board heard numerous oral comments and considered revised language that staff recommended to address issues raised during the 45-day public comment period and at the five scoping sessions and 15 workshops held throughout California during the previous year. At the conclusion of the public hearing, the Board adopted Resolution 00-8 and approved the proposed regulation with the proposed staff modifications. Resolution 00-8 is attached hereto and incorporated by reference herein. On June 20, 2000, ARB issued a Notice of Public Availability of Modified Text, which provided the revised regulatory language for a 15-day public comment period. During the public comment period, which expired July 6, 2000, ten comments were received.

As approved by the Board, the regulation provides more detailed direction to California's 35 air pollution control and air quality management districts (air districts) in the regulation and control of agricultural burning statewide, including prescribed burning. The purpose of the Guidelines is to place primary emphasis on improving air quality by better smoke management through improved planning, collaboration, and consultation between burners, including federal and State land management agencies, and air agencies.

## **II. MODIFICATIONS TO THE PROPOSED STATE REGULATION**

### **A. Summary of Modifications**

Prior to the Board's approval of the amended Guidelines, five scoping sessions and 15 public workshops were held. The scoping sessions sought input from the air districts, environmental groups, private landowners and the timber industry, public land management agencies and the agriculture industry. The public workshops were held in different geographic locations throughout the State in three separate rounds to discuss the proposed Guidelines as the revisions evolved. Also, in accordance with the Administrative Procedure Act, the public was given 45 days to review and submit comments on the proposed amendments. During this 45-day comment period,

57 letters were received. The Board also heard testimony from 26 witnesses at the March 23, 2000, public hearing.

Comments in the letters and by the witnesses raised issues regarding: definitions; scope and applicability of the regulation; the exclusion of residential burning requirements from the amended Guidelines; the procedures and delegation for burn day and marginal burn day decisions; burn project registration; burning permits and individual burn authorizations; the contents and frequency of burn reports; procedures for the adoption or repeal of regional smoke management programs; program elements pertaining to the daily burn authorization; exemptions; burn prioritization; allocations; pre-ignition preparation; differences in procedures governing prescribed burning, agricultural burning and open burning; thresholds triggering smoke management plans for individual burns; analysis of alternatives to burning; appropriate meteorological criteria; program administration costs, funding and fees; and data resources needed to implement programs. Staff developed revised language for several parts of the proposed regulation. Many of these comments were accommodated in revisions to the proposed regulation; some were not, and the reasons are provided herein.

In addition to the evaluation of significant adverse environmental impacts contained in the Staff Report, the ARB also considered the potential impacts resulting from the recommended staff modifications to the rule. These evaluations are contained in the Notice of Decision and Response to Significant Environmental Issues, which is attached hereto and incorporated by reference herein.

The proposed regulation, as modified, was brought before the Board at the public hearing. After hearing the public comments and deliberating the issues at the hearing, the Board approved the regulation with the modifications proposed by staff. These changes can be summarized as follows:

- (1) added new language specifying that the forty-eight hour forecast will include a degree of confidence;
- (2) deleted language addressing residential burning;
- (3) added new language requiring the Executive Officer to provide justification and a reasonable schedule for implementing any revision required for an air district's annual reporting requirements;
- (4) revised language to allow 180 days for an air district to amend its program to address ARB concerns;
- (5) revised language to clarify the procedure for the ARB's adoption of an alternative program in an air district;
- (6) added new language to clarify the approval process for alternative burn authorization systems;
- (7) revised and added new language to clarify the use of any burn decision made 24-hours in advance of potential ignition;
- (8) revised language allowing an air district to authorize field crop burning outside of restricted hours if local conditions are appropriate;

- (9) added new language specifying that an analysis of the alternatives to burning, when prepared as part of a National Environmental Policy Act (NEPA) or a California Environmental Quality Act (CEQA), would meet the requirement for consideration of alternatives and must be attached to the smoke management plan for the burn project at issue;
- (10) added new language clarifying the types of monitoring that an air district can require;
- (11) added new language to ensure that reasonable attempts are made to consult with the air district when fire control agencies make a decision to manage a naturally ignited fire for resource benefit; and,
- (12) revised language to ensure that all requirements stated in the smoke management plans must be met.

These modifications are discussed more fully in the Summary of Comments and Agency Response.

## **B. Availability of Modified Text**

Pursuant to the Board's direction, the staff prepared modified regulatory language reflecting the changes approved by the Board. The modified regulation, with the changes to the originally proposed text clearly indicated as required by Government Code section 11346.7(a), were mailed in accordance with section 44, title 1, California Code of Regulations, on June 20, 2000. The comment period ended July 6, 2000.

Ten comments were received during this period. After considering the comments, the Executive Officer determined that further regulatory changes were unnecessary, since the Guidelines language is flexibly designed to allow each air district to develop an individual program addressing the concerns raised in the comments. The modifications are further discussed in the two sections containing responses to comments received during the 15-day comment period (sections III.B and III.C.)

After considering the comments received in response to the Notice of Availability of Modified Text, the Executive Officer issued Executive Order G-00-057 adopting the regulation, which is attached hereto and incorporated by reference herein.

## **C. Costs to Local Agencies and School Districts**

As defined in Government Code section 11346.5(a)(6), the Board has determined that this regulatory action will not affect federal funding to the State. After reviewing the comments received during the public review periods and at the public hearing, the Board has determined that the revisions to the Guidelines may create costs for the State and local agencies conducting and regulating controlled burns. These costs were initially discussed in Chapter 10 of the Staff Report. Further discussions during the public review periods and at the public hearing led the Board to direct staff in Resolution 00-8, to work with the public agencies and the air districts to investigate the feasibility of sharing resources and other means to meet program needs. The Board

also directed the staff to work with the air districts to evaluate appropriate fee structures as a means of recovering costs.

Air district responsibilities under the proposed regulation could be fully financed from the fee provisions authorized by sections 42311-42311.5 and 41866 of the Health and Safety Code (HSC). No reimbursement is required by the proposed revised regulation pursuant to section 6 of Article XIIIIB of the California Constitution because local agencies, in this case air districts, have the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service within the meaning of section 17556 of the Government Code.

Air districts are allowed to charge fees to recover permit review costs resulting from compliance with State requirements. These fees would be borne by sources that engage in agricultural burning activities that fall within the air district's regulatory authority (i.e., burning conducted by private land owners, State agencies and federal land managers.) Nevertheless, ARB is working with all stakeholders to find ways to pool resources in order to minimize costs, and to work with affected public agencies to seek sources other than fees alone to recover costs.

In at least one county, local fire districts perform the dual duties of being the agency which issues permits for burning, as well as conducting prescribed burning themselves. In this situation, there may be some additional costs associated with burn plan monitoring and reporting requirements for these agencies. However, the proposed rule does allow air districts to specify different acreage or emissions thresholds for submitting detailed smoke management plans, provided they can demonstrate equivalent outcomes, i.e., reduced or avoided smoke impacts to the affected public and appropriate public notification procedures. Such flexibility should keep overall costs to current or otherwise acceptable levels.

The Board has determined that these amendments will not create costs or savings, nor impose a mandate upon, any local school district, whether or not it is reimbursable by the State pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code.

#### **D. Consideration of Alternatives**

In preparing the regulatory proposal, the ARB staff considered the potential economic impacts on California business enterprises and individuals. A detailed discussion of these impacts is included in the Staff Report, Chapter 10, Economic Considerations.

The Board has also determined, pursuant to Government Code section 11346.5(a)(3)(B), that the regulations may affect small businesses, including forest land and ranch owners, who may use controlled burns to manage vegetation, depending on the type of burn and the agency that is contracted to perform the burn. The Board has further determined that no alternative was presented or considered which would be more effective in carrying out

the purpose for which the regulatory action was proposed, or which would be as effective and less burdensome to affected private persons, than the adopted regulations. The Guidelines do give air districts in the same geographic area the opportunity to pool their resources in a regional center for daily allocation of burns. This can be an efficient way to manage limited resources in some situations. This option was not mandated because it does not consistently change the cost or savings to the agencies and other affected stakeholders, including small business, and is not necessarily the most effective way to administer the smoke management program.

### **III. SUMMARY OF COMMENTS AND AGENCY RESPONSE**

#### **A. Comments Received During the 45-Day Comment Period**

The Board received written and oral comments before and during the March 23, 2000, hearing. A list of commenters is set forth below with the date and form of all comments that were filed in a timely manner.

<b>ABBREVIATION</b>	<b>COMMENTER</b>	<b>COMMENT FORM/ DATE</b>
Ag Council	Agricultural Council	Written/3/20/00
ALA (Withycombe)	American Lung Assn. (Earl Withycombe)	Oral/3/23/00
Alamo	Alamo Farming Co.	Written/2/21/00
Amador	Amador County Air Pollution Control District	Written/2/23/00
BAAQMD	Bay Area Air Quality Mgmt District	Written/3/16/00
Barrett	Barrett, Robert R.	Written/3/13/00
BC Sup (Josiassen)	Butte County Supervisor (Curt Josiassen)	Oral/3/23/00
BCAQMD BCAQMD (Odle)	Butte Co. Air Quality Mgmt District (Lawrence Odle)	Written/3/10/00; Oral/3/23/00
Biomass (Trott)	CA Biomass Energy Alliance (Chris Trott)	Oral/3/23/00
CA IBA	CA Indian Basketweavers Assoc.	Written/3/20/00
CA Legislature	California Legislature	Written/3/20/00
CA WCG	CA Wildfire Coordinating Group	Written/3/31/00
CAPCOA CAPCOA (Greene)	CA Air Pollution Control Officers Assn. (Larry Greene)	Written/3/22/00 Oral /3/23/00
Cattlemen	Cattlemen's Association	Written/3/23/00
CDF (Tuttle)	CA Dept. of Forestry and Fire Protection (Andrea Tuttle)	Oral/3/23/00
CFA (Bischel)	CA Forestry Assn. (Dave Bischel)	Oral/3/23/00
CLFA CLFA (Violett)	CA Licensed Foresters Assn. (Paul Violett)	Written/3/20/00; Oral/3/23/00

ABBREVIATION	COMMENTER	COMMENT FORM/ DATE
CNPS	CA Native Plant Society	Written/3/9/00; 3/21/00
Cooley Ranch	Cooley Ranch Co.	Written/3/21/00
Coyote Ranch	Old Coyote Hill Ranch	Written/3/17/00
CRC CRC (Rehermann)	CA Rice Commission (Frank Rehermann)	Written/3/23/00 Oral/3/23/00
CSERC (Buckley)	Central Sierra Environmental Resource Center (John Buckley)	Oral/3/23/00
EI Dorado NF	U.S. Forest Service, EI Dorado Natl Forest	Written/3/6/00
EPA	U.S. EPA, Region 9	Written/2/28/00
Evans	Evans, Gary	Written/3/23/00; Oral/3/23/00
Farm Bureau (Cory)	CA Farm Bureau Federation (Cynthia Cory)	Oral/3/23/00
Fife	Fife Environmental	Written/3/22/00
Humboldt (Dixon)	Humboldt County Supervisor (Stan Dixon)	Oral/3/23/00
KS&C (Soares)	Kahn, Soares & Conway (George Soares)	Oral/3/23/00
Lake County	Lake County Air Quality Mgmt District (Robert Reynolds) (D. W. "Bill" Merriman) (Gary Lewis) (Robert Reynolds) (Robert Reynolds) (Robert Reynolds) (Robert Reynolds)	Written/2/28/00 Written/3/6/00 Written/3/14/00 Written/3/14/00 Written/3/15/00 Oral/3/23/00 Oral/3/23/00;
Lake County (Reynolds)		
Lake County (Lewis)		
Lassen Group	Lassen Forest Preservation Group	Written/3/20/00
Launi	Stephen M. Launi Forestry Services	Written/2/21/00
LCCA	Lake County Cattlemen's Association	Written/3/16/00
LCFB	Lake County Farm Bureau	Written/3/14/00
LCFCA LCFCA (Strickler)	Lake County Fire Chiefs' Association (Howard Strickler)	Written/3/15/00 Oral/3/23/00
LCR&RA LCR&RA (Talley)	Lake County Resort & Restaurant Assn. (Louise Talley)	Written/3/17/00; Oral/3/23/00
Legislature	CA Legislature	Written/3/20/00
MBUAPCD	Monterey Bay Unified Air Pollution Control District	Written/2/16/00
Mostin	Mostin, Raymond	Written/3/13/00
NCSAF	N. CA Society of American Foresters	Written/3/22/00
NCUAQMD	North Coast Unified AQMD	Written/3/15/00;

ABBREVIATION	COMMENTER	COMMENT FORM/ DATE
NCUAQMD (Morgan)	(Wayne Morgan)	Oral/3/23/00
NFL (Cunha)	Nisei Farmers League (Manuel Cunha)	Oral/3/23/00
Northern Sierra Northern Sierra (Hill)	Northern Sierra AQMD (Rod Hill)	Written/3/13/00; Oral/3/23/00
NPS	U.S. Dept. of the Interior, Natl Park Service	Written/3/16/00; 3/21/00
NSCAPCD NSCAPCD (Lee)	Northern Sonoma County APCD (Barbara Lee)	Written/3/21/00; Oral/3/23/00
Ogden	Ogden Power	Written/3/10/00
Parks & Rec.	CA Dept. of Parks & Recreation	Written/3/6/00
Pt. Reyes	Point Reyes Bird Observatory	Written/3/20/00
RRC	Roseburg Resources Co.	Written/2/15/00
Sac Valley BCC	Sacramento Valley BCC	Written/3/20/00
Santa Barbara	Santa Barbara County APCD	Written/3/9/00
SBCFD	Santa Barbara County Fire Dept.	Written/3/10/00
SCAPCD	Siskiyou County APCD	Written/3/22/00
Scotia (Rodgers)	Scotia Pacific Holding Co. (Mark Rodgers)	Oral/3/23/00
SFI	Sequoia Forest Industries	Written/2/15/00
Simpson	Simpson Timber Co.	Written/3/20/00
SJVAPCD	San Joaquin Valley APCD	Written/3/17/00
Slaughter	Slaughter, Gary	Written/2/16/00
SOAR	Save Our Air Resources	Written/3/14/00
SPI (Ostergaard)	Sierra Pacific Industries (Craig Ostergaard)	Oral/3/23/00
TCAPCD	Tuolumne County APCD	Written/2/18/00
USFS USFS (Gause) USFS (Quintanar)	U.S. Forest Service, Pacific SW Region (Jerry Gause) (Ray Quintanar)	Written/3/14/00; Written/3/23/00; Oral/3/23/00
USMC	U.S. Marine Corps	Written/3/27/00
VCAPCD (Baldwin)	Ventura County APCD (Richard Baldwin)	Oral/3/23/00
Wheelabrator Wheelabrator (Jolley)	Wheelabrator (Steve Jolley)	Written/3/3/00; Oral/3/23/00

Several commenters expressed general support or disagreement with the regulation or certain aspects of it, but did not suggest that the Board take any specific action. While these comments were considered by the Board, most of these comments are not separately addressed in this Final Statement of Reasons because they were not objections or recommendations specifically directed at the proposed action or the procedures followed by the Board in proposing or adopting the proposed action. However, some of these comments have been included in those cases where they add additional information or perspective.

The following general supportive comments are presented to highlight the extensive outreach process the ARB staff used to develop the Guidelines. The staff appreciates these comments, for which no further response is necessary.

1. Comment: I support the efforts to increase the scale of prescribed burning in California. As a forestry professional, and as one who does forest disease research at the University of California at Davis, I understand the importance of reintroducing fire into the environment, particularly in foothill and mountain ecosystems. (Slaughter)
2. Comment: We strongly support your efforts to update title 17 and to develop more consistency in California's smoke management program. We have participated in the development of the revised title 17 through the public workshop process and we believe the revisions are generally consistent with EPA's Interim Air Quality Policy on Wildland and Prescribed Burning. We also wish to commend ARB staff who have worked long and hard to bring these Guidelines to Board adoption. (EPA)
3. Comment: We commend ARB staff for its efforts in gathering extensive and exhaustive public opinion on this matter over the past two years from a wide variety of stakeholders throughout the State. These Guidelines have not been created in a bureaucratic vacuum as some have in times past. This proposal has come a long way since the first scoping workshops were held. It is clear that ARB staff has responded to stakeholder concerns in formulating the rule that is now before you. I want to thank staff for listening. (Ogden)
4. Comment: I'd like to commend the ARB staff for producing a proposal that has the potential for improving the smoke management program, and structuring it in a way that allows the air districts the flexibility needed in a geographically diverse state, such as California. A "One-Size-Fits-All" approach would clearly not work in California, so letting the air districts work with their stakeholders in designing workable programs really makes sense. (NSAQMD)
5. Comment: I would like to take this opportunity to thank the ARB staff for consideration of the air district's unique circumstances in developing the proposed amendments to the Guidelines. In addition, I would like to thank them for listening and responding to most of our concerns throughout the rule development process. (BAAQMD)
6. Comment: Overall, the air district feels that the proposed Guidelines will enable the air district to control and reduce smoke impacts from agricultural and prescribed burning in a more efficient and effective manner than can be done under the existing Guidelines. (SJVAPCD)
7. Comment: We applaud the consideration that we have received by Board staff throughout this lengthy process. (CLFA)

8. Comment: This air district has devoted considerable time and effort in the last year working with ARB staff on smoke management issues. I would like to recognize their efforts to understand and address the concerns we have raised about the proposal. In particular, I appreciate the additional time provided for this process and the implementation, and the attention given by ARB staff to the issues CAPCOA identified as critical to the success of the program. (NSCAPCD)

9. Comment: We appreciate the efforts of the staff of the ARB which have led to the development of the document. (NPS)

10. Comment: We greatly appreciate the openness to public comment that the ARB has displayed during this rulemaking. We have been involved throughout the process and many of our comments have been addressed. It is clear that the Board and its staff intend to be as helpful to the public and as open to comment as possible. (CNPS)

11. Comment: Northern California Society of American Foresters supports the intent of the proposed amendments to minimize smoke impacts to protect public health and welfare. We support the proactive stance of the ARB to establish a process to maintain air quality while allowing for reduction of unsafe fuel loads. (NCSAF)

12. Comment: CAPCOA supports the update and will continue to work closely with the ARB staff in the implementation of the regulation. We would like to recognize the efforts of the ARB staff to frame many conflicting ideas and interests into a regulation which can protect public health, support the continuing need for agricultural burning, and address public safety through prescribed burning. CAPCOA strongly supports the recent agreement between the ARB staff and CAPCOA to find a more flexible way to deal with the concerns about residential backyard burning, outside of the title 17 regulation. (CAPCOA; CAPCOA (Greene))

13. Comment: My main reason for standing here is to pass on a special thanks to Executive Officer, Mike Kenny and his Planning and Technical Support Division staff, Bob Fletcher, Don McNerny, Arndt Lorenzen, Erich Linse and Lucille Van Ommering for their genuine outreach efforts to solicit ideas at workshops, and for traveling from one end of the State to the other over the last year. We appreciate staff's efforts in working hard to find solutions to the many issues related to burning for agricultural and natural resource purposes. (USFS (Gause))

14. Comment: The agencies represented by the California Wildfire Coordinating Group appreciate the work which the staff of the ARB has put into this document, as well as the public meetings which were held to gather information and reaction from us on previous drafts. (CA WCG)

15. 15-Day Comment: The Nisei Farmers League, along with the agricultural community, is in full support of the proposed changes. The Board's decisions are appreciated, especially for amending section 80140(h) to provide additional time for air

districts to address the ARB's disapproval of an air district's smoke management program from the current 120 days to the amended 180 days. We also appreciate your granting flexibility to the individual air districts. We would like to thank the ARB and staff for allowing the agriculture community to be a complete partner in this process. (NFL)

Set forth below is a summary of each objection or recommendation regarding the proposed amendments, or the procedures used by the ARB, together with an explanation of how the proposed action was changed to accommodate each objection or recommendation, or the reasons for making no change. (Note that title 17 of the California Code of Regulations covers most of ARB's non-vehicular regulatory programs, whereas the Smoke Management Guidelines comprise only sections 80100 through 80330 of title 17. Therefore, in the Agency Response, the term "Guidelines" is used to refer to sections 80100 through 80330 of title 17 California Code of Regulations.) The comments are arranged to follow the sequence of the amended Guidelines.

## **ARTICLE 1.**

### **A. DEFINITIONS (Section 80101)**

1. Comment: Define the following terms: "naturally-ignited wildland fires managed for resource benefits", "mixing depth", "resultant wind speed", "imminent and substantial economic loss", and "air monitoring for smoke management plans". (MBUAPCD; Amador)

Agency Response: "Naturally ignited wildland fires managed for resource benefits" are specifically included in the definition of "prescribed fire". The terms "resultant wind speed" and "mixing depth" are not changed from the existing Guidelines, and are scientific terms commonly used in the air pollution field. "Imminent and substantial economic loss" is not changed from the existing Guidelines and is intentionally left for further interpretation by individual air districts. The term "air monitoring for smoke management plans" is not used in the Guidelines.

2. Comment: Include in the definition of "marginal burn day" specific meteorological criteria that ARB staff will use to determine a "marginal burn day", as distinct from a "no-burn day". General qualitative criteria will not be specific enough to assure uniform application of this new classification. (MBUAPCD)

Agency Response: Section 80101(n) generally defines a marginal burn day as a day when limited amounts of agricultural burning, including prescribed burning, for individual projects in specific areas for limited times is not prohibited by the State board and burning is authorized by the air district consistent with these Guidelines. Section 80110(c) states that ARB may declare a marginal burn day if meteorological conditions approach the criteria contained in sections 80179 through 80311 for permissive burn days, and smoke impacts are not expected. Meteorological conditions vary geographically, as do the location and nature of the material to be burned and the proximity of other burns to the proposed burn. Consequently, ARB and air district personnel must retain the flexibility to establish appropriate specific criteria and

marginal burn day designations on a case by case basis. As such, it is not possible to include specific criteria in the definition.

3. Comment: The Guidelines define air quality "as indicated by the State ambient air quality standards". This suggests that ARB will redefine air quality at some point in the future. (BCAQMD (Odle))

Agency Response: Both the ARB and the U.S. Environmental Protection Agency (EPA) must review and amend air quality standards as additional monitoring data become available or new health studies are completed. While progress in achieving air quality goals will continue to be measured by examining adherence to the State and federal ambient air quality standards, there is no intent to change the definition of air quality.

4. Comment: The U.S. Forest Service (USFS) and California Department of Forestry (CDF) are specifically identified as "designated agencies" (HSC section 41853 allows ARB to designate agencies to issue agricultural burning permits). Will revisions to this rule require other agencies to be re-designated as burn agencies, or are the ARB Executive Orders, such as Executive Order No. H-45 that was executed on April 29, 1980, that designated other burn agencies in San Diego County, still effective? (USMC)

Agency Response: The Executive Orders that have been issued in the past will remain in effect, so the present ARB-designated agencies will still be "designated agencies."

## B. SCOPE AND APPLICABILITY (Section 80102)

### a) General

5. Comment: Section 80102(a) states that the Guidelines are applicable to the ARB and all air districts. Do these Guidelines also apply to "designated agencies"? (Santa Barbara)

Agency Response: Yes. Section 80101(j) defines "designated agencies" as any agency designated by the ARB as having authority to issue agricultural burning permits, including prescribed burning permits. As stated further in section 80102(a), these Guidelines "regulate agricultural burning", and as such, apply to any agency participating in the regulation of agricultural burning.

6. Comment: The title of Subchapter 2 should be changed to "Smoke Management Guidelines for Agricultural, Prescribed and Residential Burning", since it currently includes all three categories. Section 80100 "Purpose" should also include residential burning in the list of burning that air districts are regulating and controlling. (BCAQMD)

Agency Response: Provisions for residential burning have been removed from these Guidelines; hence the title changes are not appropriate.

7. Comment: The Legislature authorized ARB to adopt "*guidelines*" for agricultural burning, not "*regulations*" (HSC section 41856). It is important to consider the title 17 proposal in the context of the authorities established and intended by the State Legislature in the HSC. It is clear that the Legislature intended the air districts to possess the primary authority to control air pollution from all sources other than vehicular sources (HSC section 39002); this includes agricultural and prescribed burning. While ARB has oversight responsibilities, these may only be initiated after ARB demonstrates air district(s) have failed to meet their responsibilities, and holds a formal hearing (HSC sections 39002 and 41505). (BCAQMD; NCUAQMD (Morgan))

Agency Response: The Government Code defines "regulation" as "every rule, regulation, order or standard of general application...adopted by any State agency to implement, interpret, or make specific the law enforced or administered by it ...." (Government Code section 11342(b)). A guideline or other rule that is not properly adopted in accordance with the requirements of the Administrative Procedure Act is invalid and unenforceable. (See Government Code section 11347.5: "no State agency shall issue, utilize, enforce, or attempt to enforce any guideline, criterion, bulletin, manual, instruction, order, standard...or other rule...unless [it] has been adopted as a regulation and filed with the Secretary of State pursuant to this chapter.")

