

State of California

AIR RESOURCES BOARD

May 28, 1976

Resolution 76-20

WHEREAS, the Air Resources Board, by direction of the Governor in Executive Order No. B-6-75 and pursuant to Administrative Order No. 75-2, issued jointly by the Air Resources Board and the Office of Emergency Services, has adopted the California Air Pollution Emergency Plan;

WHEREAS, the Air Resources Board is the state agency charged with the responsibility to prepare, direct and execute the Air Pollution Emergency Plan;

WHEREAS, the Air Pollution Emergency Plan prescribes areas that are subject to the provision of the Plan;

WHEREAS, the Air Resources Board has evaluated air quality data and determined that additional areas need to be included in the Plan;

WHEREAS, the Air Pollution Emergency Plan prescribes that other pollutants will be added when data are sufficient for establishment of criteria;

WHEREAS, in response to the recommendations of the Department of Health, the Air Resources Board on February 20, 1976, adopted a critical harm level for ambient sulfate at 25 ug/m^3 , 24 hour average;

WHEREAS, a revision of the Air Pollution Emergency Plan is necessary to append additional health advisory information and to provide conformity in other wording;

WHEREAS, the Air Resources Board has complied with all public hearing and notice requirements of state and federal law;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board does hereby amend the Air Pollution Emergency Plan, as revised May 28, 1976, as shown in the attached California Air Pollution Emergency Plan.

CALIFORNIA AIR POLLUTION EMERGENCY PLAN

Adopted: November 13, 1973
Revised: August 15, 1974
December 12, 1974
March 18, 1975
April 17, 1975
May 15, 1975
June 12, 1975
August 20, 1975
September 29, 1975
October 21, 1975
May 28, 1976

The material in italics was not adopted on May 28, 1976. The Board has scheduled a workshop to be held on June 23, 1976 on this material and methods for predicting sulfate episodes.

AIR RESOURCES BOARD

CALIFORNIA AIR POLLUTION
EMERGENCY PLAN

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CALIFORNIA AIR POLLUTION EMERGENCY PLAN

I. INTRODUCTION

The California Air Pollution Emergency Plan sets forth the legal basis for taking action to prevent air pollution concentrations from reaching levels which could endanger or cause significant harm to the public health, or to abate such concentrations should they occur.

The air quality in some areas of the State frequently does not meet the quality prescribed by ambient air quality standards applicable in California. A potential exists for air pollution in these areas to reach concentrations at which emergency actions are necessary to protect the public health. The Plan is applicable in these areas.

Under the Plan, local air pollution control districts (APCDs) have the primary responsibility for preparing detailed plans in accordance with the guidelines set forth in this plan, and for implementing such plans as necessary. If an episode should be so severe that it is beyond the local APCD's capability to control, the State shall take action to alleviate the condition under the appropriate provisions of this Plan which is a part of the State Peacetime Emergency Plan developed pursuant to the Emergency Services Act.

Nothing in the Plan shall preclude local APCDs from implementing episode response programs required by local air pollution emergency regulations.

II. AUTHORITIES

- A. Part 4, Division 26 of the Health and Safety Code, as amended.
- B. California Emergency Services Act.
- C. Executive Order No. B-6-75
- D. Administrative Order No. 75-2

III. AREAS OF APPLICABILITY

The areas and the pollutants for which the Plan is applicable are shown in Table I. The areas listed are the minimum areas the Plan covers. Other areas can be added by the Air Resources Board (ARB) or by the local APCD having jurisdiction in the respective area. Other pollutants will be added when data are sufficient for establishment of criteria. Areas of applicability for the additional pollutants will also be designated.

TABLE I

AIR POLLUTION CONTROL DISTRICTS AND CONTAMINANTS TO WHICH THE AIR POLLUTION EMERGENCY PLAN IS APPLICABLE

| Area | Carbon Monoxide | Oxidant | Sulfur Dioxide | Sulfates |
|--|-----------------|---------|----------------|----------|
| Bay Area APCD | X | X | X | X |
| Monterey Bay Unified APCD | | X | | |
| Ventura County APCD, the Southern California APCD and the South Coast Air Basin portion of the Santa Barbara County APCD | X | X | X | X |
| San Diego County APCD | X | X | | X |
| Sacramento County and Yolo-Solano APCDs | X | X | | |
| Fresno, Kern, Tulare, San Joaquin, Kings, Madera, Merced, and Stanislaus County APCDs | X | X | | |

IV. EPISODE STAGES

AND AIR POLLUTION DISASTERS

Listed below in order of increasing air pollution severity are the episode stages at which specific actions are required.

