State of California
AIR RESOURCES BOARD 1978 RESOLUTIONS

RESOLUTIONS

No.	Item	Staff	Hearing Scheduled	Date Adopted	+ EIS to Resources
78-1	(B. Barham) APCD New Source Review Rule-Ventura	B.Barham	1/26/78	Never heard by board	
78-2	Santa Barbara ABCD New Source Review Rule-	B.Barham	1/26/78	1/26/78	
78-3	San Luis Obispo APCD New Source Review Rule-	B.Barham	1/26/78	1/26/78	
78-4	Highway Cycle	Gary Rubenstein	1/25/78	1/25/78	
78-5	San Joaquin Valley Crops Research Proposal #664-58 re	M. Nelson	1/25/78	1/26/78	
78-6	Letter of protest to ICC re Southern Pacific	C. Podesto	1/25/78	no action taken	
78-7	Vechicle Warranty	C. Sullivan	2/22/78		
78-8	Tertiary Oil Recovery Operations Emergency action-Kern Co.	J. Jordan	1/26/78		
78-9	U.C. Irvine $5,000 amendment to contract	L. Storey	1/25/78	1/26/78	
78-10	to Ex Officer-Powers of Board Delegation of Authority	C. Sullivan	2/22/78	2/23/78	
78-11	MVIP	Mary E.	3/22/78	3/22/78	
78-12	Research Proposal #661-58	Mary Nelson	2/22/78	2/23/78	
78-13	Research Proposal #670-59	Mary Nelson	2/22/78	2/23/78	
78-14	NOx emissions from residential heaters	Teri B.	3/23/78	4/78	
78-15	& cert. procedures for Service Sta. & bulk plants Vapor recovery-Test procedures	T. Perry	4/6/78	delegated to E.O. resolve in 11/ Tentative	
78-16	Revisions to the suggested vapor recovery rules	T. Perry	4/6/78	"	

RESOLUTIONS

No.	Item	Staff	Hearing Scheduled	Date Adopted	+ EIS to Resources
78-17	Sulfur in Gasoline	H. Metzzer	4/26/78	Never approved	
78-18	N.S.R. Fresno Co.	Tim Machold	4/27/78	Never presented to Board	
78-19	N.S.R. Kern Co	" "	""		
78-20	N.S.R. San Joaquin	" "	""		
78-21	STANISLAUS	" "	""		
78-22	N.S.R. Tulare	" "	""		
78-23	Center in the Law for Public Interest Petition	K. Macomber	3/23/78	Not Noticed	
78-24	Meterological Criteria	J. Kinney	4/27/78	4/27/78	
78-25	Natural Gas	H. Metzzar	4/26/78	No action taken	
78-26	Exhaust emission ptds 1980 + Sub.		5/24/78	5/24/78	
78-27	Research Proposal #696-62	C. Bennett	4/26/78	4/27/78	
78-27A	Bes, Orio, 808-68 (see Res. 79 (book)		1/24/79	1/24/79	
78-28	Research Proposal "Linda-for-Air ~~Pollution~~ (D.Westerdahl 4/27/78)	Linda	4/26	4/27	
78-29	Science Application Carcinogenic Inventory	B. Reynolds	4/26	4/27	
78-30	Acurrex- $250,000 Research	Laura	5/25	5/25/78	
78-30A	Vinyl Chloride		5/24	5/30/78	

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AIR RESOURCES BOARD

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No.	Item	Staff	Hearing Scheduled	Date Adopted	+ EIS to Resources
78-31	KVB-$99,741			5/25/78	
78-32	Airospace-$129,865			5/25/78	
78-33	Eureka Labs-$124,311			5/25/78	
78-34	U.C. Santa Barbra-$105,787			5/25/78	
78-35	U.C.D.-$63,612			5/25/78	
78-36	PIE -$109,256			5/25/78	
78-37	CIT $128,722			5/25/78	
78-38	UCR-$189,708			5/25/78	
78-39	TSC-$93,449			5/25/78	
78-40	Rockwell-$75,000			5/25/78	
78-41	Scott Enviromental Technology $77,000+	L. Storey		6/28	6/28/78
unnumbered	Mary Nichols leaving ARB		6/29	6/29	
78-42	Source Test. fees	D. Frisk		July	Rept. Ame Del. to E.O. 7/27
78-43	Proposed Designation & Redesignation of Air Quality Control Reg.	John Kenny		July	Del. to E.O. 7/27
78-44	Heavy Duty Certificate of Compliance			August	8/24/78
78-45	WOGA-Sulfur Content of Gas	Richard Vincent		August	11/13/78

RESOLUTIONS

No.	Item	Staff	Hearing Scheduled	Date Adopted	+ EIS to Resources
78-46	UC San Francisco -$59,083	Storey	7/27/78	7/27/78	
78-47	UC So. Calif-$105,904		7/27/78	7/27/78	
78-48	Rule 475.1 2CAQMD-SSCD		7/27/78	8/7/78 Dele. to E.O.(for make.rule Fin	
78-49	In-Stack Monitors	Verna Luiz	9/28/78	refer to staff 9/28 Report back	
78-50	SIP Adm. Chapt.	Neal Pickees	10/26/78	10/26/78	
78-51	SO2 -Bay Area	Terry	10/25/78	10/26/78	
78-52	SWMB -$125,000	Mary	10/26/78	10/25/78	
78-53	78-22-4 Dealership Sur.	MaryErch bauir	11/16/78	11/16/78	
78-54	Assemblyline 77-22-3		11/16/78	11/16/78	
78-55	Warranty Regs		12/14/78	12/14/78	
78-56	Rules 461-462	Evan Wong	11/15/78	not heard	
78-57	void		void	void	
78-58	SIP- Chapter 3		12/13/78	12/13/78	
78-59	Marine Vessel Operations in Calif.		11/15/78	11/16/78	
78-60	SIP-E.O. Delegation		11/16/78	11/16/78	
78-61	$125,628 Economic Impact-Dev. & Resources Corp		12/13/78	12/14/78	

RESOLUTIONS

No.	Item	Staff	Hearing Scheduled	Date Adopted	+ EIS to Resources
78-62	UCD - Rice Straw Burning $54,346		12/14/78	12/14/78	
7863	David Litter Lab. $59,575		12/13/78	12/14/78	

State of California

AIR RESOURCES BOARD

Resolution 78-2

January 26, 1978

WHEREAS, the federal Clean Air Act (§ 110) and the Environmental Protection Agency regulations adopted pursuant thereto (40 CFR 51.12(b)) require that State Implementation Plans contain rules and regulations which prohibit the construction of a new emission source, or a modification to an existing source, where the new or modified source will interfere with or prevent the attainment or maintenance of a national air quality standard;

WHEREAS, Health and Safety Code §§ 40001 and 41507 require districts to adopt as part of the State Implementation Plan required by Section 110 of the Clean Air Act, rules and regulations necessary to achieve and maintain federal ambient air quality standards and authorize the Board to order revision of district rules and regulations where necessary to that end;

WHEREAS, Health and Safety Code § 42301 requires that district permit systems prohibit the issuance of a permit for the construction, alteration, use or operation of any stationary source where such source will prevent or interfere with the attainment or maintenance of any applicable air quality standard;

WHEREAS, the Board is empowered by Health and Safety Code §§ 41500, 41502, and 41504 to review the rules and regulations of a district to determine whether they make reasonable provision to achieve and maintain state air quality standards and, after a public hearing, to establish rules and regulations for a district which so provide if the district has not established such rules and regulations;

WHEREAS, the Board is requested by Assembly Concurrent Resolution 19, adopted August 1977, to review the new source review regulations of California air pollution control districts and to propose amendments to improve the consistency and effectiveness of such rules throughout the state;

WHEREAS, the Board is requested by Senate Concurrent Resolution 17, adopted September 1977, to review California's State Implementation Plan and consider revising such plan to permit community-wide trade-offs in the preconstruction review of new or modified stationary sources;

WHEREAS, the Board finds that the Santa Barbara County Air Pollution Control District has not adopted new source review rules or regulations which adequately require the denial of a permit for construction modification, or operation of emission sources which will prevent or interfere with the attainment or maintenance of state or national ambient air quality standards;

WHEREAS, the Board finds that without new source review rules substantially equivalent to those proposed for adoption by the staff, the rules and regulations of the Santa Barbara County Air Pollution Control District do not make reasonable provision to achieve and maintain State and national ambient air quality standards;

WHEREAS, the Board finds that the Santa Barbara County Air Pollution Control District has failed to adopt new source review rules which meet the aforesaid federal requirements for State Implementation Plans;

WHEREAS, the Board finds that the Santa Barbara County Air Pollution Control District has failed to adopt rules consistent with other new source review rules throughout the state so as to achieve a substantial degree of uniformity; and

WHEREAS, the Board has conducted a public hearing and given notice thereof in accordance with all requirements of federal and state law;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends the new source review rules, Rule 9.1, of the Santa Barbara County Air Pollution Control District by adopting Exhibit I.

BE IT FURTHER RESOLVED, that the Board hereby deletes two provisions affecting new source review of stationary sources in Rule 5 of the Santa Barbara County Air Pollution Control District by adopting Exhibit II.

BE IT FURTHER RESOLVED, that the aforesaid sections as amended shall become effective immediately.

BE IT FURTHER RESOLVED, that the aforesaid sections as amended shall apply to any subject application for a permit filed with the District, but not finally ruled upon, prior to the aforesaid effective date.

BE IT FURTHER RESOLVED, that the aforesaid sections as amended may not be amended except by the Board, or by the District provided that the Executive Officer finds that any amendment thereto made by the District does not impair the overall effectiveness or flexibility of these sections.

WHEREAS, the Board finds that the Santa Barbara County Air Pollution Control District has not adopted new source review rules or regulations which adequately require the denial of a permit for construction modification, or operation of emission sources which will prevent or interfere with the attainment or maintenance of state or national ambient air quality standards;

WHEREAS, the Board finds that without new source review rules substantially equivalent to those proposed for adoption by the staff, the rules and regulations of the Santa Barbara County Air Pollution Control District do not make reasonable provision to achieve and maintain State and national ambient air quality standards;

WHEREAS, the Board finds that the Santa Barbara County Air Pollution Control District has failed to adopt new source review rules which meet the aforesaid federal requirements for State Implementation Plans;

WHEREAS, the Board finds that the Santa Barbara County Air Pollution Control District has failed to adopt rules consistent with other new source review rules throughout the state so as to achieve a substantial degree of uniformity; and

WHEREAS, the Board has conducted a public hearing and given notice thereof in accordance with all requirements of federal and state law;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends the new source review rules, Rule 9.1, of the Santa Barbara County Air Pollution Control District by adopting Exhibit I.

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BE IT FURTHER RESOLVED, that the aforesaid sections as amended may not be amended except by the Board, or by the District provided that the Executive Officer finds that any amendment thereto made by the District does not impair the overall effectiveness or flexibility of these sections.

SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT

RULE 9.1

A. AUTHORITY TO CONSTRUCT

The Air Pollution Control Officer (APCO) shall deny an application for an Authority to Construct any new stationary source or modification of any existing stationary source which will increase emissions of nitrogen oxides, non-methane organic gases, or any air contaminant for which there is a State or National ambient air quality standard unless the applicant satisfactorily demonstrates to the APCO that:

1) First Requirement

The stationary source can be expected to operate without emitting air contaminants in violation of any applicable State or Federal emission limitation or of these Rules and Regulations; and

2) Second Requirement

(a) The emissions of each subject air contaminant from a new stationary source will be less than five (5) pounds per hour (except carbon monoxide, for which the limit is fifty (50) pounds per hour); or

(b) The emission of each subject air contaminant from a modified stationary source will be less than fifteen (15) pounds per hour (except carbon monoxide, for which the limit is one hundred fifty (150) pounds per hour) and the modification will be constructed using the best available air pollution control technology; or

(c) The net increase in emissions of each subject air contaminant as a result of all modifications to the stationary source during the preceding five years, or since January 26, 1978, whichever period is shorter, will be less than five (5) pounds per hour (except for carbon monoxide, for which the limit is fifty (50) pounds per hour). In determining

whether there has been a net increase in emissions, and if so the amount of any such increase, the Air Pollution Control Officer shall consider all increases and decreases of emissions caused by modifications to the stationary source pursuant to Authorities to Construct. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations shall not be considered to be decreases in emissions for the purposes of this paragraph; or

(d) The new stationary source will be constructed using best available air pollution control technology and will be, in whole or in part, a replacement on the same property for an existing stationary source for which there is a vaild Permit to Operate and there will be no net increase in the emission of each subject air contaminant, except during a sixty (60) day start-up period when operation of both sources may be allowed; or

(e) The construction of a new or modified stationary source will result in demonstrable air quality benefits within the applicable zone of the South Central Coast Air Basin, provided however, that the source will be constructed using best available air pollution control technology and that the written concurrence of the California Air Resources Board and United States Environmental Protection Agency shall be obtained prior to the granting of a permit hereunder. In order to show that a proposed new stationary source will cause demonstrable air quality benefits within the applicable zone, an applicant must provide emission reductions or offsets at existing sources; or

(f) The new or modified stationary source will be used exclusively for health care, safety, police or fire fighting facilities provided best available air pollution control technology is applied; or

(g) The application is exclusively for a modification to convert from use of gaseous fuels to fuel oil because of demonstrable shortage of gaseous fuels, provided: (i) that all units constituting the modification will utilize best available air pollution control technology and provided that use of fuel oil would have

whether there has been a net increase in emissions, and if so the amount of any such increase, the Air Pollution Control Officer shall consider all increases and decreases of emissions caused by modifications to the stationary source pursuant to Authorities to Construct. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations shall not be considered to be decreases in emissions for the purposes of this paragraph; or

(d) The new stationary source will be constructed using best available air pollution control technology and will be, in whole or in part, a replacement on the same property for an existing stationary source for which there is a vaild Permit to Operate and there will be no net increase in the emission of each subject air contaminant, except during a sixty (60) day start-up period when operation of both sources may be allowed; or

(e) The construction of a new or modified stationary source will result in demonstrable air quality benefits within the applicable zone of the South Central Coast Air Basin, provided however, that the source will be constructed using best available air pollution control technology and that the written concurrence of the California Air Resources Board and United States Environmental Protection Agency shall be obtained prior to the granting of a permit hereunder. In order to show that a proposed new stationary source will cause demonstrable air quality benefits within the applicable zone, an applicant must provide emission reductions or offsets at existing sources; or

(f) The new or modified stationary source will be used exclusively for health care, safety, police or fire fighting facilities provided best available air pollution control technology is applied; or

(g) The application is exclusively for a modification to convert from use of gaseous fuels to fuel oil because of demonstrable shortage of gaseous fuels, provided: (i) that all units constituting the modification will utilize best available air pollution control technology and provided that use of fuel oil would have

been permitted under district regulations at the time of construction of the equipment using gaseous fuels without the source having been required at that time to install control equipment in addition to that which it would have to install in order to be able to be exempt hereunder, and (ii) the applicant demonstrates that it made its best efforts to obtain sufficient emission offsets under this rule, and that such attempts were unsuccessful, and that it will continue to seek the necessary emission offsets and apply them when they become available. Modifications for the purpose of this paragraph shall include the addition or modification of facilities for storing, transferring and/or transporting such fuel oil at the stationary source. A condition shall be placed on the operating permit requiring conversion to gaseous or other equivalent low polluting fuels when they are, or become available; or

(h) The application is exclusively for the construction or modification of an air pollution control device which will reduce emissions from the existing stationary source; or

(i) The emission of each subject air contaminant from a new stationary source will be less than ten (10) pounds per hour (except carbon monoxide, which is one hundred (100) pounds per hour) and the stationary source will be constructed using the best available air pollution control technology; or

(j) The increase in the emission of each subject air contaminant from the new or modified stationary source constructed using best available air pollution control technology will be offset by a greater decrease in the emissions of the same air contaminant due to the elimination or modification of other existing stationary sources, under the same ownership, for which there is a valid Permit to Operate, within the applicable zone of the South Central Coast Air Basin, and that, as a result, there will be no net air quality deterioration within the applicable zone of the South Central Coast Air Basin or within contiguous zones, districts, or air basins. If reductions are to be based on planned elimination or modification of any such stationary sources the Air Pollution Control Officer shall condition the Permit to Operate to require such elimination or modification within not more than 90 days after

the start-up of the new or modified source. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations shall not be considered to be decreases in emissions for the purposes of this paragraph. Written concurrence of the California Air Resources Board shall be obtained prior to the granting of a permit hereunder; or

(k) The stationary source will be constructed or modified using the best available air pollution control technology and the emission of each subject air contaminant therefrom will not:

(i) Cause a violation of, or interfere with the attainment of maintenance of, and National primary or State ambient air quality standard; or

(ii) Prevent reasonable progress toward the achievement by any National secondary ambient air quality standard; and

3. Third Requirement

In the case of the modification of an existing stationary source for which the emissions after modification will exceed a rate threshold of fifteen (15) pounds per hour of any subject air contaminant (except for carbon monoxide, for which the limit is one hundred fifty (150) pounds per hour), the modification of the existing stationary source will be constructed using best available air pollution control technology, and:

a. Emissions of each contaminant for which there is a net increase are controlled by the application of best available air pollution control technology to all existing units of the stationary source; or

b. The modification will not result in a net increase in the emissions of any air contaminant if the emissions of such contaminant will exceed the above mentioned rate thresholds. In determining whether there has been an increase in emissions and, if so, the amount of any such increase, the Air Pollution Control Officer shall consider all increases and decreases of emissions caused by modifications to that stationary source pursuant to the Authorities to Construct issued during the preceding five years, or since January 26, 1978, whichever period is shorter. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations

the start-up of the new or modified source. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations shall not be considered to be decreases in emissions for the purposes of this paragraph. Written concurrence of the California Air Resources Board shall be obtained prior to the granting of a permit hereunder; or

(k) The stationary source will be constructed or modified using the best available air pollution control technology and the emission of each subject air contaminant therefrom will not:

(i) Cause a violation of, or interfere with the attainment of maintenance of, and National primary or State ambient air quality standard; or

(ii) Prevent reasonable progress toward the achievement by any National secondary ambient air quality standard; and

3. Third Requirement

In the case of the modification of an existing stationary source for which the emissions after modification will exceed a rate threshold of fifteen (15) pounds per hour of any subject air contaminant (except for carbon monoxide, for which the limit is one hundred fifty (150) pounds per hour), the modification of the existing stationary source will be constructed using best available air pollution control technology, and:

a. Emissions of each contaminant for which there is a net increase are controlled by the application of best available air pollution control technology to all existing units of the stationary source; or

b. The modification will not result in a net increase in the emissions of any air contaminant if the emissions of such contaminant will exceed the above mentioned rate thresholds. In determining whether there has been an increase in emissions and, if so, the amount of any such increase, the Air Pollution Control Officer shall consider all increases and decreases of emissions caused by modifications to that stationary source pursuant to the Authorities to Construct issued during the preceding five years, or since January 26, 1978, whichever period is shorter. Emission reductions required to comply with federal, state, or district laws, emission limitations, or rules or regulations

shall not be considered to be decreases in emissions for the purposes of this paragraph; or

c. Emissions of all subject contaminants which exceed the above mentioned rate thresholds are controlled by use of technology that is at least as effective as that generally in use on similar stationary sources for all of the existing units of the stationary source, and that the cost of installing best available air pollution control technology on existing units is economically prohibitive and substantially exceeds the cost per unit mass of controlling emissions of each such contaminant through all other control measures; or

d. The stationary source is a small business, as defined in subsection (1) of Section 1896 of Title 2 of the California Administrative Code; emissions of air contaminants which exceed the above mentioned rate thresholds are controlled at all existing units of the stationary source through application of the best available air pollution control technology that is economically reasonable to apply to that stationary source; and the cost of employing best available air pollution control technology is economically prohibitive; and

4) Fourth Requirement

All facilities in the air basin which are owned or operated by an applicant are in compliance with all applicable district rules, regulations and orders, and all applicable requirements of the State Implementation Plan approved or promulgated by the Federal Environmental Protection Agency under Section 110 of the Clean Air Act including approved compliance schedules or enforcement orders issued under Section 113 of the Clean Air Act.