HSC section 41856 requires the ARB to "promulgate guidelines for the *regulation and control* of agricultural burning for each of the air basins established by the State board" (emphasis added). Additionally, HSC section 41859 sets forth the factors that the ARB is to consider in adopting the Guidelines, and to "modify, repeal, or alter such guidelines" as warranted by scientific or technological data.

Interpreting a legislative enactment begins with a careful reading of the text. The words of the statute are to be given their ordinary and popular meaning and must be read in context. If a term has more than one meaning, the one that best promotes the underlying purpose of the provision should be employed. The fundamental objective of statutory interpretation is to ascertain and effectuate the purpose of the Legislature in enacting the statute. Where the words of the text are clear and unambiguous, there is no need to go beyond them. In this case, as specified in HSC section 41863, the Legislature clearly is requiring the ARB to regulate and control agricultural burning on the basis of specified criteria, and the air districts are required to comply with the requirements adopted by the ARB when regulating and controlling the burning. The Guidelines are to be enforceable and hence must be adopted as a regulation.

The ARB is not required to make a finding that an air district program is inadequate before adopting enforceable burn regulations. The authority set forth in section 41856 is explicit legislation imposing a duty upon the ARB. There is no requirement or other indication that the Legislature intended the ARB to follow the provisions of the HSC sections 41500 and 41504, which are general provisions specifying ARB responsibilities in the event air districts do not perform satisfactorily, before implementing the clear directive of section 41856. Indeed, if the ARB did not adopt

regulatory guidelines to regulate and control agricultural burning, it would not be complying with the legislative mandate.

8. Comment: The Legislature limited ARB's Guidelines to those "...based on meteorological data, the nature and volume of materials burned, and the probable effect of such burning on the ambient air quality within the air basins (HSC 41857)". Therefore, the Guidelines must be supported by adequate technical data demonstrating the need for a specific amendment or a failure of the air districts to implement a statutory duty. (BCAQMD; NCUAQMD; Humboldt (Dixon))

Agency Response: Many factors, including meteorological considerations, the nature and volume of materials burned, and the probable effect of such burning on the ambient air quality within the air basins were considered in the overall development of the Guidelines. In addition, information supplied by air districts and State and federal forest management agencies indicated that a policy change in favor of reducing fuel loading and enhancing natural ecosystems through increased burning was likely over the next decade. Numerous other factors such as increased population and the encroachment of urban areas on previously agricultural and forested lands also supported ARB's determination that the burn program be updated and improved. The record supplies abundant evidence that program enhancements were necessary. Moreover, the specific provisions in HSC sections 41856 through 41859 take precedence over the general division of authority in section 39002. The Legislature has required ARB to guide and oversee air district activities in this area.

9. Comment: The ARB staff should remain flexible during the implementation of this regulation. There are many factors which affect a program of this type, including local geography and meteorology, the mix of industry and agricultural operations, and the staffing at air districts. These differences will require differing local solutions to implement an effective smoke management program. (CAPCOA; NSCAPCD (Lee); Northern Sierra (Hill))

Agency Response: We agree. The Guidelines are intended to ensure that air districts have the flexibility to tailor programs to their local needs, while still providing a consistent Statewide framework. The Guidelines were designed to recognize the different regulatory approaches that air districts would likely take to implement smoke management programs. In addition, through various workgroups, we intend to work closely with the air districts and other stakeholders to address any unanticipated issues as they arise.

10. Comment: ARB should promulgate guidelines for the regulation and control of agricultural burning for each of the air basins, not one set of flexible guidelines for the whole State. (NCUAQMD; Lake County; Humboldt (Dixon))

Agency Response: The ARB reviewed and considered the current burn programs in all of the State's air basins prior to revising the regulations. Moreover, the regulation

requires each air district's plan to contain specified generic components that meet performance criteria, but allows each air district to tailor the specific components of its program to local circumstances. All of the factors listed in sections 41857 and 41858 of the HSC were considered for each air basin. The regulation is intended to provide a uniform Statewide framework insofar as each air district's burn program will need to conform to rigorous criteria; however, it is anticipated and encouraged that each program will address and respond to local conditions.

The legal requirement that the ARB promulgate guidelines for the regulation and control of agricultural burning "for each of the air basins established by the State board" has been fulfilled: each air basin is subject to ARB's regulations. There is no requirement that the ARB regulation must differ for each air basin. Reliance on the language in section 39606(a), that ambient air quality standards may vary from one basin to another, is misplaced and misstated. While the standards "may vary", the ARB has in fact promulgated the same ambient standards for all 15 air basins in California, with a unique CO standard for the Lake Tahoe Air Basin based upon health factors at high altitudes. Similarly, while the ARB could have adopted 35 different smoke management regulations, logic, economy, and common sense supported the adoption of one set of regulations that would accommodate program differences based upon any unique local circumstances. The law does not require otherwise.

11. Comment: The regulations as proposed will not curtail the activities of irresponsible individuals or entities conducting burns. Rather, they will force those currently doing a good job to burn at inopportune times and under less than optimum conditions. The result will be increased hazard of accidental fire escape, and even danger to personnel, as well as smoldering and longer duration burns. Efficiency will suffer as well. (Launi)

Agency Response: We disagree. Improved burning procedures, not irresponsible ones, are being encouraged by this regulation. The Guidelines promote a collaborative approach among air agencies and burners that will increase the effectiveness of the smoke management program, while minimizing smoke impacts. Section 80160 further specifies a framework for the preparation of smoke management plans that must be prepared by prescribed burners for review and approval before any burning is conducted. These plans will require the information necessary to ensure burns are conducted responsibly and effectively.

12. Comment: A new regulation is not necessary to meet the stated goals as there is a sound smoke management program in place that has evolved over 30 years. (CLFA (Violett))

Agency Response: We disagree. The Board found there was sufficient justification to amend the existing Guidelines for the following major reasons:

- 1) to provide an approach that relies upon closer communication and collaboration between State and air districts and prescribed burners to prevent severe smoke episodes. Such episodes continue to occur under the present regulations, and can affect hundreds of people, so changes are clearly needed;
- 2) to accommodate federal and State land managers who have expressed the need to increase prescribed burning in California to reduce excess vegetative fuel loadings that heighten the risk of catastrophic wildfires. This burning must be carefully timed and planned to reduce the potential impact on health and air quality; and,
- 3) to help California meet health-based air quality standards and federal visibility requirements.

13. Comment: The agricultural community should not be burdened with the additional regulations that these proposed changes appear to do. (Cooley Ranch)

Agency Response: The regulation is designed to ensure that all burners, including the agricultural community, and air districts work closely together to improve smoke management efforts. This will allow necessary agricultural burning to continue while protecting the public from smoke impacts. A similar program to that required in the Guidelines has been successfully operated in the Sacramento Valley Air Basin since 1981.

14. Comment: The proposed Guidelines would be better implemented as voluntary guidelines to be followed where and when feasible. Such cases may occur where a large landowner has the benefits of a localized geographic location, a large cadre of managers and work crews connected by over lapping communications mechanism, and long range planning capability. However, this is not usually the case. (Launi)

Agency Response: We disagree. Voluntary guidelines would not protect the public from smoke impacts if a burner chose not to follow them. We recognize that burn projects will have varying levels of complexity and have structured the Guidelines such that the amount of effort required to comply with the Guidelines will depend on the size, complexity, and location of the proposed burn. Thus, smaller burns with less smoke impact potential need to meet fewer requirements than large, complex burns.

15. Comment: The sale, subdivision, and development of properties in the midst of, or on the borders of, lands devoted primarily to agricultural or forestry activities, should be limited by requirements for disclosure in sale documents. These documents should specify that burning is a necessary, desirable, normal and expected activity inherent in the management of those lands. In this way, the encroachment into, and burden of liability upon, these traditional and responsible land use activities would be known. (Launi)

Agency Response: We agree that this information could be helpful to potential buyers of such lands; however, the need to burn may not be universal due to variations in land management practices and the availability of alternatives to burning. Such requirements are also beyond the scope of our authority, but could appropriately be addressed by local land use planning agencies.

16. Comment: The public would be better served by doing everything you can to prevent huge wildfires from occurring. To eliminate this disaster, more, not less, prescribed burning should be performed. However, it appears that the Guidelines will severely reduce or abolish prescribed burning in California. (Alamo; Barrett)

Agency Response: The regulation is not intended to set policy regarding the use of fire for forest management. This activity is more appropriately established with State and federal regulatory agencies charged with managing our forests. However, fire control agencies and federal land managers do plan to increase the number of acres burned to restore the natural cycle of low intensity fire. These burns must be carefully timed and planned to minimize the potential public health impact. The Guidelines provide a mechanism for burners and air districts to work together to provide increased opportunities for burning while minimizing or preventing smoke impacts.

17. Comment: The first priority of the ARB should be the enhancement of air quality. It should not be simply a desire to devise a system that accommodates dramatically increased burning by federal and State agencies who want little if any restrictions placed on their activities, even though such restrictions would dramatically lower emissions. (Wheelabrator)

Agency Response: The objective of the Guidelines is to minimize or prevent smoke impacts while still providing increased opportunities for managed burning. Because of the accumulation of vegetative materials on forest lands, incidents of large wildfires have become a more frequent occurrence. In order to restore the natural cycle of low intensity fire on these fire-dependent lands for ecological reasons, federal land managers need to increase the number of acres burned in national forests and wildlands. However, this burning must be carefully timed and planned to reduce the potential impact on health and air quality. The air district smoke management plans, required under the revised Guidelines, will provide a framework for a collaborative approach among air agencies and burners to address smoke impacts and protect public health in a technically sound and effective manner.

18. Comment: ARB should equitably apply and consistently enforce title 17 requirements throughout the entire State. This includes holding other State and federal agencies responsible for the actions in the same manner that ARB expects air districts to hold the local agricultural community responsible for their actions. (BCAQMD (Odle))

Agency Response: We agree that consistent application and enforcement of the Guidelines throughout the State is important. Program elements of the Guidelines apply fairly and equitably to State and federal agencies as well as to the agricultural community. These program elements include burn registration and permitting, burn planning, burn authorization, burn coordination, meteorological monitoring and forecasting, air quality monitoring, public notice, and surveillance.

19. Comment: No changes should be made to title 17 without clarification of the intent of public land managers to increase prescribed burning. Public land managers operating in California should be subject to the same air quality standards and practices for prescribed burning that apply to private landowners. Coordination between public and private landowners is essential to allowing each group to safely burn at the most appropriate time. (Cattlemen)

Agency Response: Public land managers are subject to the same air quality standards and title 17 requirements as private land owners. Small burns with lower estimates of emissions should be easier to accomplish than large burns with large emissions. If private landowners chose to use small burns resulting in lower emissions, they should have an advantage on more days when that burn size would be acceptable. For example, when marginal burn days are declared, air districts can allocate burning suitable to local meteorological conditions. The revised Guidelines have provisions for air districts to set priorities for burning. All burning activities would be coordinated daily to reduce the risk of creating severe cumulative smoke incidents.

20. Comment: ARB's Staff Report provides an inaccurate characterization of the need for an improved smoke management program. The characterization overstates the anticipated increase in prescribed burning, the increase in associated emissions, and the shortcomings of the existing smoke management program. (El Dorado NF; USFS; NPS; CA WCG; MBUAPCD)

Agency Response: Many agencies, including the California Department of Forestry, the California Department of Parks and Recreation, the Bureau of Land Management, and the U.S. Army, are projecting an increase in prescribed burning over the next several years. These are only projections, and are subject to factors such as national and State fuels management policy, available funding, and available resources. However, recent Congressional budgetary and programmatic directives to federal land managers regarding prescribed burning – especially for fuels management near urban interfaces – indicate that increases in prescribed burning will occur in the very near term. It is reasonable to expect increased air emissions will occur with increased prescribed burning.

The revised Guidelines provide a more systematic approach for ARB and air districts to collect better and more complete information from burners about their planned burns. Depending on the size of a burn, burners will be required to provide information on the amount and type of fuel burned, the location and timing of burns, information on smoke

sensitive areas, smoke monitoring, measures that will be taken to minimize smoke impacts on populated areas (including fire termination and mop up), procedures for burner/air district communication and collaboration, and procedures for public notification of planned burns.

The revised Guidelines will allow ARB and air districts to do a better job of working with land managers, and other affected stakeholders, to meet land management objectives while minimizing the impacts of burn operations on air quality.

The ARB is committed to conducting periodic assessments of implementation of the program and its effectiveness. This will include evaluation of air district smoke management programs, collection of information on the actual amounts of burning conducted each year, and review of air quality data and smoke complaints to indicate the success of the program and to determine whether additional efforts are needed.

21. Comment: Both public and private land managers need prescribed fire to effectively reduce fire danger and protect human lives and property. ARB should work with stakeholders to promote prescribed burning. (CNPS; Cattlemen; NCSAF)

Agency Response: The revised Guidelines are designed to provide increased opportunities for prescribed burning through the use of marginal burn days, and improved coordination and decision making. ARB worked with stakeholders to develop revised Guidelines that allow for increases in prescribed burning while also allowing for improved smoke management from such burning. In addition, ARB will continue to work with stakeholders through a variety of forums, including the Interagency Air and Smoke Council, to track issues associated with prescribed burning. However, the promotion of prescribed burning, if desirable, is the responsibility of other State and federal agencies.

22. Comment: The revised Guidelines will reduce opportunities for prescribed burning, including burning in wildland ecosystems, burning during certain times of year, and burning under hardship situations. They will require information that is too costly and time consuming to generate. (Quintanar; Pt. Reyes; CNPS; SBCFD; CA IBA; CLFA; Launi)

Agency Response: The revised Guidelines are intended to allow for increases in prescribed burning through enhanced data collection, planning, and communication requirements while at the same time protecting air quality, a worthwhile objective. The revised Guidelines will provide smoke managers with more complete information for making better, more informed burn management decisions. In some circumstances, permitted burning may increase. For example, burners will be able to discuss their annual burn schedules with air districts in advance of burns and identify special circumstances that might warrant burn accommodation. The revised Guidelines have also added a marginal burn day designation. Some of the no-burn days under the present system will be marginal burn days and may allow for burning on those days.

Burners can also identify emergency conditions when burns can be conducted on no-burn days. The air districts can approve individual burns to avoid significant, imminent economic loss.

Increases in the cost and time for burners to provide burn planning and operations data is possible; however, monetary and human resources needed to produce such information are likely to be available and should not result in reduced prescribed burning. As directed by the Board, the ARB staff will continue to assess cost issues and periodically report back to the Board on the status of implementing the Guidelines.

23. Comment: ARB staff should view prescribed burning from a broad and balanced perspective, recognizing its air quality benefits and impacts relative to other sources of air pollution, such as wildfires, land-use planning strategies, and mobile sources. (CA IBA; CNPS; Parks & Rec.)

Agency Response: ARB staff recognizes that prescribed burning is necessary and the revised Guidelines are designed to allow for increased burning while also minimizing the impacts of smoke from such operations. ARB also recognizes that prescribed burning is one of many sources of air pollution, and that other air pollution control measures are needed to reach attainment of ambient air quality standards. ARB's air quality management program is broad-based, ranging from mobile source emission controls and clean fuels, to best available control measures for stationary sources. Restrictions on agricultural/prescribed burning are a small but important part of that equation.

24. Comment: The revised Guidelines were developed without dialog from all other resource agencies. They should take into consideration all the other laws and regulations already imposed upon land and resource managers. (Evans)

Agency Response: ARB staff spent nearly two years working with a broad cross section of stakeholders – including land and resource managers, and other government agencies to develop the revised Guidelines. During the development process, ARB incorporated input from the California Department of Forestry and Fire Protection, California Department of Fish and Game, California Department of Parks and Recreation, U.S. Forest Service, Bureau of Land Management, National Park Service, the California Air Pollution Control Officers Association and many of its 35 air district members, and numerous other government entities. A key feature of the revised Guidelines is improved communication among the many stakeholders and government agencies described above. Where potential for duplication with other government agencies exists, such as with environmental impact analyses, the revised Guidelines allow air districts to use such analyses in place of those required in the Guidelines. With the flexibility intentionally built into them, the revised Guidelines will allow individual air districts to tailor their smoke management programs to incorporate collaboration and coordination to the greatest extent possible.

25. Comment: Section 80102(b) states “Although any local or regional authority may establish stricter standards for the control and the regulation of agricultural burning, including prescribed burning, than those set forth in these Guidelines, no local or regional authority may ban agricultural or prescribed burning”. While the vast majority of air districts may provide fair balance, the section does allow for the possibility that air districts could constrain public land burning. Therefore, the ARB should consider whether the language in this section should be modified. (CSERC (Buckley))

Agency Response: We agree there are many pressures on county supervisors (who often sit as the directors of the air districts). However, protection of resources and lives from large wildfires is likely to be one of them. HSC section 41850 states that it is the intent of the Legislature that agricultural burning be reasonable regulated but not prohibited. The objectives of the Guidelines are to minimize or prevent smoke impacts while still providing increased opportunities for managed burning on both federal and agricultural lands. Furthermore, air districts choose to prioritize burn projects, section 80145(m) requires that the public benefits of burning be considered along with the potential impacts.

26. Comment: These regulations are not needed on the North Coast as there is no demonstrated problem. The North Coast Air Basin exceeded particulate matter standards on only nine days in 1996, six days in 1997, and not at all in 1998. In addition, exceedances of the particulate matter standards usually occur in November, December, or January, which seemingly coincides with the onset of residential heating with wood stoves. This is not a source that would be addressed by Agricultural Burning Guidelines. (Simpson)

Agency Response: We disagree. The proposed Guidelines are necessary for a number of reasons including the need to: 1) minimize or prevent short-term smoke impacts; 2) provide increased opportunities for managed burning on federal lands to reduce the potential for catastrophic wildfires while reducing the potential impact on public health and air quality; 3) encourage the development and use of alternatives to prescribed burning; and, 4) establish a collaborative approach among air agencies and burners that increases the effectiveness of the smoke management program. The Guidelines are intended to be flexible enough to allow air districts to tailor programs to their individual needs, while still providing a consistent Statewide framework. ARB expects to work with each air district to develop appropriate smoke management programs for their conditions and needs. The ARB also recognizes that prescribed burning is one of many sources of air pollution. In areas such as the North Coast, other air pollution control measures, such as for wood stoves, may be needed to reach attainment of the ambient air quality standards.

27. Comment: The most difficult problem relating to fire is found at the wildland/urban interface, where housing and other development greatly complicate fire management. This is a growing issue as people move from urban to rural areas. It can

only be solved by more rational zoning, use of fireproof materials, and greater cooperation among all the jurisdictions and agencies involved. We understand the concern about air pollution from smoke caused by prescribed burns, but it is important to take all the factors into consideration. (CNPS)

Agency Response: We agree. The expected increases in prescribed burning on federal lands coupled with population growth in rural areas was a motivating factor in revising the Guidelines to better manage prescribed burning activities at the wildland/urban interface to avoid public health impacts. The Guidelines establish a cooperative approach among air agencies and burners to increase the effectiveness of the smoke management program. The Guidelines also encourage using alternatives to burning to manage wildlands, including those at the wildland/urban interface. Zoning issues and the use of fireproof materials are the responsibility of government agencies other than the ARB. The Building Standards Commission and county codes regulate these issues. In addition to these factors, in some areas, such as near Folsom Lake, outreach, notice, educational efforts and very careful burn management have shown the utility of fire even within suburban areas.

28. Comment: The goal of farmers in the San Joaquin Valley is to reduce burning while preventing economic impacts. Programs such as Project Clean Air in Kern County have helped farmers eliminate burning on over one million acres over the past several years. (NFL (Cunha))

Agency Response: We appreciate the efforts that farmers have made to find ways to reduce burning, including those made by Project Clean Air in the San Joaquin Valley.

29. Comment: It has been suggested that core elements of the proposed Guidelines could be implemented with only minor cost increases. That may be true. But there is a vast difference between the implementation of such a “bare bones” program, and the program that will yield the benefits outlined in the ARB Staff Report. The “bare bones” program does not include the detailed review, the intricate coordination, and the broad consideration of ecosystem health, availability and use of alternatives, timing, or the balancing of business needs, ecology, and public safety. More importantly, the “bare bones” program will not be as effective or responsive as the burners and the public expect it to be. (NSCAPCD)

Agency Response: The Guidelines establish a comprehensive framework for the implementation of an effective smoke management program that includes the elements in the comment. However, the Board shares the commenter’s concerns on actual implementation and has directed the staff to work with air districts and other stakeholders on several significant implementation issues and to periodically report back to the Board on the implementation progress.

30. Comment: The Board should critically evaluate the true impacts of these amendments after they've been in place for a year or so, especially in terms of how the

fee structure has developed and on the overall impacts on the California Department of Forestry's vegetation management program. (CDF (Tuttle))

Agency Response: We agree. The Board directed the staff to periodically report back to the Board on the status of implementation of the Guidelines. In addition, we will evaluate the success of these amendments and suggest improvements as needed, as part of continuous improvement to the smoke management program.

31. Comment: The Staff Report goes into some depth regarding nearly a dozen alternatives to prescribed burning. Yet, there are no goals or mandates suggested that would assure any other action by public land managers other than a de-facto decision to burn. (CRC)

Agency Response: The ARB is to 'reasonably regulate' but not prohibit agricultural burning (HSC section 41850) through the adoption of guidelines that consider not only the effect of burning on air quality, but also their economic and technical feasibility and their "probable effect on agricultural production" (HSC section 41856 through 41858). The ARB cannot mandate actions for public land managers, who are subject to other federal and State statutes in the exercise of their discretion and expertise. Thus, the Guidelines require the consideration and evaluation of alternatives to burning for larger projects as part of smoke management plans. Plans which do not meet this requirement may not be approved by air districts. Although some of the alternatives may be economically or ecologically impractical for many burns, the requirement to consider them may result in their use for some burns. We have also established a working group to evaluate and make recommendations on alternatives to burning. As economically and technically feasible alternatives are identified and developed, future iterations of the Guidelines may establish goals for their use.

32. Comment: The California Air Pollution Officers Association (CAPCOA) would like to go on record as supporting all efforts to provide alternatives to burning such as biomass, composting, alternative daily landfill cover, and other processes which reduce the fuel load prior to burning. (CAPCOA)

Agency Response: The development of alternatives to burning is an important issue which will affect air quality. However, this issue is beyond the scope of this regulation and the requirements in the HSC to adopt agricultural burning guidelines. To address this broader issue, we have established a working group with interested stakeholders to evaluate and provide recommendations on the potential alternatives to burning. We will also continue to work with the California Resources Agency to find ways that the State can assist in this effort.

33. Comment: The regulatory package should clearly delineate how much progress will be required in utilizing forest waste in value-added products such as energy, fuel, building materials and animal feeds. (CRC)

Agency Response: The Guidelines are intended to allow a continuation of burning for needed purposes while focusing on minimizing smoke impacts. Requirements for specific targets on usage of forest waste are outside the scope of this regulation and the requirements in the HSC to adopt agricultural burning guidelines. To address this broader issue, we have established a working group with interested stakeholders to evaluate and provide recommendations on the potential alternatives to burning. We will also continue to work with the California Resources Agency to find ways that the State can assist in this effort.

34. Comment: The Staff Report justifies the need for prescribed burning but suggests no options to utilize non-burn alternatives. Moreover, while the Guidelines require “consideration of non-burn alternatives” there are no clear incentives, performance objectives, or mandates for implementation of alternatives. There appears to be little regulatory or monetary incentive or mandates to utilize non-burn alternatives. More thought needs to be given toward developing markets for bio fuels and bio products that would spur economic incentives to utilize agricultural and forest waste. (CRC)

Agency Response: See Agency Response to Comment #32.

35. Comment: ARB needs to be proactive in developing incentive programs for private landowners and government agencies to perform as many pre-fire fuel treatments and to encourage alternatives to burning such as biomass operations. (SPI (Ostergaard))

Agency Response: See Agency Response to Comment #32.

36. Comment: Title 17 should be further amended to restrict forest burning to seasons that do not overlap agricultural burning. (CRC)

Agency Response: Both agricultural burning and forest management burning occur in every season of the year – each for valid reasons – making it unworkable to prohibit one type of burning throughout the State for any particular season. To solve such problems, title 17 allows air districts the flexibility of addressing burn priorities (with input from their stakeholders) in their local rules and regulations.