A. Stage 1 Episode

A Stage 1 episode is declared when the concentration of pollutants specified for this stage is predicted or reached. Persons with respiratory or coronary artery disease should be notified to take precautions against exposure. Schools should be notified so they can curtail students' participation in strenuous activities. First steps in abatement action plans shall be undertaken.

B. Stage 2 Episode

A Stage 2 episode is declared when the concentration of pollutants, specified for this stage is predicted or reached. Abatement actions shall be taken with a minimum of delay to reduce the concentration of the pollutant at issue.

This is an intermediate stage. Abatement actions needed will vary depending on circumstances; e.g., maximum concentrations and duration.

C. Stage 3 Episode

A Stage 3 episode is declared when the conditions specified for this stage are predicted or reached. Extensive actions shall be taken to prevent exposure of people to pollutant concentrations of the indicated levels.

D. Air Pollution Disaster (State of Emergency)

When it is determined by medical authorities or local officials that a substantial number of persons are suffering or are to suffer incapacitating effects from air pollution, regardless of measured pollutant concentrations, and analysis of meteorological and air quality data by the ARB or an APCD indicates that the condition is likely to continue, or recur, the Chairman of the ARB (the Secretary of the Environmental Quality Agency if and when established) shall confer with the Director of the Office of Emergency Services (OES) and they shall jointly recommend to the Governor that an air pollution disaster (State of Emergency) be declared.

E. Episode Termination

An episode is terminated whenever the concentration of the pollutant(s) which causes the declaration of such episode has been verified to have fallen below the criteria level for the declaration of the episode, and analysis of meteorological and air quality data indicates that the pollutant concentration is expected to decrease.

V. EPISODE STAGE CRITERIA

The concentrations of air pollutants at which the various episode stages are declared are given in Table II.

TABLE II
EPISODE CRITERIA LEVELS

| | Averaging Time | Stage 1 | Stage 2 | Stage 3 |
|---|--------------------|-----------------------------|-----------|---|
| Oxidant, as Ozone | 1 Hour | 0.20 ppm | 0.35 ppm | 0.50 ppm |
| Oxidant, in Combination with Sulfur Dioxide | 1 Hour | 0.20 ppm* | 0.35 ppm* | 0.50 ppm* |
| Carbon Monoxide | 1 Hour | 40 ppm | 75 ppm | 100 ppm for one hour and predicted to persist for one additional hour |
| | 12 Hours | 20 ppm | 35 ppm | 50 ppm |
| Sulfur Dioxide | 1 Hour | 0.5 ppm | 1.0 ppm | 2.0 ppm |
| | 24 Hours | 0.2 ppm | 0.7 ppm | 0.9 ppm |
| Sulfate, in Combination with Oxidant | 24 Hours (Sulfate) | 25 $\mu\text{g}/\text{m}^3$ | | |
| | 1 Hour (Oxidant) | 0.20 ppm | | |

*These levels shall apply when the oxidant concentration exceeds 0.10 ppm and shall be determined by adding the oxidant and sulfur dioxide concentrations.

If excessive concentrations of pollutants for which criteria have not been established occur or are predicted to occur, appropriate abatement actions shall be taken by the affected APCD after consultation with the ARB.

VI. DIVISION OF RESPONSIBILITY

A. Prediction of Episode Conditions

The ARB shall provide advisory notices of probable episodes to the APCDs. These notices will include air quality predictions based upon analysis of meteorological and ambient air quality data. The local APCDs may supplement this information with data from their own facilities or from contract sources.

B. Declaration of Episode Conditions

Based upon the prediction of episode conditions, or the attainment of episode criteria levels, air pollution episodes shall be declared by the following:

1. Local air pollution control authorities; or
2. The ARB; if the affected APCD fails to declare an episode immediately, and the ARB after consultation with the APCD, determines that an episode is predicted or exists.

C. Responsibility for Abatement Actions

1. APCD Responsibility

a. Stages 1 and 2 Episodes

The APCDs in the areas of applicability shall adopt the necessary rules and regulations to implement the Plan. The rules and regulations shall include episode criteria such as specified in Table II, Section V; a health advisory developed with the assistance of appropriate medical committees; and the basic program described in Section VII, except for meteorological support, and Section VIII, where appropriate.

b. Stage 3 Episode

When it is determined that conditions for this stage are predicted or reached, the local APCD shall take all actions within its authority, in accordance with its rules and regulations, to prevent or abate the episode. If further action is necessary, the appropriate official of the APCD may, after consulting with and receiving advice from the ARB, request the Governor to take action in accordance with the Emergency Services Act.