B. PERMIT TO OPERATE

The Air Pollution Control Officer (APCO) shall deny an application for a Permit to Operate unless the applicant satisfactorily demonstrates to the APCO that:

1) First Requirement

The stationary source is operated without emitting air contaminants in violation of any applicable State or Federal emission limitation or of these Rules and Regulations; and

2) Additional Requirements

(a) The emission of any subject air contaminant from the stationary source is less than or equal to the emissions amounts used by the APCO in granting an application under Section A of this Rule; or

(b) The Authority to Construct was granted prior to January 26, 1978, provided however, that any such source will be required to obtain a Permit to Operate in accordance with the provisions of the rules which were in effect prior to January 26, 1978, and provided further that any exemption granted hereunder shall not apply to any subsequent modification of such source; or

(c) The stationary source was previously exempt from the permit provision of these Rules and Regulations and a Permit to Operate is required solely because of a change in permit exemptions; or

(d) The applicant demonstrates to the satisfaction of the APCO that the actual emissions from the source will not:

(i) Cause a violation of, or interfere with the attainment or maintenance of, any National Primary or State ambient air quality standard; or

(ii) Prevent reasonable progress toward attainment of secondary National ambient air quality standards.

C. ANALYSIS

Before granting or denying an application for any new or modified stationary source pursuant to the provisions of Sections A-2)(e), A-2)(j), A 2)(k), or B-2)(d) of this Rule, the Air Pollution Control Officer (APCO) shall:

1) Air Quality Effects

Analyze the effect of the new or modified stationary source on air quality. Such analyses shall consider the air contaminant emissions and air quality within the vicinity of the new or modified stationary source, within the applicable zone of the South Central Coast Air Basin and within contiguous zones, districts, or air basins, if appropriate, for a period of time not to exceed five (5) years. Such analysis shall be based on the application of existing federal, state and local control strategies. Such analysis shall be completed in less than thirty (30) calendar days

2) Additional Requirements

(a) The emission of any subject air contaminant from the stationary source is less than or equal to the emissions amounts used by the APCO in granting an application under Section A of this Rule; or

(b) The Authority to Construct was granted prior to January 26, 1978, provided however, that any such source will be required to obtain a Permit to Operate in accordance with the provisions of the rules which were in effect prior to January 26, 1978, and provided further that any exemption granted hereunder shall not apply to any subsequent modification of such source; or

(c) The stationary source was previously exempt from the permit provision of these Rules and Regulations and a Permit to Operate is required solely because of a change in permit exemptions; or

(d) The applicant demonstrates to the satisfaction of the APCO that the actual emissions from the source will not:

(i) Cause a violation of, or interfere with the attainment or maintenance of, any National Primary or State ambient air quality standard; or

(ii) Prevent reasonable progress toward attainment of secondary National ambient air quality standards.

C. ANALYSIS

Before granting or denying an application for any new or modified stationary source pursuant to the provisions of Sections A-2)(e), A-2)(j), A 2)(k), or B-2)(d) of this Rule, the Air Pollution Control Officer (APCO) shall:

1) Air Quality Effects

Analyze the effect of the new or modified stationary source on air quality. Such analyses shall consider the air contaminant emissions and air quality within the vicinity of the new or modified stationary source, within the applicable zone of the South Central Coast Air Basin and within contiguous zones, districts, or air basins, if appropriate, for a period of time not to exceed five (5) years. Such analysis shall be based on the application of existing federal, state and local control strategies. Such analysis shall be completed in less than thirty (30) calendar days

following submittal to the APCO of all necessary information by the applicant.

2) Inspection and Notice

Following completion of the analysis required by the provisions of Section C-1), but before granting or denying approval:

(a) Make available for public inspection at his office, except as limited by provisions of any other statute or regulation, the information submitted by the applicant, the Air Pollution Control Officer's analysis of the effect of the source on air quality, and the preliminary decision to grant or deny the Authority to Construct or Permit to Operate.

(b) Publish a notice once by advertisement in at least one newspaper of general circulation in the District, stating where the public may inspect the information required in this subdivision. The notice shall provide thirty (30) days, beginning on the date of publication, for the public to submit comments on the application.

(c) Notify in writing within 10 days of the notice requirements of Section C-2)(b), the applicant, the U.S. Environmental Protection Agency, the State Air Resources Board, adjoining air pollution control districts and other air pollution control districts in the air basin of his preliminary decision to grant or deny the Authority to Construct or Permit to Operate.

(d) Consider all comments submitted. If within the thirty (30) day notice period the APCO receives a written request from either the Environmental Protection Agency or Air Resources Board to defer the APCO's decision pending the requesting agency's review of this application, the APCO shall defer his decision for a period of thirty (30) days from the date of such request.

D. The Air Pollution Control Officer shall notify in writing the United States Environmental Protection Agency and the California Air Resources Board within 15 days of the granting of an Authority to Construct pursuant to Section A-2)(d), A-2)(f), or A-2)(g).

E. Definitions

1) "Stationary Source" means a unit or an aggregation of units of non-vehicular air-contaminant-emitting equipment which is located on one property or on contiguous properties; which is under the same

ownership or entitlement to use and operate; and, in the case of an aggregation of units, those units which are related to one another. Units shall be deemed related to one another if the operation of one is dependent upon, or affects the process of, the other; if their operation involves a common or similar raw material, product, or function; or if they have the same first three digits in their standard industrial classification codes as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget.

In addition, in cases where all or part of a stationary source is a facility used to load cargo onto or unload cargo from cargo carriers, other than motor vehicles, the Air Pollution Control Officer shall consider such carriers to be parts of the stationary source. Accordingly, all emissions from such carriers (excluding motor vehicles) which will result in an adverse impact on air quality in the State of California shall be considered as emissions from such stationary sources. Emissions from such carriers shall include those that result from operation of the carriers' engines; the purging or other method of venting of vapors; and from the loading, unloading, storage, processing, and transfer of cargo.

2) "Modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air contaminant emitted or which results in the emission of air contaminants not previously emitted except that:

   a. Maintenance or repair shall not be considered physical change, and

   b. The following changes shall not be considered a change in the method of operation provided that such changes are not contrary to any permit conditions:

      (i) An increase in production rate provided such an increase does not exceed the operating design capacity of the individual units of the stationary source as specified on the permit.

      (ii) An increase in hours of operation.

ownership or entitlement to use and operate; and, in the case of an aggregation of units, those units which are related to one another. Units shall be deemed related to one another if the operation of one is dependent upon, or affects the process of, the other; if their operation involves a common or similar raw material, product, or function; or if they have the same first three digits in their standard industrial classification codes as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget.

In addition, in cases where all or part of a stationary source is a facility used to load cargo onto or unload cargo from cargo carriers, other than motor vehicles, the Air Pollution Control Officer shall consider such carriers to be parts of the stationary source. Accordingly, all emissions from such carriers (excluding motor vehicles) which will result in an adverse impact on air quality in the State of California shall be considered as emissions from such stationary sources. Emissions from such carriers shall include those that result from operation of the carriers' engines; the purging or other method of venting of vapors; and from the loading, unloading, storage, processing, and transfer of cargo.

2) "Modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air contaminant emitted or which results in the emission of air contaminants not previously emitted except that:

   a. Maintenance or repair shall not be considered physical change, and

   b. The following changes shall not be considered a change in the method of operation provided that such changes are not contrary to any permit conditions:

      (i) An increase in production rate provided such an increase does not exceed the operating design capacity of the individual units of the stationary source as specified on the permit.

      (ii) An increase in hours of operation.

(iii) Use of an alternate fuel or raw material provided that such alternate fuel or raw material is expressly authorized on the permit.

3) "Control strategy" means a combination of measures designed to reduce air contaminant emissions to attain and maintain ambient air quality standards.

4) "Best available air pollution control technology" means the maximum degree of emission control for any air contaminant emitting equipment, taking into account technology which is known but not necessarily in use, provided that the Air Pollution Control Officer shall not interpret best available air pollution control technology to include a requirement which will result in the closing and elimination of or inability to construct a lawful business which could be operated with the application of the best available air pollution control technology currently in use.

RULE 5. EXEMPTIONS.

An authority to construct or a permit to operate shall not be required for:

a. Vehicles as defined by the Vehicle Code of the State of California but not including any article, machine, equipment or other contrivance mounted on such vehicle that would otherwise require a permit under the provisions of these rules and regulations.

b. Vehicles used to transport passengers or freight.

c. Equipment utilized exclusively in connection with any structure, which structure is designed for and used exclusively as a dwelling for not more than four families.

d. The following equipment:

1. Comfort air conditioning or comfort ventilating systems which are not designed to remove air contaminants generated by or released from specific units or equipment.

2. Refrigeration units except those used as, or in conjunction with, air pollution control equipment.

3. Piston type internal combustion engines.

4. Water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers.

5. Equipment used exclusively for steam cleaning.

6. Presses used exclusively for extruding metals, minerals, plastics or wood.

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3. Piston type internal combustion engines.

4. Water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers.

5. Equipment used exclusively for steam cleaning.

6. Presses used exclusively for extruding metals, minerals, plastics or wood.

7. Porcelain enameling furnaces, porcelain enameling drying ovens, vitreous enameling furnaces or vitreous enameling drying ovens.

8. Presses used for the curing of rubber products and plastic products.

9. Equipment used exclusively for space heating, other than boilers.

10. Equipment used for hydraulic or hydrostatic testing.

11. All sheet-fed printing presses; and all other printing presses without driers.

12. Tanks, vessels and pumping equipment used exclusively for the storage or dispensing of fresh commercial or purer grades of:

a. Sulfuric acid with an acid strength of 99 percent or less by weight.

b. Phosphoric acid with an acid strength of 99 percent or less by weight.

c. Nitric acid with an acid strength of 70 percent or less by weight.

13. Ovens used exclusively for the curing of plastics which are concurrently being vacuum held to a mold or for the softening or annealing of plastics.

14. Equipment used exclusively for the dyeing or stripping (bleaching) of textiles where no organic solvents, diluents or thinners are used.

15. Equipment used exclusively to mill or grind coatings and molding compounds where all materials charged are in a paste form.

16. Crucible type or pot type furnaces with a brimful capacity of less than 450 cubic inches of any molten metal.

17. Equipment used exclusively for the melting or applying of wax where no organic solvents, diluents or thinners are used.

18. Equipment used exclusively for bonding lining to brake shoes.

19. Lint traps used exclusively in conjunction with dry cleaning tumblers.

20. Equipment used in eating establishments for the purpose of preparing food for human consumption.

21. Equipment used exclusively to compress or hold dry natural gas.

22. Tumblers used for the cleaning or deburring of metal products without abrasive blasting.

23. Shell core and shell-mold manufacturing machines.

24. Molds used for the casting of metals.

25. Abrasive blast cabinet-dust filter integral combination units where the total internal volume of the blast section is 50 cubic feet or less.

26. Batch mixers of 5 cubic feet rated working capacity or less.

15. Equipment used exclusively to mill or grind coatings and molding compounds where all materials charged are in a paste form.

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24. Molds used for the casting of metals.

25. Abrasive blast cabinet-dust filter integral combination units where the total internal volume of the blast section is 50 cubic feet or less.

26. Batch mixers of 5 cubic feet rated working capacity or less.

27. Equipment used exclusively for the packaging of lubricants or greases.

28. Equipment used exclusively for the manufacture of water emulsions of asphalt, greases, oils or waxes.

29. Ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process.

30. Equipment used exclusively for conveying and storing plastic pellets.

31. Equipment used exclusively for the mixing and blending of materials at ambient temperature to make water based adhesives.

32. Smokehouses in which the maximum horizontal inside cross-sectional area does not exceed 20 square feet.

33. Platen presses used for laminating.

e. The following equipment or any exhaust system or collector serving exclusively such equipment:

1. Blast cleaning equipment using a suspension of abrasive in water.

2. Ovens, mixers and blenders used in bakeries where the products are edible and intended for human consumption.

3. Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity or any combination thereof.

4. Laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment.

5. Equipment used for inspection of metal products.

6. Confection cookers where the products are edible and intended for human consumption.

7. Equipment used exclusively for forging, pressing, rolling or drawing of metals or for heating metals immediately prior to forging, pressing, rolling or drawing.

8. Die casting machines.

9. Atmosphere generators used in connection with metal heat treating processes.

10. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy.

11. Brazing, soldering or welding equipment.

12. Equipment used exclusively for the sintering of glass or metals.

13. Equipment used for buffing (except automatic or semi-automatic tire buffers) or polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding or turning of ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, asbestos, carbon or graphite.

14. Equipment used for carving, cutting, drilling, surface grinding, planing, routing, sanding, sawing, shredding or turning of wood, or the pressing or

5. Equipment used for inspection of metal products.

6. Confection cookers where the products are edible and intended for human consumption.

7. Equipment used exclusively for forging, pressing, rolling or drawing of metals or for heating metals immediately prior to forging, pressing, rolling or drawing.

8. Die casting machines.

9. Atmosphere generators used in connection with metal heat treating processes.

10. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy.

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14. Equipment used for carving, cutting, drilling, surface grinding, planing, routing, sanding, sawing, shredding or turning of wood, or the pressing or

storing of sawdust, wood chips or wood shavings.

15. Equipment using aqueous solutions for surface preparation, cleaning, stripping, etching (does not include chemical milling) or the electrolytic plating with electrolytic polishing of, or the electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals.

16. Equipment used for washing or drying products fabricated from metal or glass, provided that no volatile organic materials are used in the process and that no oil or solid fuel is burned.

17. Laundry dryers, extractors or tumblers used for fabrics cleaned only with water solutions of bleach or detergents.

18. Foundry sand mold forming equipment to which no heat is applied.

19. Ovens used exclusively for curing potting materials or castings made with epoxy resins.

20. Equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air.

21. Equipment used for compression molding and injection molding of plastics.

22. Mixers for rubber or plastics where no material in powder form is added and no organic solvents, diluents or thinners are used.

23. Equipment used exclusively to package pharmaceuticals and cosmetics or to coat pharmaceutical tablets.

24. Roll mills or calendars for rubber or plastics where no organic solvents, diluents or thinners are used.

25. Equipment used exclusively to grind, blend or package tea, cocoa, spices or roasted coffee.

26. Vacuum producing devices used in laboratory operations or in connection with other equipment which is exempt by Rule 5.

f. Natural draft hoods, natural draft stacks or natural draft ventilators.

g. Containers, reservoirs, or tanks used exclusively for:

1. Dipping operations for coating objects with oils, waxes or greases where no organic solvents, diluents or thinners are used.

2. Dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents.

3. Storage of liquefied gases.

4. Unheated storage of organic materials with an initial boiling point of 300°F. or greater.

5. The storage of fuel oils with a gravity of 25° API or lower.

6. The storage of lubricating oils.

7. The storage of fuel oils with a gravity of 40° API or lower and having a capacity of 10,000 gallons or less.

23. Equipment used exclusively to package pharmaceuticals and cosmetics or to coat pharmaceutical tablets.

24. Roll mills or calendars for rubber or plastics where no organic solvents, diluents or thinners are used.

25. Equipment used exclusively to grind, blend or package tea, cocoa, spices or roasted coffee.

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3. Storage of liquefied gases.

4. Unheated storage of organic materials with an initial boiling point of 300°F. or greater.

5. The storage of fuel oils with a gravity of 25° API or lower.

6. The storage of lubricating oils.

7. The storage of fuel oils with a gravity of 40° API or lower and having a capacity of 10,000 gallons or less.

8. The storage of organic liquids, except gasoline, normally used as solvents, diluents or thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins or other surface coatings, and having a capacity of 6,000 gallons or less.

9. The storage of liquid soaps, liquid detergents, vetetable oils, waxes or wax emulsions.

10. The storage of asphalt.

11. Unheated solvent dispensing containers, unheated non-conveyorized solvent rinsing containers or unheated non-conveyorized coating dip tanks of 100 gallons capacity or less.

12. The storage of gasoline having a capacity or less than 1500 gallons or less.

13. Transporting materials on streets or highways.

h. Equipment used exclusively for heat treating glass or metals, or used exclusively for case hardening, carburizing, cyaniding, nitriding, carbonitriding, siliconizing or diffusion treating of metal objects.

i. Crucible furnaces, pot furnaces or induction furnaces, with a capacity of 1000 pounds or less each, in which no sweating or distilling is conducted and from which only the following metals are poured or in which only the following metals are held in a molten state:

1. Aluminum or any alloy containing over 50 per cent aluminum.

2. Magnesium or any alloy containing over 50 per cent magnesium.

3. Lead or any alloy containing over 50 per cent lead.

4. Tin or any alloy containing over 50 per cent tin.

5. Zinc or any alloy containing over 50 per cent zinc.

6. Copper.

7. Precious metals.

j. Vacuum cleaning systems used exclusively for industrial, commercial or residential housekeeping purposes.

k. Structural changes which cannot change the quality, nature or quantity of air contaminant emissions.

l. Repairs or maintenance not involving structural changes to any equipment for which a permit has been granted.

3. Lead or any alloy containing over 50 per cent lead.

4. Tin or any alloy containing over 50 per cent tin.

5. Zinc or any alloy containing over 50 per cent zinc.

6. Copper.

7. Precious metals.

j. Vacuum cleaning systems used exclusively for industrial, commercial or residential housekeeping purposes.

k. Structural changes which cannot change the quality, nature or quantity of air contaminant emissions.

l. Repairs or maintenance not involving structural changes to any equipment for which a permit has been granted.

State of California
AIR RESOURCES BOARD

Resolution 78-4

January 25, 1978

WHEREAS, Section 39601 of the Health and Safety Code authorizes the Air Resources Board to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Sections 43101 and 43104 of the Health and Safety Code authorize the Board to adopt vehicle emission standards and test procedures in order to control or eliminate air pollution caused by new motor vehicles or motor vehicle engines;

WHEREAS, Section 43104 requires that the Board's test procedures for determining compliance with emission standards be based on federal test procedures or on driving patterns typical in the urban areas of California;

WHEREAS, the Board has found that the current Federal Test Procedure for determining compliance of light-duty and medium-duty vehicles with exhaust emission standards is not fully representative of driving patterns typical of urban areas of California;

WHEREAS, the Board has received evidence that some motor vehicles are now equipped with emission control systems which do not control exhaust emissions when driven at steady-state freeway driving conditions as well as they do during the Federal Test Procedure, and that the use of such systems is likely to increase in the future in light of increasingly stringent federal fuel economy standards;

WHEREAS, the Board has found that the federal Highway Fuel Economy Test is representative of the typical freeway driving conditions not adequately represented by the Federal Test Procedure; and

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of the Administrative Procedure Act (Government Code, Title 2, Division 3, Part 1, Chapter 4.5);

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends its regulations in Section 1960, Article 2, Subchapter 1, Chapter 3 of Title 13, California Administrative Code as follows:

1. The following footnote is added to Subsection 1960(a) for the column "Oxides of Nitrogen (NO_2)":

   "In addition, for passenger cars, the maximum projected emissions of oxides of nitrogen measured on the federal Highway Fuel Economy Test shall be no greater than 1.33 times the applicable standard shown in the table.