37. Comment: The following should be added as section 80102(e) of the regulation to guard the integrity of what is already a proven program in the Sacramento Valley: “The Guidelines should not supersede any rule or regulation of the Sacramento Valley Agricultural Burning Plan which has been in effect since 1983 unless mutually agreed to by the Sacramento Valley Air Basin Control Council and the ARB”. (CRC)

Agency Response: The ARB did not modify the regulation as the commenter recommended. The Sacramento Valley Agricultural Burning Plan (Plan) has evolved over time with annual revisions since 1983 to improve the program. We agree that the

Sacramento Valley has an effective ongoing program. However, changes to the Sacramento Valley Plan are needed to comply with the proposed Guidelines. The process outlined in section 80140 is intended to provide adequate stakeholder and public input on proposed changes to the Plan before they are adopted.

**b) Residential Burning**

38. Comment: The residential burning proposal should be removed from the regulation because it does not belong there. (TCAPCD; Northern Sierra; Amador; Sac Valley BCC; NCUAQMD; NSCAPCD (Lee))

Agency Response: We agree. ARB/air district responsibilities regarding residential, or "non-agricultural", burning are found in HSC sections 41800 through 41815, not in provisions governing agricultural burning (HSC sections 41850 through 41866). Thus, the provisions for residential burning have been removed from these Guidelines. However, the Board also directed the staff to work with CAPCOA to determine how to address the issue of residential burning and report back to the Board within one year with recommendations.

**C. PERMISSIVE-BURN, MARGINAL BURN, OR NO-BURN DAYS  
(Section 80110)**

**a) Permissive Burn Days**

39. Comment: Section 80110(b) specifies that the burn day decision be announced by 3:00 p.m. for the next day. We support this requirement as it allows us to mobilize people and equipment. However, we don't think allowing for postponement of the decision until the next day (7:45 a.m.) is practical when burning in remote locations with crews often traveling long distances. (RRC)

Agency Response: The ARB does not intend to delay burn decisions until the day of the burn. However, this option remains for times when there is considerable question about the decision or other unusual circumstances exist. In the past, such usage has been rare, probably less than once a year as a total for all basins except the Sacramento Valley. Burners need to be aware that any burn decision is subject to change if meteorological conditions or conditions affecting smoke dispersion, as noted in section 80145(g), are different from those anticipated.

40. Comment: The cost implications of no longer allowing burns on no-burn days where there has been a favorable 48-hour forecast are not treated, but only recognized generally. ARB should have data on the historical frequency of this occurrence, which could form a more specific basis for the implied conclusion that costs of cancelled projects will be insignificant. (MBUAPCD)

Agency Response: We recognize that there may be significant costs associated with no longer allowing burns where a favorable 48-hour forecast has been given. In response, the Board directed the staff to add a degree of confidence factor to 48-hour forecasts to enable better planning for burn projects. During the rulemaking, no specific data were provided on costs of cancelled projects. We encourage the air districts to submit these data as part of their annual burn report.

41. Comment: Although section 80110(e) allows an air district and the ARB to develop mutually agreeable procedures to determine burn day status, the ARB has retained its authority to determine burn day status for all parts of the State. The ARB staff should support legislation that will allow ARB staff to delegate the burn day decision authority to any air district that can demonstrate the ability to do the job right. (BCAQMD; VCAPCD (Baldwin))

Agency Response: Section 41855 of the HSC mandates that the State Board shall determine and designate from meteorological data when agricultural burning shall be prohibited within each air basin. Therefore, the ARB cannot delegate this authority to the air districts. As the commenter indicates, section 80110(e) of the Guidelines does allow for the development of mutually agreeable procedures between the ARB and the air districts to allow an air district to demonstrate the ability to propose revised burn day status and still meet the requirements of HSC section 41855.

### **b) Marginal Burn Days**

42. Comment: We support the marginal burn day. (CLFA; CA IBA; NCSAF; VCAPCD (Baldwin); CLFA (Violett))

Agency Response: Thank you for your comment.

43. Comment: Section 80110(b) should be modified to clarify that a permit is required to burn on marginal-burn days. (EPA)

Agency Response: Section 80120(a) already states that a valid permit is required for all agricultural or prescribed burning.

44. Comment: We are concerned with new wording in section 80110 which indicates that only the ARB would be responsible for determining “marginal burn days” unless delegated. The LCAQMD has provided an overlapping “limited burn day” determination for over ten years, and we hope to continue that activity without having to seek re-approval from the ARB staff. Verbal assurances and a reasonable reading of the proposal indicate that our current procedures would be allowed, but we would prefer more explicit language that allows existing programs. (Lake County)

Agency Response: Section 80110 will still allow the flexibility for air districts to be more restrictive than the ARB. Any burn day can be reduced to a limited burn-day by an air district.

**c) Criteria for Air District Data**

45. Comment: We support the proposal to require more effective use of meteorological data and tracking techniques and better coordination between air districts and land managers to minimize instances of agricultural burning (including prescribed burning) contributing to unsatisfactory air-quality episodes. (NCSAF)

Agency Response: We agree. The Guidelines establish a collaborative approach among air districts and burners that increases the effectiveness of the smoke management program. In addition, we have formed a workgroup to look at the development and sharing of technical tools to further enhance the program.

**D. BURNING PERMITS (Section 80120)**

**a) General**

46. Comment: Section 80120(b) stipulates that the air districts shall develop the burn permit forms in “consultation with the designated agencies.” Is the format of the burn permits solely and ultimately in the control of the air district? (Santa Barbara)

Agency Response: Yes. However, the forms of permits must be included in the air district smoke management programs, which must be reviewed and approved by ARB. Many air districts have worked cooperatively with U.S. Forest Service (USFS), California Department of Forestry (CDF), Bureau of Land Management (BLM), and private timber companies to prepare permit forms and smoke management plans and we encourage such activity to continue.

47. Comment: Section 80120(e), burning permits, should delete the phrase “including prescribed burning” since it’s already part of the definition of agricultural burning. This phrase is also used in section 80145(l). (CRC)

Agency Response: The phrase “including prescribed burning” was added (here and at several other locations in the Guidelines) to clarify that agricultural burning does indeed include prescribed burning.

48. Comment: Section 80120(e) contains the exemption to burn on a no-burn day in case of imminent and substantial economic loss. This exemption should be deleted or modified to provide the criteria, other than the air district’s discretion, on which burn applicants qualify economically and are selected to burn on no-burn days. (EPA)

Agency Response: Since “imminent and substantial economic loss” can vary by crop and season, it is left to the discretion of the air districts to determine such criteria. However, as specified in section 80130(b), an explanation of why each permit was issued must be submitted to the ARB on a quarterly basis.

49. Comment: Section 80120(f) requires that designated agencies submit burn information to the air districts. Is it a violation of State law for a designated agency to refuse to submit information specified by an air district of applicable jurisdiction? (Santa Barbara)

Agency Response: HSC sections 40701(g) and 41511 authorize an air district to require any owner or operator of a source of emissions to provide a description of the source and to disclose all data necessary to estimate emissions. In addition, HSC section 41853 requires the ARB, in connection with its burn program, to designate agencies to issue burn permits and to adopt rules, regulations and procedures for their issuance (see also HSC sections 41856 and 41857). As the title 17 regulations require a designated agency to submit information to the air district, refusal to do so by the designee would be a violation of State law and ARB and air district regulations. The agency would then be subject to enforcement action and penalties pursuant to HSC section 42400.

50. Comment: Sections 80120(g) and (h) are open-ended requests for information that could be abused by the air districts. These sections should only require what is defined in law. (RRC)

Agency Response: These two subsections are unchanged from the existing regulation (they were previously designated 80120(h) and (l)) and we have had no reports of abuse. In addition, the ARB will review and approve each air district's smoke management program, including the permitting process, and ensure that all elements comply with State law.

51. Comment: Title 17 should contain language providing for burn agencies to appeal to ARB if the air districts deny permits, put unreasonable conditions in permits, or impose excessive demands for meteorology, monitoring, reporting, and other procedures in local smoke management programs. (El Dorado NF; USFS)

Agency Response: ARB will have a review and approval process for each air district's smoke management program. The criteria that are established by each air district would become the basis for the air district's approval of a burn permit. The criteria may, in some cases, be more stringent than required by these Guidelines to reflect the nature of local conditions. Initial appeals should go through the air district board. If relief is not obtained at that juncture, a burner is free to bring concerns to ARB for consideration. We are committed to the successful implementation of the program and would work with all affected parties to seek reasonable solutions to disputes.

## **E. BURNING REPORT (Section 80130)**

### **a) General**

52. Comment: The ambient air quality standards for PM10 and PM2.5 are difficult to achieve. Optimal reporting of open burning is critical to the analysis of the relative contribution of burning to particulate air quality levels. (Fife)

Agency Response: We agree. The ARB staff are currently working with the air districts and other stakeholders to develop an electronic reporting system referred to as the Prescribed Fire Incident Reporting System (PFIRS). This should ease the reporting task for everyone as well as provide enhanced information for tracking the location and intensity of fires and estimating their impact or air quality.

53. Comment: Section 80130 adds a new requirement for air districts to report electronically when ARB establishes an electronic reporting system. It is inappropriate for ARB to adopt an air district requirement without knowing what the requirement will entail. Until ARB develops the electronic reporting system program, which allows the air districts to know and budget respective workloads, this should not be an administrative requirement. The provisions should be changed from "shall" to "may". (BCAQMD)

Agency Response: The electronic database system will only be established for air district use after the system has been tested and found to be superior in use compared to manual reporting. Its development will be coordinated with the air districts. The system will streamline the processing and submittal of data and we believe it is sensible and appropriate to require data to be submitted electronically when such a transmittal infrastructure becomes available at a reasonable cost.

54. Comment: The deletion of the requirement for the monthly breakdown of burning, continuing the option of reporting either acres or tons for agricultural burning, and only reporting the tonnage for prescribed burning will adversely affect the emission inventory. In order to perform an accurate analysis of the air quality impacts from burning, the temporal and spatial information needs to be more specific. All air districts should be required to submit burning reports with a monthly breakdown of burning by crop type. The units should be both in acres and tons for agricultural and prescribed burning. (Fife)

Agency Response: Requiring air districts to report both acres and tons for all burning seems quite reasonable at first glance. However, there are distinct differences in the fuel loading between agricultural and wildland areas. Agricultural areas have a far more homogeneous fuel type and cover, while wildland areas are quite variable. Reporting acreage amounts does not make sense under those conditions so only tonnage is required for prescribed burning. In regard to the monthly breakdown of burning, only the two air basins in the Central Valley have historically been required to

include this in their reports. Practical considerations, however, have forced us to rethink this requirement and after much discussion with the air districts, it was deleted from the Guidelines. Although a monthly breakdown of burning is not currently required, this information will still be quite helpful in our emissions inventory and air districts are encouraged to supply these data. When PFIRS becomes available as a reporting tool for the air districts, a monthly breakdown of information will be easier to obtain.

55. Comment: A positive change to the regulation is the requirement to submit reports annually within 45 days after the end of the calendar year. (Fife)

Agency Response: We agree. The added time will help the air districts in preparing their reports.

56. Comment: The reporting that the air district will require will adversely affect the delegated fire protection agencies. In Lake County, California Department of Forestry and Fire Protection (CDF) and U.S. Forest Service (USFS) do not handle significant numbers of permits, and the smaller agencies cannot expend the substantial resources likely to be needed to meet the reporting requirements necessary for a daily burn authorization system. (Lake County)

Agency Response: The Guidelines require annual reports of estimated tonnage or acreage of waste burned, similar to reports currently submitted by Lake County. The air district can make this estimation so that CDF, USFS and other fire agencies will not have to expend additional resources.

## ARTICLE 2.

### F. SMOKE MANAGEMENT PROGRAM (Section 80140)

#### a) Regional Programs

57. Comment: The Guidelines must have the flexibility to divide the air district's existing regions into sub-regions that have more consistent dispersion and transport characteristics than do the larger regions. In addition, the Guidelines must allow for an air district to develop appropriate meteorological criteria for use in determining burn days and authorizations for these sub-regions. (SJVAPCD; MBUAPCD)

Agency Response: While it is true that air districts are required to comply with the Guideline's requirement for a daily burn authorization process, the air districts have authority to further specify the manner in which burning is allocated within their boundaries. In doing so, air districts are free to subdivide their jurisdictions into sub-regions and to develop the most appropriate meteorological criteria for prioritizing burning within air district boundaries. We are willing to work with air districts to develop

and characterize such sub-regional burning systems. In addition, section 80179 provides flexibility for developing, testing, and incorporating new criteria for designating burn days.

58. Comment: It is unclear what role, if any, the land management agencies will play in the Board's review of the air districts' smoke management programs. (NPS)

Agency Response: Stakeholder participation is a required component in the development of air district smoke management plans. We encourage land management agencies to participate in this process and testify at public hearings when air district staff take the programs to their boards. We are also willing to discuss a specific smoke management program with any individual or organization that requests a meeting.

59. Comment: Sections 80140(i) and (j) are inconsistent. Section 80140(i) states that ARB may adopt an alternative program if an air district does not submit an adequate program by a specified date. Section 80140(j) further states that the air districts must enforce any local program, whether adopted by the air districts or ARB. If ARB adopts an alternative program, that program should come with sufficient economic resources to implement it or ARB should enforce it. (Santa Barbara)

Agency Response: ARB supports local control of burn programs, and has historically used its oversight authority judiciously (see HSC sections 39002 and 41500(b) and (c), 41504 and 41505). If ARB were compelled to adopt an "alternative" program, it would still be designed to encourage local control. Nevertheless, any program or portion thereof that the ARB establishes for an air district shall have the same force and effect as an air district program and shall be enforced by the air district pursuant to HSC section 41504(b). One of the primary purposes for the revisions to the Guidelines is to allow for more local control. We are committed to working with air districts to assist in funding smoke management programs and find reasonable cost savings without sacrificing the health-related benefits of the program.

60. Comment: Sections 80140(e) through (j) authorize ARB to disapprove proposed air district programs and to require the implementation of State-developed programs. This is inconsistent with the Staff Report which states that the basis and rationale for the proposed amendments is to emphasize greater air district participation and collaboration with stakeholders to protect air quality and public health. (Ag Council)

Agency Response: We disagree. ARB's goal is to have locally adopted, approvable programs prepared by the air districts with significant involvement of all stakeholders. We are committed to working closely with air districts to encourage programs that will be approvable. However, the regulations also reflect ARB's ultimate responsibility to have approved programs in place. If no adequate submittal is made, ARB must ensure compliance with the regulation by adopting a State-developed program.

61. Comment: The Sacramento Valley Air Basin has an existing, approved smoke management program. This program is revised on an annual basis with input from all affected parties. If ARB does not approve the revised program, the previous program remains in effect. As proposed, the new language is unclear as to what will happen if ARB disapproves of revisions to this program. ARB should not have the authority to modify a locally approved smoke management program. This authority only exists after ARB has demonstrated the need for revisions pursuant to HSC section 39002. It should be clearly stated that sections 80140(h) and (i) apply only to programs not previously approved. (BCAQMD)

Agency Response: We recognize that the Sacramento Valley has an existing, approved program. However, there is a need to update and improve certain aspects of that program to meet the requirements of the Guidelines.

Sections 80140(e) through (l) set forth a process for developing an approvable program that meets the requirements of the Guidelines. Through close coordination with air districts, we expect to receive an approvable program within the timeframe set forth in the Guidelines. During the course of this process, the air districts in the Sacramento Valley region will continue to enforce the existing program. The new programs approved by ARB in accordance with sections 80140(e) through (i) will replace the Sacramento Valley's existing program.

Section 80140(h) of the Guidelines sets forth the procedures for ARB's disapproval of an air district program. If disapproved, the air district will have 180 days to submit an approvable program. As stated above, during this additional time period, the existing program would remain in place until ARB approves an amended program. If an approvable submittal is not made within this time, the ARB shall adopt an alternative program.

The Guidelines also affirm ARB's authority to modify existing local plans, if necessary, as provided further in HSC sections 39002 and 41500 et. seq. The authority to do so is discussed in the Agency Response to Comment #7.

62. Comment: The ARB and its Executive Officer should not have the authority to change smoke management plans against the wishes of basin control councils or air districts. The extra authority granted to ARB would threaten a very productive annual evaluation and revision process in the Sacramento Valley. (CRC (Rehermann))

Agency Response: The ARB has been delegated this authority by the Legislature in longstanding provisions in the HSC. History demonstrates that the ARB uses this authority judiciously. See also the Agency Response to Comment #61.

63. Comment: In the event ARB disapproves a smoke management plan or a revision to an existing plan and the local Basin Control Council (BCC) disagrees with ARB's decision, CRC recommends that the plan default to the prior plan. This will

allow additional time for the ARB and local stakeholders to reach agreement without disrupting local smoke management plans. (CRC; Ag Council)

Agency Response: As discussed in the Agency Response to Comment #61, sections 80140(e) through (l) set forth a process for developing an approvable program that meets the requirements of the Guidelines. Section 80140(h) specifically describes the procedures to be followed should ARB disapprove an air district program. Should this occur, an air district would have 180 days to submit an approvable program. During this time, the existing program would remain in place. The 180 day provision was included to allow sufficient time for the ARB, the air district, and stakeholders to develop an acceptable plan. Only if an air district fails to make an approvable submittal within this time, would the ARB adopt an alternative program.

64. Comment: Air districts throughout the State should be able to implement unique programs that are appropriate for managing smoke locally and should not be regionalized under the conditions of title 17. The statutory authority that underlies the Sacramento Valley Basinwide Air Pollution Control Council's burn plan is for rice stubble burning only and should not be extended to all agricultural and prescribed burning in the basin. (BCAQMD)

Agency Response: The Guidelines are intended to provide flexibility for air districts to develop programs tailored to their local needs, while ensuring a consistent Statewide framework. Our statutory authority is not limited to rice stubble burning. The ARB has the authority to adopt guidelines to control agricultural burning in all of the State's air basins, and to oversee and ensure that the air districts are implementing the regulations accordingly. The Guidelines provide air districts with the primary authority for carrying out the day-to-day operations of their burn programs. This mechanism allows air districts to develop programs that are appropriate for their unique conditions.

The Sacramento Valley Basinwide Air Pollution Control Council is required by State law to meet the phase-down requirements of the Rice Straw Burning Reduction Act of 1991 (HSC section 41865) and has the statutory authority for all burning in the basin. We believe the Council meets the requirements of the amendments to the Guidelines regarding regional programs. We do not believe that one or more air districts within the Council can participate as a region for purposes of meeting the phase-down requirements, and effectively act separately when meeting the requirements of the smoke management program. The nature of the smoke problem in the air basin requires these air districts to work together in a seamless fashion across county lines. This level of coordination in the Valley has worked well and resulted in the most effective agricultural burning program in the State.

65. Comment: New smoke management requirements need to be communicated to public and private land managers in time to adjust/consider seasonal weather conditions and long scheduling lead times. (SFI)

Agency Response: We agree. The Guidelines were revised to require air district adoption of a program by July 1, 2001 and the adoption of appropriate rules and regulations by April 1, 2003. These actions must be taken at properly noticed public meetings. There should be adequate opportunity for all stakeholders to learn of program changes.

**b) Sacramento Region**

66. Comment: The Staff Report states that the Sacramento Valley has operated an effective smoke management program. However, levels of particulate matter with a diameter of 10 microns or less (PM10) have markedly increased in the Sacramento Valley from 1996 to 1998, even though rice straw burning is on a legislatively mandated decrease. How can the Sacramento Valley program be considered a success? (NCUAQMD)

Agency Response: We consider the Sacramento Valley burn program a success due to a number of factors. These include a marked decrease in fall smoke impacts on visibility, as well as a reduction of smoke-related complaints during the past decade. For example, over the past 20 years the percentage of smoky hours in the Sacramento region during the fall has decreased from 24% to 4%. A table reporting the number of smoke-related complaints from 1992 through 1999 can also be found in the Staff Report for the Proposed Regulations for the Conditional Rice Straw Burning Program (ARB, Table I-2, September 2000).

A comprehensive view of PM10 concentrations in the Sacramento Valley Air Basin can be found in the California Almanac of Emissions and Air Quality (ARB, 1999). While peak 24-hour PM10 concentrations have varied from year to year, there is a general trend of decreasing annual average concentrations during the period from 1988 through 1997.

It should also be recognized that rice straw burning is not the only source, or even the major source, contributing to ambient PM10 levels in the Sacramento Valley. For example, the Sacramento Valley can be impacted by wildfires that occur outside the basin such as occurred in August 1999. Other sources contributing to ambient PM10 concentrations include activities that produce fugitive dust, motor vehicles including heavy-duty diesel vehicles and farm equipment, and residential wood combustion. Short-term variations in PM10 concentrations can therefore be attributed to a number of factors, including emissions sources other than rice straw burning, as well as year to year variability of meteorological conditions. However, the long-term decline in PM10 concentrations is an indicator that the burning program in the Sacramento Valley Air Basin has contributed to the improved air quality in the region.

67. Comment: Section 80140(c) designates the Sacramento Valley smoke management program as a regional program. Section 80155 clearly states that all areas of the Valley are subject to the regional program. No other air basin has been

designated as a region for the purposes of implementing a smoke management program. Coordination should be done regardless of regional status; the Sacramento Valley Air Basin should not be treated differently from other areas of the State. (BCAQMD; BCAQMD(Odle))

Agency Response: The Guidelines provide detailed procedures for air districts that elect to form a region for the purposes of coordinating their smoke management programs. The Sacramento Valley has the most comprehensive burn program in the State and already meets these requirements. As the Valley's smoke problem is regionwide, the ARB has determined that it must be managed on a regional basis. Therefore, stipulating this in the Guidelines carries out the ARB policy and also allows the Sacramento Valley region to avoid going through the formal process for regionalization contained in the proposed Guidelines.

## **G. PROGRAM ELEMENTS AND REQUIREMENTS (Section 80145)**

### **a) Daily Burn Authorization System**

68. Comment: The envisioned statewide allocation program is patterned after that of the Sacramento Valley Rice Straw Burning Program. Applying a program that utilizes consistent fuels (straw), uniform fuel moistures, and a shared air mass, simply will not work with any reliability in areas of complex terrain, variable fuel moistures, variable fuel loading rates, and the influences of river drainage. (NCUAQMD; Humboldt (Dixon))

Agency Response: We agree. The Guidelines call for air district programs to be developed by air districts and to be appropriate to local conditions. This flexibility is provided because of some of the differences between areas mentioned by the commenters. Specific factors are given in the Guidelines that must be considered by air districts in developing their programs, and procedures for carrying out programs must be included, but these factors and procedures should be tailored to local conditions.

69. Comment: We endeavor not to exceed 50% of any AAQS on ARB designated burn days by limiting burning hours (agricultural and residential). It is unclear why ARB is advocating only one solution when an air quality problem exists that may have many causes. We believe our present system is superior to the ARB's proposed "daily authorization system" in providing a lesser smoke impact and more protection below the AAQS. (Lake County; Lake County (Lewis))

Agency Response: We are not advocating only one solution. As noted in the previous response, the Guidelines allow each air district to develop a smoke management program appropriate to local conditions. This can include further restrictions on burn hours than the Guidelines require.

70. Comment: The Staff Report fails to mention many existing innovative and effective open burning programs. The report should have discussed and endorsed a mechanism to allow existing smoke management programs to continue if they work well and are accepted in a cooperative spirit by the public and regulated community, and which have been adapted to local needs for air quality protection. (Lake County; Mostin; NCUAQMD; Humboldt (Dixon))

Agency Response: The provisions in the Guidelines for local development of programs, and for consideration of alternative burn authorization systems, when appropriate, are mechanisms that allow for continuation of successful programs. The provisions for alternative burn authorization systems were amended in response to air district comments.

71. Comment: Please explain and justify why a daily authorization system will work when a single source or a bad prediction on a burn day causes most bad days of air pollution. These incidents can be investigated individually and save a lot of work by dealing with them as an error or as a public nuisance to avoid. (Mostin)

Agency Response: The aim of the daily authorization system is to minimize bad predictions by considering individual daily meteorological conditions and matching the amount and locations of material to be burned to those conditions. Authorization includes the concept of placement of burns as well as a review of air quality and meteorological conditions. The goal is public protection by avoiding problems through insightful management. This system has worked well in reducing smoke impacts in the Sacramento Valley.

72. Comment: Lake County fails to understand how an allocation/authorization system will help manage a short term smoke impact below the AAQS exposure. (Lake County)

Agency Response: Before burns are authorized, the burn authorization system requires consideration of amounts of material to be burned, meteorological and air quality conditions, and locations of smoke sensitive areas. If conditions are such that smoke from a burn would be expected to impact a smoke sensitive area, that burn would not be authorized under those conditions, and would most likely have to be postponed until another day. Most smoke impacts are for short term periods, less than the 24-hour average period for particulate matter standards.

