

Air



Compilation of BACT/LAER Determinations

Compilation of BACT/LAER Determinations

by

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INTRODUCTION

The Clean Air Act as amended in 1977 contains technology-based limitations affecting the location and construction of new or modified air pollution sources: (1) New Source Performance Standards (NSPS); (2) National Emission Standards for Hazardous Air Pollutants (NESHAPS); (3) Best Available Control Technology (BACT); and (4) Lowest Achievable Emission Rate (LAER). Adoption of Regulations for the Prevention of Significant Air Quality Deterioration, the issuance of the Emission Offset Interpretive Ruling and increased NSPS promulgations have greatly increased the complexity of new source review (NSR) determinations. While the specific criteria governing a BACT, LAER or NSPS determination vary, the general underlying approach for all such determinations is to require "best control" on all major new sources. Both the complexity and workload of making NSR decisions has risen drastically. New source review is a continuing program and the making or overseeing of complex decisions impacts most heavily on State, Local, and Regional offices. It is extremely important that national consistency be evidenced in the control technology decisions made in the field. Thus the overall purpose of this "Compilation of BACT/LAER Determinations" is to provide support to those making BACT/LAER determinations, to engender and ensure national consistency in control technology decisions and to establish a formal system that promotes communication, cooperation and sharing of information.

It is important to state the intended purpose of this report, what it is and what it is not. The intended purpose

is to provide field offices with current information on determinations that have been made, abstracts of recent determinations on sources of a similar size and nature, and useful, although limited, data on emission limits imposed and the control strategies utilized to achieve those limitations. The information presented contains pertinent data abstracted from determinations made nationwide, allows one to ascertain if a determination on a source of a similar size and nature has been made, the substance of that determination and gives a quick reference that can lead to the acquisition of more detailed information.

The compilation is not and is not intended to be a comprehensive, detailed reporting of determinations made. Since both BACT and LAER are to be determined on a case-by-case basis the inclusion of detailed information on each determination would be of questionable utility and might tend to prescribe and bias the individualized consideration to be afforded an entity that seeks approval to install a new - or modify an existing - source. Additionally if this compilation is to remain current, be useful and used, it must be continually up-dated by reports from the field. A detailed reporting requirement would not likely find favor with field personnel, would be burdensome and counter productive.

Thus the information presented is limited to that which field offices indicated would be most useful to them, is easily abstracted from a determination and is therefore reportable with minimal effort. The importance of field office reporting cannot be overemphasized. An effective and intensive system of cooperation and communication is necessary if State, Local and Regional offices are to be advised and kept current regarding actual control determinations, policy and precedent and if national consistency is to be promoted. For the compilation to be effective, provide useful support and serve as a BACT/LAER clearinghouse, diligent two-way

communications are imperative. Since NSR decisions are dynamic in nature the results of field determinations must be reported as they are made and, equally important, must be distributed back to the field in a timely fashion. The primary benefactors of this compilation are those engaged in new source review activities. Field offices are therefore urged to contribute to its value and utility by routinely reporting on the determinations made so that they and others may benefit.

Content

The initial compilation contains abstracts of BACT and LAER determinations obtained from the files of U.S. EPA regional offices. The BACT determinations were made under two sets of regulatory requirements and decision criteria - i.e., those made under PSD regulations prior to the Clean Air Act Amendments of 1977 and those made under PSD regulations subsequent to the amendments. It will be noted that relatively few LAER determinations were included in the starter compilation. Since the initial compilation effort was limited to perusal of EPA regional files, the main source of LAER determinations - state files - was not examined. Retrieval and distribution of additional LAER determinations is anticipated in the near future.

Format

For ease of quick reference and use the compilation is divided into familiar source category headings. The various section titles and subtitles are generally the same as found in EPA publication AP-42 - "Compilation of Air Pollutant Emission Factors." Within each source category or sub-category appear the abstracts of BACT and/or LAER determinations for that source or facility type.

Not all abstracts of a given type are presented. In general the determination (or determinations) provided are those that best represent the source category and exemplify

applicable control technology, control strategy detail, completeness, governing policy or are precedental in nature. Where appropriate additional determinations may be included that are unique or substantially different (because of size, process or fuel parameters, or other) and for which the example determination is not typical. All other determinations that have been reported for a category are listed in a summary table following the example determinations.

Use

Use of the compilation is straight-forward. Upon receipt of an application for construction, reconstruction or modification the user can discover the number of previous determinations for similar sources or facilities; their location, size and pollutants emitted; the basis for and substance of emission limits; the control strategy to be employed; and most importantly, the point of contact to acquire additional information. The compilation serves to expedite the new source review process by offering the user immediate knowledge regarding the substance of determinations made on similar sources and gives a quick reference and lead to the acquisition of more detailed information.

Compilation Update

The available data base for this compilation will expand as more determinations are made and reported. Additionally, while the basic criteria on which determinations are to be made may not change, the substance of those criteria may. Changes in state implementation plan (SIP) limitations will occur in response to the CAA of 1977 mandated revisions. Advances in control technology, equipment performance and the evolution of innovative technology can be expected to result in lower achieved-in-practice emission levels. Additional NSPS are scheduled for promulgation in the near future and some existing NSPS are under consideration for revision.

As the data base broadens and as changes occur in the technical or policy aspects of NSR determination the compilation must also change in order to provide an up-to-date and current reference source and technical service. Timely reporting of determinations by regional, state and local agency offices and the early distribution of reported data back to the field is essential to that up-date. Equally important is the rapid dissemination to the field of any change or anticipated change in regulations, policy, or other NSR related matters. An effective system of two way communication can result in a compilation of determinations that is current, useful, reflects NSR policy and contributes to consistency in determinations.

INSTRUCTIONS FOR COMPLETING BACT/LAER FORM

The purpose of this compilation is to assist field offices and to provide a technical service to those engaged in new source review activities. The value and utility of the compilation is in large measure dependent upon the quantity, quality and timeliness of input received from the field offices. Field offices are therefore urged to routinely contribute to this compilation and thus enhance its content, coverage and value to them as a resource tool. Explanation of the reporting form follows:

1. Source Type/Size

Where possible, use one of the categories* listed in the compilation to define the source type. Size should indicate the total capacity of the new (modified) plant.

2. Name/Address

Name of the applicant and the location of the proposed facility.

3. Conditional - Final/Pending

Circle "conditional" if the permit lists specific emission limits, but the precise nature of the control strategy (i.e. source of fuel, control equipment, manufacturer) has not been specified.

Circle "pending" or "final" depending on status of the determination.

4. Basis of BACT/LAER

Circle "BACT" or "LAER" depending on type of determination.

*The categories are the same as and patterned after those found in "Compilation of Air Pollutant Emission Factors", EPA Publication AP-42, U.S. Environmental Protection Agency Office of Air Quality Planning and Standards, Research Triangle Park, N.C. 27711

INSTRUCTIONS FOR COMPLETING BACT/LAER FORM (Continued)

5. New/Modified Source

Circle "new" or "modified" according to definitions of the Clean Air Act.

6. Affected Facilities

List each facility by name (kiln, boiler, etc.) for which a throughput limit, operating limit, emission limit, control strategy, performance or equipment standard, etc. has been specified.

7. Indicate the input rate of raw material and/or fuel to the facility (as tons/hr, millions Btu/hr, etc.) when operated at maximum design capacity.

8. Pollutants Emitted

List each pollutant or parameter for which a control requirement or other restraint has been specified (as PM, SO₂, CO, NO_x, Opacity, etc.)

9. Emission Limits

The emission limitations as stated in the permit or permit conditions should be listed here and aligned horizontally with its companion pollutant in the previous column (8). Mass emission rate is preferred. Be precise in defining - as 150 ppm NO_x at 3% excess O₂, 0.1 lb/hr and 5% opacity, etc.

10. Control Strategy Description

Control strategy includes control equipment (ESP, fabric filter, etc.), operational modifications, limits on the type and amount of raw materials used, limits on throughput or hours of operation, maintenance requirements, equipment specifications, etc. These listings should be aligned with data presented in preceding columns (8 and 9).

11. Notes

Use this space to amplify or explain any of the other entries - such as an explanation of any unusual permit conditions or features, changing permit requirements with time, off-set requirements, etc.

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: _____

NAME/ADDRESS: _____

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: _____ BASIS: BACT/LAER
FOR NEW/MODIFIED SOURCE

BY _____
 (Agency) (Person) (Phone)

[illegible]

NOTES:

* Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER

CONTACT LIST U.S. EPA REGIONS

<u>Region</u>	<u>Address</u>	<u>Telephone</u>
I	John F. Kennedy Federal Building Room 2303 Boston, MA 02203	(617) 223-4448
II	Federal Office Building 26 Federal Plaza, New York, NY 10007	(212) 264-2611
III	Curtis Building Sixth and Walnut Streets Philadelphia, PA 19106	(215) 597-8177
IV	345 Courtland, NE Atlanta, GA 30308	(404) 881-2864
V	230 South Dearborn Chicago, IL 60604	(312) 353-2205
VI	First International Building 1201 Elm Street Dallas, TX 75270	(214) 767-2746
VII	324 E. 11th Street Kansas City, MO 64108	(816) 374-3791
VIII	1860 Lincoln Street Denver, CO 80295	(303) 837-3763
IX	215 Fremont Street San Francisco, CA 94105	(415) 556-8005
X	1200 Sixth Avenue Seattle, WA 98101	(206) 442-1387

BACT/LAER COMPILATION CATEGORIES

1.0 External Combustion

- 1.1 Coal fired
- 1.2 Oil fired
- 1.3 Other - wood, bagasse, gas, etc.

2.0 Solid Waste Disposal

- 2.1 Refuse incineration (liquid, solid)
- 2.2 Sewage sludge incineration
- 2.3 Other - auto body, pathological, etc.

3.0 Internal Combustion

4.0 Evaporative Loss

- 4.1 Surface coating
- 4.2 Petroleum liquids storage
- 4.3 Transportation and marketing of petroleum liquids
- 4.4 Other

5.0 Chemical Process Industries

- 5.1 Acid manufacture
- 5.2 Carbon black
- 5.3 Charcoal
- 5.4 Paint and varnish
- 5.5 Sulfur and sulfur recover
- 5.6 Other - explosives, etc.

6.0 Food and Agricultural Industries

- 6.1 Alfalfa dehydrating
- 6.2 Feed/grain mills and elevators
- 6.3 Fertilizer
- 6.4 Other

BACT/LAER COMPILATION CATEGORIES (Continued)

7.0 Metallurgical Industries

- 7.1 Primary aluminum
- 7.2 Metallurgical coke
- 7.3 Ferroalloy
- 7.4 Foundries - gray iron, steel, non-ferrous
- 7.5 Iron and steel mills
- 7.6 Primary smelters - copper, lead, zinc
- 7.7 Secondary metal processing - aluminum, lead, zinc
- 7.8 Other

8.0 Mineral Products Industries

- 8.1 Asphalt and concrete batch plants
- 8.2 Coal preparation
- 8.3 Fiber glass and glass
- 8.4 Gypsum and lime
- 8.5 Mineral quarrying and processing
- 8.6 Portland cement
- 8.7 Other

9.0 Petroleum Industry

- 9.1 Petroleum refining

10.0 Wood Processing

- 10.1 Chemical wood processing (pulp mills)
- 10.2 Other

11.0 Miscellaneous

1.0 EXTERNAL COMBUSTION

1.1 Coal fired

1.2 Oil fired

1.3 Other - wood, bagasse, gas, etc.

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ELECTRIC GENERATING STATION

NAME/ADDRESS: TUCSON GAS AND ELECTRIC, TUCSON, ARIZONA

Site at Apache County, AZ

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 12/21/77 BASIS: * BACT¹ / LAER / BACT²
FOR NEW / MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Coal-fired generating units (2)	350 MW each (1200x10 ⁶ Btu/h each)	TSP	^b 0.034 lb/10 ⁶ Btu (B)	Hot side ESP	
		SO ₂	^b 0.69 lb/10 ⁶ Btu (B)	Wet lime scrubbing	64
		NO _x	^b 0.697 lb/10 ⁶ Btu (N)		
		Opacity	15%		
Coal handling ^a		TSP		Spray application and dust collectors	
Bottom ash ^a				Hydraulic conveyance	
Fly ash ^a				Pneumatic conveyance	

NOTES: ^a - Detailed control strategy for these facilities is given in permit. Wet suppression shall be used to control fugitive dust during construction. Sampling of coal is required.