2. ARB Responsibility

If an APCD does not take reasonable action to abate an episode, the ARB shall hold a public hearing to consider enforcement of the appropriate provisions of the APCD's Regulations, in accordance with Sections 41502, 41504 and 41505 of Part 4, Division 26 of the Health and Safety Code. If the ARB finds it necessary, the ARB shall enforce the appropriate provisions of the APCD's Regulations until a further hearing establishes that responsibility for such enforcement should be returned to the APCD.

D. Air Pollution Disaster

If a State of Emergency is declared by the Governor in accordance with the Emergency Services Act the OES shall implement the appropriate portions of this plan and other relevant portions of the State Peacetime Emergency Plan, with the local APCDs and the ARB assisting in control action.

E. Termination

A Stage 1, Stage 2, or Stage 3 episode can be terminated only by the agency that declared it. A State of Emergency (air pollution disaster) can be terminated only by the Governor or his authorized representative.

F. Establishment of Criteria

The Executive Officer of the ARB shall establish minimum criteria for approval of abatement plans and may establish such other administrative criteria as he deems appropriate to accomplish the objectives of this plan.

VII. EMERGENCY PLAN

- A. Each APCD shall adopt a plan for the prevention and amelioration of air pollution episodes. Such plans shall be part of the APCD rules and regulations. These rules and regulations shall be submitted to the ARB for approval within 45 days of the adoption of this plan.

1. Abatement Plans

Emission control plans shall consider two possible episode conditions: 1) an episode has already occurred, and 2) an episode is predicted. The plans shall include abatement methods for both stationary and mobile sources.

Control actions to be imposed will be commensurate with the nature, severity and geographical extent of the episode.

- a. **Stationary Source Curtailment Plans** - In each APCD where the Plan is applicable, there shall be local plans for the immediate curtailment of emissions from industrial, business, or commercial establishments or other activities that may emit 100 tons/year or more of hydrocarbons or any pollutant included in the Plan. The plans shall include identification of sources, location of sources, information on estimated emissions in terms of both quantity and nature of each pollutant, the number of fleet vehicles, designation of a person to contact in case curtailment is necessary, and a shutdown procedure including the time required to effect the shutdown. Copies of the plans shall be made available to the ARB. All electrical utilities that file plans for energy conservation, load reduction or load shedding plans with the Public Utilities Commission or the Energy Resources Conservation and Development Commission shall file copies of such plans with the appropriate APCDs and with the ARB.
- b. **Traffic Abatement Plan** - In each APCD where the Plan is applicable, there shall be local plans for the immediate abatement of motor vehicle traffic in the event of an air pollution episode. The plans shall include specific actions to be taken at each episode stage. The plans shall be directed toward reducing the causes for vehicular traffic but may include direct traffic control.

Abatement plans shall be prepared by industrial, business and commercial establishments and shall be reviewed by the APCD according to the criteria established by order of the ARB Executive Officer. Abatement plans shall be prepared by the source facility and be submitted to the APCD within 45 days after notification that such plans are required. The plans shall be reviewed by the APCD within an additional 45 days and

approved or disapproved. If a plan is disapproved, the plan shall be revised by the applicant and resubmitted to the APCD within 30 days of notice of disapproval. If the required plan is not submitted within the above time limit, the applicant shall be considered to be in violation of the APCD's Rules and Regulations.

2. Source Inspection Plans

Each APCD shall prepare plans for inspection of sources subject to mandatory curtailment to assure compliance and to determine effects of curtailment.

3. Notification Procedures

In each APCD, there shall be procedures established for notifying the following when an episode has been declared.

- a. The ARB
- b. Local and state law enforcement agencies
- c. Public safety personnel, who have responsibilities for or interests in air pollution control
- d. Sources specified in the curtailment plans
- e. The news media
- f. APCD personnel
- g. The APCD Emergency Action Committee (if one is appointed)
- h. Local public health officials and hospitals
- i. School officials
- j. Other APCDs within the same basin (notification may be limited to those APCDs where the plan is applicable)
- k. Appropriate elected officials

The notice of declaration of an episode shall include the following:

- a. Stage level and predicted duration
- b. Estimated boundary of affected area
- c. Pollutants for which the episode is declared

4. Sampling Stations

In each APCD where the Plan is applicable, there shall be one or more permanently located atmospheric sampling stations

equipped to monitor the contaminants covered by the Plan in that APCD. Sampling station locations shall be designated by the local APCD with the concurrence of the ARB. These stations shall be equipped with monitoring instruments operated in a manner that will provide for measurement of contaminant concentrations in the range of values specified in the episode criteria. Additional temporary, fixed, or mobile sampling stations may be maintained and activated as deemed necessary by the APCD or ARB in an applicable area. Analytical procedures shall be in conformance with the ARB standard methods. Any procedure which can be shown to the satisfaction of the ARB to give equivalent results may also be used. The ARB shall provide calibration services as required.