73. Comment: Adopting a burn authorization program and requiring permits for burns exceeding certain thresholds will not ensure the goal of avoiding smoke impacts will be met. Increased communication and collaboration between burners, air district personnel, and ARB staff are also required. Implementation of a statewide database for cataloging active and imminent burn projects would help to advance communication. (CLFA; CLFA (Violett))

Agency Response: A burn authorization system, requiring analysis of appropriate data before authorizing burns, is intended to minimize smoke impacts. However, it is also important that all parties, including burners, air districts, and ARB work together in carrying out their roles adequately. Burners have the final decision and responsibility to ensure conditions are acceptable before actually igniting a fire, and air districts and ARB must perform their analysis, review and approval functions. We are working with the air districts and other stakeholders to implement a database of burn projects, called the Prescribed Fire Incident Reporting System (PFIRS), that will enhance communication and make program implementation more efficient for all parties.

74. Comment: Our understanding is that the Guideline requirements for a burn authorization system, burn permits, and smoke management plans were derived from the U.S. EPA Wildland Fire/Air Quality Policy. The U.S. EPA policy relies on voluntary compliance, and did not make these requirements. (CLFA)

Agency Response: The Guidelines were not based on the U.S. EPA policy, but were developed to meet California's specific needs for improved smoke management. As stated in the Staff Report, there are continuing incidents of infrequent but serious smoke episodes, expected increases in prescribed burning, and increasing population growth, particularly in rural areas that are more subject to smoke impacts from prescribed burning. The Guidelines therefore require additional planning, analysis, and approval before conducting prescribed burns. However, we believe the Guidelines also meet the requirements of the U.S. EPA's policy.

75. Comment: The Guidelines require too many bureaucratic processes that will allow less prescribed burning to be done yearly than the small amount now successfully accomplished. Such processes include daily allocation of acreage among specific burn projects based on atmospheric conditions, within a cap set by the ARB, and requirements for yearly plans for prescribed fire. (Lassen Group)

Agency Response: We disagree. The Guidelines were designed to address prescribed burning, and provide increased opportunities for such burning by utilizing marginal burn days and more careful consideration of meteorological conditions. The new procedures are designed to minimize smoke impacts on the public, and ARB is committed to work with all stakeholders to share information needed to make burn decisions and seek new resources for smoke management programs.

76. Comment: These regulations do not address the tremendous variations that exist in atmospheric and fuel conditions throughout an air district on any given day. To presume that the air district can, as would be mandated by section 80145(a), "specify the amount, timing and location of each burn event" on a daily basis imposes an almost impossible burden on the air district staff and permittees. (Simpson)

Agency Response: We disagree. The Guidelines require consideration of the wide variations in atmospheric conditions and fuel conditions before approval of burning. We do agree that the task is complex and requires cooperative communication. We are committed to working with air districts to provide assistance with these efforts. Also note that the Guidelines have fewer requirements for smaller prescribed burn events.

77. Comment: Section 80145(a) requires the air districts to consider air quality and meteorological conditions on a daily basis when authorizing burns. It is difficult for an air district to consider air quality data on a daily basis where no PM10 monitors are located and no real time PM10 data are available. (Amador)

Agency Response: Monitors that provide real-time data on PM2.5 mass are being added to the monitoring network. In the meantime, visibility (and meteorological conditions in general) can be considered when burn decisions are made. Haze is also a very useful indicator of particulate concentrations. The Guidelines do not require perfection, but rather encourage the use of available tools and forecasting.

78. Comment: The Board should provide strong guidance and oversight in the type and size of a smoke management program which can be proposed by an air district to implement these Guidelines. (NPS; CA WCG)

Agency Response: The Guidelines require that smoke management programs be developed in cooperation with the ARB and other affected parties and be commensurate with the air quality impacts from burning in the air district. The ARB intends to participate with air districts to ensure that effective and approvable programs are developed.

79. Comment: Limitations on the amount of material that can be burned on a daily basis will cause burners to choose one type of burn for economic reasons over another type, and good burn opportunities may be lost due to mismanagement of the burn authorization system. (SPI (Ostergaard))

Agency Response: The Guidelines are designed to limit the amount of burning allowed on a daily basis to be consistent with each day's meteorological conditions in order to minimize smoke impacts. It may be that burners with multiple projects will have to choose which project to carry out on some days. The Guidelines are not intended to restrict burning unnecessarily, however, and will allow large amounts of burning to be conducted on days with appropriate conditions. ARB intends to work with air districts in the development of their burn authorization systems to ensure that they meet the purposes of the Guidelines, which are to provide increased opportunities for burning while minimizing smoke impacts on the public. The meteorological and pollution information considered as part of the daily burn authorization system should result in improved burn decisions, and the use of marginal burn days for specific projects should result in increased opportunities for prescribed burning. The ARB will assist air districts as necessary to avoid mismanagement of burn authorization systems.

80. Comment: Air districts would like a better understanding of the objectives they will have to meet in developing their smoke management programs. Current air pollution programs are based on health-based ambient air quality standards. What specific new health or visibility criteria would need to be satisfied by the smoke management program? (NSCAPCD (Lee); Lake County)

Agency Response: Air quality standards are not the only criteria for judging the adequacy of a program. Smoke from fires can sometimes result in short term episodes of high particulate levels and public nuisance events. In some cases, these short-term episodes do not cause violations of the 24-hour PM standards or, more likely, they do not occur in areas with air monitoring. They are nonetheless of concern to the public and can result in numerous public complaints and health impacts, particularly in those members of the public with breathing difficulties, such as asthmatics. Specific protection levels are not established. Both particulate exposures and visibility should be considered when looking at possible air quality impacts from smoke plumes.

Objectives of the Guidelines are given in sections 80100, "Purpose"; 80102, "Scope and Applicability"; and 80145, "Program Elements and Requirements", and contain specific elements which facilitate the general overall goal of minimizing smoke impacts on the public.

### **b) Alternative Burn Authorization Systems**

81. Comment: Several commenters asked for more specific criteria for air districts to be exempted from the daily burn authorization system, including better definitions of "small amounts of burning", "air quality problem", and "successful track record". (Lake County (Reynolds); Lake County; Mostin, Santa Barbara)

Agency Response: The Board agreed that the exemption criteria language was vague and directed the staff to revise and make more specific the criteria for exemption. The following language was proposed in the 15-day comment period and subsequently adopted:

"If requested in writing by a district, the Executive Officer may approve an alternative burn authorization system for agricultural burning (excluding prescribed burning), provided the Executive Officer determines that the alternative system is likely to minimize smoke impacts on smoke sensitive areas, avoid cumulative smoke impacts, and prevent public nuisance. In making such determination, the Executive Officer shall consider the rules and regulations of the district relating to agricultural burning, historical data on the amount, types, location, and impacts of agricultural burning in the district (excluding prescribed burning), the effectiveness of the smoke management program in place in the district, and other documentation provided by the district. The decision, along with the reasons for the decision, shall be in writing."

82. Comment: The ARB should add the following underlined language to Section 80145(b):

"A burn authorization system is not required for small amounts of daily burning, excluding prescribed burning, if an air district demonstrates, based on historical data, that those small amounts of burning do not cause or contribute to air quality problems. An Air Basin in attainment with the State PM-10 AAQS and not identified as a transport couple, shall be exempt from the daily agricultural burn authorization requirement to track small-quantity burning as determined by the District Board(s)." (SCAPCD; Mostin; Lake County; LCFB; LCR&RA; LCFCA; LCR&RA (Talley); Lake County (Lewis))

Agency Response: See Agency Response to Comments #80 and #81. Revised language was added to the Guidelines for comment during the 15-day notice period and no additional comments were received. Ambient air quality standard attainment is not sufficient to judge the adequacy of a program.

83. Comment: The exemption for small amounts of daily agricultural burning specified in section 80145(b) should include prescribed burning, not exclude it. It is common for forest managers to burn localized concentrations of logging slash at log landings or along truck roads to eliminate or reduce fire hazard. (Simpson; NCUAQMD)

Agency Response: Prescribed burning generally involves higher fuel loading and longer burn duration than crop waste burning, resulting in greater risk for smoke impacts. Therefore, it is not exempted from 80145. Smaller prescribed burns, however, are exempted from the requirement for smoke management plans.

84. Comment: The Bay Area Air Quality Management District's program should not be used as an example of an area with relatively small amounts of crop waste burning with no reports of public complaints of smoke. Tule burning from the Bay Area district has historically resulted in complaints of smoke impacts in populated areas, and should not be exempted from this process. (CRC; BCAQMD (Odle); Sac Valley BCC)

Agency Response: We agree that an exemption would not be warranted for a system that resulted in smoke impacts. However, most Bay Area smoke impacts have been from tule burning, which is considered prescribed burning and will not be exempted.

### c) Prioritization

85. Comment: Several comments were received that burning for economic reasons, including reforestation and nursery tree transplantation, should be given priority. (CLFA; CLFA (Violett); RRC; Ogden)

Agency Response: Many commenters requested priority for their types of burning. The Guidelines allow air districts to establish priority procedures if necessary based on local conditions and needs. The Guidelines require consideration of specific items if prioritization is done, including economic concerns. The ARB will look for fairness and equity in the review and approval of air district smoke management programs.

86. Comment: The ARB should require the air districts to prioritize burning for those that prepare their sites with pre-fire fuel treatments or other measures such as biomass power generation to minimize emissions. (Wheelabrator; CLFA; CLFA (Violett); Ogden)

Agency Response: See Agency Response to Comment #85. As specified in section 80145(m), if priority procedures are used then efforts to reduce smoke emissions, such as removal of excess material, must be considered.

87. Comment: Section 80145(m) implies that non-burning alternatives such as logging, biomass harvest, or other mechanical treatments, will be rewarded through a prioritization system. In many places on national forests and other lands, mechanical treatments are either prohibited by law, or policy, or are impossible due to environmental conditions. Also, alternative treatments do not fulfill all of the ecological functions of fire, and can damage soils and live vegetation. The language implies that public burn agencies would be discriminated against because of these limitations, which may encourage poor land management practices. (El Dorado NF; USFS; CLFA; CNPS)

Agency Response: See Agency Response to Comment #85. The public benefits of burn projects, including forest health, ecological needs and fire safety, must be considered if a priority system is used by an air district.

88. Comment: The Guidelines should prioritize public interest burning in national forests, rangelands, wildlands, and other public lands. (Lassen Group; CA IBA; CNPS; CSERC (Buckley))

Agency Response: See Agency Response to Comments #85 and #87.

89. Comment: The proposal to reduce necessary fuel modification burns that provide buffer zones and separations for wildland interface would disrupt an essential life, safety, and property protection program. (SBCFD)

Agency Response: We disagree. There is no requirement to reduce the effectiveness of programs that protect the public safety, including the creation of buffer zones at the urban-wildland interface. As noted in section 80145(m) regarding priorities, “districts shall consider the public benefits of burn projects, including safety, public health, forest health and wildfire prevention.”

90. Comment: Persons or industries who have historically practiced open field burning and helped pay for the infrastructure that has led to improved air quality should not have to forego burning opportunities because public landowners are choosing to increase the use of fire as a primary means to reduce fuel loading. Therefore, every effort should be made to develop smoke management programs that do not interrupt existing agricultural burning. (CRC)

Agency Response: The objectives of the Guidelines are to minimize or prevent smoke impacts while still providing increased opportunities for managed burning on both public and agricultural lands. To the extent that conflicts occur in the use of burning opportunities, the Guidelines allow air districts, based on local considerations, to prioritize burning.

91. Comment: Air districts could have the option to use a more stringent set of priorities or even delete the burn priority system if unnecessary in their smoke management plans. (Ogden)

Agency Response: If the air district, through its experience, finds a priority system is not necessary, it may be omitted from its smoke management program. If a determination of priorities is needed, elements to consider have been listed in Section 80145(m).

92. Comment: Section 80110(b) should provide criteria by which burn applicants are selected to burn on marginal-burn days. (EPA)

Agency Response: Burning on marginal days will be limited by applicant location versus smoke sensitive areas and meteorological conditions. The Guidelines allow criteria for prioritizing burning, if necessary, to be developed by air districts based on local conditions and needs.

#### d) Other Comments

93. Comment: The wording of section 80145(e) regarding air district or region authority to issue notice of permissive-burn or no-burn days is unacceptable and exceeds State authority over federal lands. As drafted, that provision would allow the ARB to call no-burn days based solely on fire control, rather than air pollution, concerns. ARB is constraining federal discretion by attempting to enforce State regulations (the burn/no burn designation based on fire control) where no authority exists. ARB and air districts should make a distinction between the two types of no-burn day designations and exclude federal lands when the no-burn day designations are based solely on prevention and control issues. (NPS)

Agency Response: We disagree. The ARB acknowledges that our authority to declare no-burn days must be based upon air quality factors, not fire control factors. However, the intent of section 80145(e) is to avoid public confusion from hearing different burn

announcements by different government agencies on the same day. Air districts will have to coordinate with fire protection agencies (both State and federal) before issuing a burn day notice. The ARB and air district decisions would be based solely on air pollution considerations as specified in the Guidelines. An open burning prohibition made by a fire-control agency for fire safety reasons would be announced as such by the air district for the area of the fire-control agency's jurisdiction, and would not be extended to the area of other fire-control agencies unless they also prohibited open burning on that day.

94. Comment: The proposal to eliminate the 48-hour decision process currently being used will constrict notification requirements and reduce opportunities for prescribed burning. It is virtually impossible to gather and coordinate the resources necessary to conduct a safe and effective burn project with only overnight notice. Permittees are required to notify adjoining property owners of their intention to burn and the date such burning will take place not less than two days prior to burning. The permittee deserves the same respect in order for him/her to have the time necessary to prepare the resources and logistics requirements. The present 48-hour go/no-go commitment should be retained and not replaced with the proposed 24-hour rule. (SBCFD; El Dorado NF; USFS; USFS (Quintanar); NPS)

Agency Response: The existing regulations provide for issuance of burn decisions 48 hours in advance for specific prescribed burns, but allow such decisions to be cancelled when necessary to maintain air quality. Such decisions are based on forecasts of meteorological conditions that are anticipated to exist at the time of burning, and such 48-hour forecasts have, at times, a high degree of uncertainty. Therefore, the revised Guidelines call for "forecasts" rather than "decisions" 48-hours in advance for specific prescribed burns. In response to these comments, and to assist in planning for burns, the staff proposed changes in the 15-day notice that require that the 48-hour forecast indicate a degree of confidence that conditions would remain acceptable for specific prescribed burns. The proposed changes were subsequently adopted in section 80101(l).

95. Comment: The air district appreciates ARB's proposal to change the 48-hour decision to a 48-hour forecast. (Amador)

Agency Response: See Agency Response to Comment #94. Thank you for your support.

96. Comment: Procedures for authorizing burns "no more than 24-hours prior to ignition" are problematic. Procedures mentioned in section 80145(f) allow for 48/72-hour forecasts; however, it's extremely difficult to do business if, potentially, we can't get final notice until the morning of the burn. We would hope that on project burns, we can get a notice by at least 4:00 p.m. the day before planned ignition. The Guidelines should allow for a minimum 24-hour decision. (RRC; El Dorado NF; USFS)

Agency Response: Staff proposed changes in the 15-day notice, which were subsequently adopted, to remove the “no more than” language and require procedures for authorizing individual prescribed burns 24 hours in advance. Language was also added to clarify that such decisions are subject to change if meteorological conditions are different from those anticipated, as stated in 80145(g), and land managers must ensure that conditions for burning stated in smoke management plans are met prior to ignition.

97. Comment: The Guidelines should confirm air district authority to terminate 24-hour advanced authorizations, and 48/72-hour notices, at any time prior to ignition if conditions exist that will impact smoke sensitive areas. (BCAQMD; BCAQMD(Odle); Sac Valley BCC)

Agency Response: The following (underlined) language was added to section 80145(g) in the 15-day notice. The Guidelines now state:

“Procedures for authorizing burning, including a procedure for authorizing individual prescribed burns 24 hours prior to ignition of the fire, recognizing that any burn decision made 24 hours in advance is always subject to change if meteorological conditions or conditions affecting smoke dispersion are different from those anticipated.”

The Guidelines no longer contain provisions for 48-hour burn decisions, but do call for 48-hour and 72-hour forecasts. Also see Agency Response to Comment #94.

98. Comment: Burning is a 24-hours a day, 7-days a week operation during the burning season, yet many air districts do not have staff available on weekends and holidays. Often these are the only times that burn prescriptions match the smoke prescription. The ARB should make staff available to assist the air districts with smoke management forecasting. (RRC; LCFCA (Strickler))

Agency Response: Weekend service will be addressed by air districts during development of burn authorization systems. The ARB staff works weekends and holidays and will make arrangements to assist air districts with individual burn authorizations.

99. Comment: Agencies in compliance with all requirements of the Guidelines and generating no violations of the national ambient air quality standards should have an ARB “permit shield” of protection from public nuisance provisions. (El Dorado NF; USFS)

Agency Response: The individual air districts are responsible for local compliance programs. Smoke impacts may be brief but significant. These acute impacts may not result in violations of air quality standards, but are very real and need to be dealt with because of their impacts on public health and visibility. Section 41700 of the HSC

recognizes that not all public nuisances violate ambient air quality standards. It is very unlikely, however, that an agency operating in compliance with all the requirements of the Guidelines would be cited for nuisance violations. Further, the circumstances of each violation are taken into account in assessing penalties.

100. Comment: Section 80145 lists “Elements” that must be included in each air district’s smoke management program. Element (l) requires: “plans to provide for an analysis and periodic assessment of actions that are undertaken to minimize smoke through the use of pre-fire fuel treatment practices and non-burn alternatives.” This requirement presents a danger that approvals may be withheld unless mechanical treatments have taken place before burning. Some of the areas most in need of fuel reduction may not be suitable for mechanical treatment. (CA IBA)

Agency Response: The requirement is for air districts to perform the analysis and assessment. There are no required air district actions after such analyses, but the analyses could lead to future revisions to air district programs, including possible implementation of prioritization procedures. If prioritization procedures were implemented, they would have to consider the effects of mechanical treatments, including those on forest health and ecology, as well as economic concerns. Some types of vegetation are more conducive to pre-fire fuel treatment or management through non-burn alternatives. The requirement for an alternative analysis helps to surface those situations where alternatives are feasible.

If burns were scheduled for a time when there is competition for opportunities to burn, conflicts could occur. Burns used by basketweavers are almost always very small, well less than an acre most of the time. Considering size and light fuel load, these burns should not be hard to schedule.

101. Comment: Section 80145(l) does not require land managers to implement or consider emission reduction techniques and does not provide any incentive for land managers to implement emission reduction techniques when feasible. (Amador)

Agency Response: Other sections of the Guidelines (80160) require consideration of alternatives to burning for larger projects, and preparation of material to reduce smoke when feasible. Also see Agency Response to Comment #100.

102. Comment: Empty sacks or containers which contained fertilizer should be specifically excluded from section 80145(n) which permits burning of empty sacks, etc. on no-burn days. (EPA)

Agency Response: The provisions of section 80145(n) are unchanged from the previous regulation, and were intended to allow air districts flexibility in dealing with special situations in agricultural fields. Farm organizations commented that there was no storage in fields for toxic materials. The State has a special multi-agency task force working on this issue now. The lead agency is the Department of Toxic Substances

Control. If necessary, title 17 may be amended in the future to reflect the outcome from this effort.

103. Comment: Section 80145(o)(4) contains a potential conflict with regulations adopted to implement the Forest Practices Act contained in title 14 of the CCR, sections 917.2(a), 937.2(a) and 957.2(a). Slash disposal is required prior to April 1 for slash created the previous year. This does not always allow for proper drying. (RRC)

Agency Response: The Forest Practices Act regulations require slash to be disposed of within a certain time period (for example, five weeks to avoid beetle infestation). If the forester chooses to “pile and burn” the slash within this specified time period, the air district rules for drying times (typically 30 days, to minimize smoke production) can span a big part of this time period, resulting in only a few days when both regulations can be met – if those days are also declared to be burn days. This requires that potential burners coordinate their needs with the air district to optimize their opportunity to burn successfully. The public purposes of both sets of regulations must be met.

## **H. OPEN BURNING IN AGRICULTURAL OPERATIONS (Section 80150)**

### **a) Pre-Ignition Preparation**

No comments.

### **b) Exemptions**

104. Comment: Lighting technique restrictions for rice and barley included in section 80150(a)(1) should be removed from the Guidelines. Preliminary statistical analyses [conducted by the air district] of data found in studies of agricultural burning by Ellis F. Darley in 1977 and 1979, finds that there is no significance in the method of lighting and that the results are not repeatable. Further studies by Jenkins (1996) simulate backfire burning to estimate emissions from a variety of crop residues. Air district staff's field observations conclude that a backing fire is generally a weak-spreading fire with an increased potential for smoldering. Air district evaluation of these studies suggests that back firing as the preferred method of burning may not minimize harmful particulate matter emissions. (BCAQMD; BCAQMD (Odle))

Agency Response: We disagree. In a formal board action, the Board recognized Darley's conclusions that the lighting techniques specified in section 80150(a)(1) are expected to maximize combustion efficiencies and minimize smoke impacts. ARB is not aware of alternative studies to refute the findings of Darley and Jenkins. We encourage the Butte County Air Quality Management District to provide us with an analysis of Darley's work.

The ARB Compliance Division has photo documentation from years of aerial surveillance of rice field burning which indicates that incorrectly ignited rice fields

produce significantly more smoke in a given time period than those ignited correctly. Lighting headfires in a rice field produces large, billowing plumes of smoke; the entire acreage, swept by wind-driven flames, may be burned within a few minutes. The resulting smoke emissions are quickly pumped into the atmosphere in a large, dense mass. In contrast, backfires move slowly; the fuel is consumed more completely, but the time needed to burn the entire field is considerably longer. The backfire smoke mass is therefore smaller, less dense, and is emitted over a longer period of time, resulting in lower emissions rates and less severe localized smoke impacts. Strip-lighting a field into the wind is also an accepted practice, and may be useful where the straw remaining in the field is insufficient or too unevenly distributed to maintain a backing flame front.

## I. SACRAMENTO VALLEY BASINWIDE PROGRAM (Section 80155)

105. Comment: The amended Guidelines will solidify the Sacramento Valley agricultural burning plan in such a way that does not allow for the much needed improvement of the program and will hinder the impetus for review. The smoke management program in the Sacramento Valley has been effective in reducing the impacts as a result of the effectiveness of two factors: the gross reduction in agricultural burning and the air districts management of the placement and timing of burns. The regulations solidify an unsound technical process for determining how acreage is burned each day and administrative regulations that will inhibit or remove the local flexibility to serve the public in the best possible way. (BC Sup (Josiassen))

Agency Response: We recognize the efforts the air districts have made in managing burning in the Sacramento Valley. However, we believe the Guidelines will help to further improve the Sacramento Valley Agricultural Burn Plan to enhance the effectiveness of certain components of the plan. These changes would be locally developed and will be open for changes at any time the Sacramento Valley Basinwide Control Council deems it necessary.

106. Comment: A basin coordinator should not be required for the Sacramento Valley. Recognizing the potential subjectivity that is applied to the basin coordinator in the Sacramento Valley demands that there be some kind of a conflict of interest provision incorporated into the process. (BCAQMD (Odle))

Agency Response: The Guidelines do not specifically require a basin coordinator. Section 80145 of the Guidelines requires that air districts describe the resources that will be used to operate their programs, including personnel resources for burn coordination. The coordinating air districts may choose to contract for such services and, in such a contract, spell out any necessary conditions to avoid conflicts of interest.

107. Comment: The Staff Report should be revised to point out that agricultural burning is not necessarily the cause for higher particulate matter (PM) measurements in the fall and winter. The primary causes are more likely to be mobile sources and

wood smoke, combined with temperature inversions in the Sacramento Valley. The agricultural burning season in the Sacramento Valley is typically completed by November 18, yet PM concentrations only marginally decline in December, January and February. Further reducing agricultural burning will result in only incremental gains in air quality since it is a relatively minor source. (CRC)

Agency Response: The Staff Report was prepared to support the ARB Board item heard at the March 23, 2000 hearing; therefore no further editions will be published. We agree that agricultural burning is not the only source contributing to elevated PM concentrations. However, burning activities should be carefully managed so that they do not exacerbate the problem when concentrations are high. In addition, air quality standards are not the only criteria for judging the adequacy of a program. Smoke from fires can sometimes result in short term episodes of high particulate levels. In some cases, these short-term episodes do not cause violations of the 24-hour PM standards. They are nonetheless of concern to the public and can result in numerous public complaints and health impacts, particularly in those members of the public with breathing difficulties, such as asthmatics.