^b - This degree of control was proposed by the company in its application.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ELECTRIC GENERATING UNIT NO.5

350 MW

NAME/ADDRESS: ARIZONA PUBLIC SERVICE COMPANY, PHOENIX, AZ

Site at Joseph City, AZ

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 2/15/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION IX (Agency) _____ (Person) _____ (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Coal-fired boiler	350 MW (12000x10 ⁶ Btu/h)	TSP	a 0.05 lb/10 ⁶ Btu	ESP	
		SO ₂	a 0.072 lb/10 ⁶ Btu	Wet limestone scrubbing and low S coal	94
		NO _x	0.7 lb/10 ⁶ Btu (N)		
Coal handling areas		TSP		Dust control system	
Limestone handling areas		TSP		Dust control system	

a - The degree of control was proposed by company in its application.
 NOTES: Fugitive dust shall be controlled during construction by water spray. Bottom ash shall be pumped to a spray pond. Ash shall be mixed with waste sludge from SO₂ absorbers and or wastewater from cooling tower and transported in a slurry to a separate disposal area.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: McINTOSH 364 MW BOILER (UNIT NO.3)

NAME/ADDRESS: LAKELAND, FL UTILITIES

DETERMINATION IS: CONDITIONAL/FINAL/(PENDING) DATE OF ISSUE: _____ BASIS:* BACT¹/LAER/(BACT²)
FOR (NEW) MODIFIED SOURCE

BY EPA, REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate			Equipment type, etc.	Eff.,%
			Fuel ^a Limit		
Unit No. 3	3240x10 ⁶ Btu/hr	Part.	C .044 lb/10 ⁶ Btu(B)	ESP	99.5
			C&R .050 "		
			O .070 "		
			O&R .075 "		
		SO ₂	1.2 lb/10 ⁶ Btu (B)	Scrubber	80
		NO _x	O,C&R 0.7 lb/10 ⁶ Btu (B)		
			O,C&R 0.3 lb/10 ⁶ Btu (B)		

NOTES: C = Coal; O = Oil; R = Refuse

Unit is dry-bottom unit. Fired with pulverized coal, refuse, oil-fired.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 3 pages

SOURCE TYPE/SIZE: PETROCHEMICAL (~~OR~~-ALKALI/ETHYLENE DICHLORIDE)NAME/ADDRESS: HCC CHEMICAL COMPANY, 6100 OAK TREE BLVD., CLEVELAND, OH 44131DETERMINATION IS: CONDITIONAL ~~FINAL~~/PENDING: DATE OF ISSUE: 1/17/79 BASIS:* BACT¹/LAER/BACT²
FOR ~~NEW~~/MODIFIED SOURCEBY EPA REGION VI
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
2 Coal/oil boilers (7/78) and (8/78)	330x10 ⁶ Btu/hr	TSP	5.5 lbs/hr (B)	Multi-compartment bag-house, continuous monitoring, single alkali scrubber, continuous flue gas O ₂ control	99.7
		SO ₂	110.4 lbs/hr (B)	FGD Single Alkali Scrubber	96
		NO _x	236.8 lbs/hr (B)	LEA controlled by F/G O ₂ control. Two stage combustion - low NO _x burners, continuous NO _x monitoring. Single Alkali F.G. scrubber	20-70
		CO	19.7 lbs/hr (B)	F.G. Oxygen control	

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 3 pages

SOURCE TYPE/SIZE: PETROCHEMICAL (CHLOR-ALKALI/ETHEYLENE DICHLORIDE)

NAME/ADDRESS: HCC CHEMICAL COMPANY, 6100 OAK TREE BLVD., CLEVELAND, OH 44131

DETERMINATION IS: CONDITIONAL FINAL/PENDING: DATE OF ISSUE: 1/17/79
FOR NEW MODIFIED SOURCEBASIS:* BACT¹/LAER/BACT²

BY EPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Waste Gas Boiler (9/78)		TSP	2.17 lbs/hr (B)	Use of Gaseous Fuel, F.G. oxygen control	
		NO _x	46 lbs/hr (B)	LEA firing and F.G. O ₂ control, 2 stage combustion - low NO _x boiler/burner design.	
		CO		F.G. O ₂ control	
Coal crusher (10/78)		TSP	2.1 ⁵ lbs/hr (B)	Baghouse filters	99.7
Coal bunker (11/78)		TSP	.36 lbs/hr (B)	Baghouse filters	99.7
Ash Handling		TSP	.23 lbs/hr (B)	Baghouse filters	99.7

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 3 pages

SOURCE TYPE/SIZE: PETROCHEMICAL (CHLOR-ALKALI/ETHEYLENE DICHLORIDE)NAME/ADDRESS: HCC CHEMICAL COMPANY, 6100 OAK TREE BLVD., CLEVELAND, OH 44131DETERMINATION IS: CONDITIONAL FINAL/PENDING: DATE OF ISSUE: 1/17/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION VI (Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Coal Handling		Fugitive TSP	5.3 lbs/hr (B)	Shrouded Conveyors. Water spray at crusher, dust collection at transfer points. Main- tenance of separate active and inactive coal piles.	

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - EXTERNAL COMBUSTION SOURCES 1.0
(COAL FIRED - 1.1)

NAME - LOCATION	SIZE (c-coal, o-oil, w-wood, b-bagasse, g-gas)	REGION	BACT/LAER
CRA, Inc. Coffeetown, KS	480x10 ⁶ Btu/hr (c)	VII	x
City of Grand Island, NE	100 MW (c)	VII	x
Board of Public Utilities Kansas City, KS	256 MW (c)	VII	x
Big River Electric Company Robards, KY	2660x10 ⁶ Btu/hr (c)	IV	x
Wisconsin Public Service Corp. Weston, WI	3423x10 ⁶ Btu/hr (c)	V	x
Carolina Power & Light Roxboro, NC	3940x10 ⁶ Btu/hr (c)	IV	x
Delmarva Power & Light Indian River, DE	400 MW (c)	III	x
Wisconsin Power & Light Sheboygan, WI	400 MW (c)	V	x
Otter Tail Power Company Beulah, NC	440 MW (c)	VIII	x
Public Service Co. of Colorado Brush, CO	500 MW	VIII	x
Minnesota Power & Light Cohasset, MN	500 MW (c)	V	x
East Kentucky Power Corp. Maysville, KY	526 MW (c)	IV	x
Miller Steam Plant Porten, AL	600 MW (c)	IV	x
Associated Electric Co-Op Moberly, MO	610 MW (c)	VII	x
Kansas City Power & Light Kansas City, MO	630 MW (c)	VII	x
Iowa Southern Utilities Company Centerville, IA	727 MW (c)	VII	x
Electric Co-Op Inc. Merom, IN	8870x10 ⁶ Btu/hr (c)	V	x
Basin Electric Power Co-op Mercer County, ND	880 MW (c)	VIII	x

ADDITIONAL DETERMINATIONS - EXTERNAL COMBUSTION SOURCES 1.0

(COAL FIRED - 1.1)

NAME - LOCATION	SIZE (c-coal, o-oil, w-wood, b-bagasse, g-gas)	REGION	BACT/LAER
Kentucky Utilities Company Ghent, KY	1100 MW (c)	IV	x
Wisconsin Electric Power Company WI	1160 MW (c/o)	V	x
Florida Power Corp. Crystal River, FL	12,330x10 ⁶ Btu/hr (c) 800 tons/hr (materials handling)	IV	x
Kansas Power & Light St. Marys, KS	1440 MW (c)	VII	x
Basin Electric Power Co-Op Wheatland, WY	1710 MW (c)	VIII	x
Indiana & Michigan Electric Co. IN	2600 MW (c)	V	x
Sikeston Light & Water Sikeston, MO	1,750,000 lb coal/hr (c)	VII	x
Cincinnati Gas & Electric Co. Rabbit Hash, KY	12,600x10 ⁶ Btu/hr (c)	IV	x
Big Rivers Electroc Corp. Robards, KY (Unit #2)	2660x10 ⁶ Btu/hr (c)	IV	x
Northern States Power Becker, MN	800 MW (c)	V	x
Salt River Project St. Johns, AZ	350 MW (c)	IX	x
South Carolina P.S. Authority Georgetown, SC	560 MW (c)	IV	x
Louisville Gas & Electric Wise's Landing, KY	22,800x10 ⁶ Btu/hr (c)	IV	x
Wisconsin Power & Light Sheboygan, WI	400 MW (c)	V	x
Sierra Pacific Power Company Reno, NV	500 MW (c)	IX	x
Georgia Pacific Corp. Jarratt, VA	102x10 ⁶ Btu/hr (c)	III	x

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: DIESEL FIRED GENERATING UNITS

NAME/ADDRESS: HAWAIIAN ELECTRIC COMPANY, INC., HONOLULU, HI

Site at Maui, HI

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 10/13/78
FOR NEW MODIFIED SOURCE

BASIS:* BACT¹/LAER/BACT²

BY EPA REGION IX
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Diesel fired generat-	13.75 MW each	NO ₂	1.5 lb/10 ⁶ Btu (B)		
ing units (2)					
		TSP	0.054 lb/10 ⁶ Btu (B)		
		CO	0.41 lb/10 ⁶ Btu (B)		
Fuel oil storage tank					

NOTES: Fuel oil consumption limited to 1592 gal/hr (ann. avg.), sulfur content limited to 0.5% (daily max. avg.)

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: BOILER - OIL FIRED

NAME/ADDRESS: ANHEUSER-BUSCH, INC., SACRAMENTO, CA

Site at Van Nuys, CA

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 2/1/79 BASIS:* BACT¹ LAER BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
<u>Steam boilers (2)</u>	<u>125,000 lb/hr</u>	<u>SO₂</u>		<u>Low S oil 0.25%</u>	
	<u>steam each</u>				
	<u>Limited by</u>	<u>NO_x</u>	<u>0.27 lb/10⁶ Btu (L)</u>	<u>Low NO_x burners, two-</u>	
	<u>permit</u>			<u>stage combustion</u>	
<u>Existing boilers (4)</u>	<u>Total of</u>	<u>NO_x</u>	<u>0.47 lb/10⁶ Btu</u>	<u>As above</u>	
	<u>210,000 lb/hr</u>				
	<u>limited by</u>				
	<u>permit</u>				

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: OIL RECOVERY EQUIPMENT - STEAM GENERATORS

NAME/ADDRESS: GETTY OIL COMPANY, BAKERSFIELD, CA

Site at Kern County, CA

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 11/28/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Steam generators	(25)	50x10 ⁶ Btu/hr	SO ₂	0.14 lb/10 ⁶ Btu	Scrubbers	90
		each		max. 2 hr avg.		
			NO _x	0.18 lb/10 ⁶ Btu	Ammonia injection	
				max. 2 hr avg.		
New wells	(49)		HC		Hydrocarbon recovery	97
					(also required on	
					existing wells)	

NOTES: Applicant shall complete a road paving program. Scrubber also required on 10 existing generators.
Fuel use limited to 210/165 bbl/day (daily/annual average), sulfur content limited to 1.3/1.7% by weight
(daily/annual average). Previous permit issued 2/15/78 did not include ammonia technology.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: OIL FIELD - STEAM GENERATORS

NAME/ADDRESS: DOUBLE BARREL OIL COMPANY, BAKERSFIELD, CA

Site at Kern County, CA

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 8/10/78 BASIS:* BACT¹ LAER BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Oil fired steam gen- erating units (2)	50x10 ⁶ Btu/hr each	SO ₂	0.061 lb/10 ⁶ Btu	Flue gas scrubber	95
42 existing steam- drive oil wells		HC	3 lb/day per well	Vapor recovery	99
1000 bbl fuel tank, 750 bbl treating tank and 3 - 1000 bbl shipping tanks		HC		No oil having a true vapor pressure greater than psia at 150°F shall be stored in these tanks	0.0012

NOTES: Fuel usage limited to 439 bbl/day on a daily avg. and 372 bbl/day on an annual avg.

Sulfur content of oil limited to 1.2%

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - EXTERNAL COMBUSTION SOURCES 1.0
(OIL FIRED - 1.2)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER
Pacific Oil Company Kern County, CA	50x10 ⁶ Btu/hr/steam generators for oil well stimulation	IX	x
Sun Production Company Kern County, CA	50x10 ⁶ Btu/hr (as above)	IX	x
Gulf Energy and Minerals Kern County, CA	30x10 ⁶ Btu/hr (as above)	IX	x
The HOP Corporation Kern County, CA	50x10 ⁶ Btu/hr/as above and vapor recovery on wells	IX	x
Thomas Oil Company Kern County, CA	50x10 ⁶ Btu/hr/steam generators and vapor recovery on wells	IX	x
Southern California Edison Co. Laughlin, NV	350x10 ⁶ Btu/hr/steam generator - oil field	IX	x
Phillips Petroleum Company Bartlesville, OK	258x10 ⁶ Btu/hr (ARDS unit)	VI	x
Chaplin Petroleum Company Houston, TX	6350 lb oil/hr (heater)	VI	x
Hawaiian Electric Company Maui, HI	13.75 MW (generating units)	IX	x

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: INDUSTRIAL BOILER

263x10⁶ Btu/hr

NAME/ADDRESS: MEAD CORPORATION, STEVENSON, AL

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 8/29/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Wood waste boiler	263x10 ⁶ Btu/hr	TSP	0.0375 gr/dscf at 50% excess air (B)	Multiple cyclones followed by a high energy wet scrubber	98.5
		NO _x	0.7 lb/10 ⁶ Btu (B)	conservative heat release design and monitor	

NOTES: Offset occurs by the shut down of existing oil fired boiler.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: FUEL BURNING OPERATION

NAME/ADDRESS: JACK DANIEL DISTILLERY, LYNCHBURG, TN

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 8/11/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Boiler No.1 Stoker fired	77.x10 ⁶ Btu/hr ^a	Part Opacity	.04 gr/dscf (B) 20% (B)	Mech collector Baghouse	99
Boiler No.2	66.x10 ⁶ Btu/hr ^b 112.x10 ⁶ Btu/hr ^a 96x10 ⁶ Btu/hr ^b			Mech Collection Baghouse	99

NOTES: Boilers designed to burn wood with coal as standby fuel

^a - Firing - distributor spouts on traveling grates

^b - Firing - spreader stoker on traveling grates

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: INDUSTRIAL BOILER

498x10⁶ Btu/hr

NAME/ADDRESS: FEDERAL PAPERBOARD COMPANY, RIEGELWOOD, N.C.