2. Subsection 1960(b) is amended to read:

   (b) The test procedures for determining compliance with these standards are set forth in "California Exhaust Emission Standards and Test Procedures for 1980 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted by the Air Resources Board on November 23, 1976, as last amended January 25, 1978.

BE IT FURTHER RESOLVED, that the Board hereby adopts the "California Exhaust Emission Standards and Test Procedures for 1980 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," as last amended January 25, 1978.

BE IT FURTHER RESOLVED, that the Board hereby determines that the exhaust emission standards and test procedures adopted or amended above are, for each vehicle category and model year, in the aggregate, at least as protective of public health and welfare as applicable federal standards.

State of California
AIR RESOURCES BOARD

Resolution 78-5

January 25, 1978

WHEREAS, an unsolicited proposal No. 664-58 entitled "The Effects of Present and Potential Air Pollution on Important San Joaquin Valley Crops" has been submitted by the University of California at Riverside to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal No. 664-58 entitled "The Effects of Present and Potential Air Pollution on Important San Joaquin Valley Crops" submitted by the University of California at Riverside for an amount not to exceed $92,846;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal No. 664-58 entitled "The Effects of Present and Potential Air Pollution on Important San Joaquin Valley Crops" submitted by the University of California at Riverside, for an amount not to exceed $92,846,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $92,846.

I certify that the above is a true and correct copy of Resolution 78-5 passed by the Air Resources Board January 26, 1978.

William Hetrick Jr.

State of California
AIR RESOURCES BOARD

Resolution 78-9

January 25, 1978

WHEREAS, a request for augmentation of research Contract Number A6-186-30 entitled "Sulfate, Nitrate Inhalation Toxicity" has been submitted by the University of California, Irvine to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended an augmentation for the maintenance of research dogs owned by the Air Resources Board and maintained by the University of California, Irvine for purposes of completing this contract;

WHEREAS, the Research Screening Committee has reviewed and recommends an augmentation to:

> Contract Number A6-186-30 entitled "Sulfate, Nitrate Inhalation Toxicity" submitted by the University of California, Irvine for actual costs incurred to maintain the dogs for research designated in contract Number A6-186-30 in an amount not to exceed $5,000;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the augmentation to:

> Contract Number A6-186-30 entitled "Sulfate, Nitrate Inhalation Toxicity" submitted by the University of California, Irvine, for actual costs incurred to maintain the dogs for research designated in contract Number A6-186-30 in an amount not to exceed $5,000,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $5,000.

I certify that the above is a true and correct copy of Resolution 78-9 as passed by the Air Resources Board January 26, 1978.

William Hoskins Jr.

State of California
AIR RESOURCES BOARD

February 23, 1978

Resolution 78-10

WHEREAS, Section 39516 of the Health and Safety Code conclusively presumes any power, duty, purpose, function or jurisdiction is delegated to the Executive Officer, unless the Air Resources Board affirmatively votes to reserve the same for its own action; and

WHEREAS, the Air Resources Board has reviewed its powers, duties, purposes, functions and jurisdiction as conferred by the Health and Safety Code and other California laws;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board specifically reserves unto itself the following powers, etc., to:

1. Adopt, amend and revoke ambient air quality standards.

2. Establish and revise air basin boundaries and request revisions to federal air quality control region boundaries.

3. Adopt, amend and revoke emission standards and test procedures, assembly-line test procedures, and compliance test procedures for new motor vehicles.

4. Adopt, amend and revoke used motor vehicle standards and test procedures, and certify emission control devices for used motor vehicles.

5. Conduct public hearings pursuant to Health and Safety Code Section 41502 and take action to assume any power, duty, function or jurisdiction of an air pollution control district or basin coordinating council, as provided in Health and Safety Code Sections 40001, 41503, 41504, 41505, and 41507, but specifically excluding the power to revoke or modify a variance pursuant to Health and Safety Code Section 42362, and the authority to undertake the review actions specified in Health and Safety Code Section 41500.

6. Adopt model rules and regulations for control of emissions from nonvehicular sources.

7. Approve research proposals recommended by the Research Screening Committee in excess of $50,000.00.

8. Approve formal reports required by the Legislature.

9. Appoint advisory groups and committees.

BE IT FURTHER RESOLVED, that the Executive Officer may undertake action pertaining to matters otherwise reserved hereby to the Board for the purpose of making corrective, clarifying or ministerial changes;

BE IT FURTHER RESOLVED, that nothing herein shall prevent the Board, at a public meeting, from expressly delegating to the Executive Officer any powers, etc., otherwise reserved hereby to the Board, or from reserving to itself any additional powers, etc.; and

BE IT FURTHER RESOLVED, that any previous Resolutions relating to the Board's reservation of powers are hereby rescinded.

I certify that the above is a true and correct copy of Resolution 78-10 as passed by the Air Resources Board.

William H. Lewis, Jr.
Executive Officer

State of California
AIR RESOURCES BOARD

Resolution 78-11

March 22, 1978

WHEREAS, Sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Section 43010 of the Health and Safety Code requires the Board to prescribe air pollution standards to be applied in inspecting motor vehicles;

WHEREAS, the Board and the Bureau of Automotive Repair (BAR) have determined that the California Mandatory Vehicle Inspection Program (MVIP) should be implemented with an idle inspection test with corresponding idle test standards and a functional test rather than with the loaded mode inspection test currently specified by Section 2176, Title 13, California Administrative Code;

WHEREAS, Section 43010 of the Health and Safety Code requires the Board to design the MVIP inspection test standards to secure the operation of all motor vehicles with a substantial reduction in air pollution emissions;

WHEREAS, Section 43010 of the Health and Safety Code requires the Board to revise the MVIP inspection test standards from time to time, as experience justifies;

WHEREAS, studies conducted by the Board and the BAR have determined that standards with an error of commission rate (an error of commission occurs when a vehicle which failed the inspection test does not have an emission-related malfunction) limited to 0.5% overall and 1.0% per vehicle category are highly effective in detecting part failures which cause an increase in emissions;

WHEREAS, the Board has found it desirable to delegate to the Executive Officer the authority to establish and/or revise, within specified limits, the MVIP inspection test and the inspection test standards in order to more quickly and accurately reflect changes in the vehicle population and to cope more efficiently with other changes involving vehicles which are subject to the MVIP inspection test;

WHEREAS, the Board has determined that it is desirable to delegate to the Executive Officer the authority to make appropriate changes to Section 2176, Title 13, California Administrative Code in order to permit effective and continuous operation of the MVIP; and

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act (Government Code, Title 2, Division 3, Part 1, Chapter 4.5);

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby delegates to the Executive Officer the authority to establish and/or revise the MVIP inspection test or the inspection test standards and to make appropriate changes to Section 2176, Title 13, California Administrative Code, as experience or technical or cost/effectiveness analyses justify.

BE IT FURTHER RESOLVED, that the Board hereby requires that, in developing and implementing the MVIP inspection test and inspection test standards, the Executive Officer shall maintain an error of commission rate at or below 0.5% overall and at or below 1.0% for any one vehicle category. The Executive Officer shall periodically publish the results of studies which show that the errors of commission are kept at or below the specified values.

BE IT FURTHER RESOLVED, that the Board hereby requires that, in developing and implementing the MVIP inspection test and inspection test standards, the Executive Officer shall take cost/effectiveness factors into consideration. The Executive Officer shall periodically publish the results of studies which show that the cost/effectiveness of the program is maintained. The publication shall identify the specific criteria used to determine the cost/effectiveness factors.

BE IT FURTHER RESOLVED, that the Board will schedule a public hearing six months after the start of the MVIP to review the progress of the program.

State of California
AIR RESOURCES BOARD

Resolution 78-12

February 23, 1978

WHEREAS, an unsolicited research Proposal Number 661-58 entitled "Geographical and Temporal Distribution of Atmospheric Mutagens in California" has been submitted by the University of California, Riverside to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

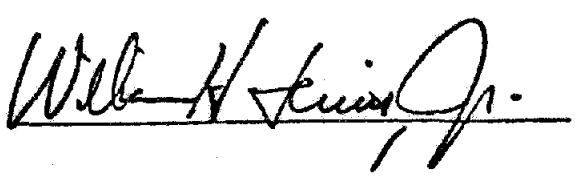
> Proposal Number 661-58 entitled "Geographical and Temporal Distribution of Atmospheric Mutagens in California" submitted by the University of California, Riverside for an amount not to exceed $134,973;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 661-58 entitled "Geographical and Temporal Distribution of Atmospheric Mutagens in California" submitted by the University of California, Riverside, for an amount not to exceed $134,973,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $134,973.

I certify that the above is a true and correct copy of Resolution 78-12 as passed by the Air Resources Board.



State of California
AIR RESOURCES BOARD

Resolution 78-13

February 23, 1978

WHEREAS, an unsolicited research Proposal Number 670-59 entitled "The Impact of Sulfur Dioxide on a Crop Stressed with Chronic Oxidants" has been submitted by the University of California, Riverside to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

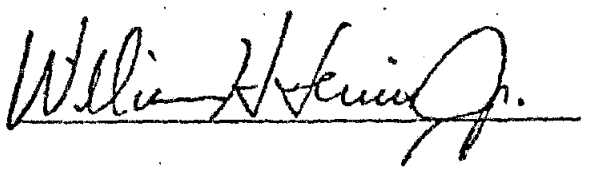
> Proposal Number 670-59 entitled "The Impact of Sulfur Dioxide on a Crop Stressed with Chronic Oxidants" submitted by the University of California, Riverside for an amount not to exceed $92,099;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 670-59 entitled "The Impact of Sulfur Dioxide on a Crop Stressed with Chronic Oxidants" has been submitted by the University of California, Riverside, for an amount not to exceed $92,099,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $92,099.

I certify that the above is a true and correct copy of Resolution 78-13 as passed by the Air Resources Board.



State of California

AIR RESOURCES BOARD

RESOLUTION

No. 78-14

Adopted April 1978

WHEREAS, technology for the use of solar energy is sufficiently developed to be utilized in many low temperature applications (such as comfort heating and cooling of indoor air, water heating, agricultural drying, and industrial process air heating) thereby obviating the need for combustion of fossil fuels in these applications and the emissions of air pollutants which result from the burning of such fuels; and

WHEREAS, natural gas is a valuable non-renewable resource which is only available in limited amounts; and

WHEREAS, the utilization of solar energy can extend the period during which natural gas is available; and

WHEREAS, the combustion of natural gas, in applications where non-fossil fuel alternative energy sources are impractical substitutes for fossil fuels, results in fewer emissions of pollutants to the air than does the burning of oil or coal, thereby improving air quality and the quality of life for Californians; and

WHEREAS, the application of solar cooling principles and technology to the design of buildings will reduce the reliance of these structures on electricity for air conditioning, thereby reducing the need for future

additional peak generating capacity and the attendant need to tolerate additional emissions of air pollutants or risk of contamination by airborne nuclear material; and

WHEREAS, the Energy Commission is actively considering the possibility of requiring the use of solar energy technology; and

WHEREAS, in developing programs for promoting the use of solar energy, the Energy Commission should consider the severity of California's air pollution problems and should be aware of the fact that increasing the number of solar applications is a major air quality improvement strategy; and

WHEREAS, the use of solar energy technology to the maximum extent possible will be important in minimizing future air pollution, and will permit the State to move closer to the goal of attainment of the ambient air quality standards;

NOW THEREFORE, BE IT RESOLVED, that the Air Resources Board commends the work already done by the Energy Commission in encouraging the utilization of solar energy.

BE IT FURTHER RESOLVED, that the Air Resources Board urges the Energy Commission to expeditiously require the use of solar energy technology,

78-15

Thru

78-23

Missing Resolution

State of California
AIR RESOURCES BOARD

Resolution 78-24

April 27, 1978

WHEREAS, on March 17, 1971 and on June 21, 1972 the Board adopted, pursuant to Section 41856 of the Health and Safety Code, Agricultural Burning Guidelines for the regulation and control of agricultural burning in Subchapter 2, Chapter 1, Part 3, Title 17, California Administrative Code;

WHEREAS, on March 17, 1971 and on June 21, 1972 the Board adopted, pursuant to Health and Safety Code Section 41856 Meteorological Criteria for Regulating Agricultural Burning to implement aforesaid guidelines;

WHEREAS, Health and Safety Code Section 41859 allows the meteorological criteria to be amended after public hearing and 30 days advance notice to interested persons;

WHEREAS, the staff has modified the existing criteria for the San Joaquin Valley and San Francisco Bay Area Air Basins;

WHEREAS, the Board has complied with the notice and hearing requirements of the aforesaid Section 41859.

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board adopts the "Meteorological Criteria for Regulating Agricultural Burning" as revised April 27, 1978, and attached hereto.

BE IT FURTHER RESOLVED, that the Board amends Section 80110 (a) of its regulations in Title 17, California Administrative Code, as follows:

80110. Permissive-Burn or No-Burn Days.
(a) Commencing no later than December 1, 1974, a notice as to whether the following day is a permissive-burn day, or a no-burn day, or whether the decision will be announced the following day, ~~will~~ shall be provided by the State Board at 1500 daily for each of the air basins. If the decision is made the following day it ~~will~~ shall be announced by 0745. Such notices ~~will~~ shall be based on the Meteorological Criteria for Regulating Agricultural Burning, ~~which were~~ adopted ~~by the State Board on June 21, 1972~~, March 17, 1971, ~~and which were amended on February 20, 1975 and may be further amended from time to time after public hearing. Interested persons shall be notified 30 days in advance of the hearing~~ as revised June 21, 1972, February 20, 1975 and April 27, 1978.

80110. Permissive-Burn or No-Burn Days.
(a) Commencing no later than December 1, 1974, a notice as to whether the following day is a permissive-burn day, or a no-burn day, or whether the decision will be announced the following day, ~~will~~ shall be provided by the State Board at 1500 daily for each of the air basins. If the decision is made the following day it ~~will~~ shall be announced by 0745. Such notices ~~will~~ shall be based on the Meteorological Criteria for Regulating Agricultural Burning, ~~which were~~ adopted ~~by the State Board on June 21, 1972~~, March 17, 1971, ~~and which were amended on February 20, 1975 and may be further amended from time to time after public hearing. Interested persons shall be notified 30 days in advance of the hearing~~ as revised June 21, 1972, February 20, 1975 and April 27, 1978.

State of California
AIR RESOURCES BOARD

Resolution No. 78-26

May 24, 1978

WHEREAS, Section 39601 of the Health and Safety Code authorizes the Air Resources Board to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Sections 43101 and 43104 of the Health and Safety Code authorize the Board to adopt vehicle emission standards and test procedures in order to control or eliminate air pollution caused by motor vehicles;

WHEREAS, the Board finds the need to amend the test procedures to incorporate technical changes adopted by the Environmental Protection Agency in order to be more consistent with federal regulations;

WHEREAS, the Board finds it necessary to specify test procedures for determining non-methane hydrocarbon exhaust emissions from motor vehicles;

WHEREAS, the Board believes that vehicle manufacturers must take reasonable steps to ensure that their vehicles have satisfactory driveability in order to minimize the incentive for tampering with the emission control systems;

WHEREAS, the Board believes that a maintenance warning signal is needed in order to alert the vehicle operator of scheduled maintenance for the exhaust gas sensor;

WHEREAS, the Board finds it necessary to delegate to the Executive Officer the authority, after giving adequate notice, to amend the test procedures by incorporating technical changes adopted by the Environmental Protection Agency in order to minimize the time lapse between federal and California adoption of minor test procedure changes and reduce the administrative burden on the Board;

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act (Government Code, Title 2, Division 3, Part I, Chapter 4.5);

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends its regulations in Chapter 3, Title 13 of the California Administrative Code as set forth in Appendix III to Staff Report 78-9-2.

BE IT FURTHER RESOLVED, that the Board hereby adopts the following:

1. "California Non-Methane Hydrocarbon Test Procedures," adopted May 24, 1978.
2. "California Exhaust Emission Standards and Test Procedures for 1980 Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted May 24, 1978.
3. "California Exhaust Emission Standards and Test Procedures for 1981 and Subsequent Model Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles," adopted November 23, 1976, as last amended May 24, 1978.
4. "California Exhaust Emission Standards and Test Procedures for 1980 Model Heavy-Duty Engines and Vehicles," adopted May 24, 1978.
5. "California Exhaust Emission Standards and Test Procedures for 1981 and Subsequent Model Heavy-Duty Engines and Vehicles," adopted October 5, 1976, as last amended May 24, 1978.

BE IT FURTHER RESOLVED, that the Board hereby delegates to the Executive Officer the authority, after giving adequate notice, to adopt technical changes to the motor vehicle test procedures in a timely manner in order to be consistent with ongoing technical changes in the federal test procedures.

BE IT FURTHER RESOLVED, that the Board hereby determines that the exhaust emission standards and test procedures adopted or amended herein are, for each vehicle category and model year, individually and in the aggregate, at least as protective of public health and welfare as applicable federal standards.

STATE OF CALIFORNIA

EDMUND G. BROWN JR., Governor

AIR RESOURCES BOARD LABORATORY
9528 TELSTAR AVENUE
MONTE 91731
) 575-6800

June 6, 1978

TO ALL MOTOR VEHICLE MANUFACTURERS

Enclosed are the "California Exhaust Emission Standards and Test Procedures for 1980 and Subsequent Model Motor Vehicles" adopted by the Air Resources Board (ARB) at its May 24, 1978 meeting.

These procedures embody three minor language changes proposed and adopted at the May 24th meeting.

G. C. Hass, Chief
Vehicle Emissions Control Division

Enclosures

State of California
AIR RESOURCES BOARD

Resolution 78-27

April 27, 1978

WHEREAS, a solicited research Proposal Number 696-62 entitled "A Study of the Origin and Fate of Air Pollutants in California's Central Valley" has been submitted by the Meteorology Research, Inc. with contributions from the Rockwell International Corporation, the California Institute of Technology, and the Environmental Research and Technology Inc., to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval;

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 696-62 entitled "A Study of the Origin and Fate of Air Pollutants in California's Central Valley" submitted by the Meteorology Research, Inc. ($290,450) with contributions from the Rockwell International Corporation, ($184,000) the California Institute of Technology ($269,886), and the Environmental Research and Technology, Inc, ($95,606) for a total amount not to exceed $839,942; and

WHEREAS, the Research staff and the Research Screening Committee recommend that separate contracts be awarded to Meteorology Research, Inc., and each of the participating contractors in order to minimize the cost to the State;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 696-62 entitled "A Study of the Origin and Fate of Air Pollutants in California's Central Valley", submitted by the Meteorology Research, Inc. ($290,450), with contributions from the Rockwell International Corporation, ($184,000) the California Institute of Technology, ($269,886) and the Environmental Research and Technology, Inc, ($95,606) for a total amount not to exceed $839,942;

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts individually with each of the contractors for the research effort proposed in a total amount not to exceed $839,942 for all four contracts.