108. Comment: The Staff Report states that the revisions in the Guidelines are tailored after the successful approach used in the Sacramento Valley. Therefore changes to the regulations are not needed and should not apply in the Sacramento Valley. (KS&C (Soares))

Agency Response: We agree that the Sacramento Valley smoke management program has an effective ongoing program. However, there is a need to improve certain aspects of the Sacramento Valley program to meet the requirements of the proposed Guidelines. Additionally, the Guidelines provide an amendment and appeal process to ensure appropriate smoke management revisions are added where needed. Please also see Agency Response to Comment #61.

109. Comment: Section 80155(a) requires that the Sacramento Valley allocation equation be determined using specific parameters (basinwide meteorological factor and basinwide air quality factor). This leaves no room for improvement of the program as more data and technological advances are made. Consistent with the mandate of HSC section 41859, provision should be added to title 17 requiring ARB to develop a relational database incorporating past and future data and perform statistical accuracy, reliability, and fairness checks on the daily allocations. The relational database should seek to compare allocations made with the variety of data available allowing a continuous improvement in the accuracy of the allocation process. The forecasting that exists in the local programs can be improved with the application of current science and available technology. Yet there's been no significant move to do so in the past many years. (BCAQMD; BCAQMD(Odle))

Agency Response: The Sacramento Valley Basinwide Control Council, in concert with its air district membership, is free to make improvements to the acreage allocation

equation. No provisions in title 17 prohibit the Basinwide Control Council and/or its air district membership from developing a relational database. Requiring ARB to develop such a database is outside the scope of the Guidelines; however, the Sacramento Valley Basinwide Air Pollution Control Council has formed an Ad Hoc Advisory Committee to address this issue. ARB staff has committed to actively participate in that group.

110. Comment: The term “acreage” should be revised to “tonnage” in sections 80155(a) and 80155(c) and a table with a factor (of tons burned/acreage burned) for various crops should be utilized to convert acreage to tonnage for the purpose of a burning report. (EPA)

Agency Response: The use of the term “acreage” as opposed to “tonnage” was made in this section to make it easier for those dealing with agricultural burning. Most of the agricultural community is more comfortable using acreage and burning allocations reflect this.

Because emissions factors to convert acreage to tonnage are being updated and refined on a continual basis, it does not make sense to include a table in the Guidelines which could become outdated in a very short period of time. The Sacramento Valley Smoke Management Program includes a table for converting the tonnage of all crops to equivalent acreage. This table can be made available upon request.

111. Comment: Section 80155(d) requires a description of burn hours. The current plan implements burn hours with no scientific basis. Burn hours should be based on local conditions. The language should be changed to reflect the requirements of section 80150(a)(2) and burn hours should be determined by local air districts. (BCAQMD)

Agency Response: Section 80155(d) allows the Sacramento Valley Basinwide Air Pollution Control Council to specify appropriate burn hours. If the Basinwide Control Council chooses to use the hours specified in section 80150(a)(2) in its smoke management plan, it could do so.

## J. PRESCRIBED BURNING (Section 80160)

### a) General

112. Comment: Smoke management plans should be standardized statewide. The ARB should bring stakeholders together to work out a standard format. (CDF (Tuttle); USFS (Quintanar))

Agency Response: Per ARB Resolution 00-08, ARB staff members have convened a Uniform Smoke Management Plan working group. The working group is made up of members from California Department of Forestry and Fire Protection (CDF), USFS, and

other land managers. With input from the working group, ARB staff has been charged with working with stakeholders to develop a uniform smoke management plan if feasible, and reporting back to the Board in March 2001 with recommendations.

113. Comment: Additional technical tools, such as improved fire incidents reporting, refined analytical tools, and smoke management training programs, should be developed for fuels and smoke management. (NCSAF)

Agency Response: ARB is committed to improving the technical tools needed for minimizing smoke impacts. ARB has established a Technical Tools Development working group – made up of ARB, air district, and burn management stakeholders – to assist with developing improved meteorological data collection and forecasting, improved burn tracking, and improved air quality data collection and analysis. Such tools should help air districts and land managers to better coordinate burns.

In addition, ARB has initiated a series of smoke management training workshops to help stakeholders better understand the new smoke management program, and to help promote the exchange of information between regulators and burners.

114. Comment: The revised Guidelines require land managers to operate within the limits of a smoke management plan and restrict a land manager's options with regard to carrying out a burn. Each burn situation is in some ways unique, and often requires unique solutions not necessarily allowed by prescriptive regulations. (Slaughter)

Agency Response: The revised Guidelines provide a flexible framework for air districts to use to assure burns are conducted in a manner that limits smoke impacts. The smoke management plan for an individual burn describes acceptable conditions that reflect the unique character of each burn situation. Such smoke management plans are developed by the burner or land manager, and should reflect the uniqueness of each burn situation. It is reasonable to place limitations on the amounts of fuels to be burned, the condition of the fuels, and acceptable meteorological conditions to minimize smoke impacts. Goals, and procedures to reach those goals, should be delineated before burns are lit. The requirements for filing annual burn registration and obtaining permits to burn based on structured smoke management plans cannot be arbitrary.

#### b) Comments on Sections 80160 (a) and (b)

115. Comment: Section 80160(a) of the revised Guidelines requires the registration of all planned burns. This is unnecessary because many burns will never actually occur. (RRC; CLFA; NPS)

Agency Response: Annual or seasonal registration of planned burn projects will allow all parties to see the amount of burning anticipated in the coming year and will highlight times when competition within airsheds may occur. As an example, scheduling and

mapping burn locations is a useful tool for the consortium of burners in the Humboldt Bay area of the North Coast Air Basin. Burners in that group work together to establish priorities, allowing the amount of burning to be modulated as atmospheric conditions change. Although registration of burns will require some time and effort, the benefits can be very worthwhile. When electronic communications tools such as the Prescribed Fire Incident Reporting System (PFIRS) are available, the registration may be quick. The cooperation and planning achieved may help maximize burning opportunities without smoke impacts. The benefits occur to the burners, by facilitating acreage burn prioritization, and to the air basin, by allowing inter-district exchange of information about planned burns.

116. Comment: The revised Guidelines should require simple requirements for small burns and more detailed plans for larger burns based on their potential to produce impacts. (NPS; SFI; Parks & Rec.)

Agency Response: We agree. Tiered information requirements for prescribed burning, based on burn size and emissions potential, are a fundamental characteristic of the revised Guidelines. For smaller burn acreages and for burns with fuels that are likely to produce fewer emissions, there are fewer planning requirements. For example, for burns that are less than 10 acres in size, or which produce less than 1 ton of particulate matter emissions, only burn registration is required. For burns less than 100 acres size or which produce less than 10 tons of particulate matter emissions, there are fewer planning requirements than for burns that are greater than 100 acres size or which may produce greater than 10 tons of particulate matter emissions.

117. Comment: There are three tiers of burn categories in sections 80160(b), (c), and (d). Where a project falls seems to depend on the tonnage of particulate produced, yet there is no guide to determine particulate matter (PM) produced per ton of fuel burned. (RRC)

Agency Response: Estimates for emissions per ton of fuel do exist and are available to burners. They can be found in "General Conformity to State Implementation Plan, A Handbook for the Land Manager", Table 6, USDA-Forest Service, Air Resource Program, Pacific Southwest Region, September 1995. A copy of this handbook can be obtained from Mr. Suraj Ahuja, U.S. Forest Service, via email at: [sahuja@fs.fed.us](mailto:sahuja@fs.fed.us), or by phone at (530) 934-3316.

The emission estimates will continue to be revised as refinements are made through ongoing research on various fuel types. These updates will be coordinated with the factors currently published in the USFS Air Quality Conformity Handbook referenced above and emission factors generated by the USFS First Order Fire Effects Model (FOFEM). ARB staff and air districts are working together with burners to disseminate such information as it is developed. Current and future emission estimates may also be obtained by contacting ARB's Planning and Technical Support Division's Emission

Inventory Branch by phone at (916) 322-7303 or by downloading the information from ARB's smoke management web page, at [www.arb.ca.gov/smp/smp.htm](http://www.arb.ca.gov/smp/smp.htm).

**c) Comments on Section 80160(c)**

118. Comment: The revised Guidelines should go further towards requiring air district programs, through their smoke management plan elements, to consider and use alternatives for prescribed burning. (SFI; TCAPCD; Northern Sierra (Hill); SOAR; Wheelabrator; Wheelabrator (Jolley); Ogden; NCSAF; Biomass (Trott); Northern Sierra; NCSAF)

Agency Response: Section 80160(c)(5) of the revised Guidelines requires that smoke management programs, through their smoke management plans, provide for an evaluation and analysis of alternatives to burning. Section 80145(l) requires air districts to perform a periodic assessment of actions that are undertaken to minimize smoke through the use of pre-fire fuel treatment practices and non-burn alternatives. To address the broader issue of alternatives, we have established a working group with interested stakeholders to evaluate and provide recommendations on the potential alternatives to burning. We will also continue to work with the California Resources Agency to find ways that the State can assist in this effort. See also Agency Response to Comment #119.

119. Comment: ARB should promote incentives for pre-treatments and alternatives to prescribed burning. (NCSAF; Ogden; Northern Sierra)

Agency Response: ARB supports the development of alternatives to burning; however, the issue of requiring incentives for alternatives is beyond the scope of these Guidelines. To address this broader issue, we have established a working group with interested stakeholders to evaluate the potential for development of, and funding for, alternatives to burning. We will also continue to work with the California Resources Agency to find ways that the State can assist in this effort.

120. Comment: Language in the revised Guidelines requiring evaluation of alternatives to prescribed burning should be relaxed. (CA IBA)

Agency Response: The Guidelines call for an evaluation of alternatives to burning for larger projects. These projects have the greatest potential for smoke impacts and thus the greatest potential air quality benefit if non-burning alternatives can be used. However, there is no requirement that an alternative must be used if it would not produce desired results.

121. Comment: The revised Guidelines should recognize the analysis of alternatives already carried out for State and federally conducted burns under CEQA and NEPA. (El Dorado NF; CSERC (Buckley))

Agency Response: Section 80160(c)(5) of the Guidelines was revised to include the following language: "If an analysis of alternatives has been prepared as part of the environmental documentation required for the burn project pursuant to the National Environmental Policy Act (NEPA) or the California Environmental Quality Act (CEQA), as applicable, the analysis shall be attached to the smoke management plan in satisfaction of this requirement;" This revision was included for public comment in the "15-day Notice of Public Availability of Modified Text" and subsequently adopted.

122. Comment: Evaluation of alternatives belongs at the programmatic planning level, not at the burn project plan level. The requirement for the evaluation of alternatives at the burn plan level should be removed. (NPS; Wheelabrator (Jolley))

Agency Response: For burns greater than 100 acres, or burns with greater than 10 tons of particulate matter emissions, burners must provide an evaluation of alternatives in their smoke management plans. The purpose of the evaluation is to help air district staff issuing approvals to burn. Information on alternatives allows air quality managers to determine the extent to which measures are being taken to minimize smoke. As discussed above in Comment #121, section 80160(c) of the revised Guidelines was modified to allow CEQA or NEPA alternatives analyses to be incorporated into the burn plan in place of a separate analysis.

123. Comment: The meaning of: "An evaluation of alternatives to burning considered" in section 80160(c)(5) is unclear. (Ogden)

Agency Response: Burners should evaluate the economic feasibility and ecological advisability of alternatives to burning. These include pre-fire fuel treatment which can reasonably be employed to modify or remove vegetation so as to reduce emissions. Both CEQA and NEPA procedures also require this analysis.

#### **d) Comments on Sections 80160 (d) through (p)**

124. Comment: The proposed regulation is not explicit on what types of monitoring would be required for certain burn projects. It would help air district implementation, as well as the public's understanding of what is expected, if this provision were made more specific. (MBUAPCD)

Agency Response: As with other elements, the specific determination of monitoring requirements was appropriately left to the air district. Additional language was added in section 80160(d) during the 15-day notice period, which now reads "...appropriate monitoring, which may include visual monitoring, ambient particulate matter monitoring or other monitoring approved by the district, as required by the district." This may vary for different kinds and sizes of burns and those in different locations, or unique in other ways. In some instances, a person in a vehicle following a smoke plume could monitor for smoke problems. At night, monitoring equipment may be more useful. Objective

data from a monitor may be valuable in assessing possible impacts. The experience of the air district with burns of different types will be important.

125. Comment: The language on “Alternate Thresholds,” specified in section 80160(f) of the revised Guidelines, is unclear. (Santa Barbara)

Agency Response: The language specified in section 80160(f) provides air districts with the ability to require varying amounts of smoke management planning information for burns of different sizes and emissions. An air district can specify alternate thresholds that are higher or lower than those specified in the revised Guidelines, based on what works best for the air district and its stakeholders, within the intent of the Guidelines.

126. Comment: Section 80160(h) of the revised Guidelines is unclear. It should ensure that a land management agency, managing a naturally ignited fire, treat the fire as a “no-go.” It should require that the fire be considered as a prescribed burn and that a smoke management plan be submitted to the appropriate air district as soon as possible. (NPS; USFS; BCAQMD; Evans; NCUAQMD; Sac Valley BCC)

Agency Response: Naturally ignited fires that are allowed to burn for resource management are treated as prescribed fires, with a few modifications that allow for problems contacting air district personnel, and allow for the fact that most natural ignitions die out before reaching large sizes. Section 80160(h) requires that when a natural ignition occurs on a no-burn day, the initial “go/no-go” decision to manage the fire for resource benefit will be a “no-go” unless certain conditions are met. A “no-go” decision does not necessarily mean that the fire must be extinguished, but that the fire cannot be considered as a prescribed fire. Section 80160(i) requires a land management agency to submit a smoke management plan for the fire, if it is expected to exceed 10 acres in size, within 72 hours of the start of the fire.

This section of the Guidelines was modified, as described in the “15-day Notice of Public Availability of Modified Text”, to reflect the practical limitations of reaching air district or ARB representatives on short notice and to ensure that reasonable attempts are made to do so. Section 80160(h) has been amended to read: “Require that when a natural ignition occurs on a no-burn day, the initial “go/no-go” decision to manage the fire for resource benefit will be a “no go” unless: 1) after consultation with the district, the district decides, for smoke management purposes, that the burn can be managed for resource benefit; or 2) for periods of less than 24 hours, a reasonable effort has been made to contact the district or, if the district is not available, the ARB; 3) after 24 hours, the district has been contacted, or if the district is not available, the ARB has been contacted and concurs that the burn can be managed for resource benefit. A no-go decision does not necessarily mean that the fire must be extinguished, but that the fire cannot be considered as a prescribed fire.”

127. Comment: Section 80160(k) of the revised Guidelines, regarding post-burn evaluations, needs to be limited to burns which create smoke impacts. (NCUAQMD)

Agency Response: Section 80160(k) of the revised Guidelines requires air districts to include post-burn evaluation requirements for all burns greater than 250 acres. However, for burns greater than 250 acres without smoke impacts, air districts could simply require that a burner provide a statement to the effect that “the burn remained within prescription and resulted in no smoke impacts.” For burns greater than 250 acres that create smoke impacts, an air district could require more substantial information, such as a narrative as to why the smoke impacts occurred, and information on resulting air quality and public complaints.

128. Comment: Section 80160(p) does not apply to federal agencies. (CNPS; USMC; NPS; El Dorado NF; USFS)

Agency Response: The requirement is statutory (section 41861), and was not developed by the ARB, but rather has been incorporated into title 17 for informational purposes for many years. The Department of Fish and Game (DFG) has the technical expertise to evaluate the burn plan to ensure it is properly designed to improve habitat. HSC section 41861 does not exempt federal agencies from notifying DFG.

129. Comment: Requiring fuels to be fully dry before burning may substantially increase the danger of escape of prescribed fires. (CNPS)

Agency Response: The revised Guidelines do not place new requirements on drying fuels; however, section 80160(m) does require vegetation to be in a condition that will minimize the smoke emitted during combustion when feasible. Such conditions will depend on fuel type and the application of acceptable smoke management practices. The tension between optimal burning conditions for air quality purposes and for fire safety purposes has existed since the inception of the agricultural burning program and is best addressed by continued discussion, cooperation, and coordination.

130. Comment: The revised Guidelines are not clear about how overnight and multi-day burns should be managed. Do the requirements in section 80160(d)(2) pertain only to fires which are still actively burning overnight, or do they also apply to fires which have smoldering remains? If the requirements do pertain to fires with smoldering remains, which may last for days unless 100% mop-up is required, the cost to manage such burns will be excessive. (RRC)

Agency Response: Overnight and multi-day burns are recognized as having significant potential for smoke impacts. Therefore, section 80160 (d)(2) requires appropriate monitoring for burn projects which will continue active burning overnight, or those which will continue to produce smoke overnight. Burn projects with smoldering remains, which could continue to produce smoke overnight or over several nights, are subject to the requirements in this section. Best management techniques will be needed where

smoke impacts are likely, especially if they affect smoke-sensitive areas. However, burners have demonstrated techniques to avoid smoldering fuels after ignition is complete. These techniques can be noted in the smoke management plan and utilized during the burn event, and thus may alleviate the need for monitoring.

## K. EXEMPTIONS (Section 80170)

131. Comment: The section 80170 exemption from section 80160 for air districts with no prescribed burning in wildlands or urban interfaces within its jurisdiction should be extended to include other types of prescribed fire/prescribed burning projects that will not have smoke impacts. (NCUAQMD)

Agency Response: The Guidelines are intended to provide as much predictability and objectivity as possible with regard to smoke management. Range improvement burns are typically smaller, their fuel types are more uniform in nature, and their emissions are more predictable. For these reasons, we felt it was reasonable to exclude such burns from the requirements of section 80160 if no smoke impacts are anticipated. Other types of prescribed burning are less uniform in nature, their smoke emissions are less predictable, and the ability to exclude one prescribed burn over another becomes much less objective. For these reasons, it was decided not to exempt these types of burns. The Guidelines provide an objective tiered smoke management planning approach, based on burn size and potential smoke impacts. This, to a substantial degree, may relieve both a burner and an air district from smoke management planning requirements. The Guidelines provide air districts with flexibility to tailor their programs to meet their specific smoke management needs. For smaller burns and burns that will have no smoke impacts, there is minimal information that a burner must provide. Additionally, section 80160(f), allows air districts to designate alternate burn size and emission thresholds for smoke management information collection and planning purposes.

132. Comment: ARB should allow an exemption from section 80145 and section 80160 for those air districts that do not exceed air quality standards for PM10 for two years in a row. (Coyote Ranch; Simpson; LCCA; Mostin)

Agency Response: We disagree. Air quality standards are not the only criteria for assessing smoke impacts and the need for a smoke management program. Smoke from fires can sometimes result in short term episodes of high particulate levels and public nuisance events, which are prohibited by HSC section 41700. In some cases, these short-term episodes do not cause violations of the 24-hour particulate matter (PM) standards or, more likely, they do not occur in areas with air monitoring. They are nonetheless of concern to the public and can result in numerous public complaints and health impacts, particularly in those members of the public with breathing difficulties, such as asthmatics. In addition, both particulate exposures and visibility should be considered when looking at possible air quality impacts from smoke plumes.

133. Comment: Section 80170 should allow an air district to exclude all range improvement burns in remote areas from the requirement to submit burn plans if the air district finds that the fire will be remote enough to not impact populated areas. (Simpson; Santa Barbara; NCUAQMD)

Agency Response: All types of range improvement burns could be exempted by an air district, but each would have to be considered and excluded on an individual basis. In essence, the air district would be performing the smoke management evaluation to determine that smoke from the burns would not impact smoke sensitive areas.

134. Comment: ARB should allow for exemptions for the burning of tires used for pesticide application purposes. (CRC)

Agency Response: The practice of burning tires for pesticide application purposes is provided for in title 3 of the California Code of Regulations, section 6464. The section states that “a smoke column or other device satisfactory to the agricultural commissioner shall be employed at the time and place of air applications [of certain herbicides] to indicate to the pilot of the aircraft temperature inversions and the direction and velocity of the air flow.” The burning of tires for such purposes is outside the scope of the revised Guidelines, and the Guidelines do not disallow their use for such purposes.

## **ARTICLE 3.**

### **L. METEOROLOGICAL CRITERIA**

#### **a) General**

135. Comment: Section 80179 states that “The ARB may use, on a test basis in cooperation with the air basin affected, for three years for developing new criteria, alternate criteria to those specified in this article to establish burn days, no-burn days, and marginal burn days.” But there are no limitations placed on the number of test days allowed during a three year period, no limits set in order to minimize economic impacts on growers and others that could result from testing, and no meteorological criteria set for marginal-burn days. Reasonable limitations should be placed on the use of alternate criteria. (BCAQMD; BCAQMD(Odle); CRC; EPA)

Agency Response: The intent of adding this section was to allow for the development of improved meteorological criteria for making daily burn day determinations for the various air basins in the State. New and improved meteorological criteria, including those for determining marginal burn days, could be tried on a test basis before proposing them as permanent changes to the regulation. Test criteria will be established with the air basin’s input. Economic and environmental impacts will be considered in the development of criteria and proposals for adoption into regulation.

136. Comment: There is no provision in the Guidelines to utilize the fire agency meteorological expertise in fire-specific forecasting to help make decisions. The fire agencies already have an in-house cadre of experienced fire weather meteorologists at the Interagency Fire/Forecast Warning Units. The ARB should consider utilizing the resources that are already available, rather than putting the burden on the air districts. We also feel that this would add more consistency to the program, because it would offer us an opportunity to standardize modeling techniques, rather than having the air districts utilizing an array of different techniques. (El Dorado NF; USFS; USFS (Quintanar))

Agency Response: We have established a working group with interested stakeholders to address the sharing of available meteorological information and technical tools to promote efficient and consistent implementation of the provisions of the smoke management program. Air districts may contact fire agency meteorologists for participation in smoke management decisions or to provide decision assistance data. Coordination with fire agency meteorologists to develop a menu of services continues at this time.

137. Comment: It is the air district's intention to make most of its own burn decisions for the basin under the umbrella of ARB authority. (SJVAPCD)

Agency Response: The Guidelines allow such decisions pursuant to section 80110(e). ARB staff will work with air districts that want to develop such a process to ensure it fully meets the requirements of the Guidelines and the HSC.

138. Comment: There is a need for improved meteorological predictions. We have technical abilities to improve those predictions, but they're not necessarily funded right now. (CLFA (Violett))

Agency Response: We agree. To facilitate this, we have established a working group with interested stakeholders to address the sharing of available meteorological information and technical tools to promote efficient and consistent implementation of the provisions of the smoke management program.

139. Comment: In section 80179, "burn days" should be changed to "permissive-burn days". (EPA)

Agency Response: Section 80101(t) defines "...'permissive-burn day' or 'burn day'..." so they are considered to be equivalent.

## **b) Revising Existing Criteria**

140. Comment: The 500-millibar (mb) heights from four locations throughout the State do not accurately represent local conditions, especially for those air basins that

do not contain a single station. Therefore, the 500-mb height for determining burn status above 3,000 feet mean sea level (msl) should be eliminated. In addition, the mixing depth criterion from 1,500 feet msl to 1,500 feet above ground level (agl) should be revised and the 5 miles per hour (mph) minimum wind speed criterion with a maximum wind speed of 20 mph should be replaced because smoke tends to move horizontally at higher wind speeds. (BCAQMD; BCAQMD(Odle); MBUAPCD)

Agency Response: The ARB uses the 500-mb (about 18,000 ft) height criteria in several air basins to help determine the daily burn day status. The monthly 500-mb values listed in section 80320 were obtained by statistical interpretation of climatological data displayed in monthly Northern Hemisphere maps (provided by the former

U.S. Weather Bureau). Since many elevated areas of California do not have any routine hourly surface weather observations (let alone any upper air temperature or wind profiles) available to characterize the prevailing vertical and horizontal dispersion conditions, the meteorologists making the daily burn decisions had to opt for using other available tools. The federal government provides two upper-air soundings a day at three sites in California (plus usually at a few non-standard time locations and at a few locations in our neighboring States); these data are used as input for current 500-mb maps which, with the National Weather Service's 500-mb forecast maps, form the basis for determining the expected 500-mb heights used to evaluate a particular air basin's daily burn status. In general, lower 500-mb heights correlate with better mixing and dispersion conditions, both important when considering the amount of burning to be allowed on a given day for a given area.

The North Central Coast Air Basin's suggestion to change from a 1,500 feet msl to a 1,500 feet agl mixing layer criteria wouldn't work well in a coastal environment since marine layers are usually quite well defined – marine air usually goes around the terrain, not over it. For example, if the marine layer on a given day is 1,500 feet thick, conditions above 1,500 feet msl can be quite different from those below it, making the meteorological characteristics (and hence the burning conditions) in a 1,500 feet agl layer quite variable in the coastal foothills – one burn decision for the "1,500 feet agl layer" would not describe an area with expected uniform smoke dispersal conditions.