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 10/18/77 BASIS:* BACT¹/LAER BACT²
 FOR NEW MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Bark and No.6 oil fired boiler	498x10 ⁶ Btu/hr	TSP	0.1 lb/10 ⁶ Btu (B)	Multicyclone followed by Venturi	99+
		SO ₂	0.8 lb/10 ⁶ Btu (B)	Low S coal (1.5% S) plus control by Venturi	

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: STEAM GENERATOR

NAME/ADDRESS: LIHUE PLANTATION COMPANY, LIHUE, HI Site at Lihue, Hawaii

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 1/25/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX (Agency) _____ (Person) _____ (Phone) _____

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Bagasse-fired steam generator	336,400 lb/hr steam	TSP	90 lb/hr or 0.1 gr/dscf (B)	Multicyclone and wet scrubbing	

NOTES: Fuel oil limited to 10,590 lb/hr, fibrous fuel limited to 11,900x10⁶ Btu/day
Sulfur content limited to 0.5% (monthly avg. basis)
Within 180 days of start-up, 9 existing boilers at can processing plant shall be shut down.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: NAPHTHA GASIFICATION PLANT

NAME/ADDRESS: TRANSCO ENERGY COMPANY, CHESTER TOWNSHIP, PA

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 4/14/78 BASIS: * BACT¹ LAER BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION III
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff., %
Fired Heaters-1 stack			TSP	2.3 lb/hr (B)	Limiting the S content	
			SO ₂	10.8 ^a /19.9 lb/hr ^b (B)	in Naptha to 900 ppmv	
Hydrogen Heaters			TSP	.9 lb/hr (B)	on a yearly average	
(each stack)			SO ₂	4.1 ^a /7.6 lb/hr ^b (B)	and 1500 ppmv on a 4	
Boilers-1 stack	700x10 ⁶ Btu/hr		TSP	24.4 lb/hr (B)	month average generates	
			SO ₂	1435 ^a /265.1 lb/hr ^b (B)	these figures	
Start-Up Heaters			TSP	24.3 lb/yr		
			SO ₂	96.0 lb/yr		

NOTES: ^a = Annual average limit

^b = 120 day average limit

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: FLY ASH HANDLING SYSTEM

NAME/ADDRESS: FLORIDA POWER CORPORATION, ST. PETERSBURG, FL

Site at Crystal River, FL

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: _____ BASIS:* BACT¹/LAER/BACT²
FOR NEW,MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
<u>Transfer Silo</u>					
<u>Source 1</u>	<u>44 ton/hr</u>	<u>TSP</u>	<u>3.52 ton/hr (B)</u>	<u>Fabric filter</u>	<u>99.9</u>
<u>Source 2</u>	<u>6.97 ton/hr</u>	<u>TSP</u>	<u>0.03 ton/hr (B)</u>	<u>Fabric filter</u>	<u>99.9</u>
<u>Storage Silo</u>	<u>10 ton/hr</u>	<u>TSP</u>	<u>0.57 ton/hr (B)</u>	<u>Fabric filter</u>	<u>99.9</u>

NOTES: Construction is exempt from control technology review, but not from impact analysis requirements.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: LNG IMPORT TERMINAL

NAME/ADDRESS: TRUCKLINE LNG COMPANY, HOUSTON, TX

Site at Lake Charles, LA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE:
FOR NEW/MODIFIED SOURCE

BASIS:* BACT¹/LAER/BACT²

BY EPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Fuel Gas Heaters	2 at .63 lb/hr	NO _x	1.26 lb/hr (B)	Proper design	
Vaporizers	7 at 3.86 lb/hr	NO _x	27.02 lb/hr (B)	Proper design	
Gas Turbine		NO _x	48.7 lb/hr (N)	Water injection	

NOTES: Source is required to comply with NSPS for gas turbines

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - EXTERNAL COMBUSTION SOURCES 1.0
(OTHER - 1.3)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER
Simonson Lumber Company Smith River, CA	80,000 lb steam/hr wood fired boilers	IX	x
West Vaco Corporation Wickliffe, KY	634x10 ⁶ Btu/hr/bark/wood fired boilers	IV	x
Paul Bunyan Lumber Company Anderson, CA	7.1 ton/hr/wood fired boiler	IX	x

2.0 SOLID WASTE DISPOSAL

- 2.1 Refuse incineration (liquid, solid)
- 2.2 Sewage sludge incineration
- 2.3 Other - auto body, pathological, etc.

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: SOLID WASTE DISPOSAL

250 ton/day

NAME/ADDRESS: GLEN COVE COMPANY, GLEN COVE, NY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING DATE OF ISSUE: _____
FOR NEW/MODIFIED SOURCE

BASIS: * BACT¹ / LAER / BACT²

BY EPA REGION II
(Agency)

Mike Davis
(Person)

8-264-9578
(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Incinerator	250 ton/day	PM	0.05 gr/dscf at 12% CO ₂ and 20% opacity	ESP	97
Incinerator	250 ton/day	SO ₂		(1) No controls required	
Incinerator	250 ton/day	NO _x		(2) Combustion parameters	
Incinerator	250 ton/day	CO	< 1000 ppm	(3) Combustion parameters	

NOTES: (1) SO₂ concentration too low to effectively use FGD devices.

(2) Excess air 120%, combustion temperature - 1000° F.

(3) Heat release rate - 1400 Btu/hr/ft³ - combined temperature between 1600°F-1800°F - O₂ between 10-12%.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: RESOURCE RECOVERY FACILITY 3000 ton/day

NAME/ADDRESS: ENVIRONMENTAL RESOURCES MANAGEMENT Site at Dade County, FL

DETERMINATION IS: CONDITIONAL / FINAL / PENDING: DATE OF ISSUE: 3/30/78 BASIS:* BACT¹ / LAER / BACT²
FOR NEW / MODIFIED SOURCE

BY EPA REGION IV _____
(Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Boilers 1&2,3&4		TSP	.08 gr/dscf (N)	ESP	
Glass dryer and		SO ₂		Low S (\leq .8%) fuel used	
Pathological				during start up	
Incinerator					

NOTES: Applicant must furnish proof to EPA that source emits less than 100 ton/year of HC

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - SOLID WASTE DISPOSAL 2.0
 (REFUSE INCINERATION [LIQUID, SOLID] - 2.1)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: SLUDGE INCINERATOR

NAME/ADDRESS: HUNTINGTON, W. VA.

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 6/21/78 BASIS:* BACT¹ LAER BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION III
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Incinerator	7800 lb/hr	TSP	1.6 lb/ton dry sludge	Venturi scrubber with	99
	wet sludge		.93 lb/hr (N)	pressure drop of 20"	
				water	

NOTES: This is a PSD source. Since controlled emissions of particulate will be less than 50 ton/yr no
modeling for PSD is necessary, only a BACT determination.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - SOLID WASTE DISPOSAL 2.0
(SEWAGE SLUDGE INCINERATION - 2.2)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

ADDITIONAL DETERMINATIONS - SOLID WASTE DISPOSAL 2.0
 (OTHER - AUTO BODY, PATHOLOGICAL, ETC. 2.3)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

3.0 INTERNAL COMBUSTION

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: NATURAL GAS COMPRESSOR STATION/23,000 HORSEPOWER

NAME/ADDRESS: TENNESSEE GAS PIPELINE, P.O. BOX 2511, HOUSTON, TEXAS 77001

DETERMINATION IS: CONDITIONAL FINAL/PENDING: DATE OF ISSUE: 1/26/79 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION VI _____ (Agency) _____ (Person) _____ (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
General Electric 11,500 horsepower regenerative turbine gas compressors (2)	2 billion cubic feet per day ea.	Nitrogen oxides (NO _x)	39.0 lb/hr (B) for each turbine	Water Injection: monitored water/fuel ratio and consumption rates	47.2
Electric generator with 150 HP gas engine		Nitrogen oxides (NO _x)	3.64 lb/hr (B)	controlled parameters for ignition timing and fuel/air ratio rates	

NOTES: Use of the electric generator is limited to 1 hr per week for maintenance.
Continuous operation will be permitted only in the event of outside power failure.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: NATURAL GAS COMPRESSOR STATION ENGINE/7250 HP

NAME/ADDRESS: NATURAL GAS PIPELINE COMPANY OF AMERICA, 122 S. MICHIGAN AVE., CHICAGO, IL 60603

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 1/9/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION V
(Agency)

Joe Winkler
(Person)

214-767-2742
(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Compressor Engine	444 MMSCF/D	Nitrogen Oxides	Standard-1075 T/Y (B)	None	
Unit No.8			Clean Burn-230 T/Y (B)	Engine Modification	79

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - INTERNAL COMBUSTION 3.0

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER
Tennessee Gas Pipeline Houston, TX	11,500 HP/gas turbine	VI	x

4.0 EVAPORATIVE LOSS

- 4.1 Surface coating
- 4.2 Petroleum liquids storage
- 4.3 Transportation and marketing of petroleum liquids
- 4.4 Other

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: SURFACE COATING66 CARS/HOURNAME/ADDRESS: VOLKSWAGEN MANUFACTURING CORPORATION OF AMERICA, WESTMORELAND COUNTY, NEW STANTON, PADETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 10/6/77 BASIS:* BACT¹ LAER BACT²
FOR NEW MODIFIED SOURCEBY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Volkswagen Plant	66 cars/hr	NMHC	Start-up 599 tons/yr	(L) See attachment	
			1st modification 927	tons/yr (L)	
			2nd modification 814	tons/yr (L)	
			3rd modification 656	tons/yr (L)	
			4th modification 493	tons/yr (L)	

NOTES: SIP revision was required in this application. As part of the offset policy, the pavement maintenances of PennDOT were changed in order to reduce the hydrocarbon emissions enough to compensate for the increase that would result from the Volkswagen operation. (See special conditions - page 2)

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

Volkswagen Manufacturing Corporation of America
Westmoreland County, New Stanton, Pennsylvania

SPECIAL CONDITIONS

1. Production is to be limited to one eight-hour shift per day, five days per week, with hydrocarbon emissions at an estimated maximum of 4,795 pounds per day, until the first modification of the painting process is made. This modification consists of increasing the solids content of metallic base coat from 15% to 30% and of the clear coat from 34.8% to 45% which is designated to reduce total hydrocarbon emissions to an estimated maximum of 3710 pounds per eight-hour shift.
2. On or before December 31, 1979, implement the modification described in item 1 above and eliminate the sealer coat which is designed to reduce total hydrocarbon emissions from the plant from an estimated maximum of 4795 pounds per eight hour shift to an estimated maximum of 3255 pounds per eight hour shift.
3. On or before December 31, 1980, change to water-borne spray primer (20% organic solvent, 23.5% water) and a water-borne sealer (20% organic solvent, 28.3% water). These modifications are designed to reduce total hydrocarbon emissions from the plant from an estimated maximum of 3255 pounds per eight hour shift to an estimated maximum of 2624 pounds per eight hour shift.
4. On or before December 31, 1981, increase solids content of top-coat to 80%. This final modification is designed to reduce the total hydrocarbon emissions from the plant to an estimated maximum of 1971 pounds per eight hour shift.

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: (7) WIRE ENAMELING OVENS

NAME/ADDRESS: PHELPS DODGE MAGNETIC WIRE COMPANY, HOPKINSVILLE, KY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/17/78 BASIS: * BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Wire enameling ovens (7)	47.1 lb/hr each	VOC	8 lb/hr (B)	dual incineration	> 90

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: UREA SURFACE COATING

60 TONS/HOUR

NAME/ADDRESS: AG INDUSTRIES, COLUMBIA, ALABAMA

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 10/18/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IV (Agency) _____ (Person) _____ (Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Surface Coating	60 tons/hr	TSP	5.9 lb/hr (B)	Two scrubbers, two cyclones and a baghouse	99.9
Urea Unloading	}	TSP		Controls on hours of operation	
Rail car loading					
Boiler					

NOTES: Area coating operations must be limited to \leq 8400 hr/yr, unloading must be limited \leq 2000 hrs/yr, rail car loading must be limited to \leq 4000 hrs/yr, boiler operations must be limited to \leq 8400 hrs/yr. A record of these hours must be recorded in a form suitable for inspection.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: RIBBON COATING

1300 FT/MIN

NAME/ADDRESS: IBM LEXINGTON, KY

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 7/21/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Ribbon Coaters (new) (2)	500 ft/min each	HC	9.23 lb/hr (L)	Hooding and carbon ad-	95
				sorption	
Solvent Recovery		HC	5.2 lb/hr (L)	None	
System (New)					
Coater (modification)		HC	28.4 lb/hr (L)	Not given	88
Emission Reduction		HC	17.9 lb/hr (L)	2 incinerators and waste	70
required on three coaters			(reduction of 281.6	heat boiler	
(added controls)			ton/year)		

NOTES: Conditions (1) Maximum usage of mixed ink including organic solvents not to exceed 584 lb/hr and 1889 tons/yr; (2) Hours of operation shall not exceed 21.5 hr/day, 301 days/yr. Hours of operation for process B shall not exceed 3517 hrs/yr.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ROTOGRAVURE PRINTING PRESS

NAME/ADDRESS: MEAD PACKAGING, ATLANTA, GA

Site at Buena Park, CA

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 4/28/78 BASIS:* BACT¹ LAER BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IX
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
<u>Printing press</u>	<u>6000 lb/solvent</u>	<u>VOC</u>	<u>78 tons/yr (B)</u>	<u>Thermal oxidizer</u>	<u>90</u>
	<u>per day</u>				

NOTES: Permit limits operation of 6240 hr/yr. Source was determined to be exempt from air quality impact analysis.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - EVAPORATIVE LOSS 4.0
(SURFACE COATING 4.1)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: PETROLEUM REFINERY

22,000 BBL/DAY CRUDE OIL

NAME/ADDRESS: FLETCHER OIL AND REFINING COMPANY, CARSON, CA

Site at Carson, CA

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 9/6/78BASIS: * BACT¹ / LAER BACT²

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Floating roof storage tanks (8)		HC		Internal double seal floating roofs	
Fixed roof tank		HC		Vapor recovery	
Truck loading		HC		Vapor recovery	
FCC Unit		TSP		Cyclones + ESP	
		CO	5.6 lb/hr (max 2 hr avg)		
Pumps		HC	510 lb/day	Mechanical seals	
Valves		HC	840 lb/day		

NOTES: Closed wastewater separators required. Detailed list of proposed equipment and requirements given in permit. S content of fuel limited to 0.1 gr/dscf. Applicant required to remove existing internal combustion engines, boilers and 7 storage tanks 180 days after start up.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: PETROLEUM REFINERY

22,000 BBL/DAY CRUDE OIL

NAME/ADDRESS: FLETCHER OIL AND REFINING COMPANY, CARSON, CA Site at Carson, CA

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 9/6/78 BASIS: * BACT¹/LAER BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Compressors		HC	150 lb/day		
Process heaters and boilers		NO ₂	0.07 lb/10 ⁶ Btu(2 hr avg)	Low NO _x burners or ammonia injection	
Existing heaters (4)	Limited to 423x10 ⁶ Btu/hr of refinery gas only	NO ₂	0.09 lb/10 ⁶ Btu(2 hr avg)	required for all fuel gas combustion devices	
Sulfur recovery plant		SO ₂	2.1 lb/hr (2 hr avg)	Shall receive all hydrocarbon sulfide gas recovered from refinery process	

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: PETROLEUM REFINERY

NAME/ADDRESS: CIBRO PETROLEUM PRODUCTS CORPORATION, ALBANY, NY

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 9/27/78 BASIS:* BACT¹ ~~LAER~~ BACT²
FOR (NEW) MODIFIED SOURCE

BY EPA REGION II

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Petroleum storage tanks		HC	No numerical limit (B)	Double seal floating roofs	95	
Process relief valves		HC	No numerical limit (B)	Flare		
API separators		HC	No numerical limit (B)	Enclosures		
Pumps and compressors		HC	No numerical limit (B)	Mechanical seals		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

**** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment**

ADDITIONAL DETERMINATIONS - EVAPORATIVE LOSS 4.0
(PETROLEUM LIQUIDS STORAGE 4.2)

NAME - LOCATION	SIZE	REGION	BACT/LAER

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: CRUDE OIL TOPPING PLANT

10,000 BBL/DAY

NAME/ADDRESS: COASTAL PETROLEUM REFINERIES, INC., SANTA ANNA, CA

Site at Kern County, CA

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: _____ BASIS:* BACT¹ LAER BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Crude oil tanks,		HC	0 (L)	HC vapor recovery and	100
naptha tanks and truck				incineration	
loading and unloading					

NOTES: Fuel usage limited to 0.45×10^6 ft³/day natural gas or 1,320 gal/day oil. Sulfur content of fuel limited to 1.3% by weight. Facility determined to be a minor source under conditions of permit.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: PETROLEUM STORAGE AND TRANSFER FACILITY

NAME/ADDRESS: PACTEX PIPELINE COMPANY, LONG BEACH, CA

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 10/13/78 BASIS: * BACT¹ LAER BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Crude oil storage tanks (8)	615,000 bbl each			Double seal floating roof technology	
Tanker unloading				Detailed requirements (see permit)	
Two berth marine terminal	500,000 bbl/day			Detailed requirements (see permit)	
Pump stations (2)					
Related facilities					

NOTES: Applicant shall obtain emission offsets of 1059 lb/day for VOC and 3980 lb/day of NO_x in the Los Angeles Metropolitan Air Quality Control Region.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - EVAPORATIVE LOSS 4.0
(TRANSPORTATION AND MARKETING OF PETROLEUM LIQUIDS 4.3)

NAME - LOCATION	SIZE	REGION	BACT/LAER

ADDITIONAL DETERMINATIONS - EVAPORATIVE LOSS 4.0
(OTHER 4.4)

NAME - LOCATION	SIZE	REGION	BACT/LAER

5.0 CHEMICAL PROCESS INDUSTRIES

- 5.1 Acid manufacture
- 5.2 Carbon black
- 5.3 Charcoal
- 5.4 Paint and varnish
- 5.5 Sulfur and sulfur recovery
- 5.6 Other - explosives, etc.

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: BORIC ACID PLANT

685 TON/DAY

NAME/ADDRESS: U.S. BORAX AND CHEMICAL COMPANY, LOS ANGELES, CA

Site at Boron, CA

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 6/18/78
FOR NEW ~~MODIFIED~~ SOURCE

BASIS: * BACT¹ / LAER BACT²

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Steam boiler	150x10 ³ lb/hr steam		SO ₂	Oil use limited to 840 bbl/day of <0.5% S oil	
Impact mill	85 ton/hr ore feed	TSP	0.003 lb/ton of ore feed to the mill	Baghouse ^a	99.5
Product dryers (3)	Total product processed = 28.5 ton/hr	TSP	0.067 lb/ton of ore feed to boric acid plant	Baghouse ^a	99
Product handling		TSP	0.035 lb/ton product	Enclosed operation and fabric filter as above	99.7
Bulk rail loadout	5 cars/day	TSP	2.0 lb/rail car loaded		99.7

NOTES: ^a Permit amended on 7/19/78 to allow use of baghouses with efficiency of 99.5% on product dryers and impact mill rather than scrubbers as originally proposed. Water spray shall be used to control fugitive emissions.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: PHOSPHATE FERTILIZER CHEMICAL COMPLEX EXPANSION

/2000 TON/DAY

NAME/ADDRESS: OXIDENTAL CHEMICAL COMPANY, WHITE SPRINGS FL

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/2/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
New contact type		SO ₂	333 lb/hr		
double absorption	2000 ton/day	H ₂ SO ₄ Mist	12.5 lb/hr (N)	Mist Eliminator	99+
sulfuric acid plant					
Fossil-fuel-fired	125x10 ⁶ MMBtu/hr	SO ₂	(B)	Low sulfur oil	
steam generator		Part	(B)		
Vacuum evaporation					
super phosphoric	700 ton/day	SiF ₄	0.29 lb/hr (N)	Venturi scrubber	
acid (SPA) plant		(silicon tetra- fluoride)			

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: PHOSPHATE FERTILIZER CHEMICAL COMPLEX EXPANSION /2000TON/DAYNAME/ADDRESS: OXIDENTAL CHEMICAL COMPANY, WHITE SPRINGS, FLDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/2/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV (Agency) _____ (Person) _____ (Phone) _____

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Fossil fuel-fired steam generator	75,000 lb/hr	Part SO ₂ SiF ₄	(B)	Low sulfur oil	
Phosphoric Acid Train	1500 ton/day	SiF ₄	1.54 lb/hr (N)	Hoods and cyclone scrubber	99.9%
		Part	46 lb/hr (N)	baghouse	99.8

NOTES: _____

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - CHEMICAL PROCESS INDUSTRIES 5.0
(ACID MANUFACTURE 5.1)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

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BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: CARBON BLACK PLANT

63x10⁶ LB/YR

NAME/ADDRESS: CONTINENTAL CARBON COMPANY, PHENIX CITY, AL

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 3/30/78
FOR NEW MODIFIED SOURCEBASIS: * BACT¹ / LAER / BACT²

BY

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
<u>Proposed Expansion</u> <u>Facilities</u>	53x10 ⁶ lb/yr Reactor rated at 6.5 TPH	SO ₂			
A. Main bag filter		Particulate	0.95 lb/hr	Baghouse ^a	99.9
B. Exhaust bag filter		Particulate	0.13 lb/hr	Baghouse ^b	99.9
C. Firebox stack		Particulate	1.26 lb/hr		
D. Oil preheater		Particulate	0.60 lb/hr		

NOTES: ^a 22,400 SCFM, pressure drop = 4" water, Air/cloth ratio = 1.13^b 5,000 SCFM, pressure drop = 7" water, Air/cloth ratio = 1.15

Feedstock oil and liquid fuel shall not exceed 1.6% sulfur by weight.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: CARBON BLACK PLANT

63x10⁶ LB/YR

NAME/ADDRESS: CONTINENTAL CARBON COMPANY, PHENIX CITY, AL

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 3/30/78
FOR NEW ~~MODIFIED~~ SOURCEBASIS: * BACT¹ / LAER, BACT²

BY

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Existing Facilities					
E. Air and Oil Preheater		Particulate	2.34 lb/hr		
F. Exhaust bag filter		Particulate	0.077 lb/hr		
G. Firebox stack		Particulate	0.92 lb/hr		
H. Firebox stack		Particulate	0.92 lb/hr		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - CHEMICAL PROCESS INDUSTRIES 5.0
(CARBON BLACK 5.2)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

ADDITIONAL DETERMINATIONS - CHEMICAL PROCESS INDUSTRIES 5.0
(CHARCOAL - 5.3)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

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ADDITIONAL DETERMINATIONS - CHEMICAL PROCESS INDUSTRIES 5.0
(PAINT AND VARNISH - 5.4)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: NATURAL GAS DESULFURIZATION PLANT

NAME/ADDRESS: ALKALI GULCH GAS PROCESSING PLANT (POLUMBUS CORPORATION) KLINE, CO

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/29/76 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION VIII
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
	5 mmcf/day of natural gas	SO ₂	BACT defined as a 99% overall sulfur recovery	(Equipment not specified in permit but is described on reverse side of this sheet)	
			Install and operate SO ₂ oxidizer stack	continuous monitoring on	
			Maintain file of all measurements, quantity of gas handled, H ₂ S content recorded daily, malfunctions, etc.		

**

NOTES: Permit modified on 2/28/78 because of violations. Additional conditions: Submit quarterly excess emission report, (6 hr avg. must be 99% removal); maintain and operate facility in good air pollution control practice. Adhere to operating procedures.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

Alkali Gulch Gas Process Plant (Polumbus Corporation)
Kline, CO

Capture of sulfur compounds will be accomplished using AMOCO Claus process followed by a Shell Claus off-gas treating unit. Sulfur removal efficiencies are calculated to be 95.6% and 94.9% respectively, resulting 99.8% overall removal efficiency. Residual H₂S emissions are converted to SO₂ in thermal oxidizer. Total emissions are calculated to be 46.3 tons SO₂/year if H₂S content averages 15%.

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: SULFUR RECOVERY PLANT (REFINERY)

NAME/ADDRESS: SKILLY OIL COMPANY, EL DORADO, KS

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 7/16/76 BASIS:* BACT/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION VII

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Because emissions from the new sulfur recovery unit will be vented through a new incinerator, which provides a portion of the emission control for the affected facility, a SO ₂ emission limit cannot be specified for the exhaust from the sulfur recovery unit. Also waste gases from processes other than the new Claus sulfur recovery unit will be treated in the new incinerator. It has been determined that it is unfeasible to specify an emission standard on the sulfur recovery unit. Thus, an equipment standard is being specified as a condition of approval of the application. The equipment shall consist of a 3 stage Claus sulfur recovery unit with tail-gas incineration.						
S Recovery Unit		120 tons of elemental sulfur/day		(95% efficiency estimated)		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - CHEMICAL PROCESS INDUSTRIES 5.0
(SULFUR AND SULFUR RECOVERY - 5.5)

NAME - LOCATION	SIZE /FACILITIES	REGION	BACT/LAER
Colorado Interstate Gas Company Sweetwater County, WY	60x10 ⁶ cf/d (sulfur recovery)	VIII	x
Mountain Fuel Supply Company Vinta County, WY	12.5x10 ⁶ cf/d (sulfur recovery)	VIII	x
Shell Oil Company Manistee, MI	45x10 ⁶ cf/d (sulfur recovery)	V	x
Husky Oil Company Cheyenne, WY	30,000 bbl/day (sulfur recovery and coking plant)	VIII	x

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 3 pages

SOURCE TYPE/SIZE: MISSISSIPPI ARMY AMMUNITION PLANT (BAY ST. LOUIS, MS)NAME/ADDRESS: NATIONAL SPACE TECHNOLOGY LABORATORIES, HANCOCK COUNTY, MSDETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 9/22/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
77 Projectile metal parts manufacturing area		Part	13.2 lb/hr (B)		
		SO ₂	21.3 lb/hr (B)		
		NO _x	42.3 lb/hr (B)		
		HC	27.5 lb/hr (B)		
Cargo metal parts manufacturing area		Part	7.7 lb/hr (B)		
		SO ₂	23.5 lb/hr (B)		
		NO _x	45.6 lb/hr (B)		
		HC	16.8 lb/hr (B)		

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 3 pages

SOURCE TYPE/SIZE: MISSISSIPPI ARMY AMMUNITION PLANT (BAY ST. LOUIS, MS)

NAME/ADDRESS: NATIONAL SPACE TECHNOLOGY LABORATORIES, HANCOCK COUNTY, MS

DETERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 9/22/78 BASIS: * BACT¹ / LAER BACT²
FOR NEW / MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Load, assemble and pack areas		Part	1.2 lb/hr (B)		
Explosive waste incinerators		Part	0.077 lb/hr per incinerator		
Coal-fired boilers		Part	0.05 lb/MM Btu		
		SO ₂	1.0 lb/MM Btu		
		NO _x	0.7 lb/MM Btu		

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 3 pages

CE TYPE/SIZE: MISSISSIPPI ARMY AMMUNITION PLANT (BAY ST. LOUIS, MS)

ADDRESS: 11111 N. 11TH AVE. SPACE TECHNOLOGY LABORATORIES, JACKSON COUNTY, MS

DATE OF TERMINATION IS: CONDITIONAL FINAL PENDING: DATE OF ISSUE: 9/22/78 BASIS: * BACT¹ / LAER / BACT²
FOR (NEW) MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

UNIT PARAMETERS: TREATED FACILITY	THROUGHPUT CAPACITY, Tons per day	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
2 x 1 electric generators		Part	6.8 lb/hr		
		SO ₂	34.0 lb/hr		
		NO _x	405.0 lb/hr		
		H ₂	1 lb/hr		
Inert waste incinerators		Part	0.03 lb/hr per incinerator ^a		

NOTES: ^a Only one unit may be operated at a time. All controls are BACT and 40 CFR 52.21

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

★★ Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEX / 400x10⁶ LB/YEAR OF ACRYLONITRILE

NAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH Site at Calhoun County, TX

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/5/79 BASIS: * BACT¹/LAER/BACT²
FOR ~~NEW~~/MODIFIED SOURCEEPA
BY REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES				Equipment type, etc.	Eff.,%
<u>Acrylonitrile Facility</u>					
Waste gas incinerators		NO _x	8 lb/hr (B)	Incineration and	99.5
		CO	121 lb/hr (B)	combustion controls ^a	
		HC	5.5 lb/hr (B)		
HCN by-product		NO _x	400 lb/hr (B)	Incineration and	
incinerator		CO	121.9 lb/hr (B)	combustion controls ^a	99.5
		HC	6.0 lb/hr (B)		
Catalyst hopper		TSP	<0.1 lb/hr (B)	Cyclone and catalyst trap	

NOTES: ^a Combustion controls consist of low excess air firing, staged combustion, continuous flue gas oxygen monitor/controller, control of combustion air/fuel ratio, boiler and burner design to produce low intensity flames, etc.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEXNAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH Site at Calhoun County, TXDETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 2/5/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BYEPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Acrylates Facility	275x10 ⁶ lb/yr				
Waste gas incinerator		NO _x	20 lb/hr (B)	Combustion controls	
		CO	18.4 lb/hr (B)	Combustion controls	
		SO ₂	6.5 lb/hr (B)	Low sulfur fuel	
		TSP	0.9 lb/hr (B)		
Waste water incinerator		NO _x	41.7 lb/hr (B)	Combustion controls	
		CO	3.2 lb/hr (B)	Combustion controls	
		SO ₂	33.1 lb/hr (B)	Low sulfur fuel	
		TSP	4.1 lb/hr (B)		

NOTES:

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEX

NAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH Site at Calhoun County, TX