5. Meteorological Support

When deemed necessary by the ARB, the ARB shall provide for the acquisition of meteorological information in any area of the State. Any APCD may provide such services in addition to the state services.

B. Emergency Action Committee

Each local emergency plan may provide for the appointment of an Emergency Action Committee. If appointed, the Committee shall include among the members the Health Officer, Sheriff, County Counsel, County OES and other officials of the affected counties and may include representatives of the ARB or the State OES for liaison purposes. The committee shall act in an advisory capacity to the air pollution control officer (APCO) in regard to the appropriate actions to be taken whenever an episode level is reached. The APCO shall implement abatement actions as may be necessary, and shall inform the ARB of his action.

C. Interdistrict Coordination

Emissions from sources located in one APCD may contribute to the occurrence of air pollution emergency episodes in another APCD within the same air basin. The basinwide coordinating council in each air basin where this Plan is applicable shall adopt as a part of its air pollution control plan, procedures to coordinate the emergency action of those APCDs included in the emergency action plan. Upon the request of an APCO who has declared an air pollution episode, adjacent APCDs shall take the action previously specified by the Coordinating Council and such other actions as appropriate to expedite abatement of the episode.

In the absence of approved procedures for interdistrict coordination, or in the absence of approved procedures for interbasin coordination, the following procedures shall apply:

1. Whenever an APCD or the ARB has declared an air pollution episode and determined that an adjacent APCD is or will be a source area contributing to the episode, the source district shall be requested to take appropriate response action.
2. If after one hour of being notified by the receptor area APCD or by the ARB, and if the source area APCD concludes that some or all of the requested actions are inappropriate, the source area APCD shall contact the ARB for relief from implementing actions that are considered inappropriate.
3. The ARB, within one hour after being so requested, shall advise the source area APCD on what actions must be taken.

VIII. EPISODE ACTIONS

A. Advisory of High Air Pollution Potential

Upon determination that a high potential for deteriorating air quality exists in an area as a result of either an ARB analysis or the advice of an APCD staff, the ARB shall inform all affected APCDs of this condition. The operators of the monitoring stations shall be alerted to the potential by the appropriate APCD.

B. Predicted or Observed Air Pollution Episodes

Actions for each episode stage of each pollutant covered by the Plan are to be taken at the direction of the APCO or the ARB Chairman in accordance with those listed in 1-4 below. Actions in addition to those listed may be required, as appropriate.

1. Oxidant Episodes

a. Stage 1

The following general actions shall be taken in the affected area upon the declaration of this stage:

- (1) Issue health warnings, in accordance with Appendix B-1, to sensitive persons in receptor areas.
- (2) Advise schools that strenuous activities by students must be discontinued. This action may be limited to outdoor activities.
- (3) Notify officials, news media and organizations listed in Section VII. A.3.
- (4) Abatement Actions
 - (a) Initiate actions to reduce vehicular traffic, including carpooling, appropriate to the episode.
 - (b) Implement the APCD stationary source curtailment plans, appropriate to the episode.
 - (c) Curtail the use of some paint spray booths, vapor degreasers and other hydrocarbon emitting equipment.

b. Stage 2

The following general actions, in addition to the actions taken at Stage 1, shall be taken in the affected area upon the declaration of this stage:

- (1) Issue health warning, in accordance with Appendix B-1, to sensitive persons and those displaying reaction symptoms.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.
- (3) Administrative Actions
 - (a) Notify officials, news media and organizations listed in Section VII. A. 3.
 - (b) Meteorological and air quality data shall be continuously monitored and evaluated until the episode is terminated.
 - (c) Upon notification by an APCD in the affected area that the pollutant concentration has reached Stage 2, the Executive Officer of the ARB shall activate the ARB emergency action staff and notify OES.
 - (d) If an APCD administers this program, the ARB shall be informed at each third increment of the concentration difference between Stages 2 and 3.
- (4) Abatement Actions
 - (a) Prohibit burning of combustible refuse at any location within the affected area.
 - (b) Implement the APCD traffic curtailment plan, appropriate to the episode. Such plans shall include extensive carpooling or use of mass transportation by the public.
 - (c) Implement the APCD stationary source curtailment plans, appropriate to the episode. Advise affected industries to prepare for possible shutdown.
 - (d) Prohibit petroleum loading and off loading of tankers.
 - (e) *Curtail bulk loading of crude oil and petroleum products with a Reid vapor pressure greater than 1.5 pounds per square inch.*

c. Stage 3

The following general actions, in addition to the actions taken at Stage 1 and Stage 2, shall be taken in the affected area upon the declaration of this stage:

(1) Warnings shall be issued describing protective measures to be taken in accordance with Appendix B-1, including identification of population groups most subject to harm and identification of the type of facilities where persons may be least subjected to exposure.