The wind criteria in many air basins specify a minimum wind of 5 mph. The commenter is correct that often an upper limit to the speed should be considered (to avoid fumigation and often for fire safety reasons) when making local burn decisions. The Sacramento Valley Basinwide Control Council (BCC) and ARB have recently incorporated an upper limit to the speed in the procedures used for allocating actual acreage to the districts in the Sacramento Valley. As indicated in section 80179, we will be working with the various air basins as they revisit the meteorological criteria used for making daily burn decisions. A wind speed evaluation is expected to be a part of that process.

141. Comment: The proposed language of section 80330 is too broad. It effectively grants authority to ARB staff to call certain burn days based on subjective air quality criteria. Since great pains are taken to empirically measure ambient air quality and to predict meteorological conditions, there should be a numerical foundation with which to base burn day decisions. The expectation of exceeding air quality standards is defensible. Other factors or criteria, unless they are scientifically based, may expose the program and ARB to criticism regarding the mandate to "reasonably regulate agricultural burning". (CRC)

Agency Response: Section 80330 hasn't been changed (other than the addition of the phrases 'marginal burn' and 'and prescribed burning') from the previous version of the Guidelines. This section allows the ARB to use meteorological judgment to assess contextual factors such as when the meteorological conditions change, the ambient air quality concentrations approach the State's standards, wildfires produce smoke impacts, or local or transported air pollutants are expected to impact a particular air basin's daily air quality. The factors considered are based on science, but give the ARB needed flexibility to address unusual circumstances. When these occur, this provision allows the decision makers to make burn decisions that could be different from decisions based strictly 'on the numbers' specified in the meteorological criteria for that basin.

142. Comment: We feel that the discussion of the San Diego Air Basin, section 80230, provides an opportune time for ARB to consider modifying the San Diego Air Basin boundary along the Orange County border to include all of Marine Corp Base, Camp Pendleton, in the San Diego Air Basin. (USMC)

Agency Response: Air Basin boundary decisions are made for multiple reasons specified in HSC section 39606, and are reviewed by ARB when appropriate. Such a change would require consideration of many factors, in addition to smoke management, and are outside the subject matter of the Guidelines and the public notice. The air district may petition the Board to change the air basin boundaries in a separate action.

## M. OTHER SIGNIFICANT ISSUES

### a) General Smoke Management Comments

143. Comment: ARB's plan to develop an interactive, on-line system for tracking prescribed burns will be one of the air district's biggest assets in implementing a smoke management program. (Amador)

Agency Response: We agree. Once the Prescribed Fire Incident Reporting System (PFIRS) becomes operational, it should help all parties, burners and air regulators, and improve the smoke management programs.

144. Comment: The knowledge base, relative to smoke management, of both the air regulators and the burning community, needs to be improved. Private burners have not had much opportunity to develop that knowledge base. The ARB has instituted a smoke management training workshop. This information needs to be made available to the users. (CLFA (Violett))

Agency Response: In working with the air districts to develop their smoke management programs, education and training will be important elements. The Smoke Management Training Program that the commenter notes has been developed by ARB's Compliance Division at the request of the Interagency Air and Smoke Council (IASC) members. A public education and outreach working group has been established to help bring this, as well as other, information to the air districts, the burning community, and the general public.

145. Comment: The ARB's plan does not call for any overall reduction in open field burning. In order to improve air quality and public health, the ARB should consider amendments to the proposed regulation to go beyond just managing smoke and actually set targets for reducing particulate emissions over time from open field burning. (ALA (Withycombe))

Agency Response: These Guidelines outline a program to manage burning in such a way as to reduce its impact on air quality on a daily basis. The HSC authorizes the ARB to reasonably regulate, but not prohibit, this type of burning. We therefore have the authority to limit and reduce burning to the extent that the criteria in HSC sections 417857 through 41859 (such as health, safety, technical and economic feasibility) would promote the reduction of agricultural and prescribed burning. The Guidelines do require that an alternatives analysis be conducted for larger burns as a means of forcing the burner to examine means other than burning to remove vegetation, especially those which reduce potential smoke impacts. On balance, there are emissions associated with the machinery used for the various alternatives which should also be taken into consideration along with other environmental factors when weighing options for each specific project. Given the variability in the type of projects and their locations, the ARB leaves the responsibility of setting targets for reducing particulate emissions over time to the air districts. The air districts can limit particulate emissions using the daily allocation process or employ other long-term means, as appropriate to their respective emission inventory mix, to reduce particulate emissions from open field burning or other types of burning.

146. Comment: Several California Legislature members requested that the ARB adopt Guidelines which explicitly provide that priority be given to burning that benefits the public, through increasing public safety or through improving ecosystem health, over burning which benefits private persons or commercial enterprises. (CA Legislature)

Agency Response: California has a natural fire ecology with many diverse ecosystems, and regional differences in the mix of land uses and population densities. Therefore, it is difficult to rank which type of burn is consistently more important statewide, whether for economic, environmental, or public safety reasons. Therefore, ARB does not specify priorities for burning in the Guidelines. However, the Guidelines do give each air district the opportunity to establish priorities for burning as part of a daily authorization or allocation system. The criteria for priorities would reflect the types of, and need for, burning that occur in the respective air district. At the March 23, 2000 hearing, the Board directed staff to monitor implementation and report back periodically on issues such as the local prioritization of burns. This feedback will enable the ARB to adjust the program as needed.

147. Comment: In Lake County, the fire districts are the local agencies that are going to be most impacted enforcing these new regulations on the burners. There is a perception that it's the fire districts that deal with burning or burning permits because they are the first ones to be called if there is a problem with burning. Some of the fire districts have regular staff but most of them rely on volunteers. As a result there may be huge impacts on the rural fire districts, which may have inadequate staff.  
(LCFCA (Strickler))

Agency Response: The field burning program in Lake County is not expected to change substantially with implementation of the Guidelines. Lake County already has a good management structure for implementing a smoke management program and is in a position to request approval for its existing program as an alternative burn authorization system. A "Report on Staff's Programmatic Review of the Lake County Air Quality Management District's Smoke Management Program" was prepared by ARB staff to evaluate the practical application of the proposed criteria in section 80145 (b) for approval of an alternative burn authorization system. The report was included as a supporting document in the 15-day Public Notice of Modified Text for the proposed Guidelines. Based on the results of this review, the ARB Executive Officer could reasonably conclude that the Lake County program has achieved the objectives of the daily burn authorization system set forth in the Guidelines, and will continue to do so in the future. Therefore, it is not likely that the implementation of the Guidelines will further impact the rural fire districts of Lake County. The ARB will continue to monitor this matter.

**b) Comments on the Initial Statement of Reasons for Rulemaking  
(February 2000 Staff Report)**

**i) Updated Information**

148. Comment: Many Indian basketweavers are artists who depend upon a reliable supply of suitable basket materials for their livelihood. It does not appear that this was taken into account in the February 2000 Staff Report analysis under "Costs to businesses and persons affected." Yet, if prescribed burning is greatly restricted as a

result of implementation of this proposed regulation change, it is likely that suitable basket plants will become more difficult to obtain, creating hardships for basketweavers and gatherers. (CA IBA)

Agency Response: As noted during staff visits with basketweavers and the fire managers working with them, fires to sustain the production of basket plants are small, well managed, and planned for specific reasons for each plant species. These fires can easily be accommodated with consultation between burners, weavers, air district, and ARB staff, as provided for in the Guidelines. The Guidelines are designed to accommodate anticipated increases in prescribed burning rather than restricting prescribed burning. Therefore, implementation of the proposed regulation should not impair the supply of suitable basket plant materials nor create hardships for basketweavers and gatherers.

149. Comment: The example (November 1, 1994 smoke episode) used in the Staff Report is outdated and improperly explained. The report should have focused on other episodes (such as the Beaver Creek fire) and mentioned marsh burning in the Bay area. The report should not have singled out rice straw smoke as an example when discussing smoke impacts. These clauses should be stricken. (CRC)

Agency Response: Although the Staff Report is not revised and republished as part of the rulemaking process, clarification of this item is offered herein. The data from the smoke episode on November 1, 1994, was used as an example to illustrate how particulate matter levels can be elevated for several hours due to smoke from burning vegetation, without causing a violation of the 24-hour standard. The example cited was not meant to single out rice straw smoke, and in fact refers only to crop waste management. Moreover, although the incident occurred six years ago, the particulate matter levels recorded are still representative of short-term smoke episodes. The example also depicted measurements made downwind of the actual burn, to show that smoke transport occurs. As stated in the Staff Report, the particular example remains an uncommon event because the Sacramento Valley Basinwide Plan has successfully managed to prevent or minimize such smoke episodes in Sacramento over the past decade.

There are other examples of smoke episodes from events when meteorological conditions did not support good plume rise and smoke dispersal prior to or after ignition of controlled burns. The prescribed burn at Beaver Creek in the Stanislaus National Forest in the fall of 1998 became problematic when new ignitions continued after the meteorological conditions became unfavorable. That episode also resulted in elevated particulate matter measurements for several hours at many locations but only resulted in an exceedance of the 24-hour federal health standard at one location. At times, marsh burning in the Bay Area also can cause short-term smoke episodes downwind in the greater Sacramento area, as can any burn that is inappropriately ignited or not well-managed. All of these examples of short-term smoke episodes are a public health concern. Through more effective smoke management practices statewide, we hope to

prevent the occurrence of such episodic elevations of particulate matter concentrations in ambient air due to smoke.

150. Comment: Monterey Bay Unified APCD (MBUAPCD) cost estimates should be included in Table 5 of the Staff Report. They are: fee recovery, 0%; start-up costs, \$35,000; and annual costs, \$170,000. (MBUAPCD)

Agency Response: As noted above, the February 2000 Staff Report text is not revised and republished for rulemaking purposes. Not every air district had completed its preliminary estimate of costs prior to February 2000, when Table 5 of the Report was prepared. The information available at the time was still useful for illustrating typical air district expected costs. The cost estimates for MBUAPCD supplied since then are duly noted. The start-up and annual operational costs are comparable to costs estimated for other central coastal air districts and for air districts that expect to incorporate additional forecasting capabilities and additional requirements for prescribed burning in their programs. Like MBUAPCD, of the nineteen air districts for which information was available, eleven reported that they do not recover existing agricultural burning program costs through fees.

151. Comment: The statutory authority for ARB adoption of the Guidelines includes HSC section 41850, which expressly declares the legislative intent that the ARB shall take into consideration, among other things, the economic and technical impacts of the proposed rules on production agriculture. The proposed regulation impacts the totality of production agriculture (350 commodities) and yet the economic analysis is limited to timber, one segment of California's agriculture. (Ag Council; Rehermann)

Agency Response: Chapter 10 of the Staff Report contains, on page 61, a section entitled "Crop Waste and Grazing Operations", which addressed the probable effect on agricultural production. Many air districts already collect fees from growers and those producing commodity crops, to defray agricultural burning program costs, whereas they do not collect fees from burners conducting timber, habitat management and wildland burns. Therefore, in the analysis, ARB assumed that the economic impact of the revised Guidelines on agricultural production would be minimal.

Any fees proposed by the air districts to recover costs are likely to be differentiated by the types of burns and the emissions expected from individual burns. ARB noted in its analysis that air district fee assessments may be related to the new administrative costs of implementing revised burn authorization and allocation systems to address all burns, including the burns associated with agricultural production. ARB is working with the air districts and the different types of burners to assure that such fees are equitable, reasonable and minimized through the use of other cost reduction and cost recovery means. Note that the new burn registration and other requirements of section 80160 will not apply to production agriculture. These requirements will apply to the timber industry, which is why ARB made an additional analysis of impacts to the timber industry.

152. Comment: The Staff Report states on page 53 that “occasional problems may occur and result in smoke impacts on affected population...the resulting pollutant emissions are expected to be relatively uncommon at a particular downwind location and of short duration.” The Staff Report should quantitatively address what is meant by terms such as “occasional” and “uncommon”. (MBUAPCD)

Agency Response: The program is designed to reduce the potential for smoke impacts to occur as they have in the past. While it is not possible to quantitatively define the number of impacts that might occur, or their magnitude, we believe that the success of programs such as the Sacramento Valley Basin’s smoke management program, provide evidence that smoke impacts can be reduced substantially. For example, as discussed in our response to Comment #66, the number of smoky hours, and the number of complaints have dropped over the past decade. The additional requirements for prescribed burners to evaluate impacts on smoke sensitive areas and plan for contingency measures to minimize and prevent exposure to populations at specific locations are also expected to reduce the level of smoke impacts from their present levels.

153. Comment: We fully agree with the goals of the amendments to improve coordination between the regulators and the fire community, and to allow more efficient use of fire while protecting human health. However, requiring the air districts to fully comply with the program, through the assessment of some level of fees, leaves the question of the economic and environmental impact of the Guidelines on prescribed fire programs entirely too open. The Staff Report which accompanies the draft Guidelines is weak in analysis of how the program will be implemented at the air district level, and what such a program will cost in terms of fees. No analysis seems to have been performed on the relationship between higher costs to the fire agencies and on the potential for a reduction in prescribed fire activity. It is difficult to determine from this document what affect the imposition of fees will have on the level of controlled burning we can conduct, and the degree to which wildfire risk can be mitigated. Reduced prescribed fire activity will certainly lead to increased environmental damage from wildfires, and risk to public life and property. Therefore, the potential environmental and economic costs of the amendments to the agricultural burning provisions of title 17 are inadequately addressed by the Staff Report. (NPS; CA WCG)

Agency Response: There are many factors involved in trying to strike a balance between the cost of managing smoke to protect public health and allowing prescribed fire activity to protect public welfare. The ARB is committed to addressing program costs by working with all the regulatory agencies, the land management agencies and the private entities who burn to ensure that the costs of smoke management do not impair the benefits of prescribed fire activities. This is an ongoing process. At a minimum, the Board directed the ARB staff to work with the air districts and other stakeholders to explore/investigate various options for funding program costs, in

addition to adopting equitable fees. ARB must also report to the Board periodically on the status of fees, costs and program funding.

The Guidelines do not require the air districts to assess fees for their smoke management program, yet it is likely that air districts will introduce additional fees as they adopt amendments for their smoke management programs. The information in the Staff Report was based on the best information on potential program costs that was available at the time. It is recognized that program costs will vary between air districts, depending on the amendments to be made to their existing programs, as reflected in the preliminary estimates provided in Table 5 of Chapter 10 of the Staff Report. These estimates are being fine-tuned as air districts and all of the stakeholders work together to determine what resources can be shared and what measures can be taken to streamline program procedures. Some of the costs for smoke management can be reduced by sharing meteorological services, enhanced electronic communications for air quality and fire incident data, and uniform smoke management plan formats.

The fact that California has a fire ecology confounds the assessment of environmental costs and benefits. In the absence of detailed information about future revisions to each air district program, the Staff Report only described impacts on a statewide basis. Further assessment of environmental costs and benefits, in a local and regional context, will be addressed by air district programs and individual burn and smoke management plans. ARB has also contracted with the University of California at Riverside to produce a programmatic environmental impact report template that will contain the methods commonly used to make these assessments.

The following sections respond further to comments made regarding economic and environmental impacts expected from implementation of the revised Guidelines. The responses provide additional information to address these impacts.

### **c) Economic Considerations**

#### **i) Program Costs and Equitable Cost Recovery**

154. Comment: The driving force for changes to the Guidelines seems to be minimization of PM2.5 from fires, for both the protection of human health and a reduction in regional haze. All Californians benefit from cleaner, healthier air, so why shouldn't they help us achieve those benefits for them? The General Fund should be tapped to help pay for smoke management program costs, simply because there are real public benefits resulting from the smoke management program. (Ventura (Baldwin); Northern Sierra)

Agency Response: The ARB agrees that there are very real public benefits from prescribed burning and there are significant public benefits from smoke management. Currently the public does contribute, through State taxes, to the General Fund from which ARB derives part of its budget. In addition, subvention funds are allotted to

support a portion of the air districts' budgets. A portion of federal taxes, through the Congressional appropriation process, support federal agency activities which may include smoke management. As such, these "public contributions" do support smoke management programs. However, these funds may not be sufficient to cover the entire cost of program implementation.

Therefore, the ARB is committed to seeking ways to find additional funds for air districts for their smoke management programs. The Legislature and Governor can also determine where public funds should be appropriated. Where it can be demonstrated that some benefits are occurring locally or regionally, an argument can be made that local or regional governing agencies should budget to support the program costs. A similar case can certainly be made that the costs for benefits occurring on a larger scale could be assessed as fees to State or federal land management agencies conducting regional burns.

There are several ways to utilize General Fund or public monies. Public funds could be given directly to public agencies conducting burns in order to pay fees for air district smoke management project costs. They could also be given directly to the air districts for program implementation. Public funds could also be used to purchase equipment and fund personnel supporting a statewide network of meteorological and monitoring data for forecasting and smoke plume tracking. Ultimately, the link between public health benefits and citizen or burner assessments must be clear.

155. Comment: Fire has a recognized role in ecosystems management. Healthy ecosystems ultimately benefit the public health and welfare. Reducing fuels in the wildland/urban interface reduces the risk of loss of property and lives. Therefore, there are public safety benefits resulting from vegetation management programs. Smoke management programs must be a part of vegetation management program that includes fire as a tool to benefit the public good. Public funds should pay for the smoke management costs related to the vegetation management programs on public lands at least, and arguably on private lands. (Northern Sierra)

Agency Response: Where a private landowner also benefits economically from burning, as opposed to other means of vegetation control, it may be appropriate to assess a reasonable fee for smoke management program administration. However, clearly the cost of smoke management will not be and should not be recovered entirely by assessing fees from the burners, public or private. A combination of public funds and equitable fee assessments will likely be used to cover the cost of smoke management program administration.

156. Comment: Members of the California Legislature requested that the ARB seek ways to minimize any new administrative demands and costs that may constrain State and federal agencies that perform prescribed burning. (CA Legislature)

Agency Response: At the March 23, 2000 hearing, the Board directed staff to work with stakeholders to minimize costs. These follow-up actions include establishing equitable and reasonable fee structures, sharing resources to improve program efficiencies, and developing a uniform smoke management plan format for public agencies to use statewide. The California Air Pollution Control Officers Association, the U.S. Forest Service (USFS), and the California Department of Forestry and Fire Protection (CDF) all supported the regulation at the public hearing, based on ARB's commitment to closely monitor implementation. In a letter dated April 20, 2000, ARB Chairman Alan C. Lloyd wrote to the nine members of the California Legislature who raised these concerns and assured them that the final Guidelines would provide ample opportunity for wildland prescribed burning conducted by public agencies.

157. Comment: ARB is strongly encouraged to work with the Legislature, the Resources Agency, the Energy Commission, and other affected parties to bring about the following initiatives:

- 1) augment appropriations funding for the CDF's Vegetation Management Program, the State's main fuel management program, to enable the program to achieve its targeted annual treatment acreage;
- 2) adopt amendments to the State tax code to create an income tax credit for privately-funded fuel management investments; and,
- 3) subsidize the construction and operation of biomass-based energy production facilities and ethanol refineries by providing grants, interest-free loans, and fuel purchase rebates. (NCSAF)

Agency Response: Some of these ideas are currently being considered by the State agencies mentioned. The CDF has requested additional funds for its burn program budget targeted for potential air district fees. The ARB is also working with other State and federal agencies, the air districts, and burners to share resources and minimize costs of compliance with the Guidelines. ARB has formed a Program Resources, Program Needs, and Cost Recovery Working Group comprised of these public and private stakeholders who will also consider these recommendations.

158. Comment: The State has an obligation to financially support the program. ARB and Cal/EPA should play leadership roles in securing a stable funding source for the smoke management programs around the State by working closely with State, federal, and private land managers. The title 17 Guidelines do not include a clear funding mechanism whereby air districts can fully implement the requirements of the smoke management program, without resorting exclusively to fees. The ARB Staff Report downplays the resources needed to implement the smoke management program; for some air districts, costs will increase significantly. Funding to implement the program will be difficult for both the air districts and the entities conducting burns. There are several ways that ARB can help address the funding shortfall:

- 1) ARB can work to provide direct funding for certain program costs, especially fixed hardware costs, and ensure that ARB has adequate resources within its own

- budget to fund the necessary efforts to support local smoke management programs;
- 2) ARB can work with sister agencies (i.e., CDF, and the USFS) to establish adequate funding support for air district activities associated with burns done by State and federal agencies;
  - 3) ARB should be mindful of the need to reduce administrative costs, and be open to alternative approaches designed to meet local needs;
  - 4) ARB can work to increase opportunities and incentives to use non-burn alternatives, and reduce the corresponding costs to the burners; and,
  - 5) ARB should continue to work with the air districts to provide sufficient meteorology information for smoke management in the North Coast Air Basin and in other air basins where it is needed. (NSCAPCD; NSCAPCD (Lee); TCAPCD; Amador; BAAQMD; VCAPCD (Baldwin); CDF (Tuttle); Farm Bureau (Cory); LCCA; USFS (Quintanar); Northern Sierra)

Agency Response: In response to these comments, ARB staff is working with the air districts and many stakeholders on several smoke management program implementation Working Groups entitled: Uniform Smoke Management Plan Format, Technical Tools Development, Alternatives to Burning, Alternative Meteorological Criteria and Program Resources, Program Needs, and Cost Recovery. These groups were formed specifically to address the listed concerns. The products of these working groups will include identification of areas within a statewide network having a high priority for additional equipment and data. The network will include those supported by public and private funds. Funding sources will be identified to recover costs, in addition to equitable fees.

## **ii) Burners' Concerns with Potential Program Costs**

159. Comment: The proposed Guidelines impose additional burdens on forest land managers and landowners that would cumulatively undermine the economic feasibility of implementing needed prescribed burning and, more generally, of implementing sustainable forest management. The Staff Report notes in several places that the amendments are likely to place new administrative and fiscal burdens on burners. The most significant likely sources of economic burdens are:

- 1) increased burn permit fees;
- 2) smoke management plans;
- 3) post-burn smoke management evaluations; and,
- 4) replacement of the 48-hour in advance burn decision with a less than 24-hour in advance conditional burn confirmation.

Given the tight prescribed burning budgets of both federal and State agencies, it would not require a large increase to inhibit their ability to burn. (CNPS; NCSAF; CLFA)

Agency Response: As noted above in Comment #158, ARB will work with air districts and others to identify funding sources other than fees. Most foresters already have a burn plan that includes most, if not all, of the information required in a smoke

management plan. The Uniform Smoke Management Plan Format Working Group, comprised of air districts and foresters from public agencies and private burn contractors, is developing a uniform electronic template to ease the burden of preparing and filing a smoke management plan. Where an agency burn plan also contains information needed for smoke management, the possibility of a program checklist is also being evaluated. The same Working Group is also developing a template for streamlined post-burn smoke management evaluations, including a simple form for record-keeping purposes if there are no impacts. The Working Group is evaluating electronic and call-in options. Some foresters have used the 48-hour decision service from the ARB, but many have used the 24-hour air basin burn decision instead. Under the revised regulation, there will still be a 48-hour forecast available from ARB with a level of confidence statement, and the "no more than 24 hours" burn decision language was changed to "24 hours prior to ignition." Each of the Working Groups have identified education components that could be included in outreach programs to assist the burners and the districts with administrative and technical issues. There is also an Education and Outreach Working Group which will serve to coordinate these efforts. All of these efforts support the underlying premise that program costs can be managed so as not to impair the public benefits of prescribed burning.

160. Comment: Our chief concern with the document is the extension of detailed planning requirements to prescribed fires with small probabilities to affect smoke sensitive areas, which is characteristic of many of our projects. We believe that a consequence of these requirements will be significantly higher costs to the taxpayer with little or no offsetting benefits to public health. (NPS)

Agency Response: The National Park Service (NPS) already does detailed planning for prescribed fires. Many of the remote, rural fires do not affect smoke sensitive areas and therefore do not require additional planning. However, there are occasional remote locations where gravity or drainage flow at night carries smoke to populated areas. The NPS is aware of these locations and in some places already prepares public notification, advance warning, or other contingency measures to alert residents who might be affected. Benefits to public health can be achieved when NPS budgets for actions to avoid these incidents or minimize their impacts. Including these smoke management concerns in the project planning phase is an appropriate use of taxpayer's dollars because advance planning does protect public health and welfare.

161. Comment: We recommend that ARB establish a consistent fee structure for prescriptive burning statewide, and that if air districts elect to collect fees, these would be based upon ARB's fee structure. One example of what we would consider a fair and consistent fee structure is comprised of two components: 1) an administrative fee, and 2) an impact fee. (Parks & Rec.)