DETERMINATION IS: ~~CONDITIONAL~~ FINAL PENDING: DATE OF ISSUE: 2/5/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

EPA
BY REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate			Equipment type, etc.	Eff., %
Methyl Methacrylate	150x10⁶ lb/yr				
Waste gas incinerator		NO _x	15 lb/hr (B)	Combustion controls	
		CO	13.8 lb/hr (B)	Combustion controls	
		SO ₂	4.9 lb/hr (B)	Low sulfur fuel	
		TSP	0.7 lb/hr (B)		
Waste water incinerator		NO _x	30.0 lb/hr (B)	Combustion controls	
		CO	2.2 lb/hr (B)	Combustion controls	
		SO ₂	23.5 lb/hr (B)	Low sulfur fuel	
		TSP	2.9 lb/hr (B)		

NOTES: _____

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 4 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEXNAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH

Site at Calhoun County, TX

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 2/5/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Barex ^(R) Resin Facility	30x10 ⁶ lb/yr				
Thermal oxidizer		NO _x	1.7 lb/hr (B)	Combustion controls	
		CO	0.6 lb/hr (B)		
Acrylamide facility	30x10 ⁶ lb/yr				
Waste gas incinerator		NO _x	19.2 lb/hr (B)	Combustion controls	
		CO	3.4 lb/hr (B)	Combustion controls	
		SO ₂	1.2 lb/hr (B)	Low sulfur fuel	
		TSP	0.2 lb/hr (B)		

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 5 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEX

NAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH

Site at Calhoun County, TX

DETERMINATION IS: ~~CONDITIONAL~~ FINAL / PENDING: DATE OF ISSUE: 2/5/79
FOR NEW / ~~MODIFIED~~ SOURCEBASIS: * BACT¹ / LAER, BACT²BY EPA REGION VI
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
<u>Olefin Facility</u>	1300x10 ⁶ lb/yr				
Heaters		NO _x	20 lb/hr (B)	Combustion controls	
		CO	4.3 lb/hr (B)	Combustion controls	
		SO ₂	52.9 lb/hr (B)	Low sulfur fuel	
		TSP	10.3 lb/hr (B)		
Sulfur recovery unit		SO ₂	30.8 lb/hr (B)	Sulfur recovery unit	99.5

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 6 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEX

NAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH

Site at Calhoun County, TX

DETERMINATION IS: CONDITIONAL/~~FINAL~~/PENDING: DATE OF ISSUE: 2/5/79 BASIS: * BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCE

BY EPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Ammonia Facility	1250 ton/day				
Reformer heaters		NO _x	82.5 lb/hr (B)	Combustion controls	
		CO	17.0 lb/hr (B)	Combustion controls	
		SO ₂	162.1 lb/hr (B)	Low sulfur fuel	
		TSP	7.5 lb/hr (B)		
Carbon dioxide stripper		CO	0.4 lb/hr (B)	Combustion controls	

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Pages 7 of 8 pages

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEX

NAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH

Site at Calhoun County, TX

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/5/79 BASIS: * BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Urea-granulator/evaporator		TSP	18.2 lb/hr (B)	Scrubber	70-95
Nitric acid absorber	300 ton/day	NO _x	19.2 lb/hr (B)	Extended absorption	
	waste gas				
Ammonium Nitrate		TSP	4.0 lb/hr (B)	Mist eliminator	95
neutralizer					
Synthesis gas vent		CO	114.2 lb/hr (B)	Incinerator	
		SO ₂	2.9 lb/hr (B)	Low sulfur fuel	
High sulfur flue gas		SO ₂	96.1 lb/hr (B)	Sulfur recovery unit with tail gas clean-up	95.5

NOTES:

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

SOURCE TYPE/SIZE: PETROCHEMICAL COMPLEXNAME/ADDRESS: VISTRON CORPORATION, MIDLAND BLDG., CLEVELAND, OH

Site at Calhoun County, TX

DETERMINATION IS: CONDITIONAL/~~FINAL~~/PENDING: DATE OF ISSUE: 2/5/79 BASIS: * BACT¹/LAER~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCEBY EPA REGION VI
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Phthalic Anhydride Facility	180x10 ⁶ lb/yr				
Waste gas incinerator		CO	5.7 lb/hr (B)	Combustion controls	
		SO ₂	34.7 lb/hr (B)	Low sulfur fuel	
		TSP	5.3 lb/hr (B)	Scrubber	50
Utility boilers	600x10 ⁶ Btu/hr	NO _x	178.6 lb/hr (B)	Combustion controls	
		CO	21.5 lb/hr (B)	Combustion controls	
		SO ₂	439.4 lb/hr (B)	Low sulfur fuel	
		TSP	40.8 lb/hr (B)		

NOTES: _____

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 3 pages

SOURCE TYPE/SIZE: EXPANSION OF SILICONE CHEMICAL MANUFACTURING PLANT/115x10⁶ LB/YEAR OF CRUDE SILICONENAME/ADDRESS: DOW CORNING CORPORATION, CARROLLTON, KYDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/17/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV/KENTUCKY DEPARTMENT OF NATURAL RESOURCES
(Agency) (Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Silicone grinding, screening and convey- ing	Permit limits grinder to 39x10 ⁶ lb/yr	TSP	Opacity - 20%		
Catalyst transfer (2)		TSP	Opacity - 20%		
Methyl Chloride recovery		HC	60 lb/hr	Shall be equipped with a control device at least 98.3% by weight design efficiency.	
Fume Incinerator		HC		Shall be designed to provide an incinera- tion efficiency for HC of at least 99%	

NOTES: Total plant production limited to 115x10⁶ lb/yr of crude silicone

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORTSOURCE TYPE/SIZE: EXPANSION OF SILICONE CHEMICAL MANUFACTURING PLANT/115x10⁶ LB/YEAR OF CRUDE SILICONENAME/ADDRESS: DOW CORNING CORPORATION, CARROLLTON, KYDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/17/78 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV/KENTUCKY DEPARTMENT OF NATURAL RESOURCES
(Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Fume Incinerator (continued)		HCl	5 ppm (exhaust stack)	Shall be scrubbed by a suitable	
				medium such that emissions do not	
				exceed 5 ppm in exhaust stack	
Methyl Chloride Unit				Shall be vented to fume	
(Existing Facility)				incinerator	
Chlorosilane Vent		HCl		All scrubbers for HCl controls	
recovery, HCL Unit				shall provide greater than 99%	
Blowdown system, Pilot				efficiency	
Plant, and Process C-3					

NOTES: _____

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 3 pages

SOURCE TYPE/SIZE: EXPANSION OF SILICONE CHEMICAL MANUFACTURING PLANT/115x10⁶ LB/YEAR OF CRUDE SILICONE

NAME/ADDRESS: DOW CORNING CORPORATION, CARROLLTON, KY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/17/78 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV/KENTUCKY DEPARTMENT OF NATURAL RESOURCES

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Methyl Chloride Unit		HC	16 lb/hr	Shall be equipped with a control device of at least 99% efficiency by weight.	
Secondary recovery process					
Pumps and compressors		HC		All pumps and compressors handling HC materials shall have mechanical seals or other equipment of equivalent or greater efficiency for the prevention of fugitive emissions.	
		(fugitives)			

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: HERBICIDES MANUFACTURING 30x10⁶ LB/YEAR

NAME/ADDRESS: MONSANTO CHEMICALS, AGUIRRE, PR

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/17/78 BASIS:* BACT¹/LAERBACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION II
(Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Boiler No.6 oil	60x10 ⁶ Btu/hr	SO ₂	2.5% S (B)	2.5% S	
		TSP, NO _x , HC	20% opacity (B)	Combustion parameters	
Incinerator aqueous waste	5000 lb/hr	TSP, NO _x , HC	20% opacity (B)	Combustion parameters	
Product handling	30x10 ⁶ lb/hr	TSP	99.9% (B)	Baghouse	99.9
Reactors	30x10 ⁶ lb/hr	TSP, HC	20% opacity (B)	Scrubbers	95%

NOTES: _____

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ADDITIONAL DETERMINATIONS - CHEMICAL PROCESS INDUSTRIES 5.0
(OTHER - EXPLOSIVES - 5.6)

NAME - LOCATION	SIZE /FACILITY	REGION	BACT/LAER
Hercules, Inc. Kenvil, NJ	2500 ton/yr/dryer	II	x

6.0 FOOD AND AGRICULTURAL INDUSTRIES

6.1 Alfalfa dehydrating

6.2 Feed/grain mills and elevators

6.3 Fertilizer

6.4 Other

ADDITIONAL DETERMINATIONS - FOOD AND AGRICULTURAL INDUSTRIES 6.0
(ALFALFA DEHYDRATING - 6.1)

NAME - LOCATION	SIZE	REGION	BACT/LAER

ADDITIONAL DETERMINATIONS - FOOD AND AGRICULTURAL INDUSTRIES 6.0
(FEED/GRAIN MILLS AND ELEVATORS - 6.2)

NAME - LOCATION	SIZE	REGION	BACT/LAER

ADDITIONAL DETERMINATIONS - FOOD AND AGRICULTURAL INDUSTRIES 6.0
(FERTILIZER - 6.3)

NAME - LOCATION	SIZE	REGION	BACT/LAER

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ALMOND HULLING PLANT

NAME/ADDRESS: GETTY OIL COMPANY, BAKERSFIELD, CA

Site at Kern County, CA

DETERMINATION: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 9/25/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Pre-cleaning	30 ton/hr	TSP	13.44 lb/hr total for plant	Fabric filter	
Hulling	5 ton/hr	TSP		Fabric filter	

NOTES: Getty shall operate the plant no more than 90 days/year

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BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: FOOD PROCESSING (GELATINE PRODUCTION)

NAME/ADDRESS: KNOX GELATINE, INC., KING & KNOX DIVISION, SIOUX CITY, IA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/14/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY IOWA DEPARTMENT OF ENVIRONMENTAL QUALITY
(Agency) (Person) (Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Kiln dryer	3300 lb/hr	TSP	0.02 gr/dscf or (L)	Hi-energy Venturii ^a	98.5
	(dicalcium		0.5 lb/hr	after product recovery	
	phosphate)			cyclone	
Materials handling	3300 lb/hr	TSP	0.02 gr/dscf or (L)	Bag filter ^b	99+
			1.33 lb/hr		

NOTES: ^a Air volume = 6000 ACFM at 115° F; Pressure drop = 30 in. WG: Inlet to collector = 33 lb/hr.
^b Air volume = 8200 ACFM at 90° F; Air to cloth ratio (design max.) = 9 to 1 (actual = 6.9 to 1).
Inlet to collector = 133 lb/hr. Permit has special conditions requiring off-set.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - FOOD AND AGRICULTURAL INDUSTRIES 6.0
(OTHER - 6.4)

NAME - LOCATION	SIZE	REGION	BACT/LAER

99

7.0 METALLURGICAL INDUSTRIES

- 7.1 Primary aluminum
- 7.2 Metallurgical coke
- 7.3 Ferroalloy
- 7.4 Foundries - gray iron, steel, non-ferrous
- 7.5 Iron and steel mills
- 7.6 Primary smelters - copper, lead, zinc
- 7.7 Secondary metal processing - aluminum, lead, zinc
- 7.8 Other

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ALUMINUM REDUCTION PLANT /185,000 TON/YEAR

NAME/ADDRESS: MARTIN MARIETTA CORPORATION, GOLDENDALE, WA 98620

DETERMINATION IS: CONDITIONAL/FINAL /PENDING: DATE OF ISSUE: 8/30/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION X Paul Boys (206) 442-1106
(Agency) (Person) (Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Reduction cells (526)	^a 507 short	ton/day	TSP	2028 lb/day and	Flakt wet scrubber	99.9
				4 lb/TAL (B)		
			SO ₂	7077 lb/day and	Flakt wet scrubber	90.9
				13.97 lb/TAL (B)		
			Fluorides	656 lb/day and	Flakt wet scrubber	99.9
				1.3 lb/TAL (B)		

NOTES: ^a Maximum daily production from all reduction cells.
Emission limits are for plant total. After 1 year Fluorides - B to drop to 0.8 lb/TAL.
(TAL means tons aluminum produced).

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

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BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: ALUMINUM REDUCTION PLANT

/197,000 TPY

NAME/ADDRESS: ALUMAX, INC., GOOSE CREEK, SC

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: 2/23/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY SOUTH CAROLINA DEPT. OF HEALTH AND ENVIRONMENTAL CONTROL - REGION IV
(Agency) (Person) (Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Anode bake plant			Opacity	≤ 20%		
			Total Fluorides	0.02 lb/ton of Al produced		
Fluoride scrubbers (4)			Opacity	≤ 10%		
			Particulate	5.92 lb/hr (each)		
			SO ₂	269 lb/hr (each)		
Roof monitors (8)			Opacity	≤ 10%		
			Particulate	9.07 lb/hr (each)		
			SO ₂	2.75 lb/hr (each)		

NOTES: Coke used in anode production shall not exceed 3.0% sulfur by weight.