State of California

AIR RESOURCES BOARD

Resolution 78-27a

January 24, 1979

WHEREAS, an unsolicited research Proposal Number 808-68 entitled "Transport and Dispersion of Airborne Pollutants in a Mountain Valley System Under Conditions of Stagnation" has been submitted by the California Institute of Technology to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

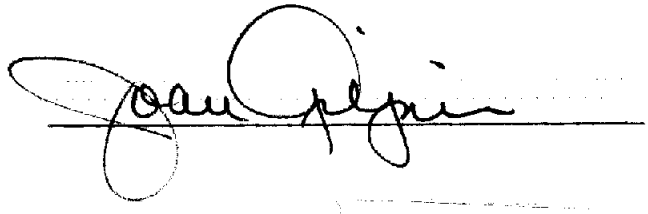
> Proposal Number 808-68 entitled "Transport and Dispersion of Airborne Pollutants in a Mountain Valley System Under Conditions of Stagnation" submitted by the California Institute of Technology for an amount not to exceed $33,105 for this amendment and $302,991 for the entire study;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 808-68 entitled "Transport and Dispersion of Airborne Pollutants in a Mountain Valley System Under Conditions of Stagnation" submitted by the California Institute of Technology, for an amount not to exceed $33,105 for this amendment and $302,991 for the entire study,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $33,105 for this amendment and $302,991 for the entire study.

I certify that the above is a true and correct copy of Resolution 78-27a as passed by the Air Resources Board.



ITEM NO.: 79-1-4b
DATE: January 23, 1979

State of California
AIR RESOURCES BOARD

ITEM: Research Proposal No. 808-68, an amendment to Air Resources Board Contract No. A7-170-30 entitled "A Study of the Origin and Fate of Air Pollutants in California's Central Valley".

RECOMMENDATION: Adopt Resolution 78-27a approving the research listed in Research Proposal 808-68 submitted by the California Institute of Technology for funding in an amount not to exceed $33,105 for this amendment and $302,991 for the entire study.

SUMMARY: The Air Resources Board staff is developing documentation to support the central valley sulfur dioxide control program. Analyses performed by the staff of the Technical Services Division indicate that, during the late winter and early fall, stagnant meteorological conditions result in high sulfate levels over large portions of the San Joaquin Valley. The precursors to this sulfate are believed to originate in the Kern County and drift slowly northward over a period of several days. This amendment, to a contract for a two-year study in the Central Valley now in progress, would provide for additional two SF_6 tracer releases under meteorological conditions specified by the ARB staff. The movement of the tracer material will be used to document flow patterns during periods of high sulfate concentration. The results and an accompanying analysis by staff meteorologists will be issued as an ARB report.

State of California

AIR RESOURCES BOARD

Resolution 78-28

April 27, 1978

WHEREAS, an unsolicited research Proposal Number 692-62 entitled "Incidence of Chronic Disease in a Human Population as a Function of Long-Term Cumulative Exposure to Photochemical Air Pollution" has been submitted by the Loma Linda University to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, The Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 692-62 entitled "Incidence of Chronic Disease in a Human Population as a Function of Long-Term Cumulative Exposure to Photochemical Air Pollution" submitted by the Loma Linda University for an amount not to exceed $90,010;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 692-62 entitled "Incidence of Chronic Disease in a Human Population as a Function of Long-Term Cumulative Exposure to Photochemical Air Pollution" submitted by the Loma Linda University, for an amount not to exceed $90,010;

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $90,010.

State of California
AIR RESOURCES BOARD

Resolution 78-29

April 27, 1978

WHEREAS, a solicited research Proposal Number 673-60 entitled "An Inventory of Carcinogenic Substances Released into the Ambient Air of California" has been submitted by the Science Application, Inc. to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 673-60 entitled "An Inventory of Carcinogenic Substances Released into the Ambient Air of California" submitted by the Science Applications, Inc. for an amount not to exceed $100,000:

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 673-60 entitled "An Inventory of Carcinogenic Substances Released into the Ambient Air of California" submitted by the Science Applications, Inc. for an amount not to exceed $100,000;

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $100,000.

State of California
AIR RESOURCES BOARD

Resolution 78-30

May 25, 1978

WHEREAS, a solicited research Proposal Number 691-62 entitled "Assessment of Control Technology for Stationary Sources" has been submitted by the Acurex Corporation

to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 691-62 entitled "Assessment of Control Technology for Stationary Sources" submitted by the Acurex Corporation for an amount not to exceed $249,989 ;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 691-62 entitled "Assessment of Control Technology for Stationary Sources" submitted by the Acurex Corporation for an amount not to exceed $249,989 ;

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $249,989 .

I certify that the above is a true and correct copy of Resolution 78-30 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

APPROVED FOR FINAL
May 30, 1978

State of California
AIR RESOURCES BOARD

May 24, 1978

Resolution 78-30 (A)

WHEREAS, Health and Safety Code Section 39606(b) requires the Air Resources Board to adopt standards of ambient air quality for the protection of the public health, safety, and welfare, including, but not limited to, health, illness, irritation to the senses, aesthetic value, interference with visibility, and effects on the economy;

WHEREAS, Health and Safety Code Section 41700 prohibits any person from discharging quantities of air contaminants which endanger the health and welfare of a considerable number of persons or the public;

WHEREAS, the Board has received and reviewed a substantial body of evidence and testimony, in both written and oral form, from its staff and expert members of the public at a meeting and hearings held on January 25, 1978, April 27, 1978, and May 24, 1978, relating to the adverse health effects including carcinogenic, mutagenic and teratogenic effects, of vinyl chloride (chloroethene, CH_2=CHCl);

WHEREAS, there is no agreement in the scientific community as to whether a threshold ("no-effect") level can be specified or even exists for chemical carcinogens such as vinyl chloride;

WHEREAS, Health and Safety Code Section 39606(b) requires standards relating to health effects to be based upon the recommendations of the State Department of Health;

WHEREAS, the Board has received a recommendation from the State Department of Health and its Air Quality Advisory Committee that the ambient levels for vinyl chloride averaged over 24 hours be controlled at the lowest feasible level;

WHEREAS, the Board finds that there is no known level of ambient concentration of vinyl chloride below which an endangerment of the public health and welfare does not occur;

WHEREAS, the National Emission Standard for Hazardous Air Pollutants (NESHAP) standard for vinyl chloride does not assure that community exposure to vinyl chloride will be limited to any specified level;

WHEREAS, the Board finds that the lowest concentration level at which reliable measurements can be made is 0.010 ppm; and

WHEREAS, the Board has held proceedings in conformance with the provisions of Chapter 4.5 (commencing with Section 11371), Part 1, Division 3, Title 2 of the Government Code;

NOW, THEREFORE, BE IT RESOLVED, that the Board adopts an ambient air quality standard for vinyl chloride, of 0.010 ppm, twenty-four hour average.

BE IT FURTHER RESOLVED, that the Board adopts this standard for vinyl chloride to implement and interpret Section 41700 of the Health and Safety Code and to establish a basis for immediate enforcement action if warranted.

BE IT FURTHER RESOLVED, that the Board specifies the measurement method developed by its staff and described in detail in Appendix 5 of Staff Report 78-8-3, or any method determined by the Executive Officer to be equivalent to this method with respect to accuracy, precision and specificity, as the method to be used in determining whether ambient concentrations of vinyl chloride exceed the standard.

BE IT FURTHER RESOLVED, that the Board amends its regulation in Title 17, California Administrative Code, by adding a new section 70200.5, to read as follows:

70200.5 Ambient Air Quality Standards for Hazardous Substances.

Substance	Concentration and Methods	Duration of Averaging Periods	Most Relevant Effects	Comments
Vinyl Chloride (Chloroethene CH_2=CHCl)	0.010 ppm ARB method specified in Staff Report 78-8-3	24 hours	Known human and animal carcinogen	Low-level effects are undefined, but are potentially serious. Level is not a threshold level and does not necessarily protect against harm. Level specified is lowest level at which violation can be reliably detected by the method specified. Ambient concentrations at or above the standard constitute an endangerment to the health of the public.

State of California
AIR RESOURCES BOARD

Resolution 78-31

May 25, 1978

WHEREAS, a solicited research Proposal Number 706-63 entitled "Inventory of Emissions from Non-Automotive Vehicular Sources" has been submitted by KVB, Inc.,to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 706-63 entitled "Inventory of Emissions from Non-Automotive Vehicular Sources" submitted by the KVB, Inc., for an amount not to exceed $99,741;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 706-63 entitled "Inventory of Emissions from Non-Automotive Vehicular Sources" submitted by the KVB, Inc., for an amount not to exceed $99,741,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $99,741.

I certify that the above is a true and correct copy of Resolution 78-31 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California

AIR RESOURCES BOARD

Resolution 78-32

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 783-63 entitled "NO_x Control in Stationary Systems by Ammonia Injection" has been submitted by the Aerospace Corporation to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 783-63 entitled "NO_x Control in Stationary Systems by Ammonia Injection" submitted by the Aerospace Corporation for an amount not to exceed $129,865;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 783-63 entitled "NO_x Control in Stationary Systems by Ammonia Injection" submitted by the Aerospace Corporation, for an amount not to exceed $129,865;

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $129,865

I certify that the above is a true and correct copy of Resolution 78-32 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California
AIR RESOURCES BOARD

Resolution 78-33

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 782-63 entitled "Air Pollution Emissions Associated with Non-Synthetic Hydrocarbon Applications for Agricultural Purposes in California" has been submitted by the Eureka Laboratories, Inc., to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 782-63 entitled "Air Pollution Emissions Associated with Non-Synthetic Hydrocarbon Applications for Agricultural Purposes in California" submitted by the Eureka Laboratories, Inc., for an amount not to exceed $124,311;

NOW THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 782-63 entitled "Air Pollution Emissions Associated with Non-Synthetic Hydrocarbon Applications for Agricultural Purposes in California" submitted by the Eureka Laboratories, Inc., for an amount not to exceed $124,311,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $124,311.

I certify that the above is a true and correct copy of Resolution 78-33 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California
AIR RESOURCES BOARD

Resolution 78-34

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 781-63 entitled "Synergistic Effects of Sulfur Dioxide and Ozone and Adaptation to Ozone" has been submitted by the University of California, Santa Barbara to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 781-63 entitled "Synergistic Effects of Sulfur Dioxide and Ozone and Adaptation to Ozone" submitted by the University of California, Santa Barbara for an amount not to exceed $105,787;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 781-63 entitled "Synergistic Effects of Sulfur Dioxide and Ozone and Adaptation to Ozone" submitted by the University of California, Santa Barbara, for an amount not to exceed $105,787,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $105,787.

I certify that the above is a true and correct copy of Resolution 78-34 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California
AIR RESOURCES BOARD
Resolution 78-35
May 25, 1978

WHEREAS, an unsolicited research Proposal Number 776-63 entitled "The Effects of Varying Sulfur Dioxide Doses on the Yield of Lettuce and Carrots in the Field" has been submitted by the University of California, Davis to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 776-63 entitled "The Effects of Varying Sulfur Dioxide Doses on the Yield of Lettuce and Carrots in the Field" submitted by the University of California, Davis for an amount not to exceed $63,612;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 776-63 entitled "The Effects of Varying Sulfur Dioxide Doses on the Yield of Lettuce and Carrots in the Field" submitted by the University of California, Davis, for an amount not to exceed $63,612,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $63,612.

I certify that the above is a true and correct copy of Resolution 78-35 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California
AIR RESOURCES BOARD

Resolution 78-36

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 773-63 entitled "Assessing the Economic Effects of Implementing Air Quality Management Plans: A Review and Critique of Existing Methodologies" has been submitted by Public Interest Economics West to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 773-63 entitled "Assessing the Economic Effects of Implementing Air Quality Management Plans: A Review and Critique of Existing Methodologies" submitted by Public Interest Economics West for an amount not to exceed $109,526;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 773-63 entitled "Assessing the Economic Effects of Implementing Air Quality Management Plans: A Review and Critique of Existing Methodologies submitted by Public Interest Economics West, for an amount not to exceed $109,526,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $109,526.

I certify that the above is a true and correct copy of Resolution 78-36 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

A-7-169-30

State of California
AIR RESOURCES BOARD

Resolution 78-37

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 774-63 entitled "A Study of Nitrate Air Quality in the South Coast Air Basin" has been submitted by the California Institute of Technology to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 774-63 entitled "A Study of Nitrate Air Quality in the South Coast Air Basin" submitted by the California Institute of Technology, for an amount not to exceed $128,722;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 774-63 entitled "A Study of Nitrate Air Quality in the South Coast Air Basin" submitted by the California Institute of Technology, for an amount not to exceed $128,722,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $128,722.

I certify that the above is a true and correct copy of Resolution 78-37 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California

AIR RESOURCES BOARD

Resolution 78-38

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 784-63 entitled "Chemical Consequences of Air Quality Standards and of Control Implementation Programs" has been submitted by the University of California - Riverside to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 784-63 entitled "Chemical Consequences of Air Quality Standards and of Control Implementation Programs" submitted by the University of California - Riverside for an amount not to exceed $189,708;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 784-63 entitled "Chemical Consequences of Air Quality Standards and of Control Implementation Programs" submitted by the University of California - Riverside for an amount not to exceed $189,708,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in am amount not to exceed $189,708.

I certify that the above is a true and correct copy of Resolution 78-38 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California

AIR RESOURCES BOARD

Resolution 78-39

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 789-63 entitled "Visibility In California" has been submitted by the Technology Service Corporation to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 789-63 entitled "Visibility in California" submitted by the Technology Service Corporation for an amount not to exceed $93,449;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 789-63 entitled "Visibility in California" submitted by the Technology Service Corporation, for an amount not to exceed $93,449,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $93,449.

I certify that the above is a true and correct copy of Resolution 78-39 as passed by the Air Resources Board

William H. Lewis, Jr.

William H. Lewis, Jr.
Executive Officer

State of California

AIR RESOURCES BOARD

Resolution 78-40

May 25, 1978

WHEREAS, an unsolicited research Proposal Number 778-63 entitled "A Study of Characterization and Validation of Ammonia Measurement Methods" has been submitted by Rockwell International to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 778-63 entitled "A Study of Characterization and Validation of Ammonia Measurement Methods" submitted by Rockwell International for an amount not to exceed $75,000.;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 778-63 entitled "A Study of Characterization and Validation of Ammonia Measurement Methods" submitted by Rockwell International, for an amount not to exceed $75,000,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $75,000.

I certify that the above is a true and correct copy of Resolution 78-40 as passed by the Air Resources Board

William H. Lewis, Jr.
Executive Officer

State of California

AIR RESOURCES BOARD

Resolution 78-41

June 28, 1978

WHEREAS, an unsolicited research Proposal Number 792-64 entitled "Emissions From Ships, Ship Operations, and Transfer of Oil Along the California Coast Above and Below the South Coast Air Basin" has been submitted by the Scott Environmental Technology, Inc. to the Air Resources Board; and

WHEREAS, the Research Staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 792-64 entitled "Emissions From Ships, Ship Operations, and Transfer of Oil Along the California Coast Above and Below the South Coast Air Basin" submitted by the Scott Environmental Technology, Inc. for an amount not to exceed $77,806;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 792-64 entitled "Emissions From Ships, Ship Operations, and Transfer of Oil Along the California Coast Above and Below the South Coast Air Basin" submitted by the Scott Environmental Technology, Inc., for an amount not to exceed $77,806,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $77,806.

I certify that the above is a true and correct copy of Resolution 78-41 as passed by the Air Resources Board

Thomas C Austin

Thomas C. Austin
Deputy Executive Officer

State of California

AIR RESOURCES BOARD

June 29, 1978

WHEREAS, Mary Nichols has served with distinction for three and a half years as a member of the California Air Resources Board and has been vice-chairman of the Board since January 15, 1976; and

WHEREAS, Mary Nichols has accepted the position of Chief Assistant City Attorney for Los Angeles; and

WHEREAS, Ms. Nichols pioneered new approaches to solving air pollution problems, including development of the "trade-off" concept for the review of new stationary sources and programs to integrate transportation and growth planning with air pollution control; and

WHEREAS, her strong leadership, absolute dedication to the public interest, wit, patience and idealism have gained her the respect and admiration of her Board colleagues, staff and state and federal officials; and

WHEREAS, her keen judgments and common sense have immeasurably strengthened the legal basis of the Air Resources Board's program to restore healthful air to the people of California; and

WHEREAS, working with Ms. Nichols has been a personal pleasure because of her friendship, creativity and dedication to the highest ideals of public service;

~~Proposed~~ ADOPTED AS IS

State of California

AIR RESOURCES BOARD

Resolution 78-44

August 24, 1978

WHEREAS, Subsection 4000.1(a) of the Vehicle Code requires that all vehicles subject to Air Resources Board regulations meet Certificate of Compliance requirements upon initial registration and upon transfer of ownership;

WHEREAS, Subsection 4000.1(b) of the Vehicle Code authorizes the Air Resources Board to exempt designated classes of motor vehicles from the requirements of Subsection 4000.1(a);

WHEREAS, the Air Resources Board requires, pursuant to Sections 1955.5 (cf. "California Exhaust Emission Standards and Test Procedures for 1975 through 1978 Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles"), 1957, 1959.5 and 1960 Title 13, California Administrative Code, exhaust emission control devices to be installed on heavy-duty diesel-powered vehicles manufactured after January 1, 1973, 1978 and later model light-duty diesel-powered trucks, and 1980 and later model diesel-powered passenger cars;

WHEREAS, the ARB has found that a Certificate of Compliance requirement for light and heavy-duty diesels is cost ineffective and will not act as an effective anti-tampering measure;

WHEREAS, the ARB has found that a Certificate of Compliance requirement will not appreciably improve the current maintenance habits of light and heavy-duty diesel vehicle owners; and

WHEREAS, service station owners would have little or no economic incentive to make the expenditures necessary to participate in a diesel vehicle Certificate of Compliance program;

NOW, THEREFORE, BE IT RESOLVED, that Section 2160, Title 13, California Administrative Code, is amended to read as follows:

2160. Certificates of Compliance, Heavy-Duty Diesel Vehicles.

Pursuant to the authority vested in the State Air Resources Board by Subdivision (b) of Section 4000.1 of the Vehicle Code, Certificates of Compliance are not required upon registration, and upon transfer of ownership and registration of diesel-powered vehicles of 6001 pounds manufacturer's maximum gross vehicle weight rating and over. This section is effective for the calendar years 1973 through ~~1978~~ 1982. ~~only.~~

BE IT FURTHER RESOLVED, that a new Section 2161 is added to read as follows:

2161. Certificates of Compliance, Light-Duty Diesel Vehicles.

Pursuant to the authority vested in the State Air Resources Board by Subdivision (b) of Section 4000.1 of the Vehicle Code, Certificates of Compliance are not required upon registration, and upon transfer of ownership and registration of diesel-powered vehicles of 6000 pounds or less manufacturer's maximum gross vehicle weight rating. This section is effective through calendar year 1982 only.

BE IT FURTHER RESOLVED, that the Executive Officer should investigate the feasibility of incorporating light and heavy-duty diesel-powered vehicles into the Motor Vehicle Inspection Program as soon as practical.