Agency Response: ARB does not issue burn permits, although it does provide meteorological and air quality monitoring services to the air districts and burners

without charge. Fees are set by the air districts administering the smoke management programs and will vary from air district to air district depending on the elements of their program. Program elements will largely reflect the size of the air district, staff capabilities, financing capabilities and the mix of burning activities, public and private, within the air district. Nevertheless, ARB is working with stakeholders to encourage equitable fees. This recommendation has been passed along to the Program Resources, Program Needs and Cost Recovery Working Group which is tasked with evaluating appropriate fee structures to ensure equity and a level of uniformity to burners and other stakeholders.

162. Comment: Biomass operations are used in conjunction with burning to develop fuel breaks to protect forest lands and the urban interface from wildfire situations. The cost for fuel breaks runs between \$300-400 per acre. These fuel breaks are a huge cost but they protect our forest investments as well as provide a public benefit to our adjacent communities by reducing potential wildfire damage. However, there is the possibility of losing good burn days for fuel break development due to mismanagement of the authorization system. High burning fees would have the same negative effect on fuel break development and our current burning program. The additional fee to burn may throw this type of land management activity out of budget considerations. ARB has a responsibility to look for solutions and funds to help the air districts develop and implement their smoke management programs. (SPI (Ostergaard))

Agency Response: The ARB is committed to help find funding to support air district smoke management programs so that any fees charged to stakeholders to recover any remaining air district costs will be considered manageable and fair. ARB recognizes that prescribed fire is one of the management tools used to reduce the impacts of wildfire and also recognizes that land managers are endeavoring to use alternative fuel reduction techniques wherever economically feasible. With regards to mismanagement of the burn authorization system, ARB will be reviewing all air districts' smoke management programs, including their burn authorization procedures, to ensure that they meet the Guidelines. Air districts are encouraged to meet with their respective stakeholders to develop cooperative agreements regarding allocations and prioritization as part of program development. ARB retains oversight authority of all air district permit programs and conducts periodic audits to detect mismanagement.

163. Comment: The whole intent of these rules is to allow for more burning to reduce risk of catastrophic fire. Fees will only act as a disincentive to burn. Cooperative agreements may reduce redundancy, but that potentially means more meetings, which equate to more cost. The air districts could issue one permit per air basin with the units attached, instead of each burn unit; this would significantly cut the paper work. (RRC)

Agency Response: The ARB supports efforts to streamline the program. If air districts can achieve the same results using this single permit approach, it could be considered an acceptable alternative to individual permitting for each burn unit. Because permits

are issued at the air district level, stakeholders are encouraged to work with their respective air districts to see if this kind of streamlining is possible.

164. Comment: The agricultural industry is concerned that current fees will be increased appreciably to compensate for the augmented administrative costs that will be needed to accommodate the additional oversight required by the changes proposed to the Guidelines. The added cost of operating a smoke management program should not be passed on to agriculture. This would be unfair to farmers, particularly those in the Sacramento Valley, who have already paid the cost of reducing burning, using alternatives, and purchasing much of the monitoring and data assimilation infrastructure needed to run the program. Public agencies that wish to expand burning opportunities should pay the incremental cost of developing and administering local or regional smoke management plans. The agricultural community wants assurance that direct allocation of costs will be assigned to any new burners included in the Smoke Management Program. (Ag Council; CRC (Rehermann); CRC; KS&C (Soares))

Agency Response: Air districts have the authority to assess fees to recover costs. ARB is working with the California Air Pollution Officers Association (CAPCOA) and other stakeholders to encourage fair and equitable fees. The ARB has also committed to work on finding additional funding sources, including public funds, for air districts to help them set up and maintain their smoke management programs. It is not likely the air districts will rely solely on fees to recover costs of their respective programs. However, both agricultural and prescribed burners should expect to pay some fees related to an air district's costs for providing forecasting, review, inspection and administrative services. Whether an existing fee changes or remains the same will vary, depending on the details of a respective air district's program, the sufficiency of existing fees, and most likely, the type and complexity of burn. Historically, burns from production agriculture have been simpler to evaluate and approve, and may not require additional air district resources.

165. Comment: The Secretary of the U.S. Department of Agriculture (USDA) has been encouraged to consider subsidizing fees that could be assessed by air districts on farmers and the USFS to implement air district smoke management programs. Any fee assessed should be fair and appropriate. (NFL (Cunha))

Agency Response: Given that fees are a serious concern for many burners, we agree it would be helpful if the USDA Agriculture and Air Quality Task Force recommended that funds for payment of equitable fees be part of the USDA and other federal agencies' budget appropriations.

166. Comment: These changes would cause a fee of some unknown amount to be assessed to either CDF or the landowner. Ranching is, at best, a financially marginal business and does not need the burden of new fees. (Cooley Ranch)

Agency Response: Fees are not the only mechanism for recovering program costs. As explained in prior responses, ARB is committed to working with the districts and others to identify additional funding sources. The CDF is also seeking General Fund monies to be budgeted for air district fees or other smoke management program costs. With regards to agreements for shared costs and in-kind services, it is recognized that ranchers who contract with the CDF to conduct burns often supply in-kind support of equipment, facilities and personnel during burns. These factors will be taken into account during the discussion of equitable fees.

167. Comment: Both the air districts and the staff of ARB consult with meteorologists hired by the California Wildfire Coordinating Group (CA WCG) for smoke management forecasts, a good use of taxpayer dollars to accomplish both air quality and fire management programs. However, it is said that the San Joaquin Valley Air Pollution Control District (SJVAPCD) has declined the offer of assistance. Instead, the air district plans to charge the fire agencies fees to cover the cost of establishing its own smoke management meteorologist. The proposed regulation would present a substantial financial burden to those air and fire districts which need to add a meteorologist to their staff or to finance meteorological capabilities in order to improve their existing burn permit programs. The additional costs will impact the air district's burn stakeholders. (CA WCG; El Dorado NF; USFS; SBFCD)

Agency Response: The ARB hopes to keep down costs by cooperating with air districts and fire agencies to provide meteorological data and services from the ARB meteorology section and fire agency meteorologists. Several air districts already handle all of these functions; others, especially large air districts or those with a significant amount of prescribed burning, may need to add additional meteorological capabilities. In other areas, ARB meteorologists may be able to provide the meteorological support where it is needed and to facilitate the sharing of meteorological data. As resources and needs are evaluated statewide, it is likely that air district meteorologists will provide complementary services for subregions in air basins, especially in marginal burn day situations.

ARB is also working with the air districts and others to identify funding sources to recover the costs involved. The Board Resolution approving the Guidelines directed ARB staff to work with the air districts and other agencies on methods to share data and resources and provide more efficient program operation. The Technical Tools Working Group was established with representatives of ARB, the air districts (including the SJVAPCD meteorologist), the USFS and the CDF (two of the seven agencies comprising the CA WCG.) The Working Group's purpose is to investigate the feasibility of developing and sharing available resources and technical information to promote efficient and consistent implementation of the smoke management program. The Technical Tools Working Group is evaluating what menu of services will be most useful. Electronic postings of daily data may be of significant help. It is possible that proximate counties would choose to share some meteorological costs and services. In addition, the Alternative Meteorological Criteria Working Group will convene existing

meteorologists from the air districts, land management agencies and ARB to determine what alternatives methods or criteria could or should be recommended for forecasting burn days, that would be less burdensome but equally, or more, reliable.

168. Comment: It is requested that the North Coast's cooperative program be allowed to continue under the proposed Guidelines so that the cost of burning will not increase. These proposed additional regulations will impose costs and permitting complexity that will lead to a decrease in agricultural and prescribed burning, contrary to the stated purpose (section 80100). The proposed regulation would create a cumbersome planning and permitting process that would not be responsive to the needs of those attempting to carry out prescribed burns on the North Coast, and that would necessitate a significant expansion of the air district's staff. Private industry already contributes to the operation of the cooperative with the air district and the fear is that if costs increase, burning will ultimately stop. (Scotia (Rodgers); Simpson)

Agency Response: ARB staff looked at the North Coast program in detail and agreed that the Humboldt Bay Cooperative Program works for that area. The North Coast Unified Air Quality Management District (NCUAQMD) made some additional adjustments to expand it to the entire North Coast Air Basin and has submitted it to the ARB for approval as a program under section 80145 of the Guidelines. NCUAQMD has been very proactive in demonstrating how its existing program will satisfy the new regulations. Significant new costs are not expected. ARB will continue to work with the NCUAQMD to monitor program implementation and to find supplemental financial or in-kind support.

### **iii) Air Districts' Concerns with Potential Program Costs**

169. Comment: The primary factor in the success of the update to the Guidelines for agricultural burning is obtaining funding for air districts to implement the program. CAPCOA worked jointly with ARB to provide estimates of the cost of the program to avoid underestimating fiscal impacts at the local level in the Staff Report. CAPCOA also worked jointly with the ARB staff to clarify the funding impact of the program. Without additional funding for startup and operations, full implementation of this program will be difficult for most air districts. ARB and CAPCOA are encouraged to continue their joint and separate efforts to obtain both start-up monies and long-term funding for this program. (CAPCOA; Sac Valley BCC)

Agency Response: ARB will continue to work with all parties to find the needed funds and to explore applications and in kind services that will reduce costs but sustain our air quality efforts. ARB gratefully acknowledges that CAPCOA was instrumental in estimating preliminary program costs and has continued to work with all stakeholders to identify funding sources to recover both start-up and long-term program costs.

170. Comment: The requirement for agricultural burns greater than 10 acres in size to submit burn plans to the air district is a new program, which not only establishes a

new regulatory oversight of agricultural operations but also fails to identify funding resources to implement the new program. We strongly urge the ARB to include funding resources for these new program requirements. (Santa Barbara)

Agency Response: There is no new requirement for burn plans from those who conduct burning associated with agricultural production. The reference to the 10-acre threshold is found in section 80160, which applies only to prescribed burning and prescribed fires in wildland and wildland/urban interface areas. With regard to prescribed burning thresholds, section 80160 (f) of the revised Guidelines allow thresholds to be flexible, depending on local needs. These provisions were included in recognition that some air districts are dominated by public forested lands while others may have burning primarily associated with agricultural production or rangeland. These types of burns produce different quantities of pollutants and each air district will tailor its smoke management program according to its needs. With regard to funding resources for air district programs, the ARB is committed to working with the air districts to develop their smoke management programs cost-effectively and to find sources of funding, in addition to local fees. Nevertheless, the air districts are authorized to use fees to cover their costs, and some fee increases may be warranted.

171. Comment: The following sections have requirements that constitute a new program for which no funding resources have been identified: section 80120(a), 80130(a) and (b), 80145(a), and 80160(a). Additional text should be added to the Guidelines in title 17 mandating that “each district shall adopt fees adequate to cover the costs associated with this program.” If an air district is not able to enact a burn fee regulation, it will not be able to implement section 80160 of the Guidelines. (SJVAPCD; Lake County)

Agency Response: As noted in preceding responses, ARB is committed to working with the air districts and others to identify funding sources to supplement equitable air district fees. Air districts already have the authority under section 42311 of the HSC to recover all of their permit program costs through fees. Therefore, it is unnecessary to include such language in the regulations. Good smoke management depends on the coordination of actions in adjacent air districts and air basins. That is why ARB is supporting technical and financial means to promote cooperation in smoke management activities among agencies and land managers, public and private, who control or conduct burning throughout the State.

172. Comment: The air district will need to add a 0.5 full time employee position to handle the increased tracking, monitoring and reporting requirements of the proposed Guidelines. ARB's assistance is requested in encouraging the State to increase subvention funding to air districts to at least partially offset the additional costs that the air districts will incur. (SCAPCD)

Agency Response: With the air districts and other stakeholders, ARB is investigating several sources for public funding. ARB supports CAPCOA's efforts to increase

subvention funding to the air districts, and to allow these funds to be used to support the costs of air districts' smoke management programs.

173. Comment: State and federal land managers have attended burn permit fee hearings around the State in the past to oppose increases in fees. These same land managers have recently expressed an intent to continue this opposition to fee increases related to recovering the costs related to the proposed Guidelines. The air district requests that ARB take a leadership role in stopping this undermining of the smoke management program by a "sister" agency. Air districts should not be required to absorb all of the costs of implementing the Guidelines, using their non-fee fiscal budget. Fees should be required to recover at least part of the costs of smoke management programs in California. (Northern Sierra; Northern Sierra (Hill))

Agency Response: Since the public hearing, ARB and stakeholders have been working together in the smoke management program implementation working groups to determine how to contain costs statewide and to find sources for cost recovery in addition to fees and air district fiscal budgets. The Program Resources, Program Needs and Cost Recovery Working Group is committed to work together to develop a strategy for cost recovery that reflects everyone's interest. Part of the exercise will be to distinguish which aspects of burning and smoke management have public versus private benefits. This determination is important for all the public agencies, whether or not they are also burn agencies, in order to justify use of public funding sources. Another part of the exercise is determining what in-kind services can be provided by entities who burn. These services could include assistance with forecasting and public notification, among other things. They defray some of the costs of implementing air district programs. All of the parties, public and private, recognize the possibility that air district fees may be inevitable and have been discussing what criteria could be used to develop equitable and reasonable fees. Public versus private benefits, mitigating features, and in-kind services to be provided are some of the factors being discussed.

#### **d) Potential Environmental Impacts and CEQA Issues**

174. Comment: The State's water, air, soil, timber, wildlife, aesthetics, recreation, human and economic resources are interconnected. The interests of all agencies should be coordinated before regulations are passed so that each agency doesn't micro-manage just the resource it is responsible for. Even the CEQA process does not guarantee that all agencies, federal and State, will not adopt regulations that work at cross purposes. The land resource manager who tries to comply with all regulations is left with conflicts in deciding which resource has priority for protection. For instance, the Staff Report states on page 41 that prescribed fires in wildlife habitat and riparian ecosystems may pose unacceptable consequences and that mechanical treatments might be the preferred alternative. But there are many wilderness areas where mechanical treatment can be too damaging or is not feasible. Mechanical removal of biomass, as an alternative to burning, can increase soil erosion from the use of ground disturbing equipment. Non-point source pollution could then impact surface water

quality. The decision as to which treatment is most appropriate must be left to the land manager, who has the professional education and experience to make the decision. (Evans; El Dorado NF; USFS)

Agency Response: ARB is charged with developing rules and regulatory programs focused on preventing adverse impacts to air quality, determined by standards and criteria for protecting public health and visibility. We agree that seamless coordination is more often met in the breach than in the observance, but it is worth making the effort at every opportunity. Both CEQA and the public rulemaking process are meant to promote interagency coordination so that a proposed rule can be evaluated in the light of all aspects of environmental quality. The revised Guidelines are designed to allow flexibility in selecting the most suitable means of vegetation management. There are many methods of vegetation management that meet other public interest and natural resource protection goals, while also reducing smoke impacts. These include biomass utilization for energy recovery and mechanical treatments that can return nutrients to the soil. All of these means have beneficial and adverse impacts that must be weighed.

In order to facilitate the required process for review of alternatives at the burn project level, section 80160(c)(5) has been modified in the revised Guidelines to allow an alternative analysis from a NEPA or CEQA document to be attached to the smoke management plan in lieu of preparing another document.

175. Comment: ARB's Staff Report did an inadequate job of evaluating the environmental impacts related to the proposed revision to the Guidelines in title 17. It raises questions about what sort of environmental impact analysis will be required from the air districts when they develop their smoke management programs and related rules. Most rural air districts are not equipped to resolve these issues on their own and request guidance and assistance in navigating through the CEQA requirements. Specifically, the air district and CAPCOA request assistance in developing a Programmatic EIR for the air districts' use in rule adoption and implementation of the program at the local level. This programmatic EIR would eliminate a duplication of effort among air districts throughout California. (MBUAPCD; CAPCOA; Northern Sierra; Northern Sierra (Hill); NSCAPCD; NSCAPCD (Lee))

Agency Response: Chapter 11 of the Staff Report addressed the environmental impacts from changes in prescribed burning activities that will occur as a result of implementation of the Smoke Management Guidelines at a statewide level. In response to this concern, the Board resolution approving the Guidelines directed ARB staff to work with CAPCOA to develop a programmatic environmental impact report (EIR) template that can be used by the air districts in performing environmental impact assessments of their smoke management programs. The Board further directed ARB staff to assist the air districts, as requested, in the assessment of environmental impacts associated with burn projects. ARB has contracted with consultants to prepare an Environmental Impact Report (EIR) template. The programmatic EIR template will include discussions of air quality and non-air quality environmental impacts,

alternatives to burning, and impact mitigation. This information can be used by the air districts to support adoption of their respective programs and to evaluate smoke management plans for burn projects. With CAPCOA, ARB has convened an EIR Tool Development Working Group comprised of ARB, air districts, land management agencies and other stakeholders. This working group will provide guidance and assistance to the consultants preparing the programmatic EIR template and serve as a forum for discussion of environmental issues that may arise during air districts' program development.

176. Comment: If a NEPA analysis does in fact provide an analysis of alternatives, then it should be linked to the regulations. If a NEPA analysis has been done by federal agencies, such as the USFS and the Bureau of Land Management (BLM), who plan to increase prescribed burning, it can be attached to the burn report. Overall, the single most significant issue is what the USFS can do in terms of alternatives to burning so that their impact is minimized on the entire program in the State. (CFA (Bischel))

Agency Response: As a result of discussion of this issue at the public hearing, language was added to section 80160(c)(5) and included in the 15-Day Notice of Public Availability of Modified Text. The revised language states that if an alternatives analysis is prepared as part of the NEPA documentation, it can be included in the smoke management plan submitted by a burn permit applicant to meet the requirements of section 80160 of the revised Guidelines. Although the commenter mentioned the burn report, ARB assumed from the context of the comments that the intention was for the alternatives to be considered beforehand, not after-the-fact. If the NEPA alternatives analysis were attached to the burn report, which is prepared after the burn takes place pursuant to section 8061(k), it would not serve the same purpose of assuring that alternatives were considered during planning and prior to the burn.

177. Comment: The amendments should direct air districts to participate in NEPA planning processes in order to ensure that federal burns meet air quality goals and that air district concerns are addressed during planning. If necessary, the amendments should provide guidance to federal agencies regarding any new analysis that would be useful additions to prescribed burning NEPA documents. (Wheelabrator (Jolley); CNPS)

Agency Response: We agree that ARB and air district participation in the NEPA planning process is a useful way to ensure that protection of air and smoke management are addressed at the outset of planning for federal burn projects. ARB has participated in the development process for the USFS's Sierra Nevada Forest Plan Amendment Draft Environmental Impact Statement primarily to ensure this particular programmatic NEPA document includes smoke management considerations. ARB staff is also evaluating the possibility of including an element on NEPA and CEQA review procedures in the Compliance Division's training program for smoke management offered to air district staff. Participation in the early stages of draft development is

valuable as well as commenting during final reviews. Ultimately, it is the responsibility of each air district to decide when to participate in the NEPA process even though continuous participation by air districts is sometimes limited by available staff resources. At a minimum, section 80160 (c)(5) of the Guidelines has been revised to indicate that it is acceptable for an entity to submit their NEPA or CEQA alternatives analyses to meet the smoke management plan requirement for an alternatives analysis.

178. Comment: The environmental analysis in the Staff Report should address the impacts of all means of compliance. The report only addresses the impacts of burning. (MBUAPCD)

Agency Response: The purpose of the ARB action is to amend our Guidelines for agricultural, including prescribed, burning. As such, the Guidelines will facilitate and manage the application of fire as a tool for vegetation management in such a way as to minimize smoke impacts. Adherence to the Guidelines will have a salutary effect on the environment, not a negative one. The ARB complied with Public Resources Code (PRC) section 21080.5 in preparing the environmental discussion in the Staff Report/ISOR. Alternatives to the staff proposal and mitigation measures were discussed. In order to provide air districts with maximum flexibility in developing their smoke management plans and programs, the Guidelines set forth criteria and program elements with which the air districts must comply, but the Guidelines do not regulate individual burn projects.

As an agency with a certified regulatory program, the ARB is not required to prepare and certify EIRs. Moreover, since we are not adopting a rule or regulation requiring the installation of pollution control equipment, or a performance standard, compliance with PRC section 21159, which requires an analysis of the reasonably foreseeable methods of compliance, is not required. Nor, at this stage of the statewide agricultural burn program, is it logical or feasible. The Guidelines do not require the use of other means of vegetation management besides burning and it is speculative at this stage to make assumptions about choices other than burning.

The alternatives that CEQA requires the ARB to discuss are alternative provisions in the Guidelines regarding smoke management, not alternatives to burning. Nevertheless, in order to ensure consideration of burn impacts at the local level where the burn projects are managed, the Guidelines do provide that those conducting large prescribed burns must demonstrate to the air districts that they have considered alternatives to burning prior to obtaining a burn permit. Some federal and State agencies will address this alternatives analysis through the NEPA/CEQA process to the extent they have prepared an EIS/EIR for their burn projects. Other burners and permitting agencies will need to prepare proper environmental documents for their projects in accordance with NEPA/CEQA. The identification and impacts of alternatives to burning are specific to the burn program of each air district as well as to the burn project itself, as are feasible mitigation measures, and these could not be quantified with any degree of precision at this time.

Nevertheless, a general discussion of alternatives to burning was set forth on pages 40-41 of the Staff Report. The various alternatives (chipping, maceration and burial, selective understory thinning, mulching, animal grazing, herbicidal treatments, and removal for biomass conversion to energy) can all be used in addition to, or in place of, burning. In addition to quantifying air emissions, project proponents will need to judge the impacts of alternatives against the same parameters as discussed for burning on pages 50-56 of Chapter IX of the Staff Report. The assessment of environmental impacts from alternatives to burning will necessarily be conducted in further depth at the time burners apply for burn permits because natural and economic conditions vary so greatly from project to project. The air districts will bear much of the burden of any further CEQA analysis. To assist in this effort, the ARB has contracted with the University of California Riverside to provide additional information about the impacts of burning, alternatives to burning and their impacts, and mitigation measures, in an EIR template that air districts can utilize at the time they adopt their revised smoke management programs. Burners will also be able to utilize this information in their environmental documents, including their alternatives analyses. There is interest in increased utilization of biomass from crop waste and forest management. ARB will continue to assist as needed in determining the air pollutant emissions from these biomass facilities.

179. Comment: Prescribed burning will increase as a result of the proposed revisions to the Guidelines in title 17 due to "marginal burn days". The environmental impact section of the report does not address this quantitatively with regard to particulate matter, ozone and regional haze. The final Staff Report should explain how ozone and particulate levels and regional haze criteria will be improved when burns, ozone precursors, and particulate emissions are expected to increase. The CEQA analysis in the Staff Report does not contain any numbers on expected emissions from the increased amount of prescribed fire, how the regulation will affect the emissions, and if the regulation will hinder the ability of the State to meet federal and State ambient air quality standards. The ARB should provide data and analysis to evaluate these effects. (Amador; MBUAPCD)

Agency Response: The existence of "marginal burn days", a new smoke management tool in the revised Guidelines, will not be the cause of increases in prescribed burning. Based on the estimates provided by the public land management agencies, prescribed burning will increase within the next three years. The increase in prescribed burning is part of a long-range effort to restore our forests by using prescribed burning to approximate the natural rate of fire return for the respective forest ecosystem. There are estimates that increased prescribed burning in California through the mid-21st century would occur before a steady-state level could be reached.

The key purpose of the marginal burn day is to provide additional opportunities for limited prescribed burning within suitable subregions of an air basin where the overall conservative forecast for the entire air basin would be a no-burn day. To do this, ARB

meteorologists, working with air district meteorologists, will determine where local conditions can accommodate good smoke dispersal without causing exceedances of air quality standards within the air basin. The ARB analyzed decisions for burn-no burn days in the Mountain Counties and the North Central Coast Air Basins as two example of air basins with subregional carrying capacities. Staff determined that 10-25% of the days during the September-November burn season could be marginal burn days. On these days, in the appropriate locations, a limited amount of burning, e.g. the equivalent of one to two tons of PM10, NOx and VOC emissions, could be allowed without jeopardizing ambient air quality.

The ARB is also currently working in partnership with other western states to develop strategies to reduce regional haze. California and the other western states are also evaluating strategies to reduce emissions from non-burning source categories, including motor vehicles, power plants, and other mobile and stationary sources, in a comprehensive effort to achieve national goals for regional haze reduction and visibility improvement.

All of the proposed changes to the Guidelines are designed to accommodate increases in prescribed burning without increasing localized smoke impacts that may constitute a public nuisance or exceedances of air quality standards due to prescribed burning alone. While annual emissions from prescribed burning will increase, the intent of the revised Guidelines is to partition these emissions over an increased number of days so that the impact on regular burn days is not as severe as it would be without the revisions. It is also possible that daily averages could improve, or annual concentrations could decrease at certain locations as better decisions for smoke dispersal are made.