Pitch used in anode production shall not exceed 0.6% sulfur by weight.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: ALUMINUM REDUCTION PLANT /197,000 TPYNAME/ADDRESS: ALUMAX, INC., GOOSE CREEK, SCDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/23/78 BASIS:* BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~ MODIFIED SOURCEBY SOUTH CAROLINA DEPT. OF HEALTH AND ENVIRONMENTAL CONTROL - REGION IV
(Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Potroom groups		Fluoride TSP	0.61 lb/ton of Al produced		
		Gaseous fluoride	0.41 lb/ton of Al produced		

NOTES: _____

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BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 4 pages

SOURCE TYPE/SIZE: PRIMARY ALUMINUM REDUCTION PLANT

NAME/ADDRESS: EASTALCO, FREDERICK, MD

DETERMINATION IS: CONDITIONAL / FINAL / PENDING: DATE OF ISSUE: 2/15/78 BASIS: * BACT¹ / LAER / BACT²
FOR NEW / MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Pot Line A	90,000 ton/yr				
Pots		TSP	113 lb/day (B)	Dry scrubber	99.9
		SO ₂	8,002 lb/day (B)		
Roof monitor		TSP	1,700 lb/day (B)	Wet scrubber	60
		SO ₂	1,922 lb/day (B)		25
Anode bake plant	50,000 ton/yr	TSP	74 lb/day (B)	Dry scrubber (fabric)	60
		SO ₂	655 lb/day (B)		25
Pot Line B	90,000 ton/yr	TSP	144 (B)	Dry scrubber	99.9

NOTES: Air quality, soil, vegetation analysis

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

SOURCE TYPE/SIZE: PRIMARY ALUMINUM REDUCTION PLANT

NAME/ADDRESS: EASTALCO, FREDERICK, MD

DETERMINATION IS: CONDITIONAL FINAL /PENDING: DATE OF ISSUE: 2/15/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES Potline B (continued)	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Pots		SO ₂	8,003 (B)	Fabric Filter	
Roof monitor		TSP	1,700 (B)		60
		SO ₂	2,023 (B)		25
Anode bake plant	50,000 ton/yr	TSP	75 (B)	Dry scrubber	67
		SO ₂	655 (B)		25
Miscellaneous Points					
Potlines A and B					
Cryolite	61 ton/yr	TSP	48 lb/day (B)	Wet scrubber	85

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 4 pages

SOURCE TYPE/SIZE: PRIMARY ALUMINUM REDUCTION PLANT

NAME/ADDRESS: EASTALCO, FREDERICK, MD

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/15/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES Misc. Points (continued)	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Cryolite (continued)		SO ₂	25 lb/day (B)		25
Cast House	176,000 ton/yr	TSP	40 lb/day (B)	Fabric filter	99+
Daybins		TSP	96 lb/day (B)	Fabric filter	99+
Other		TSP	314 lb/day (B)	Fabric filter	99+
Potline C	90,000 ton/yr				
Pots		TSP	156 lb/day (B)	Fabric dry scrubber	99.9
		SO ₂	8,772 lb/day (B)		
Roof Monitor		TSP	1,200 (B)		

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 4 of 4 pages

SOURCE TYPE/SIZE: PRIMARY ALUMINUM REDUCTION PLANT

NAME/ADDRESS: EASTALCO, FREDERICK, MD

DETERMINATION IS: CONDITIONAL FINAL / PENDING: DATE OF ISSUE: 2/15/78 BASIS: * BACT¹ / LAER / BACT²
FOR NEW / MODIFIED SOURCEBY EPA REGION III
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES <u>Potline C (continued)</u>	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
<u>Roof monitor (continued)</u>		SO ₂	1796 (B)		
<u>Anode bake plant</u>		TSP	75 (B)	Wet scrubber	67
		SO ₂	655 (B)		25
<u>Cryolite</u>		TSP	48 (B)	Wet scrubber	85
		SO ₂	251 (B)		25
<u>Cast House</u>		TSP	40 (B)	Fabric	99+
<u>Daybin</u>		TSP	48 (B)	Fabric	99+
<u>Other</u>		TSP	314 (B)	Fabric	99+

NOTES:

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ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(PRIMARY ALUMINUM - 7.1)

NAME - LOCATION	SIZE/FACILITIES (p=potline, a= anode bake)	REGION	BACT/LAER
Anaconda Company Henderson, KY	60,000 ton/yr (p,a)	IV	x
Martin Marietta Company The Dalles, OR	90,000 ton/yr (p)	X	x
Martin Marietta Company Goldendale, WA	114,000 ton/yr (p)	X	x

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 3 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERIES

NAME/ADDRESS: U.S. STEEL CORPORATION No.13,14,15, CLAIRTON, PA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Coke Oven Battery x 3		38 ton/hr				
Topside			Opacity	Visible emissions from < 1% of ports		
				Visible emissions from < 4% of off-take pipes		
Quenching					Diverted flow; quenching tower with interior baffles	
Pushing			TSP	.03 lb/ton of coke	Enclosed pushing control system ^a	
					vented to a gas cleaner.	

NOTES: ^a If mobile control is used, a spare system must be installed.

No adverse effects on soils, vegetation or visibility because of affects. Right reserved to require additional drop sleeve seals if post-construction charging performance does not comply with consent decree standards.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

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BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 3 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERIES

NAME/ADDRESS: U.S. STEEL CORPORATION NO.13,14,15, CLAIRTON, PA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION III
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Pushing (Continued)			Opacity	< 20% at anytime		
				< 10% during transport of hot coke		
Coke oven gas desul- furization			S compounds	10 gr/dscf of coke oven gas		
Doors			Opacity	Visible emissions	Hood control and gas	90 (TSP)
				from <5% of doors	cleaning system	
Charging (Larry car charging hole ports)			Opacity	Visible emissions	< 55 s/5 charges	

NOTES: LAER will require SIP revision.

Permit based on start-up and operation with wet coal.

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BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 3 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERIES

NAME/ADDRESS: U.S. STEEL CORPORATION NO.13,14,15 CLAIRTON, PA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION III
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Combustion stack			TSP	.015 gr/dscf ^a	Transmissometer to ensure	
					compliance, if limit is	
					exceeded install best	
					control device. Also	
					evaluate wet ESP control	
					if limit is exceeded.	

NOTES: ^a As measured by the front half of the EPA train.

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SOURCE TYPE/SIZE: COKE OVEN BATTERY

NAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KY

DETERMINATION IS: ~~CONDITIONAL/FINAL~~/PENDING: DATE OF ISSUE: 6/16/77 BASIS:* BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Rail car dump and associated handling, conveying, transfer	(990,000 ton/yr	TSP		Opacity <5%		
	limit by permit)			40.9 lb/hr		
				0.196 lb/ton coal processed		
				restricted to 350 ton/hr		
Coal and coke storage piles		TSP		coal throughput		
	(permit limit			Opacity <5%		
	of 350 ton/hr)			3.05 lb/hr		
				0.207 lb/ton processed		

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 7 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERYNAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KYDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/16/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate			Equipment type, etc.	Eff.,%
Coal crusher/pulverizer and associated handling equipment	(permit limit of 990,000 ton/yr and 350 ton/day)	TSP	Opacity <5% 1.8 lb/hr 0.0086 lb/ton processed		
Coal mix bins and associated handling equipment	"	TSP	Opacity <5% 0.055 lb/ton processed		
Coal bins and associated handling	"	TSP	Opacity <5%, 45.71 lb/hr 0.219 lb/ton processed		

NOTES:

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

SOURCE TYPE/SIZE: COKE OVEN BATTERY

NAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/16/77 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV (Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Charging (wet coal only)	(limited by permit	TSP	VE: 48 to 55 s/5 consecutive charges.		
	to 990,000 ton/		8.48 lb/hr		
	yr and 110 ton/ hr daily.		0.074 lb/ton processed		
Topside	(limited by permit	TSP	1.32 lb/hr		
	to 990,000 ton/		0.0117 lb/ton coal processed		
	yr, 113 ton/hr)				

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 4 of 7 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERY

NAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KY

DETERMINATION IS: CONDITIONAL/~~FINAL~~/PENDING: DATE OF ISSUE: 6/16/77 BASIS: * BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
(1) Charging ports			TSP	VE: No more than 2% or 2 lids (whichever is greater) of visible emissions during single inspection.		
(2) Standpipe/gooseneck assemblies			TSP	No more than 5% of all assemblies shall exhibit VE		
(3) Stationary jumper pipe pairs			TSP	No more than 5% of total number of pairs shall exhibit VE		
^a Doors			TSP	No more than 10% of doors shall exhibit VE		
				7.92 lb/hr 0.0701 lb/ton coal processed		

NOTES: ^a Both coke side and pusher side doors are counted (church door is part of pusher side) - 2 doors per oven.

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BACT/LAER CLEARINGHOUSE REPORT

Page 5 of 7 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERY

NAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/16/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Underfiring	(permit limited to 285x10 ⁶ Btu/hr)	TSP	14.99 lb/hr/stack		
			0.133 lb/ton coal processed		
			0.03 gr/dscf		
a Pushing	(permit limited to 89 ton/hr)	TSP	32.81 lb/hr		
			capture 85-90% of TSP generated by pushing.		
			0.015 to 0.30 lb/hr per ton coke pushed		
b Quenching	(permit limits to 350 ton/hr coal throughput)		135.62 lb/hr.		
			1.2 lb/ton coal processed		

NOTES: ^a Includes emissions from time coke door removed to car entrance at quench tower.

^b Limits apply to each quench station.

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BACT/LAER CLEARINGHOUSE REPORT

Page 6 of 7 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERY

NAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KY

DETERMINATION IS: CONDITIONAL/~~FINAL~~/PENDING: DATE OF ISSUE: 6/16/77 BASIS:* BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Quenching (continued)		TSP	No untreated blowdown	to be used for make-up water.	
			Make-up water limited	to 1000 mg/l dissolved solids.	
			Make-up water limited	to 100 mg/l suspended solids.	
Coke screening	(Permit limits		Opacity - 5%		
	to 782,000 ton/yr		16.82 lb/hr		
	coke, 240 ton/hr		0.054 lb/ton coal processed		
	coke)				

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 7 of 7 pages

SOURCE TYPE/SIZE: COKE OVEN BATTERY

NAME/ADDRESS: SEMET-SOLVAY DIVISION, ALLIED CHEMICAL CORPORATION, ASHLAND, KY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/16/77 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate			Equipment type, etc.	Eff., %
Coke oven gas (excess gas combustion)	(Permit limits to 2.7×10^{12} Btu/yr and 311×10^6 Btu/hr)	TSP	0.85 lb/hr 0.00748 lb/ton coal processed 0.01 gr/dscf		
Coke oven gas use		SO ₂	95 lb/10 ⁶ cu.ft		

NOTES:

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ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(METALLURGICAL COKE 7.2)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER
U.S. Steel Corporation Clairton, PA	38 ton/hr/coke oven	III	x
Republic Steel Corporation Warren, OH	1500 ton/day/coke oven	V	x

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: SILICA FUSION OPERATION

5,000 LB/HOUR

NAME/ADDRESS: MINCO, INC., MIDWAY, TENN

Site at Midway

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/24/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Electric Arc furnace	1300 lb/hr	TSP	.02 gr/dscf (B) 3% Opacity	Fabric filter	99
Crushing, screening, blending and packag- ing	5000 lb/hr	TSP	.02 gr/dscf (B) 20% Opacity	Fabric filter	99

NOTES:

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ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(FERROALLOY - 7.3)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER
Timken Company Canton, OH	20.5 ton/hr/electric arc furnace	V	x

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: IRON FOUNDRY 12 TONS/HOUR

NAME/ADDRESS: DAYTON-WALTHER CORPORATION, DAYTON, OHIO Site at Carrollton, KY

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/17/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW MODIFIED SOURCE

BY EPA REGION IV (Person) (Phone)
 (Agency)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Pre-heating furnace	12 tons/hr.	TSP	0.69 lb/ton	No control device	
Scrap melters	12 tons/hr	TSP	0.69 lb/ton	Baghouses	98
Sand handling system	36 lb/hr	TSP	0.02 lb/ton sand	Wet impingement	98
				scrubber	
Shot blaster			0.37 lb/ton	Baghouses	98

NOTES: State performed preliminary and final determinations.

EPA permit granted subject to conditions of state permit.

Gas deodorizer associated with core blower shall be operated at all times.

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ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(FOUNDRIES - 7.4)

NAME - LOCATION	SIZE /FACILITIES	REGION	BACT/LAER
Opelika Foundry Opelika, AL	3.5 ton/hr (cupola)	IV	x

ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(IRON AND STEEL MILLS 7.5)

NAME - LOCATION	SIZE	REGION	BACT/LAER

124

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ZINC REFINERY WITH SULFURIC ACID PLANT

NAME/ADDRESS: JERSEY MINIERE ZINC COMPANY, NASHVILLE, TN

Site at Clarksville, TN

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 12/13/76 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Anode cleaning and casting		TSP	0.014 gr/dscf (B)		
Zinc Melting and casting and dust plant		TSP	0.042 and 0.02 gr/dscf (B)		
Dross handling		TSP	0.015 gr/dscf (B)		
Cadmium melting		TSP	0.000085 gr/dscf (B)		
Lime storage and conveying		TSP	0.015 gr/dscf		
Zinc roaster		SO ₂	0.065% Volume		
		TSP	20% Opacity		
Fugitive emissions		TSP	0.015 gr/dscf		

NOTES: _____

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ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(PRIMARY SMELTERS 7.6)

NAME - LOCATION	SIZE /FACILITIES	REGION	BACT/LAER

SOURCE TYPE/SIZE: POWDERED STEEL PRODUCTION (SECONDARY METAL PRODUCTION)NAME/ADDRESS: INTERLAKE, INC., GALLATIN, TNDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/23/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Electric arc furnace and melt shop opera- tions	51,750 lb/hr	TSP	12 milligrams/dscm (0.0052 gr/dscf)		
		SO ₂	5.2 lb/hr (sulfur content of fuel oil shall be limited to 0.25%)		
		CO	380.0 lb/hr		
		Opacity	3% (from electric arc furnace control device)		
		Opacity	0% from melt shop due solely to operating of the furnace except 20% (during charging periods)		
			40% (during tapping periods)		

NOTES: Company will use baghouses to control emissions

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BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: POWDERED STEEL PRODUCTION (SECONDARY METAL PRODUCTION)

NAME/ADDRESS: INTERLAKE, INC., GALLATIN, TN

DETERMINATION IS: ~~CONDITIONAL~~/FINAL/PENDING: DATE OF ISSUE: 6/23/78 BASIS:* BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Rotary dryer opera- tions	42,000 lb/hr	TSP	0.008 grains/dscf		
		SO ₂	0.84 lb/hr (sulfur content of fuel oil shall be limited to 0.25%)		
Annealing furnaces (3 furnaces-limits per furnace)	4,400 lb/hr (each)	TSP	0.41 lb/hr		
		SO ₂	1.16 lb/hr (sulfur content of fuel oil shall be limited to 0.25%)		
Breaking, crushing, screening, sizing, blending, batching and packaging opera- tions.		TSP	0.008 grains/dscf		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(SECONDARY METAL - 7.7)

NAME - LOCATION	SIZE /FACILITIES	REGION	BACT/LAER
Denbo Iron and Steel Decatur, AL	Unknown (aluminum furnace)	IV	x
Smelter Service Corporation Columbia, TN	Unknown (aluminum furnace)	IV	x

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: STRUCTURAL STEEL FABRICATING PLANT

NAME/ADDRESS: ARROW DEVELOPMENT COMPANY, INC., CLEARFIELD, UT

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/15/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION VIII

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Abrasive blasting	0.75 ton/hr	PART	1.77 ton/yr (3.53 lb/hr)	Baghouse	99
Spray coating		PART	0.413 ton/yr (0.551 lb/hr)	Mechanical filters	85

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: URANIUM MINE AND MILL 950,000 LB/YR (2600 LB/DAY)

NAME/ADDRESS: UNION MINERALS, TUCSON, AZ Site at Gavapai County, AZ

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/14/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION IX (Agency) (Person) (Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Multiple hearth Herr		TSP		Scrubber	99+
schoff type furnace					
Boilers (2)	25.4x10 ⁶ Btu	TSP			
(one is standby)	each				
Apron feeder		TSP	0.016 lb/hr	Scrubber	99+
			max. 2 hr avg.		
Uranium concentrate		TSP	0.032 lb/hr	3 scrubbers for scrubbing and precipitation, drying and packing areas.	99+
area			max. 2 hr avg.		