State of California
AIR RESOURCES BOARD

Resolution 78-45

November 13, 1978

WHEREAS, the Air Resources Board is authorized, pursuant to Health and Safety Code Sections 39600, 39601, 43013, and 43101, to adopt regulations governing the composition of motor vehicle fuels as a means of reducing motor vehicle emissions;

WHEREAS, the Western Oil and Gas Association, on behalf of itself and its member companies, has petitioned the Air Resources Board pursuant to Section 11426 of the California Government Code to exercise its authority vested by Section 39601 of the California Health and Safety Code to reconsider and repeal the Board's Resolution 75-33 (adopted June 30, 1975), by which the Board adopted regulations (Section 2252, Title 13, California Administrative Code) limiting the sulfur content of unleaded gasoline sold, offered for sale, or delivered for sale at retail in California after certain dates;

WHEREAS, the Air Resources Board has held a public hearing, in conformity with the requirements of the Administrative Procedure Act, at which testimony was heard on the need for and environmental and economic impacts of limitations on the sulfur content of unleaded gasoline and at which the Air Resources Board considered all known environmental issues associated with such limitations;

WHEREAS, the Air Resources Board has determined that limitation of the sulfur content of unleaded gasoline at 400 parts per million is currently practicable and that limitation at 300 parts per million beginning January 1, 1982 is technologically feasible and economically reasonable;

WHEREAS, the combustion of gasoline causes the release of sulfur in the gasoline either as sulfates or as sulfur dioxide, which is both a pollutant and a precursor of atmospheric sulfates;

WHEREAS, the rate of direct emissions of sulfates and sulfur dioxide from vehicles equipped with exhaust catalysts is directly related to the sulfur content of unleaded gasoline;

WHEREAS, the state 24-hour ambient air quality standard for sulfur dioxide is being violated in California, particularly in the South Coast Air Basin and in Kern County;

WHEREAS, the state 24-hour ambient air quality standard for sulfates is being violated in California, particularly in the South Coast Air Basin, in Kern County, and in the San Diego Air Basin;

WHEREAS, sulfates are a substantial part of total suspended particulates, and sulfates significantly reduce visibility;

WHEREAS, both state and national ambient air quality standards for total suspended particulates are exceeded in the South Coast, San Diego, South Central Coast, Sacramento Valley and San Joaquin Valley Air Basins and the state 24-hour standard for total suspended particulates is exceeded in almost all other air basins of the state;

WHEREAS, the state visibility standard is violated in almost all air basins of the state;

WHEREAS, the Air Resources Board has identified a need to limit emissions of sulfur oxides in the San Francisco Bay Area Air Basin;

WHEREAS, the Air Resources Board has determined that limitation of the sulfur content of gasoline burned in California is necessary for achieving and maintaining the aforementioned ambient air quality standards, but that due to the phase-out of leaded gasolines, regulation of the sulfur content of unleaded gasolines only will achieve the necessary degree of control;

WHEREAS, sulfur dioxide is a known poison for noble metal catalysts in general and has been demonstrated in particular to deactivate significantly the hydrocarbon and carbon monoxide oxidation function and the nitric oxide reduction function of some catalyst systems which are expected to be installed on vehicles sold in California;

WHEREAS, preliminary evidence indicates that the aforementioned catalyst deactivation can be minimized by allowing a maximum sulfur content of 300 parts per million in unleaded gasoline;

WHEREAS, delaying the imposition of a 300 parts per million limitation until January 1, 1982 will allow the development and review of more information on the effect of gasoline sulfur content levels on catalyst deactivation;

WHEREAS, delaying the imposition of a 300 parts per million limitation until January 1, 1982 will allow the development and review of more information on costs of compliance at certain refineries;

WHEREAS, the Air Resources Board on October 26, 1978 delegated to the Executive Officer authority to adopt for it a resolution containing the provisions below;

NOW: THEREFORE, BE IT RESOLVED, that the Air Resources Board amends Section 2252 of Title 13 of the California Administrative Code to read as follows:

2252 - Sulfur Content

(a) No person shall sell, offer for sale, or deliver for sale at retail in California any unleaded gasoline which has a sulfur content greater than 400 parts per million by weight after November 13, 1978 or greater than 300 parts per million by weight after January 1, 1982.

(b) The determination of sulfur contents specified in the foregoing paragraph (a) shall be by American Society for Testing and Materials (ASTM) Test Method D2622-77 (1977 or latest).

(c) For the purposes of this section, the term "unleaded gasoline" shall mean gasoline with a lead content no greater than 0.05 gram per gallon as determined by ASTM Test Method D3237-74 (1974 or latest).

(d) (1) Any person who cannot comply with the requirements set forth in subdivision (a) of this section because of unreasonable economic hardship, unavailability of equipment, or lack of technological feasibility may apply to the Executive Officer of the Air Resources Board for a variance. The application shall set forth:

(A) the specific grounds upon which the variance is sought;

(B) the proposed date(s) by which compliance with the sulfur content limitations in subdivision (a) will be achieved; and

(C) a plan reasonably detailing the method by which compliance will be achieved.

(2) Upon receipt of an application for a variance, the Executive Officer shall hold a hearing to determine whether, and under what conditions and to what extent, a variance from the requirements established by subdivision (a) of this section is necessary and will be permitted. Notice of the time and place of the hearing shall be sent to the applicant by certified mail not less than 30 days prior to the hearing. Notice of the hearing shall also be published in at least one newspaper of general circulation and shall be sent to every person who requests such notice, not less than 30 days prior to the hearing.

(3) At least 30 days prior to the hearing, the application for the variance shall be made available to the public for inspection. Interested members of the public shall be allowed a reasonable opportunity to testify at the hearing and their testimony shall be considered.

(4) No variance shall be granted unless all of the following findings are made:

(A) that the applicant for the variance is, or will be, in violation of the requirements established by subdivision (a) of this regulation;

(B) that, due to unreasonable economic hardship, unavailability of equipment, or lack of technological feasibility beyond the reasonable control of the applicant, requiring compliance would result in either:

(i) an arbitrary or unreasonable taking of property; or

(ii) the practical closing and elimination of a lawful business; and

(C) that such taking or closing would be without a corresponding benefit in reducing air contaminants.

(5) Any variance order shall include the date(s) by which compliance with the sulfur content limitations in subdivision (a) will be achieved and any other appropriate condition(s) including, where desirable, increments of progress, that the Executive Officer, as a result of the testimony received at the hearing, finds necessary.

(6) If the Executive Officer determines that, due to conditions beyond the reasonable control of the applicant, the applicant needs an immediate variance from the requirements established by subdivision (a) of this section, the Executive Officer may hold a hearing without complying with the provisions of subdivision (d)(2) or subdivision (d)(3) above. No variance granted under the provisions of this paragraph may extend for a period of more than 45 days. The Executive Officer shall maintain a list of persons who in writing have informed the Executive Officer of their desire to be notified by telephone in advance of any hearing held pursuant to this subdivision, and shall provide advance telephone notice to any such person.

(7) Upon the application of any person, the Executive Officer may review and for good cause modify or revoke a variance from the requirements of subdivision (a) after holding a hearing in accordance with the provisions of this subdivision.

I certify that the above is a true and correct copy of Resolution 78-45 as passed by the Air Resources Board.

Joan Gilpin
Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 78-46

July 27, 1978

WHEREAS, an unsolicited research Proposal Number 796-66 entitled "Continuation to Airway Hyperirritability Induced by Ozone" has been submitted by the University of California, San Francisco, to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding:

> Proposal Number 796-66 entitled "Continuation to Airway Hyperirritability Induced by Ozone" submitted by the University of California, San Francisco, for an amount not to exceed $59,083,

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 796-66 entitled "Continuation to Airway Hyperirritability Induced by Ozone" submitted by the University of California, San Francisco, for an amount not to exceed $59,083,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $59,083.

I certify that the above is a true and correct copy of Resolution 78-46 as passed by the Air Resources Board.

Thomas C. Austin

Thomas C. Austin
Deputy Executive Officer

State of California

AIR RESOURCES BOARD

Resolution 78-47

July 27, 1978

WHEREAS, an unsolicited research Proposal Number 797-66 entitled "Correlative and Sensitive Discriminants for Air Quality Control" has been submitted by the University of Southern California to the Air Resources Board;

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding:

> Proposal Number 797-66 entitled "Correlative and Sensitive Discriminants for Air Quality Control" submitted by the University of Southern California for an amount not to exceed $105,904;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 797-66 entitled "Correlative and Sensitive Discriminants for Air Quality Control" submitted by the University of Southern California for an amount not to exceed $105,904,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $105,904.

I certify that the above is a true and correct copy of Resolution 78-47 as passed by the Air Resources Board.

Thomas C. Austin
Deputy Executive Officer

State of California
AIR RESOURCES BOARD

Resolution 78-48

August 7, 1978

WHEREAS, the Southern California Edison Company (SCE) and the Los Angeles Department of Water and Power (LADWP) have petitioned the Board pursuant to Health and Safety Code Section 40451 to review Rule 475.1 of the South Coast Air Quality Management District (SCAQMD) pertaining to control of oxides of nitrogen (NOx) from power plants in the SCAQMD for consistency with the purposes of Division 26 of the Health and Safety Code (pertaining to control of air pollution); and

WHEREAS, the Board is authorized pursuant to Health and Safety Code Sections 40001 and 41500 to review the rules and regulations of the Air Pollution Control Districts, including rules 475.1 and 475 (also pertaining to the control of NOx from power plants in the SCAQMD) to assure that they make reasonable provision to achieve and maintain the state ambient air quality standards; and

WHEREAS, the Board is authorized, pursuant to Health and Safety Code Sections 40451 and 41504, after holding a public hearing, to inter alia revise the rules and regulations of the SCAQMD to implement and effectuate the purposes of Division 26 and to assume that they make reasonable provisions to achieve and maintain the state ambient air quality standards; and

WHEREAS, the Board has held the public hearings required by Health and Safety Code Sections 40451 and 41502, and has considered the record before the SCAQMD Board pertaining to Rule 475.1, together with the evidence and testimony presented at the public hearings by SCE, LADWP, the Board's staff and other interested persons pertaining to Rules 475.1 and 475; and

WHEREAS, the Board finds that Rule 475.1 is not consistent with the purposes of Division 26 for the following reasons:

1. Health and Safety Code Section 40440 requires the SCAQMD to adopt rules and regulations, By December 31, 1977, which reflect best available technological and administrative practices. The technology to achieve compliance with Rule 475.1 is available, provided there is adequate time provided for its application to power plants in the SCAQMD. Rule 475.1 exceeds the limits of available control technology in that it requires SCE, LADWP and other power plant owners and operators in the SCAQMD to redesign all permit units for 90% NOx reductions in an inadequate period of time and therefore imposes an unreasonable engineering burden on the subject power plant owners and operators. Health and Safety Code Section 40001 requires all SCAQMD rules and regulations to make reasonable provision to achieve and maintain the state ambient air quality standards.

2. Rule 475.1 does not require the installation of any additional NOx controls on SCAQMD power plants prior to January 1, 1987. Such controls are available and can be installed at the present time. Therefore, Rule 475.1 does not require the best available technological and administrative practices.

3. Rule 475.1 does not require the dispatch of the units of the systems in the SCAQMD so as to achieve the least possible NOx emissions (NOx dispatch). NOx dispatch is currently practiced and available. Therefore, Rule 475.1 does not require the best available technological and administrative practices.

4. Rule 475.1 does not exclude existing gas turbines, including existing combined cycle units. It has not yet been demonstrated that technology can be made available by which existing gas turbines may comply with the emission reductions required by the rule. Rule 475.1 therefore imposes an unreasonable burden on the subject power plant owners and operators.

5. Rule 475.1 requires substantial expenditures of resources and capital for redesign of all permit units prior to the award of the construction contract for and the completion of the demonstration unit. This schedule imposes an unreasonable financial and engineering burden on the subject power plant owners and operators.

WHEREAS, Rule 475 does not make reasonable provision to achieve and maintain the state ambient air quality standards in that it does not require application of the best available control technology for new power plants, as required by Rule 213 of the SCAQMD and the Clean Air Act, as amended; and

WHEREAS, the level of oxides of nitrogen emissions reduction required by Rule 475.1 is necessary to further attain and maintain the ambient air quality standards for nitrogen dioxide, total suspended particulate matter, and visibility; and

WHEREAS, the level of oxides of nitrogen emissions reduction required by Rule 475.1 is also likely to result in a net air quality benefit by causing reductions in peak ambient oxidant levels in the SCAQMD; and

WHEREAS, it has been demonstrated that that emissions from sources in Ventura County are frequently transported to the SCAQMD, where they contribute to violations of the state ambient air quality standards;

NOW, THEREFORE, BE IT RESOLVED, that the Board amends Rule 475.1 of the SCAQMD to read as set forth in Attachment A hereto;

BE IT FURTHER RESOLVED, that the Board amends Rule 475 of the SCAQMD by deleting paragraphs (a)(1), (a)(2), and (d) thereof;

BE IT FURTHER RESOLVED, that the Executive Officer shall notice a public hearing to further consider the relationship between oxides of nitrogen emissions and ambient oxidant levels when, in the Executive Officer's judgment, significant additional air quality modeling results are available;

BE IT FURTHER RESOLVED, that the Executive Officer is delegated the authority to make clarifying language changes to Rules 475 and 475.1, and substantive and clarifying changes to such rules with respect to the amount of reduction required by and the compliance schedule for Stage I, based upon the Executive Officer's evaluation of written evidence submitted by the petitioners within the next 30 days, but in no event shall the reduction required be less than 50 percent and in no event shall the final compliance date for Stage I be later than December 31, 1982;

BE IT FURTHER RESOLVED, that the Board delegates to the Executive Officer, consistent with the previous paragraph, authority to approve a model rule for consideration by the Ventura Air Pollution Control District; and

BE IT FURTHER RESOLVED, that the Board delegates to the Executive Officer the responsibility for reviewing and responding to all significant environmental issues raised in connection with this matter, pursuant to Sections 60006 and 60007 of the Board's regulations in Title 17, California Administrative Code, and for making any further amendments to Rules 475.1 and 475 consistent therewith, after which Rules 475.1 and 475, as amended, shall become effective.

State of California
AIR RESOURCES BOARD

South Coast Air Quality Management District Rule 475.1
As Amended by the Air Resources Board
On August 7, 1978

Part I. DEFINITIONS

(a) Electric Power Generating System means one or more electric power generating units which have a common owner or operator, and which are located in the South Coast Air Basin and/or the Ventura County Air Pollution Control District.

(b) Electric Power Generating Unit means any fuel burning device used to produce electrical energy for sale or exchange.

(c) New Electric Power Generating Unit means any electric power generating unit construction of which is commenced on or after the effective date of this Rule.

(d) Existing Unit or System means any electric power generating unit or system construction of which has been commenced prior to the effective date of this Rule.

(e) Rate of Oxides of Nitrogen Emissions means the mass, in kilograms or in pounds, of oxides of nitrogen, expressed as nitrogen dioxide, emitted per hour.

(f) Oxides of Nitrogen Emissions Dispatch means the allocation of electric power demand to the various electric power generating units in any electric power generating system to minimize the rate of oxides of nitrogen emissions from the system.

(g) Operating Range means all possible rates of electric power generation, expressed in net megawatts, for any electric power generating system or unit.

(h) BEST AVAILABLE CONTROL TECHNOLOGY means best available control technology as defined in Rule 213.2.

Part II. SYSTEM-WIDE CONTROL

(a) Subject to the compliance schedules set forth in Section (f) of this Part, no owner or operator of an existing power generating system shall operate that portion of the system which is located in the South Coast Air Basin unless the system is designed such that when all electric power generating units are available, excluding existing combined cycle generating units, the system-wide rate of oxides of nitrogen emissions throughout the operating range of the system will not exceed the applicable maximum allowable rates contained in Part III of this Rule.

(b) Effective January 1, 1982, the owner or operator of any electric power generating system having a net electric power generating capacity equal to or greater than 500 megawatts, shall reduce by at least 90 percent the rate of oxides of nitrogen emissions, as determined from the data submitted pursuant to Section (f)(2)(A)(ii) of this Part of this Rule, throughout the operating range of at least one unit with a maximum net generating capacity greater than or equal to 100 megawatts within the South Coast Air Basin part of the system. Any such unit shall be termed a Demonstration unit.

(c) Effective 30 days following the approval by the Executive Officer of an oxides of nitrogen emissions dispatch plan, no owner or operator of an existing electric power generating system shall operate the South Coast Air Basin part of the system except in accordance with an approved oxides of nitrogen emissions dispatch plan.

(d) No owner or operator of an electric power generating system shall operate an electric power generating unit in the South Coast Air Basin part of the system unless each unit in the South Coast Air Basin part of the system which use ammonia to comply with this Part of this Rule, is equipped with instruments to continuously monitor and record the concentration of ammonia in the flue gas. The Executive Officer shall determine the acceptability of any instrument used to comply with this Section prior to its installation. Ammonia concentrations shall be monitored and recorded when ammonia is being introduced into a unit's combustion gases. The recorded data shall be retained by the owner or operator of the electric power generating system for a period of at least two years from the date of recording and shall be available for inspection and/or reproduction upon request of the Executive Officer or the Executive Officer of the Air Resources Board, or their authorized representatives.

(e) No owner or operator of an electric power generating system which was in existence prior to January 1, 1978, shall add any new electric power generating units to the South Coast Air Basin part of the system unless at least all of the following conditions are met:

(1) Best available control technology, as determined by the Executive Officer, after consultation with the Executive Officer of the Air Resources Board, is employed on the new unit;

(2) The rate of oxides of nitrogen emissions throughout the electric power generating system's operating range with the new unit(s) added, assuming that all electric power generating units are available and excluding existing combined cycle units, does not exceed the applicable maximum allowable rate of emissions contained in Part III of this Rule when the electric power generating system with the new unit(s) added, is operated according to an oxides of nitrogen emissions dispatch plan.

(3) Assuming compliance with an oxides of nitrogen emissions dispatch plan, the integral of the rate of oxides of nitrogen emissions with respect to electric power generating system net load in

megawatts, assuming all electric power generating units are available, excluding existing combined cycle units, as indicated by the applicable maximum allowable emission rates contained in Part III of this Rule with the addition of any new unit(s) to the South Coast Air Basin part of the system is less than or equal to the corresponding integral without the addition of the new unit(s); and

(4) The requirements of Rule 213 are satisfied.

(f) Compliance Schedule

(1) The owner or operator of any new electric power generating unit(s) in the South Coast Air Basin part of the system shall demonstrate compliance with the applicable requirements of this Part of this rule prior to placing such new units into service.

(2) The owner or operator of an existing electric power generating system shall comply with the requirements of Section (b) of this Part of this Rule as expeditiously as practicable but not later than January 1, 1982, and shall fulfill the following:

(A) Prior to April 1, 1979. Submit to the Executive Officer, with a copy to the Executive Officer of the Air Resources Board:

(i) A final control plan which identifies the unit

selected to be the demonstration unit and which describes, as a minimum, the steps, including a construction schedule, that will be taken to comply with the requirements of Section (b) of this Part of this Rule. The schedule must show completion of the construction and equipment installation phases of the plan prior to July 1, 1981 and compliance with Section (b) of this Part of this Rule by January 1, 1982; and,

(ii) Data showing the rate of oxides of nitrogen emissions at ten or more equally spaced points throughout the operating range of the electric power generating unit(s) to be controlled, when the unit(s) are burning fuel oil.

(B) Prior to July 1, 1979. Sign initial contracts for the construction and installation of equipment to effect the emissions reductions required by Section (b) of this Part of this Rule and issue orders for the purchase of component parts to accomplish such reductions. Such contracts and orders shall be submitted to the Executive Officer, with a copy to the Executive Officer of the Air Resources Board.

(C) Prior to July 1, 1981. Complete construction and installation of emissions control equipment and component parts to accomplish the emissions reductions as indicated on the construction schedule submitted with the final control plan.

(D) By January 1, 1982. Demonstrate compliance with Section (b) of this Part of this Rule and submit to the Executive Officer, with a copy to the Executive Officer of the Air Resources Board, data showing the rate of oxides of nitrogen emissions from the controlled unit(s) at ten or more equally spaced points throughout the operating range of the unit(s).