180. Comment: The final Staff Report should evaluate the reliability of ARB's air quality forecasts. (MBUAPCD)

Agency Response: As mentioned before, the staff report is final and will not be revised. Regarding air quality forecasts, two kinds are made by ARB meteorologists. The first consists of intrinsic forecasts needed when agricultural burning decisions are made (for air basins, districts or specific locations, usually sites of proposed burning). These forecasts are usually unwritten estimates used at the time by the meteorologist. The forecasts are based on expected conditions of atmospheric stability, potential for dispersion and transport, reported visibility at airfields, known current and expected smoke impacts, and specific, but very limited, air quality information available near real-time to our duty meteorologists. This type of forecast of general air quality for a given area has worked well for our many data-sparse areas of the State.

The second type of forecasts consist of specific air quality forecasts made for a few select cities in the State to track ongoing pollution conditions on a daily basis. Besides being used internally at the ARB, several of these daily forecasts have been provided to air districts to give them a first cut at what values they in turn provide to the public in

support of local or regional Pollutant Standard Index (PSI) or Air Quality Index (AQI) programs. Although air districts would be the best judge of how reliable those forecasts are for their purposes, such forecasts have worked reasonably well (based on limited statistical verification efforts and on daily comparison of actual versus predicted values by the duty meteorologists) for ARB's smoke management and episode prediction programs.

Both air quality and meteorological data are used in making the daily burn/no-burn decision. In making the burn/no burn day decisions for an air basin, ARB meteorologist considers the real-time air quality data available, the types and amounts of burning likely to occur that day, and whether the atmospheric mixing conditions are sufficient to lift and disperse smoke without causing exceedances of air quality standards. The ARB meteorologists also, at times, receive input from air district staff familiar with local conditions, before making the air basin burn/no-burn decision. The ARB and the air districts will continue to evaluate the impact of their decisions in terms of successful smoke dispersal, smoke incidents, and monitoring data to develop a better understanding of local conditions and smoke-carrying capacity.

181. Comment: ARB's environmental analysis in Chapter 10 of the Staff Report is insufficient for making decisions that can have major environmental consequences. The report fails to address long-term emissions tradeoffs between prescribed fire and wildfire. It also fails to address potential effects on species that require fire to survive, particularly threatened and endangered species. The ARB should have used some of the current modeling techniques, such as the Fire Effects Trade/Off Model, the First Order Fire Effects Model, and the Fire Effects Information System, in the analysis. (El Dorado NF; USFS)

Agency Response: The purpose of the revised Guidelines is to allow increased prescribed burning at times when smoke can be effectively dispersed. The judgment of whether or not to select prescribed burning as the preferred vegetation management tool is made by the land manager who balances environmental, technical, and economic impacts of the alternatives for each project. The potential for a wildfire occurring in a given location is always a possibility, but the probability is difficult to determine statewide. The calculation of trade-offs between wildfire and prescribed fire emissions would require a more complete knowledge of the acreage for each ecosystem type in the State, natural rates of fire return for each vegetative subtype within each ecosystem and knowledge of the long-term plans for land managers conducting prescribed burning. The land managers develop this information for their projects. What we do know is that for any given forested acre, a wildfire generally emits more air pollutants than a prescribed fire because it burns hotter and consumes more fuel. Prescribed fires are controlled burns that are managed to burn at lower temperatures and to consume less vegetative material resulting in fewer emissions. ARB will encourage federal agencies to conduct trade-off analyses. The federal agencies, as a part of the NEPA analysis, also address the impacts of fire on endangered species and habitat, including those vegetative species that need fire to

trigger reproduction or those habitats that can be maintained by burning off invasive or deleterious plants.

Some of the models mentioned are in the development stage. They are still being refined for application to different forest ecosystems and to California situations. ARB has contracted with University of California researchers to provide emission factors for different burn situations using California plant species. As these emission factors and models become more reliable, ARB will work with the USFS and other burn agencies to apply the models to assess emissions from prescribed burning and wildfires. These will be useful in short-term analyses and with long-term planning efforts as we work together to develop means to achieve full attainment of the State and federal air quality standards in California and to respond to federal regional haze requirements in the western states. See also the Agency Response to Comment #178.

## **B. Comments Received During the 15-Day Comment Period**

In response to the Notice of Public Availability of Modified Text, the Board received 10 letters with written comments from the following:

<b>ABBREVIATION</b>	<b>COMMENTER</b>	<b>COMMENT FORM/ DATE</b>
BAAQMD	Bay Area AQMD	Written/6/26/00
BCAQMD	Butte County AQMD	Written/7/6/00
CRC	California Rice Commission	Written/7/6/00
Johnson	John R. Johnson Jr.	Written/6/29/00
Mooney	Law Offices of Donald B. Mooney	Written/7/6/00
NFL	Nisei Farmers League	Written/7/5/00
NV DEP	Nevada Division of Environmental Protection	Written/6/23/00
Siefken	Milton H. Siefken	Written/6/30/00
SOAR	Save Our Air Resources (SOAR)	Written/7/7/00
Wheelabrator	Wheelabrator Environmental Systems Inc.	Written/7/5/00

Set forth below is a summary of each objection or recommendation regarding the proposed amendments, or the procedures used by the ARB, together with an explanation of the reasons for making no further change to the proposed Guidelines.

## **ARTICLE 1.**

### **A. DEFINITIONS (Section 80101)**

No additional comments.

### **B. SCOPE AND APPLICABILITY (Section 80102)**

#### **a) General**

1. 15-Day Notice Comment: ARB provided insufficient time to review the final Smoke Management Guidelines proposed in title 17 that the Board delegated to the ARB Executive Officer for "Final Rule-Making." (BCAQMD)

Agency Response: The Administrative Procedure Act contemplates that regulatory language may change from the originally proposed text as a result of the public hearing process (see Government Code section 11346.8(c)). As long as the changes are within the scope of what was proposed in the 45-day notice of proposed rulemaking, the changes can be made after they are circulated for public review and comment for a 15-day period. The substantive changes directed by the Board at the March 23, 2000 hearing, as a result of the robust discussion of the regulation before and at the hearing, were within the scope of the original notice and presaged by the text of the originally proposed regulation. Indeed, the purpose of having a public hearing is to allow the decision-maker to address public testimony by directing that substantive changes be made to proposed regulations. All of the changes to this regulation were directed by the Board in response to comments. Because they are substantive in nature, an additional 15-day comment period was provided in accordance with the Administrative Procedure Act. The 15-day Notice was released on June 20, 2000, satisfying the legal requirement for notice and comment in the Administrative Procedure Act, and thereby complying with the Government Code section 11346.8(c).

### **C. PERMISSIVE-BURN, MARGINAL BURN, OR NO-BURN DAYS (Section 80110)**

No additional comments.

### **D. BURNING PERMITS (Section 80120)**

No additional comments.

## **E. BURNING REPORT (Section 80130)**

No additional comments.

## **ARTICLE 2.**

### **F. SMOKE MANAGEMENT PROGRAM (Section 80140)**

No additional comments.

### **G. PROGRAM ELEMENTS AND REQUIREMENTS (Section 80145)**

2. 15-Day Notice Comment: The alternative burn authorization system set forth in section 80145 (b) as revised is a major change that requires public notice and comment. (Mooney)

Agency Response: The changes to section 80145(b) were the subject of extensive discussion at the March public hearing. They were made as a result of testimony by several air districts and were made available for public comment for at least 15 days (June 20, 2000 – July 6, 2000).

3. 15-Day Notice Comment: The evaluation method presented in section 80145(b) to approve an alternative burn authorization system lacks specificity because it permits the use of unlisted criteria in making the determination. (Mooney)

Agency Response: See Agency Response to Comment #81. The modifications to this section include more specific criteria for approving exemptions. These criteria include consideration of the rules and regulations of the air district relating to agricultural burning, historical data on the amount, types, locations, and impacts of agricultural burning in the air district, and the effectiveness of the smoke management program in place in the air district.

The modification also allows consideration of other documentation provided by the air district. This is necessary and appropriate due to the inherent differences in local programs. Examples of other documentation to consider are provided in the assessment of the Lake County APCD evaluation attached to the 15-Day Notice.

4. 15-Day Notice Comment: The ARB fails to demonstrate that it has the authority to adopt the revised Guidelines concerning air district responsibilities. In section 80145(g), the proposed action requires air district programs to include procedures to authorize prescribed burns up to 24 hours in advance of ignition, thereby removing the authority of an air district to terminate authorization prior to ignition if unfavorable conditions exist. The Guidelines remove from air districts the authority to make burn day determinations, even though they also direct air districts to monitor and include in their programs the criteria for making such decisions. (BCAQMD)

Agency Response: We disagree. Section 80145(g) requires air districts to include in their programs procedures for the air districts to authorize individual burns 24 hours prior to ignition of prescribed fires. This authorization recognizes that any burn decision made 24 hours in advance is always subject to change if meteorological conditions or conditions affecting smoke dispersion are different from those anticipated. This in no way removes the authority of an air district to terminate authorization prior to ignition if unfavorable conditions exist.

## **H. OPEN BURNING IN AGRICULTURAL OPERATIONS (Section 80150)**

No additional comments.

## **I. SACRAMENTO VALLEY BASINWIDE PROGRAM (Section 80155)**

No additional comments.

## **J. PRESCRIBED BURNING (Section 80160)**

### **a) General**

5. 15-Day Notice Comment: Section 80160(h) lacks clarity and is difficult to understand with regard to implementation procedures. (Mooney).

Agency Response: Section 80160(h) requires that when a natural ignition occurs on a no-burn day, the initial "go/no-go" decision by a fire safety and control agency to manage the fire for resource benefit will be a "no-go" unless certain conditions are met. A "no-go" decision does not necessarily mean that the fire must be extinguished, but rather, if the land management agency wishes to manage the fire as a prescribed fire for resource benefit, a smoke management plan and air district approval must be obtained to allow the fire to continue to burn. Section 80160(i) requires a land management agency to submit a smoke management plan for the fire within 72 hours after ignition, if it is expected to exceed 10 acres in size. Sections 80160(h) and 80160(i) will require a land management agency, wishing to manage a naturally ignited fire for resource benefit, to provide information to the air quality manager to assure that smoke will be managed in the most effective way and that smoke impacts will be minimized. A land management agency will have to provide information such as the likely amount of material that will be burned, the likely smoke emissions that will occur, smoke sensitive areas that could be impacted, measures that will be taken to minimize such impacts, and meteorological and air quality prescriptions that must be followed. The revised Guidelines were modified, as described in the "15-day Notice of Public Availability of Modified Text," to clarify contact and approval procedures in section 80160(h). Language was added to allow continuation of a naturally ignited fire managed for resource benefits for: a) periods of less than 24 hours if a reasonable effort has been made to contact the air district, or if the air district is not available, the

ARB; and b) after 24 hours, if the air district has been contacted, or if the air district is not available, the ARB has been contacted, and the air district or ARB concur that the burn can be managed for resource benefit.

## **K. EXEMPTIONS (Section 80170)**

6. 15-Day Notice Comment: Resolution 00-8 states on Page 6: "BE IT FURTHER RESOLVED, that this regulation shall apply to any air district that adopts, implements, or amends a rule or regulation that regulates agricultural burning, including prescribed burning." This language is problematic because it implies that the Guidelines would apply to the Bay Area AQMD if it amends its District Regulation 5. The Bay Area AQMD is exempt from the Guidelines pursuant to Health and Safety Code section 41864. The Bay Area AQMD is committed to compliance with the Guidelines, but does so voluntarily and cannot have its exemption subsumed by the adoption of these amendments. (BAAQMD)

Agency Response: Resolution 00-8 has been certified by the Clerk of the Board and cannot be changed. In addition, we do not believe the language is problematic because State law takes precedent over language in any resolution.

Health and Safety Code section 41864 states that ARB's agricultural burning Guidelines shall not supersede any rule or regulation of any air district, which rule or regulation was in effect for five or more years prior to September 19, 1970. The Bay Area AQMD did have rules and regulations in place five or more years prior to September 19, 1970. The purpose of this grandfather provision was to avoid disruption of long standing air district programs by requiring rule revisions. However, the rules that comprise the Bay Area AQMD agricultural burning program have been amended several times since their adoption, such that the rules in effect now are quite different from the rules in effect as of September 19, 1970. As a result, the ARB staff believes the exemption no longer applies.

In any case, the Bay Area has committed to modify its legally enforceable rules to implement the Guidelines on the timeframes listed in the Guidelines.

## **ARTICLE 3.**

### **L. METEOROLOGICAL CRITERIA**

No additional comments.

**C. Comments Received During the 15-Day Comment Period that are not Germane to the 15-Day Notice Changes**

Although the Administrative Procedure Act, in section 11346.9(a)(3) of the Government Code, does not require the agency to summarize the objections or recommendations received on the elements of the Guidelines not subject to the additional 15-day public comment period, ARB staff has prepared some additional responses to give further clarification of the Guidelines. These comments and the agency response are set forth below.

**ARTICLE 1.**

**A. DEFINITIONS (Section 80101)**

1. 15-Day Notice Comment: The terms “prescribed burning” contained in section 80101(v) and “prescribed fires” contained in section 80101(w) seem to apply to the same burning activity, yet different terms are used. (Mooney)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, the terms “prescribed burning” and “prescribed fires” are intended to apply to the same burning activity. Because agencies use these terms interchangeably, both definitions were included in section 80101 to clarify that the Guidelines are applicable to this activity, regardless of terminology used.

**B. SCOPE AND APPLICABILITY (Section 80102)**

**a) General**

2. 15-Day Notice Comment: The ARB fails to demonstrate the necessity of the revised Guidelines. It does not possess authority to make rules without first finding an air district negligent in complying with its delegated authorities. It oversteps legal authority by developing requirements which fail to be based on available scientific and technical criteria. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, it is addressed in the Agency Response to Comment #7.

3. 15-Day Notice Comment: The ARB adopts Guidelines based on unreliable scientific and technical criteria, and it fails to continuously review Guidelines for technical and scientific accuracy. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, it is addressed in the Agency Response to Comment #8.

4. 15-Day Notice Comment: The ARB's proposed Guidelines are vague and lack clarity. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, the Guidelines have been designed to provide both structure and flexibility so that air districts may tailor their programs to meet their individual needs.

5. 15-Day Notice Comment: The ARB fails to treat air districts or agencies equally. ARB also fails to demonstrate the consistency of the revised Guidelines. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, it is addressed in the Agency Response to Comment #18.

6. 15-Day Notice Comment: The North Coast Unified AQMD has operated a successful smoke management program for ten years in consideration of local circumstances. The program is comprised of many components whose implementation is threatened by the ARB's proposed changes to the Guidelines. (Mooney)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, it is addressed in the Agency Response to Comments #26 and #70.

7. 15-Day Notice Comment: The revisions to the Guidelines fail to qualify as "necessary" because agricultural and prescribed burning are not likely to increase in California. (Mooney)

Agency Response: This comment is not germane to the 15-day changes made by the Board. Nevertheless, information supplied by State and federal forest management agencies indicated that a policy change in favor of reducing fuel loading and enhancing natural ecosystems through increased burning was likely over the next decade. Numerous other factors such as increased population and the encroachment of urban areas on previously agricultural and forested lands supported the ARB's determination that the burn program had to be updated and improved. The record supplies abundant evidence that program enhancements were necessary.

8. 15-Day Notice Comment: The ARB did not develop guidelines for "each" air basin, as required by HSC section 41856. (Mooney)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, it is addressed in the Agency Response to Comment #11.

9. 15-Day Notice Comment: Burning military munitions or the waste in any form should not be allowed. Uptake of soil contaminated by them creates more air pollution during a burn. Military waste is not an agricultural by-product, and should be regulated and controlled. The HSC sections 41700 and 41705 should be enforced/invoked for human health protection in California. (SOAR)

Agency Response: This comment was submitted late and is not germane to the 15-day changes made by the Board. The proposed Guidelines only pertain to agricultural and prescribed burning. Therefore, the control of munitions is beyond the scope of this regulation and the requirements in the HSC to adopt agricultural burning Guidelines. However, some air districts have enacted regulations that govern the detonation/disposal of military munitions in any form. For more information, we suggest you contact the appropriate air district.

10. 15-Day Notice Comment: The State of California needs encouragement to reduce as much duplication as possible by fellow agencies, so that the implementation of the smoke management program would be the most cost effective for the needs of the agencies, along with many of our industries. Each industry should and needs to be responsible for its own cost of implementation. We would like to encourage the ARB, along with the federal Government, to make grants and incentives available to help the private industries with technology through tax incentives. (NFL)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, the ARB is committed to working with air districts and stakeholders to fund the costs associated with implementation of the Smoke Management Guidelines. To facilitate this, the ARB has established a working group with the California Air Pollution Officers Association (CAPCOA) and other stakeholders to assess appropriate fee structures to ensure equity and a level of uniformity to burners and other stakeholders.

11. 15-Day Notice Comment: The city of Redding, California, permits limb and leaf burning during the fall months. However, the city also has an excellent garbage service that will remove limbs and leaves during this time period. This burning is hazardous to our health as well as the atmosphere. These leaves and limbs should be made into mulch, not smoke. (Siefken)

Agency Response: This comment is not germane to the 15-day changes made by the Board. We appreciate your concerns; however, the letter is outside the scope of the Guidelines. Your letter has been forwarded to the Shasta County Air Quality Management District in Redding so that your concerns and ideas can be taken into account.

**C. PERMISSIVE-BURN, MARGINAL BURN, OR NO-BURN DAYS  
(Section 80110)**

No additional comments.

**D. BURNING PERMITS (Section 80120)**

No additional comments.

## **E. BURNING REPORT (Section 80130)**

No additional comments.

## **ARTICLE 2.**

### **F. SMOKE MANAGEMENT PROGRAM (Section 80140)**

#### **a) Appeal Procedures**

12. 15-Day Notice Comment: The proposed Guidelines uphold the Sacramento Valley program as a model in one instance and in the next eliminate local control, thus undermining one of the most essential elements of the model. We request that the Board adhere to the current Sacramento Valley program and modify the Guidelines to be consistent with this model by preserving local control. (CRC)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, ARB supports flexibility and local control for regional air quality plans. Certain basic criteria must be met, however, oversight responsibility resides with the ARB. Such oversight is not exercised frivolously. As per section 80140(f), prior to disapproval, the ARB Executive Officer shall confer with the air district regarding the reasons for the proposed disapproval. Following such conference, a decision to approve or disapprove the program, portion of a program, or amendment of a program shall be considered by the ARB Executive Officer. Thus, there is sufficient opportunity for local input and remediation.

### **G. PROGRAM ELEMENTS AND REQUIREMENTS (Section 80145)**

13. 15-Day Notice Comment: The Board did not adequately consider air district programs before amending the regulation. (Mooney)

Agency Response: This comment is not germane to the 15-day changes made by the Board. Nevertheless, it is difficult to overstate the staff time spent auditing and analyzing current air district burn programs, discussing ARB findings and concerns with the air districts, and reaching a modified position on most of the issues that the air districts, along with myriad other interested constituencies, expressed reservations over. Although several air districts remain dissatisfied with the results, most support the ARB efforts and final regulations, as evidenced by the letter of support from Mr. Larry Greene, President of CAPCOA.

### **H. OPEN BURNING IN AGRICULTURAL OPERATIONS (Section 80150)**

No additional comments.

**I. SACRAMENTO VALLEY BASINWIDE PROGRAM (Section 80155)**

No additional comments.

**J. PRESCRIBED BURNING (Section 80160)**

No additional comments.

**K. EXEMPTIONS (Section 80170)**

No additional comments.

**ARTICLE 3.**

**L. METEOROLOGICAL CRITERIA**

14. 15-Day Notice Comment: ARB created a rule-making action absent specific support information and hearing by allowing ARB to arbitrarily implement undefined and undeveloped test criteria in section 80179. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, it is addressed in the Agency Response to Comment #135.

**M. OTHER SIGNIFICANT ISSUES**

**a) General**

No additional comments.

**b) Staff Report**

No additional comments.

**c) Economic Considerations**

15. 15-Day Notice Comment: The ARB fails to consider economic feasibility. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, Chapter 10 of the Staff Report contained an analysis of economic considerations. We recognize that ARB, the air districts and burners will incur additional costs with the implementation of this Guidelines. Nevertheless, it is necessary that we all make improvements to smoke management in California because

our population and the demand for prescribed burning are growing. Without concurrent improvements to prevent smoke impacts to air quality that affect human health, the ARB and the air districts would be shirking our responsibility to the public. ARB is committed to working with the air districts and other stakeholders to identify funding sources that will recover the costs of program improvements.

16. 15-Day Notice Comment: Section 41858 of the HSC requires the State board to consider economic and technical feasibility when adopting guidelines, including their probable effect on agricultural production in the air basin affected. The economic analysis included in the proposed Guidelines was not complete in that it solely focused on the economic impacts to the timber industry, notwithstanding the fact that both ARB staff and the Board have confirmed that increased permit fees to all users will be a result of enacting these Guidelines. No additional analysis was included in the newest version of the Guidelines. Therefore, we believe that it would be premature to take any further action to adopt these proposed Guidelines until an economic analysis addressing the impacts on production agriculture is completed. (CRC)

Agency Response: This comment is not germane to the 15-day changes made by the Board; however, it is addressed in the Agency Response to Comment #151.

17. 15-Day Notice Comment: ARB staff is urged to convene the working groups referred to on pages 6 and 7 of Board Resolution 00-8 as soon as possible so that issues can be resolved promptly. In particular, it is recommend that ARB convene an air district cost recovery working group and start discussions immediately since our most serious concern about implementing the Guidelines that remains unresolved is the cost to the air district. (BAAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, we agree with the need to quickly establish these working groups. A Program Resources, Resources Needs and Cost Recovery Working Group has been formed to assess appropriate fee structures to ensure equity and a level of uniformity to burners and other stakeholders participating in the program and to report to the Board periodically on the fees, costs, and funding status of the air districts' smoke management programs. Representatives of the Bay Area Air Quality Management District are active members of this working group. This working group will also coordinate its efforts with a Technical Tools Working Group which will be evaluating ways to share meteorological and technical resources provided by ARB and other agencies. It is believed that this comprehensive approach will enable ARB, the air districts and the land management agencies to quantify resource needs, target resource gaps and work together to develop various funding strategies, rather than rely exclusively on air district fees.

18. 15-Day Notice Comment: Wildfires and prescribed burning fires have health and hazard impacts. Trading the economic benefits of prescribed burns for poor quality air and medical costs are not a proper benefit/cost analysis because those who benefit

are not those who bear the burden. It is past time that special interests are put above public interest. No economic argument can be made to set aside public health. Please stop this insanity. (Johnson)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, it should be recognized that California has a fire ecology. Even without prescribed burning, lightning strikes cause wildfires during the dry season which can be particularly onerous where dry forest fuels have built up on the forest floor. These natural fires would occur irrespective of where humans decide to settle, conduct business or enjoy recreational activities. Prescribed burning has become an accepted vegetation management tool used for both public and private interests. The government agencies with various missions of protection of forest health, protection of commerce and trade, protection of public recreation areas, and protection of public health all try to make management decisions in the public interest. Given these sometimes competing public interests, ARB is charged with protecting air quality so as to prevent impacts to human health.

Therefore, ARB has been working together with various public and private interests to devise a method to make sure that the public health and welfare are maintained above all. The proposed Guidelines recognize that when agricultural, including prescribed, burning occurs, it must be conducted in a way that minimizes smoke impacts on air quality, especially in populated smoke-sensitive areas. ARB agrees that a smoke management program that works to protect the public health is in the public interest and is our primary objective.

#### **d) Environmental Impacts and CEQA Analysis**

19. 15-Day Notice Comment: ARB presents inadequate California Environmental Quality Act review. (BCAQMD)

Agency Response: This comment is not germane to the 15-day changes made by the Board. However, in the resolution adopting the Guidelines, the Board found that environmental assessment of the proposed amendments to the Guidelines was conducted as required by the California Environmental Quality Act (CEQA.) The conclusions and supporting documentation for this analysis is set forth in Chapter 11 of the Staff Report. Implementation of the Guidelines will not pose significant adverse environmental impacts and will reduce smoke-related health impacts from agricultural burning, including prescribed burning. No additional mitigation measures are necessary at this program level, and the Guidelines require air districts to incorporate sufficient environmental safeguards into their program requirements to eliminate or reduce the impacts of burning on ambient conditions from what is currently occurring without the amendments to the Guidelines. As noted in the Agency Response to Comments #175 and #178, ARB is working actively with the air districts and other stakeholders, including securing the services of a contractor (UC Riverside) to develop a programmatic CEQA template, to provide further assistance in addressing questions

about environmental impacts and CEQA requirements during the development and implementation of air district programs and review of individual burn decisions.

# **APPENDICES**

## **APPENDIX A**

## **APPENDIX B**

## **APPENDIX C**

## **APPENDIX D**