NOTES: Oil consumption limited by permit to 225 bbl/day for furnace and boiler. Sulfur content limited to 1.0%.

Source not subject to air quality impact analysis.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - METALLURGICAL INDUSTRIES 7.0
(OTHER - 7.8)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

8.0 MINERAL PRODUCTS INDUSTRIES

- 8.1 Asphalt and concrete batch plants
- 8.2 Coal preparation
- 8.3 Fiber glass and glass
- 8.4 Gypsum and lime
- 8.5 Mineral quarrying and processing
- 8.6 Portland cement
- 8.7 Other

BACT/LAER CLEARINGHOUSE REPORT

NEW SOURCE/PSD PERMIT

SOURCE TYPE/SIZE: ASPHALT BATCH PLANT

60,000 TON/YEAR

NAME/ADDRESS: SALT LAKE CITY CORPORATION, SALT LAKE CITY, UT

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/20/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION VIII
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Asphalt batch plant	250 ton/hr	TSP	0.03 gr/scf	Fabric filter ^a	99.9
			Opacity - 20%		
		Fugitive Dust	To be controlled per application which stated		
			"propose to use a rubber tired front loader to		
			charge the feed bins to minimize fugitive dust		
			from the stockpile."		

NOTES: ^a Air to cloth ratio = 4.98/l, 9000 sq ft. cloth; 45,000 ACFM, Nomex bags.

Shutdown of an existing plant satisfies offset policy.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: ASPHALT PLANT

210 TON/HOUR (MAX.)

NAME/ADDRESS: WESTERN PAVING, INC. UTAH

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 9/28/78 BASIS:* BACT¹ LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION VIII

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Portable asphalt batch plant	210 TPH (max)	TSP	0.035 gr/dscf (B)	Variable venturii scrubber with pressure drop of 18-23 inches w.g. Inlet volume = 28,000 ACFM at 350° F	99.7

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(ASPHALT AND CONCRETE BATCH PLANTS 8.1)

NAME - LOCATION	SIZE /FACILITIES	REGION	BACT/LAER
Craig Blacktop and Paving Hagerstown, MD	75,000 ton/yr	III	x
Carl Peters, Inc. Hollywood, AL	100 ton/hr	IV	x
Thompson Construction Company Jackson, TN	120 ton/hr	IV	x
Southland Paving Company Auburn, AL	150 ton/hr	IV	x
Sherrill Paving Company Winston-Salem, NC	150 ton/hr	IV	x
Ken-Tenn Construction Company Martin, TN	150 ton/hr	IV	x
Western Paving, Inc. UTAH	210 ton/hr	VIII	x
Oscar Miller Raleigh, NC	320 ton/hr	IV	x
Newton County Stone Sheperdsville, KY	450 ton/hr	IV	x
D. R. Allen and Son LaGrange, GA	Unknown	IV	x
H. R. Imbt, Inc. Stroudsburg, PA	300 ton/hr	III	x
Nifty Paving Company Colburn, VA	90 ton/hr	III	x
Burrell Construction and Supply Tarentum, PA	96 ton/hr	III	x
Highway Materials, Inc King of Prussia, PA	<50,000 ton/yr	III	x
Tennessee Blacktop, Inc. Brentwood, TN	350 ton/hr	IV	x
Kentucky Stone Company Marion, KY	163 ton/hr	IV	x
	136		

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: COAL PREPARATION PLANT

1.92x10⁶ TON/YR

NAME/ADDRESS: BADGER COAL COMPANY, GRAND BADGER NO.1, SAGO, W.VA.

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 1/5/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Thermal dryer	2.2x10 ⁶ ton/yr	TSP	27.8 lb/hr and 0.031 gr/dscf (N)	Cyclones	95
				Venturii and mist eliminator	99.8
		SO ₂	88.8 lb/hr (B)	Venturii	50

NOTES: Required stack height of 188.9 ft above grade.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: COAL CLEANING PLANT

1000 TONS/HR

NAME/ADDRESS: R & F COAL COMPANY, BELMONT COUNTY, OH

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 3/31/78 BASIS: * BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION V

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Truck dump	1000 lb/hr	TSP	3.5 ton/yr (B)	Capture and fabric filter	80	
Rotary breaker	1000 lb/hr	TSP	2.5 ton/yr (B)	Fabric filter	99	
Raw coal transfer belts	1000 lb/hr	TSP	17.5 ton/yr (B)	Capture plus fabric filter	80	
Raw coal storage pile	1000 lb/hr	TSP	24.1 ton/yr (B)	Dedusting agent	90	
Raw coal sampling bldg	1000 lb/hr	TSP	0.9 ton/yr (B)	Dust collector	99	
Preparation plant duct belt	1000 lb/hr	TSP	0.9 ton/yr (B)	Dust collector	99	

NOTES: No air quality analysis required

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: COAL CLEANING PLANT

100 TON/HOUR

NAME/ADDRESS: BLACKSTONE COAL COMPANY, FT. PAYNE, AL

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/17/77 BASIS:* BACT¹/LAER,BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Truck dump	100 ton/hr	TSP	.05 lb/ton (B=N)	Enclosed wet suppression	90
Screens and transfer points		TSP	.07 lb/ton (B=N)	Enclosed wet suppression	90
Crusher		TSP	.02 lb/ton (B=N)	Enclosed wet suppression	90
Surge bins		TSP			90
Stock piles		TSP	.03 lb/ton (B=N)	Enclosed wet suppression	90
Wet washing		TSP		None needed	
Loading		TSP	.05 lb/ton (B=N)	Wet suppression	90

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: COAL PREPARATION PLANT 1.12x10⁶ LB/HR

NAME/ADDRESS: WESTMORELAND COAL COMPANY, ECCLES, WV

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: NEW FOR MODIFIED SOURCE DATE OF ISSUE: _____ BASIS:* BACT¹/LAER/BACT²

BY EPA REGION III _____
(Agency) (Person) (Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Coal dryer	(2)	560,000 lb/hr	TSP	.025 gr/dscf (B)	Cyclone and Venturii	99.8
		each	SO ₂	34 lb/hr (B)		40

NOTES: From 12 to 8 am second drier must not operate above 50% design capacity; also 19.6 lb/hr limit on TSP for each drier. Stack tests within 60 days of commencement. All modelling done.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: COAL PREPARATION PLANT

NAME/ADDRESS: ISLAND CREEK COAL COMPANY, UPSHUR PLANT, TALLMANVILLE, WV

DETERMINATION IS: CONDITIONAL/FINAL PENDING: DATE OF ISSUE: _____ BASIS: * BACT¹/LAER BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Thermal dryer	321 ton/hr	TSP	30.5 lb/hr and (B) 0.031 gr/dscf	Mechanical cyclones	99.76
	feed rate			followed by Venturii	
	(130x10 ⁶ Btu/hr			scrubber	
	stoker fired	SO ₂	60.0 lb/hr (B)		70.3
	dryer) using				
	1% S; 8.5% A				
	HV=12,900				
	Btu/lb				

NOTES: Equipment and emission rates determined to be BACT. Entire operation shall be operated and maintained to minimum fugitive dust. Maintain records and conduct stack emission tests to determine compliance.
Stack will be 180 feet.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(COAL PREPARATION - 8.2)

NAME - LOCATION	SIZE (c=crusher, d=dryer, m=materials handling)	REGION	BACT/LAER
Adams Construction Company Allen, KY	150,000 ton/yr (c,m)	IV	x
Texas Industries Thurber, TX	200,000 ton/yr (m)	VI	x
Cargill-Johnson Coal Company Manchester, KY	300,000 ton/yr (c,m)	IV	x
Blackstone Coal Company Ft. Payne, AL	100 ton/hr (c,m)	IV	x
Island Creek Coal Company Providence, KY	100 ton/hr (c) 400 ton/hr (m)	IV	x
Island Creek Coal Company Fies, KY	100 ton/hr (c,m)	IV	x
Island Creek Coal Company Turkey Creek, KY	600,000 ton/yr (d,m)	IV	x
Intercontinental Coal AL	800,000 ton/yr (c,m)	IV	x
Tesoro Coal Company Hazard, KY	1,000,000 ton/yr (c,m)	IV	x
Greenwood Land and Mining Company Greenwood, KY	1,000,000 ton/yr (c,m)	IV	x
Powermaker, Inc. Dunlap, TN	200 lb/hr (d,c,m)	IV	x
Consumer Coal Company Perry County, KY	300 ton/hr (c) 300 (m)	IV	x
Anschutz Coal Corporation Carbondale, CO	300 ton/hr (c,m)	VIII	x
Island Creek Coal Company Talmanville, WV	321 ton/hr (d)	III	x
Utah Power and Light Emery County, UT	2.3×10^6 ton/yr (c,m)	VIII	x
Baily Mining Company Bypro, KY	450 ton/hr (c,m)	IV	x
George Arrington Company Boyd County, KY	500 ton/hr (c,m)	IV	x
		Continued	

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(COAL PREPARATION - 8.2)

NAME - LOCATION	SIZE (c=crusher, d=dryer, m=materials handling)	REGION	BACT/LAER
Richard M. Johnson Boyd County, KY	500 ton/hr (c)	IV	x
Lake Coal Company Letcher County, KY	500 ton/hr (c,m)	IV	x
Bledsoe Coal Company Helton, KY	500 ton/hr (c,m)	IV	x
T. C. Bell, Inc. Cannon, KT	500 ton/hr (c,m)	IV	x
Bell County Coal Corporation Middlesboro, KY	500 ton/hr (c,m)	IV	x
Branham and Baker Prestonburg, KY	800 ton/hr (c) 800 ton/hr (m)	IV	x
Peabody Coal Company Morganfield, KY	1875 ton/hr (c,m)	IV	x
Mid-Continent Coal and Coke Ridetone, CO	Size unknown (d)	VIII	x
Pontiki Coal Lovely, KY	Unknown (d,m)	IV	x
Island Creek Coal Company Bob White, WV	0.5×10^6 ton/year (d)	III	x
Mettiki Coal Corporation Garret County, MD	700 ton/hr (d)	III	x
Landmark Mining Company Pikesville, KY	418 ton/hr (c,m)	IV	x
U.S. Steel Corporation Hueytown, AL	3×10^6 ton/year (d)	IV	x
Blue Grass Mining Greenup, KY	200 ton/hr (c,m)	IV	x
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BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: FIBER GLASS PLANT

NAME/ADDRESS: JOHNS-MANVILLE SALES CORPORATION, DENVER, CO

Site at Willows, CA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/3/78 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES

THROUGHPUT
CAPACITY,
weight ratePOLLUTANT(S)
EMITTEDEMISSION LIMIT(S)
AND BASIS FOR**CONTROL STRATEGY DESCRIPTION
Equipment type, etc. Eff., %

Line 132 (modified)

Collection

TSP

4.22 lb/hr (per unit) (B)

Cooling

TSP

0.48 lb/hr (per unit) (B)

Curing

TSP

7.00 lb/hr (per unit) (B)

Wool blowing

TSP

0.20 lb/hr (per unit) (B)

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: FIBER GLASS PLANTNAME/ADDRESS: JOHNS-MANVILLE SALES CORPORATION, DENVER, COSite at Willows, CADETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/3/78
FOR NEW MODIFIED SOURCEBASIS: * BACT¹/LAER/BACT²BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Line 133 (new)					
Silos		TSP	0.40 lb/hr (per unit) (E)		
Melter		TSP	1.25 lb/hr (E)		
Collection		TSP	5.20 lb/hr (per unit) (E)		
Curing		TSP	8.00 lb/hr (E)		
Cooling		TSP	0.76 lb/hr (E)		
Mixing		TSP	0.20 lb/hr (per unit) (E)		
Cullet		TSP	0.01 lb/hr (E)		

NOTES: Herm process defined as BACT for new line 133

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(FIBER GLASS AND GLASS 8.3)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: LIME PLANT

22.5 TON/HR OF LIME

NAME/ADDRESS: GREER LIME COMPANY, PO BOX FF, SALTVILLE, VA 23470

DETERMINATION IS:

CONDITIONAL FINAL / PENDING:
FOR NEW/MODIFIED SOURCE

DATE OF ISSUE: 6/28/78

BASIS:* BACT¹/LAER/BACT²

BY EPA REGION III
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Lime kiln	33.5 ton/hr	TSP	2.1 lb/hr (B)	Baghouse	99.7
Lime hydrater	3.8 ton/hr	TSP	0.75 lb/hr (B)	Scrubber	85
Crushing and screening	15 ton/hr	TSP	0.49 lb/hr (B)	Baghouse	99.5
Lime kiln	15 ton/hr	SO ₂	9.2 lb/hr (B)	<.7% S in fuel	

NOTES: Stack emission tests to be conducted by company. No modelling as emissions were considered small.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

1 of 2 pages

SOURCE TYPE/SIZE: LIME MANUFACTURING PLANT (LUTTRELL, TN)