(3) Except as required by Section (f)(2) and (f)(4) of this Part of this Rule, the owner or operator of an existing electric power generating system shall comply with the provisions of this Part of this Rule as expeditiously as practicable but in no event later than October 1, 1982, and shall fulfill the following:

(A) Prior to April 1, 1979. Submit to the Executive Officer with a copy to the Executive Officer of the Air Resources Board:

(i) A final control plan which describes, as a minimum, the steps including a construction schedule, that will be taken at each electric power generating unit in the South Coast Air Basin part of this system to comply with the requirements of this Part of this Rule. The schedule must show completion of the construction and equipment installation phases of the plan to achieve the Stage I allowable emission rates contained in Part III of this Rule prior to April 1, 1982 and compliance with this Part of this Rule by October 1, 1982.

(ii) Data which are representative of the 1978 calendar year rate of oxides of nitrogen emissions at ten or more equally spaced points through the operating range of each electric power generating unit in the South Coast Air Basin part of the system;

(iii) An oxides of nitrogen emissions dispatch plan, for the South Coast Air Basin part of the electric power generating system, which will minimize the rate of oxides of nitrogen emissions throughout the electric power generating system's operating range. The demonstration required above shall include as a minimum: 1) the selection criteria used to determine the availability of units for a given day; 2) data showing the rate of oxides of nitrogen emissions throughout the electric power generating system's operating range assuming that all units are available; 3) any computer programs used to develop or implement the dispatch plan; and 4) the criteria used to schedule unit maintenance that would cause a unit to be unavailable. If the Executive Officer determines that the submitted dispatch plan is unacceptable, the owner or operator of the affected electric power generating system shall, after April 1, 1979, be in violation of this Rule until an acceptable plan is submitted;

(B) Prior to July 1, 1979. Sign initial contracts for the construction and installation of equipment to effect the emissions reductions required by this Part of this Rule to achieve the Stage I maximum allowable emission rates contained in Part III of this Rule and issue orders for the purchase of component parts to accomplish such reductions.

(C) Prior to April 1, 1982. Complete construction and installation of emissions control equipment and component parts to accomplish emissions reductions to achieve the Stage I maximum allowable emission rates contained in Part III of this Rule as indicated on the construction schedule submitted with the final control plan.

(D) By October 1, 1982. Demonstrate compliance with this Part of this Rule including achievement of Stage I maximum allowable emission rates contained in Part III of this Rule by submitting to the Executive Officer, with a copy to the Executive Officer of the Air Resources Board, data showing the rate of oxides of nitrogen emissions from each unit at ten or more equally spaced points throughout the operating range of the unit.

(4) Except as required by Sections (f)(2) and (f)(3) of this Part of this Rule, the owner or operator of an existing electric power generating system shall comply with the provisions of this Part of this Rule as expeditiously as practicable but in no event later than January 1, 1990, and shall fulfill the following:

(A) Prior to July 1, 1983. Submit to the Executive Officer with a copy to the Executive Officer of the Air Resources Board a final control plan which describes, as a minimum, the steps including a construction schedule, that will be taken at each electric power generating unit in the South Coast Air Basin part of this system to comply with the requirements of this Part of this Rule. The schedule must show completion of the construction and equipment installation phases of the plan to achieve the Stage II maximum allowable emission rates contained in Part III of this Rule prior to July 1, 1989 and compliance with this Part of this Rule by January 1, 1990;

(B) Prior to January 1, 1984. Sign initial contracts for the construction and installation of equipment to

effect the emissions reductions required by this Part of this Rule to achieve the Stage II maximum allowable emission rates contained in Part III of this Rule and issue orders for the purchase of component parts to accomplish such reductions.

(C) Prior to July 1, 1989. Complete construction and installation of emissions control equipment and component parts to accomplish emissions reductions to achieve the Stage II maximum allowable emission rates contained in Part III of this Rule as indicated on the construction schedule submitted with the final control plan.

(D) By January 1, 1990. Demonstrate compliance with this Part of this Rule including achievement of Stage II maximum allowable emission rates contained in Part III of this Rule by submitting to the Executive Officer, with a copy to the Executive Officer of the Air Resources Board, data showing the rate of oxides of nitrogen emissions from each unit at ten or more equally spaced points throughout the operating range of the unit.

(g) Any oxides of nitrogen emissions data required by this Part of this Rule shall be based on data obtained from source tests conducted on such units, at such times, and in a manner acceptable to the Executive Officer. Any additional information which is deemed necessary by the Executive Officer to ascertain the validity of any submitted data shall be furnished to the Executive Officer by the owner or operator of the affected unit(s) within 60 days of the Executive Officer's written request. If the Executive Officer determines that the rate of oxides of nitrogen emissions from any unit in the South Coast Air Basin part of the system is different from that shown in data submitted, then the Executive Officer, after notifying in writing the owner or operator of the affected unit(s) of the determination, shall substitute the data from his (her) determination for the data submitted.

(h) If the Executive Officer determines that any final control plan required by this Part of this Rule will not result in compliance with this Part of this Rule as expeditiously as practicable, but in no event later than required by an applicable compliance schedule in Section (f) of this Part, or will not result in compliance with this Part of this Rule, the owner or operator of the affected electric power generating system shall be deemed in violation of this Rule until such time as an acceptable plan is submitted.

(i) The owner or operator of an electric power generating system shall be deemed in violation of this Rule if the Executive Officer determines that the rate of oxides of nitrogen emissions from any unit(s) in the South Coast Air Basin part of the system is greater than the rate at a given operating load as shown by the data submitted pursuant to Subsection (2)(D), (3)(D), and (4)(D) of Section (f) of this Part of this Rule, subsequent to the compliance date specified in such section. For the purposes of making a determination on the rate of oxides of nitrogen emissions from a unit, the Executive Officer may employ data obtained by in-stack monitors, continuous source testing equipment, or any other equipment or tests which the Executive Officer determines are acceptable.

(j) For the purpose of determining compliance with Section (c) of this Part of this Rule, the owner or operator of an electric power generating system shall maintain daily records of the manner in which the electric power generating system was operated. The type of information to be recorded each day and the form in which it is to be reported shall be approvable by the Executive Officer. Such records will be maintained for a period of at least 2 years from the date of recording and shall be available for inspection and/or reproduction upon

request of the Executive Officer, or the Executive Officer of the Air Resources Board, or their authorized representatives.

If the Executive Officer, upon inspection of the information contained in these records or other relevant information, or the Executive Officer of the Air Resources Board, or their authorized representatives determines that the requirements of Section (c) of this Part of this Rule were violated by a unit in the South Coast Air Basin part of the system, the owner or operator of the affected electric power generating system shall be deemed in violation of this Rule.

(k) The provisions of Section (a) and (b) of this Part of this Rule are not applicable to existing combined cycle gas turbine electric power generating units.

(l) The provisions of this Part of this Rule are not applicable to simple cycle gas turbine electric power generating units.

(m) Where it is necessary to determine the rate of oxides of nitrogen emissions at points in the operating range of a unit or system, not coincident with data submitted, the actual rate of oxides of nitrogen emissions shall be determined by linear interpolation.

(n) Nothing in this Part of this Rule shall be construed to prevent the owners or operators of two or more electric power generating systems from entering into mutual written agreements which state that, for the purpose of this Part of this Rule, their systems will be considered as one. The "Maximum Allowable Emission Rate Table", which is included in Part III of this Rule and which is applicable to said owners or operators, shall be superseded and replaced by a new table of like form that reflects such agreement(s). Such revised table shall be derived by the Executive Officer after consultation with the Executive Officer of the Air Resources Board.

(o) All oxides of nitrogen emission data and dispatch plans required by this Part of this Rule shall become a part of this Rule upon the approval of such data and plans by the Executive Officer.

(p) The Executive Officer, prior to making a determination of the acceptability of any plans, data, or any other information required by this Part of this Rule, shall consult with the Air Pollution Control Officer of any other Air Pollution Control District which would be affected by this Part of this

Rule and with the Executive Officer of the Air Resources Board.

(q) After it has been ascertained that the requirements of sections (f)(2) and (f)(3) of this Part have been met, the Executive Officer shall make a preliminary determination as to whether the Stage II maximum allowable rates of oxides of nitrogen emissions contained in Part III of this Rule are achievable through available control measures by systems subject to this Rule, which preliminary determination shall not become final until it is concurred with by the Air Resources Board. The preliminary and final determinations shall be based on evidence deemed appropriate by the Executive Officer and the Air Resources Board. In particular the following factors shall be considered: (1) The performance and cost effectiveness of any control technology including but not limited to the emission reductions achieved on the demonstration unit; (2) The efforts taken by the owners or operators to effect compliance; (3) The emissions of pollutants other than oxides of nitrogen. Only if, pursuant to this section, a final determination is made that such emission rates are not achievable through available control measures, according to the schedule set forth in Section (f)(4), each owner or operator subject to this Rule shall not be required to meet such rates. The failure of the owner or operator of any demonstration unit to design, construct and operate such unit in a good faith effort to achieve compliance with Sections (b) and (f)(2) of this Part, shall be deemed a violation of this Rule, commencing with the effective date of this Rule.

(r) Prior to the commencement of operation of a new or modified unit or system, the owner or operator of said unit or system shall submit to the Executive Officer for consideration and approval

(1) Additional or replacement data showing the rate of oxides of nitrogen emissions at ten or more equally spaced points throughout the operating range of the new or modified unit(s); and

(2) A revised oxides of nitrogen emissions dispatch plan incorporating the data submitted pursuant to (r)(1).

(s) In no case shall a unit be modified to increase its rate of oxides of nitrogen emissions at any point in the unit's operating range.

(t) The owners or operators of an electric power generating system which was not in existence prior to January 1, 1978, shall employ best available control technology on every unit in the South Coast Air Basin part of the system. The Executive Officer, after consultation with the Executive Officer of the Air Resources Board, shall determine what constitutes best available control technology.

PART III. MAXIMUM ALLOWABLE EMISSIONS RATE TABLES

CONTENTS

TABLE I

MAXIMUM ALLOWABLE RATE OF EMISSIONS OF OXIDES OF NITROGEN ASUUMING THAT ALL ELECTRIC POWER GENERATING UNITS IN THE SYSTEM ARE AVAILABLE, AS A FUNCTION OF SYSTEM LOAD FOR ELECTRIC POWER GENERATING SYSTEMS HAVING A TOTAL GENERATING CAPACITY GREATER THAN OR EQUAL TO 5000 MEGAWATTS AS OF JANUARY 1, 1978

SYSTEM LOAD IN MEGAWATTS	Stage I MAXIMUM ALLOWABLE RATE OF OXIDES OF NITROGEN EMISSIONS POUNDS/HOUR, ON OR AFTER OCTOBER 1, 1982	Stage II MAXIMUM ALLOWABLE RATE OF OXIDES OF NITROGEN EMISSIONS POUNDS/HOUR, ON OR AFTER JANUARY 1, 1990
0	0	0
500	284	71
1000	608	152
1500	948	237
2000	1,308	327
2500	1,676	419
3000	2,060	515
3500	2,472	618
4000	2,869	724
4500	3,328	832
5000	3,768	942
5500	4,236	1059
6000	4,740	1185
6500	5,300	1325
7000	5,900	1475
7500	6,672	1668
8000	7,824	1956
8500	10,896	2724
9000 or Greater	15,948	3987

NOTE: To determine the maximum allowable emissions for system loads other than those shown, use linear interpolation between the two system loads that bracket the system load desired.

TABLE II

MAXIMUM ALLOWABLE RATE OF

EMISSIONS OF OXIDES OF NITROGEN ASSUMING THAT ALL ELECTRIC POWER

GENERATING UNITS IN THE SYSTEM ARE AVAILABLE, AS A FUNCTION OF SYSTEM LOAD

FOR ELECTRIC POWER GENERATING

SYSTEMS HAVING A TOTAL GENERATING

CAPACITY OF LESS THAN 5000 MEGAWATTS AND EQUAL TO OR

MORE THAN 500 MEGAWATTS AS OF JANUARY 1, 1978

SYSTEM LOAD IN MEGAWATTS	Stage I MAXIMUM ALLOWABLE RATE OF OXIDES OF NITROGEN EMISSIONS POUNDS/HOUR, ON OR AFTER OCTOBER 1, 1982	Stage II MAXIMUM ALLOWABLE RATE OF OXIDES OF NITROGEN EMISSIONS POUNDS/HOUR, ON OR AFTER JANUARY 1, 1990
0	0	0
200	124	31
400	272	68
600	432	108
800	592	148
1000	760	190
1200	936	234
1400	1,116	279
1600	1,316	329
1800	1,540	385
2000	1,784	446
2200	2,048	512
2400	2,368	592
2600	2,700	675
2800	3,048	762
3000	3,448	862
3200	3,920	980
3400 or Greater	4,580	1145

NOTE: To determine the maximum allowable emissions for system loads other than those shown, use linear interpolation between the two system loads that bracket the system load desired.

TABLE III

MAXIMUM ALLOWABLE RATE OF EMISSIONS OF OXIDES OF NITROGEN, ASSUMING THAT ALL ELECTRIC POWER GENERATING UNITS IN THE SYSTEM ARE AVAILABLE, AS A FUNCTION OF SYSTEM LOAD FOR ELECTRIC POWER GENERATING SYSTEMS HAVING A NET GENERATING CAPACITY OF LESS THAN 500 MEGAWATTS AS OF JANUARY 1, 1978

SYSTEM LOAD IN NET MEGAWATTS	Stage I MAXIMUM ALLOWABLE RATE OF OXIDES OF NITROGEN EMISSIONS POUNDS/HOUR, ON OR AFTER OCTOBER 1, 1982	Stage II MAXIMUM ALLOWABLE RATE OF OXIDES OF NITROGEN EMISSIONS POUNDS/HOUR, ON OR AFTER JANUARY 1, 1990
0	0	0
20	24	6
40	52	13
60	84	21
80	116	29
100	148	37
120	192	48
140	244	61
160	300	75
180	332	83
200	372	93
220	456	114
240 or Greater	536	134

Note: To determine the maximum allowable rate of emissions of oxides of nitrogen for system loads other than those shown, use linear interpolation between the two system loads that bracket the system load desired.

State of California
AIR RESOURCES BOARD

Resolution 78-50

October 26, 1978

WHEREAS, Section 39602 of the Health and Safety Code designates the Air Resources Board as the air pollution control agency for all purposes set forth in federal law and designates the Air Resources Board as the state agency responsible for the preparation of the State Implementation Plan (SIP) required by the Clean Air Act;

WHEREAS, the Clean Air Act as amended in 1977 mandates the revision of the SIP in order to assure the attainment and maintenance of national ambient air quality standards;

WHEREAS, the Clean Air Act and implementing regulations promulgated by the Environmental Protection Agency (EPA) require that revisions to the SIP be adopted at a public hearing for which 30 days notice to the public has been provided;

WHEREAS, a public hearing upon 30 days notice and other administrative proceedings have been held in accordance with the Clean Air Act and the provisions of the Administrative Procedure Act (California Government Code, Title 2, Division 3, Part 1, Chapter 4.5);

WHEREAS, certain revisions to the SIP are necessary and appropriate to satisfy new SIP administrative requirements established by the Clean Air Act Amendments of 1977 and EPA regulations, and to make the SIP a more useful and comprehensible document, particularly for the general public and the owners or operators of emission sources.

NOW, THEREFORE, BE IT RESOLVED, that the Board adopts as revisions to the State Implementation Plan, Chapter 2, Statewide Perspective; Chapter 20, Compliance; Chapter 22, Air Quality Monitoring System; Chapter 23, Surveillance; Chapter 24, Resources; and Chapter 25, Intergovernmental Relations, all as proposed in the Air Resources Board staff report no. 78-20-3.

BE IT FURTHER RESOLVED THAT THE BOARD include in these revisions to the State Implementation Plan the recommended changes as proposed in the supplemental report to staff report 78-20-3.

BE IT FURTHER RESOLVED THAT THE BOARD authorize the Executive Office to make changes, of an updating nature, to these Administrative Chapters as appropriate.

BE IT FURTHER RESOLVED that such chapters shall be submitted by the Executive Officer to the EPA as an official revision of the California State Implementation Plan.

I certify that the above is a true and correct copy of Resolution 78-50 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

State of California

AIR RESOURCES BOARD

Resolution 78-51

October 25, 1978

WHEREAS, the Sierra Club, Citizens for a Better Environment, and Friends of the Earth (the petitioners) have petitioned the Board to review Regulation 2 of the Bay Area Air Pollution Control District pertaining to the control of oxides of sulfur (SOx) and to adopt a regulation to require sources to install best available control technology within three years but in no case for sources to emit more than 300 ppm and to require the installation of in-stack monitors in refinery flares; and

WHEREAS, the Board, in order to coordinate air pollution control activites throughout the State and to insure that the entire State is, or will be, in compliance with State ambient air quality standards, is authorized pursuant to Health and Safety Code Section 41500 to review the rules and regulations of air pollution control districts to assure that they make reasonable provision to achieve and maintain State ambient air quality standards; and

WHEREAS, the Board is authorized, pursuant to Health and Safety Code Section 41504, after holding a public hearing, to revise the rules and regulations of the districts to assure that they make reasonable provision to achieve and maintain the State ambient air quality standards; and

WHEREAS, the Board has held the public hearing required by Health and Safety Code Section 41502, and has considered the actions of the BAAPCD Board pertaining to Regulation 2, together with the evidence and testimony presented at the public hearing by the BAAPCD's staff, the petitioners, the affected industries, and other interested persons pertaining to Regulation 2;

WHEREAS, it has been projected that SOx emissions from the combustion of fuels will increase significantly as the result of the increased combustion of sulfur bearing fuels caused by the decreased availability and increased cost of natural gas and that this projected increase in SOx emissions will prevent the attainment and maintenance of State ambient air quality standards in the San Francisco Bay Area and the San Joaquin Valley Air Basins;

WHEREAS, substantial reductions in emissions are needed if the State ambient air quality standards are to be attained and maintained in the San Francisco Bay Area and the San Joaquin Valley Air Basins;

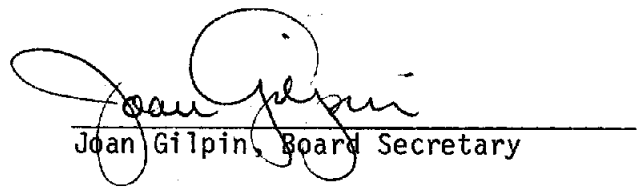
WHEREAS, the Board finds that Regulation 2 does not require the installation of control technologies which are currently available and feasible and therefore, does not make reasonable provision to achieve and maintain the State ambient air quality standard for sulfur dioxide and total suspended particulate matter in the San Francisco Bay Area Air Basin and for total suspended particulate matter in the northern portion of the San Joaquin Valley Air Basin;

WHEREAS, the proposed changes to Regulation 2 of the BAAPCD will achieve approximately 42 percent of the needed reduction in sulfur dioxide emissions by 1985 to ensure attainment and maintenance of the ambient air quality standards by requiring the specified sources to reduce SOx emissions by the use of control technologies which are presently available and technically feasible; and

WHEREAS, further investigation of the control of SOx emissions from fluid catalytic crackers, fluid cokers, and coke calcining kilns in the BAAPCD and the use of in-stack monitors in refinery flares is needed before more effective control of such sources and refinery flare monitors should be required;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board amends Regulation 2 of the BAAPCD by deleting existing Sections 3121 through 3123.9 and substituting these for new Sections 3121 through 3123.8 as set forth in Attachment A hereto, said amendments to be effective immediately.