(2) Administrative Actions

(a) Notify officials, news media, and organizations listed in Section VII. A. 3.

(b) The OES and the ARB shall evaluate actions that have been taken and jointly advise the Governor of the conditions.

(c) Implement the source inspection plans. In the absence of APCD source inspection plans which have been approved by the ARB, the ARB shall be responsible for assuring that specified sources are inspected during an episode.

(3) Abatement Actions

(a) Implement the APCD traffic curtailment plan, appropriate to the episode. Require emergency carpooling or use of mass transportation by the public.

(b) Implement the APCD stationary source curtailment plan, appropriate to the episode.

(c) Ban large scale commercial and industrial spray painting.

(d) Suspend activities, such as roofing, asphalt paving and surface coating where the use of large quantities of volatile organic material is involved.

(e) *Prohibit bulk delivery of gasoline.*

2. Carbon Monoxide Episodes

a. Stage 1

The following general actions shall be taken in the affected area upon the declaration of this stage:

(1) Issue health warning, in accordance with Appendix B-2, to sensitive persons in receptor areas.

(2) Advise schools that strenuous activities by students must be discontinued.

- (3) Notify officials, news media and organizations listed in Section VII. A. 3.
- (4) Abatement Actions
 - (a) Initiate actions to reduce vehicular traffic, including carpooling, appropriate to the episode.
 - (b) Implement the APCD stationary source curtailment plans, appropriate to the episode.
 - (c) Request the public in the area of the episode to avoid unnecessary use of automobiles.

b. Stage 2

The following general actions, in addition to the actions taken at Stage 1, shall be taken in the affected area upon the declaration of this stage:

- (1) Issue health warning, in accordance with Appendix B-2, to sensitive persons and those displaying reaction symptoms.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.
- (3) Administrative Actions
 - (a) Notify officials, news media and organizations listed in Section VII. A. 3.
 - (b) Meteorological and air quality data shall be continuously monitored and evaluated until the episode is terminated.
 - (c) Upon notification by an APCD in the affected area that the pollutant concentration has reached Stage 2, the Executive Officer of the ARB shall activate the ARB emergency action staff and notify OES.
 - (d) If an APCD administers this program, the ARB shall be informed at each third increment of the concentration difference between Stages 2 and 3.
- (4) Abatement Actions
 - (a) Prohibit burning of combustible refuse at any location within the affected area.

- (b) Implement the APCD traffic curtailment plan, appropriate to the episode. Such plans shall include extensive carpooling or use of mass transportation by the public.
- (c) Implement the APCD stationary source curtailment plans, appropriate to the episode. Advise affected industries to prepare for possible shutdown.
- (d) If the occurrence of this stage for carbon monoxide is determined to have been due to traffic congestion in a specific area, take measures to reduce traffic congestion in that area. If traffic is at a standstill motorists shall be advised, where appropriate and when approved by local law enforcement officials, to turn off engines.
- (e) Request the public in the area of the episode to avoid non-emergency use of automobiles.
- (f) Request the general public to avoid the area of the episode.

c. Stage 3

The following general actions, in addition to the actions taken at Stage 1 and Stage 2, shall be taken in the affected area upon the declaration of this stage:

- (1) Warnings shall be issued describing protective measures to be taken in accordance with Appendix B-2, including identification of population groups most subject to harm and identification of the type of facilities where persons may be least subjected to exposure.
- (2) Administrative Actions
 - (a) Notify officials, news media, and organizations listed in Section VII. A. 3.
 - (b) The OES and the ARB shall evaluate actions that have been taken and jointly advise the Governor of the conditions.
 - (c) The source inspection plans shall be implemented. In the absence of APCD source inspection plans which have been approved by the ARB, the ARB shall be responsible for assuring that specified sources are inspected during an episode.
- (3) Abatement Actions

- (a) Implement the APCD traffic curtailment plan, appropriate to the episode. Required emergency carpooling or use of mass transportation by the public.
- (b) Implement the APCD stationary source curtailment plan, appropriate to the episode.
- (c) Shut down combustion sources of carbon monoxide emissions in the area of the episode.
- (d) Request the public to evacuate the area of the episode.