I certify that the above is a true and correct copy of Resolution 78-51 as passed by the Air Resources Board.



Joan Gilpin, Board Secretary

Executive Officer's Note: The Board also directed the Executive Officer to consider specified revisions to the proposed regulation before making it effective. The final adopted regulation, therefore, may differ from the proposed version. Affected persons are advised to contact the Executive Officer for information regarding the status of the final regulation.

ATTACHMENT A

Proposed Sulfur Dioxide Emissions Regulations
for the Bay Area Air Pollution Control District

§3120 SULFUR DIOXIDE

§3121 *Limitations on Ground Level Concentrations of Sulfur Dioxide*

(a) ~~§3121~~ No person shall ~~cause, let, permit, suffer~~ *discharge* or allow *the discharge of* ~~any emission of sulfur dioxide~~ *sulfur dioxide emissions* from sources other than ships which results in ground level concentrations of sulfur dioxide at any given point in excess of 0.5 ppm ~~(vol)~~ *by volume* for 3 consecutive minutes, ~~or~~ 0.5 ppm ~~(vol)~~ *by volume* averaged over 60 consecutive minutes, ~~or~~ 0.04 ppm ~~(vol)~~ *by volume* averaged over 24 hours, or any of the limits specified in Table 1.

(b) ~~§3121~~ *The provisions of paragraph (a)* shall not apply to the ground level concentrations *of sulfur dioxide* occurring on the property from which such emission occurs, provided such property, ~~from the emission point to the point of any such concentration, is controlled~~ *is physically secured* by the person responsible for such emission *against public access.*

Table I
3121
MAXIMUM ALLOWABLE SULFUR DIOXIDE
GROUND LEVEL LIMITS

SO_2 Concentration ppm (vol)	Total Cumulative Exposure Between Midnight and the Next Succeeding Midnight in Hours
Column 1	Column 2
1.5	0.05
0.5	1.0
0.3	3.2
0.1	9.6
0.04	24.0

§3122 *Determining Compliance with Ground Level Limitations*

~~§3122--Except-as-provided-in-§3123,-no-person-shall-cause,-let,-permit,-suffer,-or-allow-the-emission-of-gas-containing-sulfur-dioxide-from-sources-other-than-ships-in-excess-of-300-ppm-(vol).~~ ~~No-person-shall-cause,-let,-permit,-suffer,-or-allow-the-emission-from-a-ship-of-gas-containing-sulfur-dioxide-in-excess-of-2000-ppm-(vol)-except-when-the-ship-is-entering-port-from-outside-the-District.~~ ~~All-sampling-of-exhaust-gases-shall-follow-the-techniques-prescribed-in-Chapter-2,-Division-8.--For-purposes-of-this-section-3122,-all-sulfur-present-in-gaseous-compounds-containing-oxygen-shall-be-deemed-to-be-present-as-sulfur-dioxide,-and-analyses-of-samples-taken-to-determine-the-amount-of-sulfur-dioxide-in-exhaust-gases-shall-be-made-as-specified-in-Chapter-1,-Division-9.--Tests-for-determining-compliance-with-this-section-3122-shall-be-for-not-less-than-15-consecutive-minutes-or-90%-of-the-time-of-actual-source-operation,-whichever-is-less.~~

The owner or operator of any source subject to §3121 shall comply with the following requirements:

(a) Upon request by the air pollution control officer, notify the air pollution control officer in writing as to the location of

all significant sulfur dioxide emission points, the location of any monitoring stations required pursuant to paragraphs (b) and (c), and the nature of the source operations related to each such emission point.

(b) Upon request by the air pollution control officer, install and operate up to three recording sulfur dioxide monitoring stations at locations approved by the air pollution control officer, which stations shall be operated in accordance with the specifications of Chapter 4, Division 8.

(c) Upon request by the air pollution control officer, install and operate one or more recording meteorological station equipped to record wind speed and wind direction.

(d) Undertake all necessary care and maintenance such that any instrument required pursuant to paragraphs (b) and (c) will accurately and reliably record sulfur dioxide concentrations.

(e) Where instruments have been required pursuant to Paragraphs (b) or (c), provide the air pollution control officer with a summary of the data obtained from such instruments during each calendar month. Such summary shall be in such form and detail as will show the degree of compliance with §3121, and the time, location, extent, and duration of any recorded violation of the provisions

of §3121; shall include data giving the total mass rate of emission of sulfur dioxide from the emission points specified pursuant to paragraph (a), and a detailed report of instrument performance and maintenance; and shall be submitted within the calendar month immediately succeeding the recording of the data.

(f) Maintain, for a period of at least two years, all records obtained or compiled pursuant to the requirements of paragraphs (a) through (e). Such records shall be made available to the air pollution control officer at his or her request.

(g) Examine, at the time of each instrument maintenance check and in any case at intervals of no greater than every seven days, instrument records obtained pursuant to the requirements of paragraphs (a) through (e). Any recorded violation of §3121 shall be reported to the air pollution control officer within the next normal working day after such examination.

(h) Whenever the examination of records required pursuant to paragraph (g) indicates that a violation of §3121 has occurred, furnish evidence that proper action has been taken to prevent recurrence. When instrument records are not adequate to show compliance with §3121, the air pollution control officer may specify a schedule to be followed for producing a satisfactory record history.

(i) The failure to comply with the requirements of any paragraph of this section shall constitute a separate violation of this regulation.

§3123 *Emission Limitations for Controlled Sulfur Recovery Plants*

~~§3123--Emissions exceeding the limits established in §3122 shall not constitute a violation of that section provided that all requirements of this Section 3123, to wit, §§3123.1 through 3123.9, inclusive, are satisfied:--Provided, however, that emissions which exceed 200 pounds of sulfur dioxide per day shall not in any event exceed a maximum emissions concentration of 6,000 ppm (by volume) of sulfur dioxide, averaged over a 24-hour period.~~

(a) No person shall discharge or allow the discharge of, from any source in a controlled sulfur recovery plant, effluent process gas containing sulfur dioxide in excess of 1,500 ppm by volume or in excess of 120 pounds per short ton of sulfur produced, whichever is more restrictive.

(b) Effective January 1, 1984, no person shall discharge or allow the discharge of, from any source in a controlled sulfur recovery plant, effluent process gas containing sulfur dioxide in excess of 150 ppm by volume calculated at zero percent oxygen or in

excess of 4 pounds per short ton of sulfur produced, whichever is more restrictive. The following increments of progress shall be met:

1. *By July 1, 1979, submit to the air pollution control officer a final control plan describing the steps and time schedule to be followed to achieve compliance.*
2. *By July 1, 1981, submit an application to the air pollution control officer for authorities to construct.*
3. *By July 1, 1983, complete on-site construction or installation of emission control equipment.*
4. *By January 1, 1984, be in final compliance.*

§3123.1 *Emission Limitations for Uncontrolled Sulfur Recovery Plants*

~~§3123.1--Such emissions shall not result in ground level concentrations of sulfur dioxide exceeding the limits established by §3121.~~

(a) No person shall discharge or allow the discharge of, into the atmosphere from any source in an uncontrolled sulfur recovery plant, effluent process gas containing sulfur dioxide greater than 3,000 ppm by volume.

(b) Effective April 1, 1981, no person shall discharge or allow the discharge of, from any source in an uncontrolled sulfur recovery plant, effluent process gas containing sulfur dioxide in excess of 150 ppm by volume calculated at zero percent oxygen or in excess

of 4 pounds per short ton of sulfur produced, whichever is more restrictive. The following increments of progress shall be met:

1. *By April 1, 1979, submit to the air pollution control officer a final control plan describing the steps and time schedule to be followed to achieve compliance.*
2. *By July 1, 1979, submit application to the air pollution control officer for authorities to construct.*
3. *By January 1, 1981, complete on-site construction or installation of emission control equipment.*
4. *By April 1, 1981, be in final compliance.*

§3123.2 *Emission Limitations for New Sulfur Recovery Plants*

~~§3123.2--The person responsible for such emissions shall have notified the control officer in writing, prior to such emission, of his intent to operate under the provisions of §3123.--Such notice shall include information as to the location of all significant emission points, the location of the monitoring stations specified in §§3123.3 and 3123.4, and the nature of the source operations related to each such emission.~~

No person shall discharge or allow the discharge of, from any source in a new sulfur recovery plant, effluent process gas containing sulfur dioxide in excess of 150 ppm by volume calculated at zero percent

oxygen or in excess of 4 pounds per short ton of sulfur produced, whichever is more restrictive.

§3123.3 *Emission Limitations for Sulfuric Acid Plants*

~~§3123.3--Such-person-shall-provide-at-least-three-recording-sulfur dioxide-monitoring-stations-located-in-the-area-surrounding-the-source, which-stations-shall-be-operated-in-accordance-with-the-specifications of-Chapter-4,-Division-8.~~

(a) No person shall discharge or allow the discharge of, from any source in a sulfuric acid plant, effluent process gas containing sulfur dioxide greater than 3,000 ppm by volume.

(b) Effective April 1, 1981, no person shall discharge or allow the discharge of, from any source in a sulfuric acid plant, effluent process gas containing sulfur dioxide in excess of 300 ppm by volume calculated at 12 percent oxygen or in excess of 5 pounds per short ton of sulfuric acid produced (expressed as 100 percent H_2SO_4), whichever is more restrictive. The following increments of progress shall be met:

1. By April 1, 1979, submit to the air pollution control officer a final control plan describing the steps and time schedule to be followed to achieve compliance.

2. *By July 1, 1979, submit application to the air pollution control officer for authorities to construct.*
3. *By January 1, 1981, complete on-site construction or installation of emission control equipment.*
4. *By April 1, 1981, be in final compliance.*

§3123.4 *Emission Limitations for New Sulfuric Acid Plants*

~~§3123.4--Such person shall provide at least one recording meteorological station equipped to record wind speed and wind direction.~~

No person shall discharge or allow the discharge of, from any source in a new sulfuric acid plant, effluent process gas containing sulfur dioxide in excess of 300 ppm by volume calculated at 12 percent oxygen or in excess of 4 pounds per short ton of sulfuric acid produced (expressed as 100 percent H_2SO_4), whichever is more restrictive.

§3123.5 *Emission Limitation for Fluid Catalytic Cracking Units, Fluid Cokers, and Coke Calcining Kilns*

~~§3123.5--Such person shall provide the necessary care and maintenance services so that the instruments will function properly and adequately record sulfur dioxide exposures in the area.~~

(a) *No person shall discharge or allow the discharge of, from any source in a fluid catalytic cracking unit or fluid coker, effluent process gas containing sulfur dioxide in excess of 1,000 ppm by volume.*

(b) No person shall discharge or allow the discharge of, from any coke calcining kiln, effluent process gas containing sulfur dioxide in excess of 400 ppm by volume or in excess of 250 pounds per hour, whichever is more restrictive.

§3123.6 *General Emission Limitations*

~~§3123.6--Such person shall provide to the control officer a summary of the data obtained from such instruments during each calendar month. Such summary shall be in such form and detail as will show the degree of compliance with §3121, and the time, location, extent, and duration of any recorded violation of the provisions of §3121; shall include data giving the total mass rate of emission of sulfur dioxide from the emission points specified in §3123.2, and a detailed report of instrument performance and maintenance; and shall be submitted within the calendar month immediately succeeding the recording of the data.~~

With respect to any source of emissions of sulfur dioxide not specified in §§3123 through 3123.5 other than ships, no person shall discharge or allow the discharge of sulfur dioxide in excess of 300 ppm by volume. For ships, such limitation shall be 2,000 ppm by volume, except when the ship is entering the port from outside the District.

§3123.7 *Test Procedures*

~~§3123.7--Such person shall keep for a period of at least two years all records gathered as a result of this section 3123, and shall make these available to the control officer at his request.~~

For determining compliance with §§3123 through 3123.6, the following procedures shall control:

(a) All sampling of exhaust gases shall follow the techniques prescribed in Chapter 2, Division 8.

(b) All sulfur present in gaseous compounds containing oxygen shall be deemed to be present as sulfur dioxide, and analyses of samples taken to determine the amount of sulfur dioxide in exhaust gases shall be made as specified in Chapter 1, Division 8.

(c) Tests for determining compliance shall be conducted for the applicable period of time, as follows:

1. *Tests to determine the emissions of sulfur dioxide shall be conducted for not less than 15 minutes and not more than 1 hour.*
2. *For sources operating in periods of less than 15 minutes, tests to determine the emission of sulfur dioxide shall be for not less than 90 percent of the time of actual source operation.*
3. *Tests to determine the tons of product produced (sulfur or sulfuric acid) shall be conducted over any continuous period not to exceed 24 hours.*

§3123.8 *Definitions*

~~§3123.8--Such-person-shall-examine-at-the-time-of-each-instrument maintenance-check-and-in-any-case-at-intervals-of-no-greater-than every-seven-days-instrument-records-taken-pursuant-to-the-requirements of-this-section-3123-to-determine-compliance-with-§3121.--Any-recorded violation-of-§3121-shall-be-reported-to-the-control-officer-within the-next-normal-working-day-after-such-examinations.~~

(a) For the purposes of §3123, a controlled sulfur recovery plant is a plant which met the emission limitations established by Subsection 3123(a) on the date of issuance of a permit to operate for such control equipment.

(b) For the purposes of §3123.1, an uncontrolled sulfur recovery plant is a plant which did not meet the emission limitations established by Subsection 3123(a) on the date of issuance of a permit to operate for such control equipment.

(c) For the purposes of §§3123.2 and 3123.4, a new sulfur recovery or sulfuric acid plant is one for which an authority to construct had not been approved by the air pollution control officer in writing before the date of adoption of such sections.

~~§3123.9--Whenever the records indicate that a violation of §3121 has occurred the person responsible for such emission must furnish evidence that proper action has been taken to prevent recurrence, or a violation of §3123 will be deemed to have occurred and emission will be regulated by §3122.--When instrument records are not adequate to show compliance with §3121 the control officer may specify the schedule to be followed for producing a satisfactory record history.~~

DRAFT

State of California
AIR RESOURCES BOARD

Supplemental Staff Report Re Significant Environmental Issues

Public Hearing for Consideration of Adopting Sulfur Dioxide Emissions Regulations for the Bay Area Air Quality Management District

78-19-2

Date of Release: October 25, 1978

Scheduled for Consideration: October 25, 1978

1. Discussion

Section 60007 of the Air Resources Board's regulations in Title 17, California Administrative Code, directs the staff to report to the Board regarding environmental issues raised by public comments, for consideration by the Board on any matter for which a public hearing is required. Environmental issues have been discussed in Section IX of the staff report; however, the staff has determined that it is necessary to expand further on the subject of the inducement of growth.

Although implementation of the SO_2 emission limits contained in the rule considered by the Board on October 25, 1978, will not result, in and of itself, the direct inducement of growth, it should be noted that this rule combined with other rules to control SO_2 may allow the location of new industry in the Bay Area. The staff does not expect a significant increase in growth due to the adoption of the proposed rule; however, any location of new industry would induce growth and result in an addition to the local economy of the Bay Area. The staff does not believe that the potential for siting of new industry, albeit small, is likely to result in any significant increases in the air pollutants, given the new source review regulation in the Bay Area which ensures the review of the potential air quality impact of such sources.

State of California
AIR RESOURCES BOARD

PROPOSED: Response to Significant Environmental Issues

Item: Public Hearing for Consideration of Adopting Sulfur Dioxide Emissions Regulations for the Bay Area Air Quality Management District (Agenda Item 78-19-2)

Public Hearing Date: October 25, 1978

Response Date: October 25, 1978

Issuing Authority: Air Resources Board

Comment: The adoption of the rule, combined with other sulfur dioxide controls, may result in the inducement of growth (Staff).

Response: Current new source review rules and the California Environmental Quality Act with its associated guidelines will ensure that such growth, if it is allowed and does occur, does not result in any significant adverse environmental impacts.

CERTIFIED: 

Date: April 12, 1979

State of California

Memorandum

To : Huey E. Johnson
Secretary
Resources Agency

Date : April 12, 1979

Subject: ARB Hearing - Response to Environmental Comments

From : Joan Gilpin
Board Secretary
Air Resources Board

Pursuant to Title 17, Section 6007 (b) and in compliance with Air Resources Board certification under Section 21080.5 of the Public Resources Code, the Air Resources Board hereby forwards for posting the attached notice of decision and response to environmental comments raised during the comment period.

Attachment

State of California
AIR RESOURCES BOARD

Resolution 78-52

October 25, 1978

WHEREAS, an Interagency Agreement, Number A7-195-30 entitled "Evaluation of Emissions From Agricultural and Solid Waste Resource Recovery Units," for an amount not to exceed $125,000, has been submitted by the California Solid Waste Management Board to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this Agreement for approval; and

WHEREAS, the Legislative Analyst's report of June 24, 1977, entitled "Supplemental Report of the Committee of Conference on the Budget Bill, Containing Agreed Language on Statements of Intent or Requests for Studies, 1977-78 Fiscal Year," Item 186 recommends that:

> "In its proposed research project to evaluate emissions from solid waste recovery facilities, the Board give first priority to study of the proposed San Diego Solid Waste Recovery Facility in cooperation with the Solid Waste Management Board."

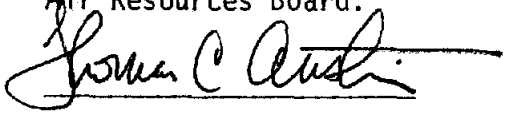
WHEREAS, the proposed agreement will provide the Board and its staff with basic information needed to study and evaluate the air quality impacts of the San Diego Solid Waste Recovery Facility, and other facilities, in an expeditious manner;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Legislative Analyst and approves the following agreement:

> Interagency Agreement Number A7-195-30, entitled "Evaluation of Emissions From Agricultural and Solid Waste Resource Recovery Units," submitted by the California Solid Waste Management Board, for an amount not to exceed $125,000,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $125,000.

I certify that the above is a true and correct copy of Resolution 78-52 as passed by the Air Resources Board.



State of California
AIR RESOURCES BOARD

ITEM NO: 78-19-4(b)
DATE: October 25, 1978

ITEM: Interagency Agreement No. A7-195-30 entitled "Evaluation of Emissions From Agricultural and Solid Waste Resource Recovery Units."

RECOMMENDATION: Adopt Resolution 78-52 approving Interagency Agreement No. A7-195-30 for funding in an amount not to exceed $125,000.

SUMMARY: Several development projects concerned with the utilization of waste materials are in the planning stage or currently in operation in the United States. The objectives of these projects are to eliminate the use of landfill disposal sites and open burning methods traditionally used for waste disposal because of their undesirable environmental effects and instead to utilize the waste as fuel. Some of these systems showing promise for California are:

1. The Georgia Tech-EPA-California program to demonstrate a mobile pyrolysis unit to convert agricultural and forest waste to fuels.

2. The Humboldt County program to convert agricultural and industrial wastes to heat.

3. The Contra Costa County program for a demonstration unit to burn sewage sludge.

4. The San Diego facility designed to convert municipal wastes to usable liquid fuels.

The Board will be concerned with the introduction of such solid waste recovery systems because of air pollutant emissions from them. The objective of this study will be to assess the emissions from selected solid waste recovery units. This information will enable the staff to evaluate the impact of these facilities on air quality and what controls may be needed. The staff will cooperate with staff of the Solid Waste Management Board to engage contractors to perform the necessary tests.