3. Sulfur Dioxide Episodes

a. Stage 1

The following general actions shall be taken in the affected area upon the declaration of this stage:

- (1) Issue health warnings, in accordance with Appendix B-3, for sensitive persons in receptor areas.
- (2) Advise schools that strenuous activities by students must be discontinued.
- (3) Notify officials, news media and organizations listed in Section VII. A. 3.
- (4) *Abatement Actions*
 - (a) *Implement the APCD stationary source curtailment plans, appropriate to the episode.*
 - (b) *Request specific sources of sulfur oxides to reduce emissions.*
 - (c) *Require power plants to import additional power from outside the air basin.*
 - (d) *Request commercial and industrial users to reduce consumption of electricity by 15 percent.*
 - (e) *Postpone electrically intensive industrial operations, where feasible.*

b. Stage 2

The following general actions, in addition to the actions taken at Stage 1, shall be taken in the affected area upon the declaration of this stage:

- (1) Issue health warnings, in accordance with Appendix B-3, to sensitive persons and those displaying reaction symptoms.
- (2) Suspend programs which involve physical exertion by participants using public parks or public recreational facilities. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.
- (3) Administrative Actions
 - (a) Notify officials, news media and organizations listed in Section VII. A. 3.
 - (b) Meteorological and air quality data shall be continuously monitored and evaluated until the episode is terminated.
 - (c) Upon notification by an APCD in the affected area that the pollutant concentration has reached Stage 2, the Executive Officer of the ARB shall activate the ARB emergency action staff and notify OES.
 - (d) If an APCD administers this program, the ARB shall be informed at each third increment of the concentration difference between Stages 2 and 3.
- (4) Abatement Actions
 - (a) *Implement the APCD stationary source curtailment plans, appropriate to the episode. Advise affected industries to prepare for possible shutdown. Fossil fuel fired electrical power plants shall implement measures to reduce sulfur oxide emissions by 33 percent of the emissions existing at the onset of the episode.*
 - (b) *Request commercial and industrial users to reduce electrical consumption by 30 percent.*
 - (c) *Reduce refinery and chemical plant sulfur dioxide emissions by 20 percent of the emissions existing at the onset of the episode.*
 - (d) *Request the public to reduce the use of electricity by 10 percent by reducing lighting, air conditioning appliance use and swimming pool pump use.*
 - (e) *Require power plants to use all available natural gas. To the extent that sufficient quantities of natural gas are not available, require power plants to use fuel of 0.1 percent or less sulfur by weight.*

c. Stage 3

The following general actions, in addition to the actions taken at Stage 1 and Stage 2, shall be taken in the affected area upon the declaration of this stage:

- (1) Warnings shall be issued describing protective measures to be taken in accordance with Appendix B-3, including identification of population groups most subject to harm and identification of the type of facilities where persons may be least subjected to exposure.
- (2) Administrative Actions
 - (a) Notify officials, news media, and organizations listed in Section VII. A. 3.
 - (b) The OES and the ARB shall evaluate actions that have been taken and jointly advise the Governor of the conditions.
 - (c) The source inspection plans shall be implemented. In the absence of APCD source inspection plans which have been approved by the ARB, the ARB shall be responsible for assuring that specified sources are inspected during an episode.

(3) Abatement Actions

- (a) *Implement the APCD stationary source curtailment plans, appropriate to the episode. Fossil fuel fired electrical power plants shall implement measures to reduce sulfur oxide emissions by 67 percent of the emissions existing at the onset of the episode.*
- (b) *Request the public to reduce electrical consumption by 67 percent.*
- (c) *Prohibit the use of fuel oil for power production or for industrial uses.*
- (d) *Reduce refinery and chemical plant sulfur dioxide emissions by 33 percent of the emissions at the onset of the episode.*
- (e) *Schedule industrial operations requiring heavy electrical usage to hours other than those of peak electrical demand.*

4. Sulfate Episodes

The following general actions shall be taken in the affected area upon the declaration of a sulfate episode:

- a. Issue health warnings, in accordance with Appendix B-3, to sensitive persons in receptor areas.
- b. Advise schools that strenuous activities by students must be discontinued.
- c. Suspend programs which involve physical exertion by participants using public parks or public recreational facilities. Such programs which are for adult participants in scheduled athletic events with paid attendance are excepted.
- d. Administrative Actions
 - (1) Notify officials, news media and organizations listed in Section VII. A. 3.
 - (2) Meteorological and air quality data shall be continuously monitored and evaluated until the episode is terminated.
 - (3) Upon notification by an APCD in the affected area that the pollutant concentration has been achieved, the Executive Officer of the ARB shall activate the ARB emergency action staff and notify OES.
 - (4) The OES and the ARB shall evaluate actions that have been taken and jointly advise the Governor of the conditions.
 - (5) The source inspection plans shall be implemented. In the absence of APCD source inspection plans which have been approved by the ARB, the ARB shall be responsible for assuring that specified sources are inspected during an episode.

e. *Abatement Actions*

- (1) *Implement the APCD stationary source curtailment plans, appropriate to the episode. Fossil fuel fired electrical power plants shall implement measures to reduce sulfur oxide emissions by 67 percent of the emissions existing at the onset of the episode.*
- (2) *Request the public to reduce electrical consumption by 67 percent.*
- (3) *Require power plants to reduce power generation within the air basin by additional importation of power from outside the air basin.*
- (4) *Prohibit the use of fuel oil of greater than 0.1 percent sulfur by weight for power production or for industrial uses.*

- (5) *Reduce refinery and chemical plant sulfur dioxide emissions by 33 percent.*
- (6) *Schedule industrial operations requiring heavy electrical usage to hours other than those of peak electrical demand.*

5. *Oxidant in Combination with Sulfur Dioxide*

a. *Stage 1*

Take appropriate abatement actions, and all other actions listed in the Plan for Stage 1 oxidant episodes and for Stage 1 sulfur dioxide episodes.

b. *Stage 2*

Take appropriate abatement actions, and all other actions listed in the Plan for Stage 2 oxidant episodes and for Stage 2 sulfur dioxide episodes.

c. *Stage 3*

Take appropriate abatement actions, and all other actions listed in the Plan for Stage 3 oxidant episodes and for Stage 3 sulfur dioxide episodes.

C. **Air Pollution Disasters**

If the Governor declares an air pollution disaster (State of Emergency), the Governor will order the institution of any health protection and abatement actions he considers appropriate. Examples of such abatement actions are given in Appendix A.

APPENDIX A

Actions for Air Pollution Disasters

A. Administrative Actions

1. The Governor, or his designee will announce that an air pollution disaster exists in a specific area and will proclaim a State of Emergency.
2. The Governor will issue orders and regulations to reduce the health hazard and to implement appropriate abatement actions.
3. Warnings shall be disseminated throughout the affected area, using all available public broadcast facilities. Warning information shall include the identification of the population groups most subject to harm, the air quality conditions, recommended health protection measures and abatement actions ordered by the Governor such as given in Section B, below, and in Appendix B.
4. The ARB and the affected APCDs will continue maximum Stage 3 abatement actions in accordance with the State and local emergency plans and will commit all their available resources to the service of the Governor.

B. Abatement Actions

Note: Abatement actions are examples, some of which may be counter-productive if taken inappropriately. Selected actions appropriate to the episode will be taken as necessary.

1. Close admission to all recreation facilities, sporting events, and scheduled entertainment, except motion picture theaters equipped with air conditioning in the receptor areas.
2. Close offices and retail and commercial operations with more than 50 employees. All other businesses shall respond to direct instructions from the air pollution control officer regarding opening or closure.
3. Close schools and colleges.

(Closure of facilities in 1, 2, and 3 is required only for disasters that are predicted to occur the next day. For disasters declared during the day, the facilities are to remain open, solely for serving the people within, if such people are ordered to remain).
4. Ban the operation of motor vehicles except emergency and health care vehicles, vehicles used for transportation of

APPENDIX B

PERSONAL PROTECTIVE ACTIONS DURING AIR POLLUTION EPISODES

**1. OXIDANT OR OXIDANT IN COMBINATION
WITH SULFUR DIOXIDE**

The following actions are recommended to be taken by:

- Sensitive persons with chronic lung disease or asthma, the elderly, the chronically ill and the exercising young at Stages 1, 2 and 3.
- Healthy adults who feel effects at Stages 1, 2 and 3.
- The general public at Stage 3.