State of California
AIR RESOURCES BOARD

Resolution 78-53

Date of Release: October 16, 1978
Scheduled for Consideraton: November 16, 1978

WHEREAS, Section 39601 of the Health and Safety Code authorizes the Air Resources Board to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHERAS, Section 43211 of the Health and Safety Code prohibits the sale of any new motor vehicle which fails to comply with the emission standards or the test procedures adopted by the Board;

WHEREAS, Section 43600 of the Health and Safety Code authorizes the Board to adopt emission standards for the control of emissions from used motor vehicles;

WHEREAS, Section 43012 of the Health and Safety Code authorizes the Executive Officer of the Board or his/her authorized representative to perform surveillance at a new car dealerships to ensure compliance with vehicle emission regulations adopted by the Board;

WHEREAS, Section 24007(b) of the Vehicle Code prohibits any person from selling, or offering or delivering for sale to the ultimate purchaser a new or used motor vehicle which does not comply with the regulations of the Air Resources Board;

WHEREAS, beginning on January 2, 1978, all used motor vehicles will be required to meet the Motor Vehicle Inspection Program (MVIP) maximum idle emission values, as contained in Section 2176, Title 13, California Administrative Code, prior to being sold or offered for sale in California; and

WHEREAS, the Board has determined that the emission standards used for its new and used dealership surveillance regulations, contained in Section 2151 and 2152, Title 13, California Administrative Code, must be consistent with those used for the upcoming MVIP;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby adopts revisions to Sections 2151 and 2152, Title 13, California Administrative Code, as shown in Attachment I to Staff Report 78-22-4 .

I certify that the above is a true and correct copy of Resolution 78-53 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

State of California
AIR RESOURCES BOARD

Resolution 78-54

November 16, 1978

WHEREAS, Section 39601 of the Health and Safety Code authorizes the Air Resources Board to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Section 43210 of the Health and Safety Code requires that the Board adopt regulations which provide for the testing of new motor vehicles on factory assembly lines or in such manner as the Board determines best suited to carry out the purpose of Part 5 (commencing with Section 43000), Division 26, of the Health and Safety Code;

WHEREAS, Section 43000 (e) of the Health and Safety Code states that emission standards applied to new motor vehicles are standards with which all new motor vehicles shall comply; and

WHEREAS, a public hearing and other administrative proceedings have been held in accordance with the provisions of the Administrative Procedure Act (Government Code, Title 2, Division 3, Part 1, Chapter 4.5);

NOW, THEREFORE BE IT RESOLVED, that the Board hereby amends its regulations in Article 1, Subchapter 2, Chapter 3, Title 13, California Administrative Code, by adding a new Section 2058, which reads:

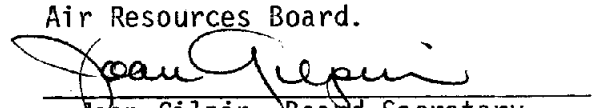
2058. Assembly-Line Test Procedures - 1980 Model Year.

New 1980 model year passenger cars, light-duty trucks, and medium-duty vehicles subject to certification and manufactured for sale in California shall be tested in accordance with the "California Assembly-Line Test Procedures for 1980 Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles," adopted November 16, 1978.

BE IT FURTHER RESOLVED, that the Board hereby adopts the "California Assembly-Line Test Procedures for 1980 Model Year Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles," dated November 16, 1978.

BE IT FURTHER RESOLVED, that the Board hereby finds that its regulations in Section 2058, Title 13, California Administrative Code, the assembly-line test procedures referenced therein, and the related inspection and compliance test procedures in Article 2, Subchapter 2, Chapter 3, Title 13, California Administrative Code, are individually for each vehicle category, and, in the aggregate, at least as protective of public health and welfare as applicable federal regulations.

I certify that the above is a true and correct copy of Resolution 78-54 as passed by the Air Resources Board.



John Gilgin, Board Secretary

State of California
AIR RESOURCES BOARD

Resolution 78-55

December 14, 1978

WHEREAS, Sections 39600 and 39601 of the Health and Safety Code authorize the Air Resources Board to adopt standards, rules, and regulations necessary for the proper execution of the powers and duties granted to and imposed upon the Board by law;

WHEREAS, Section 43106 of the Health and Safety Code requires that each new production motor vehicle or engine required to meet the California emission standards established pursuant to Section 43101 of the Health and Safety Code shall be, in all material respects, substantially the same in construction as the test motor vehicle or engine certified by the Board;

WHEREAS, test motor vehicles and engines certified for sale in California have been constructed with sufficient component durability to meet the applicable emission standards for their useful lives;

WHEREAS, Section 43204 of the Health and Safety Code requires the manufacturer of each motor vehicle and motor vehicle engine to warrant to the ultimate purchaser and each subsequent purchaser that the motor vehicle or engine is:

(1) Designed, built, and equipped so as to conform at the time of sale, with the applicable emission standards, and

(2) Free from defects in materials and workmanship which cause such motor vehicle or motor vehicle engine to fail to conform with the applicable regulations for its useful life;

WHEREAS, the Board has received evidence that the emissions warranty required by Section 43204 of the Health and Safety Code has not been interpreted consistently in use by vehicle and engine manufacturers or vehicle and engine owners and therefore is not achieving the emissions benefit it was designed to provide for;

WHEREAS, the Board has determined that regulations are necessary to clarify and define the rights and responsibilities of vehicle and engine manufacturers and consumers under the emissions warranty required by Section 43204 of the Health and Safety Code;

WHEREAS, the Board has responded to the concerns of the California Legislature, as expressed in ACR 108 (dated March 6, 1978), that a replacement parts warranty may, at this time, have a detrimental economic effect on small business and the consumer;

WHEREAS, a public hearing and other proceedings have been held in accordance with the provisions of the Administrative Procedure Act (Government Code, Title 2, Division 3, Part 1, Chapter 4.5);

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby amends its regulations in Chapter 3, Title 13, California Administrative Code, as set forth in Appendix I of Staff Report 78-24-2, dated December 14, 1978.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to establish an advisory group including representatives from the service, vehicle manufacturing, franchise motorcycle dealer, and vehicle franchise dealer businesses to assist in the collection of data regarding any increase in the repair business of franchise dealers caused by this regulation or any loss in business to independent mechanics and garages.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to report back to the Board no later than August 1979 regarding the impacts that have been found.

BE IT FURTHER RESOLVED, that the Board directs the Executive Officer to report immediately if significant impact on the independent aftermarket industry is found prior to that time.

BE IT FURTHER RESOLVED, that the Board hereby determines that the regulations adopted above are individually, and in the aggregate, at least as protective of public health and welfare as applicable federal regulations.

I certify that the above is a true and correct copy of Resolution 78-55 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

78-56

Thru

78-58

Missing Resolution

State of California
AIR RESOURCES BOARD

Resolution 78-59

November 16, 1978

WHEREAS, marine vessel operations in California Coastal Waters account for substantial quantities of air pollutants;

WHEREAS, the California Health and Safety Code and the federal Clean Air Act Amendments of 1977 require extraordinary efforts to achieve the state and federal ambient air quality standards throughout California;

WHEREAS, the California Air Resources Board recognizes the need to reduce air pollution in a cost-effective fashion that will minimize economic hardships;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board adopts in principle the Model Rule for the Control of Sulfur Oxides and Organic Gas Emissions from Marine Vessel Operations;

BE IT FURTHER RESOLVED, that the Board instructs its staff to schedule a formal Workshop no later than March 1979 to examine remaining technical and economic questions concerning the Model Rule;

BE IT FURTHER RESOLVED, that the Board instructs the staff to modify the rule to specifically:

(1) Provide that U.S.-flag vessels will not suffer undue discrimination;

(2) insure that normal bunker operations will not be subject to the vapor recovery requirements of the Rule;

(3) eliminate any portions of the Rule which would put California ports at a significant economic disadvantage when compared to other west coast ports;

(4) assure that any systems used for emissions control will not jeopardize vessel safety;

BE IT FURTHER RESOLVED, that the Board directs the staff to determine the availability and cost of low-sulfur bunker fuel;

BE IT FURTHER RESOLVED, that the Board instructs the Executive Officer, following the formal Workshop, to reschedule consideration of the Model Rule before the Board.

BE IT FURTHER RESOLVED, that the Board instructs the Executive Officer to confer with the U.S. Environmental Protection Agency, U.S. Coast Guard, International Marine Consultive Organization and other appropriate organizations to determine whether an acceptable international control program can be developed in lieu of the proposed Model Rule.

I certify that the above is a true and correct copy of Resolution 78-59 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

State of California
AIR RESOURCES BOARD

Resolution 78-59

November 16, 1978

WHEREAS, marine vessel operations in California Coastal Waters account for substantial quantities of air pollutants;

WHEREAS, the California Health and Safety Code and the federal Clean Air Act Amendments of 1977 require extraordinary efforts to achieve the state and federal ambient air quality standards throughout California;

WHEREAS, the California Air Resources Board recognizes the need to reduce air pollution in a cost-effective fashion that will minimize economic hardships;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board adopts in principle the Model Rule for the Control of Sulfur Oxides and Organic Gas Emissions from Marine Vessel Operations;

BE IT FURTHER RESOLVED, that the Board instructs its staff to schedule a formal Workshop no later than March 1979 to examine remaining technical and economic questions concerning the Model Rule;

BE IT FURTHER RESOLVED, that the Board instructs the staff to modify the rule to specifically:

(1) Provide that U.S.-flag vessels will not suffer undue discrimination;

(2) insure that normal bunker operations will not be subject to the vapor recovery requirements of the Rule;

(3) eliminate any portions of the Rule which would put California ports at a significant economic disadvantage when compared to other west coast ports;

(4) assure that any systems used for emissions control will not jeopardize vessel safety;

BE IT FURTHER RESOLVED, that the Board directs the staff to determine the availability and cost of low-sulfur bunker fuel;

BE IT FURTHER RESOLVED, that the Board instructs the Executive Officer, following the formal Workshop, to reschedule consideration of the Model Rule before the Board.

BE IT FURTHER RESOLVED, that the Board instructs the Executive Officer to confer with the U.S. Environmental Protection Agency, U.S. Coast Guard, International Marine Consultive Organization and other appropriate organizations to determine whether an acceptable international control program can be developed in lieu of the proposed Model Rule.

I certify that the above is a true and correct copy of Resolution 78-59 as passed by the Air Resources Board.

Joan Gilpin

Joan Gilpin, Board Secretary

State of California
AIR RESOURCES BOARD

Resolution 78-60

November 16, 1978

WHEREAS, the Air Resources Board pursuant to Health and Safety Code Section 39602 is designated as the state agency responsible for preparation of the State Implementation Plan required by the federal Clean Air Act;

WHEREAS, the Air Resources Board has received and will receive proposed State Implementation Plan revisions from the designated local and regional agencies intended to satisfy certain new State Implementation Plan requirements for non-attainment areas, and other requirements added by the Clean Air Act Amendments of 1977, which revisions have required and will require in-depth review by the Air Resources Board;

WHEREAS, the ability of the designated local and regional agencies to submit final proposed State Implementation Plan revisions approvable by the Air Resources Board within the federal deadline will be enhanced if the Air Resources Board can provide early comments;

WHEREAS, it would be difficult for the Board itself to provide such early comments due to its meeting schedule;

WHEREAS, the Air Resources Board Executive Officer could provide such early comments; and

WHEREAS, the Board is authorized pursuant to Health and Safety Code Section 39515 to delegate such duties to the Executive Officer as it deems appropriate;

NOW, THEREFORE, BE IT RESOLVED, that the Executive Officer is delegated the authority to make official comments on proposed State Implementation Plan revisions for the purpose of assisting the designated local and regional agencies in developing approvable revisions in a timely manner.

I certify that the above is a true and correct copy of Resolution 78-60 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

State of California
AIR RESOURCES BOARD

Resolution 78-61

December 14, 1978

WHEREAS, an unsolicited research Proposal Number 802-67 entitled "Economic Impacts of Air Pollution Control Costs for Selected California Firms" has been submitted by the Development and Resources Corporation to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 802-67 entitled "Economic Impacts of Air Pollution Control Costs for Selected California Firms" submitted by Development and Resources Corporation for an amount not to exceed $125,628;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 802-67 entitled "Economic Impacts of Air Pollution Control Costs for Selected California Firms" submitted by Development and Resources Corporation, for an amount not to exceed $125,628,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $125,628.

I certify that the above is a true and correct copy of Resolution 78-61 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

ITEM NO.: 78-24-3b(1)
DATE: December 14, 1978

State of California
AIR RESOURCES BOARD

ITEM: Research Proposal No. 802-67 entitled "Economic Impacts of Air Pollution Control Costs for Selected California Firms"

RECOMMENDATION: Adopt Resolution 78-61 approving Research Proposal No. 802-67 for funding in an amount not to exceed $125,628.

SUMMARY: This proposal if funded would provide economic and financial analyses on selected California firms and industries to estimate those firms' ability to pay air pollution control costs. The firms to be analyzed would be chosen in consultation with ARB staff.

The financial analysis would look mainly at the firms' potential sources of capital and available cash flow to indicate their profitability and capital availability position in order to estimate their ability to pay control costs. A financial model would be developed, computerized, used in the study for the firms chosen, and turned over to the ARB with a handbook on its use along with training for ARB staff on how to use the model for future analyses. The financial data to run the model would be obtained from Dun's Marketing Services by the contractor and would be provided to the ARB on computer tape at the end of the contract. Other information that would be used in the D & R analysis includes the availability of government financing, state policies relating to the industries being analyzed, past and expected future growth of the industries, vintage of technical processes, technical change and alternative production techniques, possible substitution of alternative products, imports and exports of products, and data on multi plant firms and the California/non-California split in their operations.

The purposes of this contract would be to provide an independent identification of those industries (new, old; large, small) best able and least able to maintain profitability while

experiencing increases in their operating costs. It would also assist the ARB in the development of control measures. In those cases where the ARB has alternative options to choose from, knowing different firms' ability to pay would aid the ARB in minimizing the economic impact of control programs. A major benefit of this study would be the financial model which will enable the ARB to perform ability-to-pay analyses for wide range pollutant control measures.

State of California
AIR RESOURCES BOARD

Resolution 78-62

December 14, 1978

WHEREAS, a solicited research Proposal Number 805-67 entitled "Potential Health Hazards Associated with Particulate Matter Released From Rice Straw Burning", has been submitted by the University of California, Davis to the Air Resources Board; and

WHEREAS, the research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 805-67 entitled "Potential Health Hazards Associated with Particulate Matter Released From Rice Straw Burning", submitted by the University of California, Davis for an amount not to exceed $64,346, of which no more than $32,173 shall be funded by the ARB.

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal 805-67 entitled "Potential Health Hazards Associated with Particulate Matter Released From Rice Straw Burning" submitted by the University of California, Davis, for an amount not to exceed $64,346, of which no more than $32,173 shall be funded by the ARB,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $64,346 of which no more than $32,173 is to be funded by the ARB.

I certify that the above is a true
and correct copy of Resolution 78-62
as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

ITEM NO.: 78-24-3b(2)
DATE: December 14, 1978

State of California
AIR RESOURCES BOARD

ITEM: Research Proposal No. 805-67 entitled "Potential Health Hazards Associated with Particulate Matter Released from Rice Straw Burning".

RECOMMENDATION: Adopt Resolution No. 78-62 approving Research Proposal Number 805-67 for funding in an amount not to exceed $64,346 ($32,173 from Air Resources Board, $32,173 from the State Energy Commission).

SUMMARY: The routine practice of rice straw burning in the Central Valley creates a regional air quality problem that is currently uncontrollable. The smoke and fine particulate matter generated create odor and visibility problems that affect everyone in the Valley. The same materials may also impose added health risks to residents. Rice straw smoke is highly irritating to many individuals. Persons suffering from chronic respiratory problems, allergies or even cardio-vascular disease may find their symptoms worsened by such smoke.

The proponents of this study would take size-fractionated samples of particulates sampled under field burn conditions. They would assess the elemental and organic chemistry of these samples. The samples would undergo chemical extraction, with the extracts being used in two basic studies.

Various strains of Salmonella would be employed in conjunction with Ames tests to determine the relative mutagenicity of the fractions. The different fractions would also be tested with macrophage cultures to assess the toxic nature of the material.

The outcome of this study would be a data base that would allow a realistic assessment of the health hazards associated with rice straw burning and point to the benefits of alternative approaches to disposal. Regulatory decisions on burning or emission tradeoffs would also be made on realistic bases.

Emission tradeoffs have been proposed that would permit power generation facilities to burn agricultural wastes to offset their own particulate emissions. One barrier to this approach is that there is no known way, at present, to evaluate the relative health risks of the two types of emissions - coal fly ash vs. rice straw smoke. Current studies show that coal fly ash contains agents that are both toxic and mutagenic. Rice straw smoke may contain more harmful constituents, the same, or far less than coal.

The State Energy Commission has agreed to co-fund this study on a 50-50 basis. It is their interest that the effective use of alterative fuels should be promoted as a result of this study and that tradeoff information for eventual power plant sitings be made available.

State of California
AIR RESOURCES BOARD

Resolution 78-63

December 14, 1978

WHEREAS, a solicited research Proposal Number 799-67 entitled Evaluation of Performance Properties of Architectural Coatings has been submitted by the D. L. Laboratories to the Air Resources Board; and

WHEREAS, the Research staff has reviewed and recommended this proposal for approval; and

WHEREAS, the Research Screening Committee has reviewed and recommends for funding the proposal:

> Proposal Number 799-67 entitled Evaluation of Performance Properties of Architectural Coatings submitted by the D. L. Laboratories for an amount not to exceed $59,575;

NOW, THEREFORE, BE IT RESOLVED, that the Air Resources Board under the powers and authority granted by the Health and Safety Code, Section 39705, hereby accepts the recommendation of the Research Screening Committee and approves the following proposal:

> Proposal Number 799-67 entitled Evaluation of Performance Properties of Architectural Coastings submitted by the D. L. Laboratories for an amount not to exceed $59,575,

and authorizes the Executive Officer to initiate administrative procedures and to execute all necessary documents and contracts for the research effort proposed in an amount not to exceed $59,575.

I certify that the above is a true and correct copy of Resolution 78-63 as passed by the Air Resources Board.

Joan Gilpin, Board Secretary

ITEM NO: 78-24-3b(3)
DATE: December 14, 1978

State of California
AIR RESOURCES BOARD

ITEM: Research Proposal No. 799-67 entitled "Evaluation of Performance Properties of Architectural Coatings."

RECOMMENDATION: Adopt Resolution 78-63 approving Research Proposal No. 799-67 for funding in an amount not to exceed $59,575.

SUMMARY: The purpose of this study is to evaluate the properties of commercially available low-solvent or water-base architectural coatings in classes now exempt from the ARB's model rule for maximum solvent content to determine whether these products have properties equivalent to the high-solvent products which are now widely used for the same purposes.

With the guidance of the Research Screening Committee, the staff released a request for proposals for this project. Three responses were received of which this proposal by D. L. Laboratories was concluded to be most meritorious by the staff and the Committee.

This proposal presents a concise plan to achieve our objectives for the project. The contractor realizes that performance data supplied by manufacturers may be inadequate and/or non-uniform, and since different test methods are often used, it will be necessary to conduct independent comparisons of the new products with equivalent conventional coatings. Testing will be limited to those properties that might be affected by a change to higher solids or a water-base system. In each of the 14 exempt categories, 3 to 5 new coatings will be obtained and compared to two equivalent conventional products. Recommendations will be made regarding the need to continue exemptions for each of the now exempt use categories.