1. **AVOID STRENUOUS OUTDOOR PHYSICAL ACTIVITY** (athletic activities, jogging, etc.) during an episode. Avoid exertion or excitement which increases your breathing rate and the body's oxygen needs. Plan other diverting activity for the young.
2. **REMAIN INDOORS** until the episode is terminated. Keep doors and windows closed, if possible. (Indoor concentrations of oxidant may be about one-half of the outdoor levels.) Use your air conditioner if you have one, to recirculate indoor air and keep cool. High temperatures may add stress to the pollutant effects. An activated charcoal system can further reduce oxidant levels.
3. **DO NOT SMOKE** (and avoid places where others are smoking). Pollutants from smoking make the health challenge worse!
4. **AVOID AEROSOLS, DUSTS, FUMES, AND OTHER IRRITANTS.** Reduce to a minimum domestic activities, cooking, hobbies or occupations which produce them.
5. **AVOID TRAFFIC CONGESTED AREAS** where pollutants are being generated, if you must be outside.
6. **AVOID CONTACT** with persons suffering from respiratory infections.
7. **PLAN YOUR ACTIVITIES.** During air pollution seasons, listen to forecasts and postpone unnecessary activities on "episode" days. Most "peak values" of oxidant occur between mid-morning and late afternoon, but in Eastern portions of the Los Angeles basin they occur into the evening. Use other hours for your exercise and other outdoor activities. Obtain sufficient rest and sleep.
8. **EXPECT ONSET OR INCREASING SEVERITY OF SYMPTOMS** with Stage 2 or Stage 3 episodes (coughing, wheezing, phlegm, shortness of breath, chest discomfort, pain).
 - Follow your physician's treatment advice or consult him again. Know what medications to use for specific symptoms. Maintain adequate fluid intake.
 - Know the location of your nearest emergency treatment facility in case your doctor advises increased therapy (ventilation assistance, oxygen treatment, etc.).

EPISODE CRITERIA LEVELS

| | Averaging Time | Stage 1 | Stage 2 | Stage 3 |
|---|----------------|----------|----------|----------|
| Oxidant, as Ozone | 1 Hour | .20 ppm | .35 ppm | .50 ppm |
| Oxidant, in Combination with Sulfur Dioxide | 1 Hour | .20 ppm* | .35 ppm* | .50 ppm* |

*These levels shall apply when the oxidant concentration exceeds 0.10 ppm and shall be determined by adding the oxidant and sulfur dioxide concentrations.

APPENDIX B

PERSONAL PROTECTIVE ACTIONS DURING AIR POLLUTION EPISODES

2. CARBON MONOXIDE

The following actions are recommended:

FOR SENSITIVE PEOPLE (At all episode Stages)
 with **CORONARY ARTERY DISEASE (Angina)**
OBSTRUCTED LEG ARTERIES (Claudication)
SEVERE ANEMIA
HEART DISEASE OR LUNG DISEASE (Needing oxygen)
FOR THE GENERAL PUBLIC (At Stages 2 and 3)

* * * * *

1. **DO NOT SMOKE** (and avoid places where others are smoking). Pollutants from smoking make the health challenge worse!
2. **AVOID TRAFFIC CONGESTED AREAS** where pollutants are being generated, if you must be outside.
3. **AVOID STRENUOUS PHYSICAL ACTIVITY** (athletic activities, jogging, etc.) during an episode. Avoid exertion or excitement which increases your breathing rate and the body's oxygen needs.
4. **PLAN YOUR ACTIVITIES.** Particularly during fall and winter months when carbon monoxide levels tend to be high, listen to forecasts and reschedule unnecessary activities on "episode" days. Obtain sufficient rest and sleep.
5. **AVOID AEROSOLS, DUSTS, FUMES, AND OTHER IRRITANTS.** Reduce to a minimum domestic activities, cooking, hobbies or occupations which produce them. Avoid unvented heaters, charcoal grills or other sources of carbon monoxide.
6. **WITH STAGE 2 OR STAGE 3 EPISODES – YOU MAY EXPERIENCE THE ONSET OR WORSENING OF SYMPTOMS (HEADACHE, CHEST DISCOMFORT OR PAIN, SHORTNESS OF BREATH).** Follow your physician's treatment advice for these, or consult him again. Know what medications to use for specific symptoms. *If prescribed*, use oxygen inhalation until symptoms subside.
7. **KNOW THE LOCATION** of your nearest emergency treatment facility in case your doctor advises increased therapy (oxygen treatment, ventilation assistance, etc.)

EPISODE CRITERIA LEVELS*

| | Averaging Time | Stage 1 | Stage 2 | Stage 3 |
|-----------------|----------------|---------|---------|----------------------|
| CARBON MONOXIDE | 1 Hour | 40 ppm | 75 ppm | 100 ppm for one hour |
| | 12 Hours | 20 ppm | 35 ppm | 50 ppm |

*At altitudes above 4,000 feet, health effects are expected to occur at lower concentrations of carbon monoxide.