33.5 TON/HR OF LIME

NAME/ADDRESS: LUTTRELL LIME COMPANY, KNOXVILLE, TN

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 8/21/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Coal handling	130,466 lb/hr	TSP	0.075 lb/hr (B)	Water spray and baghouse	99.9
Limestone feed and kiln	67,000 lb/hr	SO ₂	500 ppm (B)		
		TSP	19.5 lb/hr and Opacity 10% (B)		
Lime hydrator	46,000 lb/hr	TSP	2.1 lb/hr (B)	Baghouse #436	99.9
			.06 lb/hr (B)	Baghouse #509	99.9
			.03 lb/hr (B)	Baghouse #514	99.9
				Scrubber #408	99.9

NOTES: Trucks and railroad cars to be enclosed

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: LIME MANUFACTURING PLANT (LUTTRELL, TN)

33.5 TON/HR OF LIME

NAME/ADDRESS: LUTTRELL LIME COMPANY, KNOXVILLE, TN

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 8/21/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Lime hydrater (continued)				Baghouse #437	99.9
Product handling	67,000 lb/hr	TSP	1.3 lb/hr (B)	Baghouse #1	99.9
system			1.7 lb/hr (B)	Baghouse #2	99.9
Product storage		TSP	2.7 lb/hr (B)	Baghouse #3	99.9
system			.23 lb/hr (B)	Baghouse #4	99.9
Product loading	280,000 lb/hr	TSP	.21 lb/hr (B)	Baghouse #5	99.9
system					

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: GYPSUM WALLBOARD MANUFACTURING

20,000 LB/HR OF GYPSUM WALLBOARD

NAME/ADDRESS: FLINTKOTE COMPANY, FLORENCE CO

DETERMINATION IS:

CONDITIONAL/FINAL/PENDING:
FOR NEW/MODIFIED SOURCE

DATE OF ISSUE: 10/27/78

BASIS: * BACT¹ / LAER ~~BACT²~~

BY EPA REGION VIII

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Calciner/mill	10 ton/hr	TSP	0.01 gr/acf (B)	Cyclone and	95
	gypsum			baghouse (A/C=5.2)	99.5
End trim saw		TSP	0.08 gr/acf (B)	Baghouse	99.5
Dryer		SO ₂		Propane fuel-oil stand-	
				by limited to 0.7%	
				sulfur	

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(GYPSUM AND LIME - 8.4)

NAME - LOCATION	SIZE/FACILITIES k=kiln, h=hydrator, m=materials handling	REGION	BACT/LAE
Allied Products Montevallo, AL	500 ton/hr (k)	IV	x
Martin Marietta Calera, AL	800 ton/day (k)	IV	x
Ash Grove Cement Company Portland, OR	340 ton/day (k)	X	x
Can-Am Corporation Douglas AZ	400 ton/day (k)	IX	x
Black River Mining Company Carntown, KY	300 ton/day (k,m)	IV	x

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: PHOSPHATE MINE

4665x10⁶ LB DRY ROCK/YEAR

NAME/ADDRESS: BORDEN CHEMICAL

Site at Fort Lonesome, FL

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 12/14/76 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Fluidized Bed	109x10 ⁶ Btu/hr	TSP	.069 gr/dscf (B)	Venturi scrubber	99+
rock dryer		SO ₂	(B)	Low sulfur oil (0.8%)	
Materials storage	5224x10 ⁶ lb/yr	TSP	.069 gr/dscf	Wet scrubber	99
and handling					

NOTES:

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: STONE CRUSHING

200 TON/HOUR CRUSHED STONE

NAME/ADDRESS: FLINTKOTE COMPANY, CAMPBELL GROVE DIVISION, MEDFORD QUARRY, CARROLL COUNTY, MD

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: BASIS:* BACT¹/LAER/~~BACT²~~
 FOR NEW/MODIFIED SOURCE

BY EPA REGION III

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Stone crusher	200 ton/hour	TSP	.02 gr/acfd (S)	Water spray and bag-	99.99
				house	
				Eastern Control System	
Primary Crusher	132 ton/hour	TSP	2 ton/year	Model #144-C10	
				13,000 ACFM	
Secondary crusher	50 ton/hour	TSP	1 ton/year	inlet 5 gr/acfd	
(1 screen)				out .02 gr/acfd	
Tertiary crusher	50 ton/hr	TSP	1 ton/year		
(1 screen)					

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(MINERAL QUARRYING AND PROCESSING 8.5)

NAME - LOCATION	SIZE/ m=mining, c=crushing, mh= materials handling	REGION	BACT/LAE
Tennessee Electro Minerals Greenville, TN	5 ton/hr (c)	IV	x
Scat, Inc. Pinewood, SC	Unknown (c,mh)	IV	x
Pathfinder Mines Corporation Shirley Basin, WY	20 ton/yr (m)	VIII	x
Empire Energy Corp.	3×10^6 ton/yr (m)	VIII	x
Kerr-McGee Nuclear Corporation Converse County, WY	Unknown (m)	VIII	x
Arundel Corporation Towson, MD	400 ton/hr (c,mh)	III	x
Houston Oil and Minerals Corp. Manhattan, NV	Unknown (c,mh)	IX	x

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT

1.5x10⁶ TON/YEAR

NAME/ADDRESS: IDEAL BASIC INDUSTRIES, THEODORE, AL

DETERMINATION IS: CONDITIONAL/FINAL /PENDING: DATE OF ISSUE: 3/30/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Coal dryer	200 ton/hr	Particulate	21.1 lb/hr or		
			0.031 gr/dscf (N)	whichever is more stringent	
		Opacity	< 20%		
		SO ₂	60 lbs/ton of coal or		
			180 lbs/hr	whichever is more stringent	
Coal processing conveying		Opacity	< 10%		
Storage and Loading systems		Particulate	0.01 gr/dscf		

NOTES: Alternative #1 - Kilns and coolers exhausting through the raw mill.

Alternative #2 - Coolers exhausting separately

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT

1.5x10⁶ TON/YEAR

NAME/ADDRESS: IDEAL BASIC INDUSTRIES, THEODORE, AL

 DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 3/30/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Stockpiles		Fugitive Dust	Apply water or suitable chemicals		
Paved surfaces			Clean as necessary		
Loading/unloading			Utilize adequate controls		
			Any spillage cleanup is to be done with a vacuum system		
			Removal of waste materials should minimize fugitive dust.		
			Pave all utilized auto or truck traffic roads		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT

1.5x10⁶ TON/YEAR

NAME/ADDRESS: IDEAL BASIC INDUSTRIES, THEODORE, AL

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 3/30/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Raw mills, Kilns	Kiln 19,200 lb/hr	Particulate	93 lb/hr or 0.30 (N)		
(and clinker cooler	Mill 12,000 lb/hr		lb/ton of fuel (dry basis)		
if alternative No.1			to kiln	whichever is more stringent	
is utilized)		Opacity	< 20%		
and clay dryer		SO ₂	60 lbs/ton of coal		
			burned or 2,160 lb/hr	whichever is more stringent	

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 4 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT 1.5x10⁶ TON/YEAR

NAME/ADDRESS: IDEAL BASIC INDUSTRIES, THEODORE, AL

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 3/30/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCEBY EPA REGION IV
(Agency) (Person) (Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Clinker Cooler (if alternative No.2 is utilized			Particulate	31 lb/hr or 0.10 lb/ton of feed (dry basis) to kiln whichever is more stringent		
			Opacity	< 10% (N)		
Clay dryer		12,000 lb/hr	Particulate	4.30 lb/hr or 0.01 gr/dscf whichever is more stringent		
			Opacity	< 10% (N)		
Fabric filters			Fugitive dust	Fabric filters used to control fugitive dust on all other emission points not mentioned in the previous conditions, shall meet a particulate emission limit of 0.01 gr/dscf		
			Opacity	< 10%		

NOTES:

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: PERMANENTE CEMENT PLANT

1.6x10⁶ TON/YEAR

NAME/ADDRESS: KAISER CEMENT AND GYPSUM CORPORATION, OAKLAND, CA

Site at Santa Clara County, CA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 12/26/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR** ^a	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Kiln mill system #1		TSP	18 lb/hr or 0.02 gr/dscf	Baghouse	
Kiln mill system #2		NO _x	1158 lb/hr. This is total for kiln mill systems, precalciner coal and kiln coal systems		
		TSP	18 lb/hr or 0.02 gr/dscf	Baghouse	
		SO ₂	481 lb/hr. This is total for kiln mill, precalciner coal and kiln coal systems		
Clinker cooler		TSP	5.3 lb/hr or 0.02 gr/dscf	Baghouse	
Precalciner coal system		TSP	3.5 lb/hr or 0.02 gr/dscf	Baghouse	
Kiln coal system		TSP	3.5 lb/hr or 0.02 gr/dscf	Baghouse	

NOTES: ^a Limits are all maximum 2 hour averages.

Coal use limited to 771/644 ton/day (daily/annual averages), sulfur content limited to 2% for average load or 1% annual average. ~~Source shall shut down existing wet process facilities as dry process facilities become operable.~~ Fugitive emissions shall be controlled by wet suppression or stabilization systems.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

SOURCE TYPE/SIZE: CEMENT PLANT

550,000 TON/YEAR

NAME/ADDRESS: OREGON PORTLAND CEMENT, HUNTINGTON, OR

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/27/77 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION X

KEN BROOKS

(206) 442-1106

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Kiln	2640 ton/day	TSP	0.325 gr/scf/ (B)	ESP (3)	99.85
			435.92 lb/day		
		SO ₂	10 ppm (B)	"Suspension preheater raw mill system"	98
Raw storage	2750 ton/day	TSP	0.0185 gr/scf/ (B)	Jet pulse baghouse	99.9
			2.76 lb/day		
Raw mill	2641 ton/day	TSP	0.0185 gr/scf/ (B)	Jet pulse baghouse	99.9
			15.41 lb/day		

NOTES: Emission limits are for each individual baghouse or ESP.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT

550,000 TON/YEAR

NAME/ADDRESS: OREGON PORTLAND CEMENT, HUNTINGTON, OR

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/27/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION X
(Agency)

KEN BROOKS
(Person)

(206) 442-1106
(Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Blending	2641 ton/day	TSP	0.0185 gr/scf/ (B)	Jet pulse baghouse	99.9	
			44.99 lb/day			
Storage	2641 tons/day	TSP	0.0185 gr/scf/ (B)	Jet pulse baghouse	99.9	
			45.21 lb/day			
Clinker	1656 ton/day	TSP	0.0185 gr/scf/ (B)	Jet pulse baghouse (2)	99.9	
			3.87 lb/day			
Finish mill	1653 ton/day	TSP	0.0165 gr/scf/ (B)	ESP	99.98	
			39.92 lb/day			

NOTES:

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

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BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT

550,000 TON/YEAR

NAME/ADDRESS: OREGON PORTLAND CEMENT, HUNTINGTON, OR

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/27/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION X

KEN BROOKS

(206) 442-1106

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Clinker/separator	1653 ton/day	TSP	0.0185 gr/scf/ (B) 20.55 lb/day	Jet pulse baghouse	99.9
Crusher	345 ton/day	TSP	0.0185 gr/scf/ (B) 0.95 lb/day	Jet pulse baghouse (2)	99.9
Coal transporter	256 ton/day	TSP	0.0185 gr/scf/ (B) 0.79 lb/day	Jet pulse baghouse (2)	99.9
Cement storage	1729 ton/day	TSP	0.0185 gr/scf/ (B) 3.36 lb/day	Jet pulse baghouse (3)	99.9

NOTES:

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BACT/LAER CLEARINGHOUSE REPORT

Page 4 of 4 pages

SOURCE TYPE/SIZE: CEMENT PLANT

550,000 TON/YEAR

NAME/ADDRESS: OREGON PORTLAND CEMENT, HUNTINGTON, OR

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/27/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION X
(Agency)KEN BROOKS
(Person)(206) 442-1106
(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Cement truck loading	2000 ton/day	TSP	0.0185 gr/scf/ (B) 2.67 lb/day	Jet pulse baghouse (2)	99.8

NOTES: _____

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ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(PORTLAND CEMENT - 8.6)

NAME - LOCATION	SIZE/FACILITIES: k=kiln, m=mills c=clinker cooler, r=crusher	REGION	BACT/LAER
Lone Starr LaFarge, Inc. Chesapeake, WV	30,000 ton/yr (k,c)	III	x
Marquette Cement Company Cape Girardeau, MO	1,155,000 ton/yr (k)	VII	x
Ideal Basic Industries LaPorte, CO	(k,c)	VIII	x
Coplay Cement Manufacturing Co. Nazareth, PA	3100 ton/day (k,c,m)	III	x
General Portland, Inc. Dallas, TX	2750 ton/day (k)	VI	x
Capitol Aggregates, Inc. San Antonio, TX	1370 ton/day (k,c,m)	VI	x
Flintkote Company Redding, CA	Unknown (k)	IX	x
California Portland Cement Co. Davenport, CA	2×10^6 ton/yr (k,c)	IX	x
Lone Star Industries, Inc. Davenport, CA	59 ton/hr (k,c,m)	IX	x

SOURCE TYPE/SIZE: ASPHALT ROOFING PLANTNAME/ADDRESS: GAF CORPORATION, WAYNE, NJSite at Fontana, CADETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/3/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Limestone storage silo		TSP	0.13 lb/hr	Bag collector	
Talc storage silo		TSP	0.13 lb/hr	Bag collector	
Sand storage silo		TSP	0.08 lb/hr	Bag collector	
Talc use bin		TSP	0.02 lb/hr	Bag collector	
Sand use bin		TSP	0.02 lb/hr	Bag collector	
Limestone use bin		TSP	0.06 lb/hr	Bag collector	

NOTES: Fuel usage limited to 325 gal/day. Sulfur content shall not exceed 0.5%

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

SOURCE TYPE/SIZE: ASPHALT ROOFING PLANT

NAME/ADDRESS: GAF CORPORATION, WAYNE, NJ

Site at Fontana, CA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/3/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Roofing machine:					
Surfacing and winding sections		TSP	3.43 lb/hr	Bag collector	
Unwind and festoon sections		TSP	1.72 lb/hr	Bag collector	
Hot asphalt storage tanks		TSP	0.17 lb/hr	ESP	
No.1 Blow still fume control		TSP	0.16 lb/hr	HEAF Unit	
No.2 Blow still fume control		TSP	0.16 lb/hr	HEAF Unit	
Timberline process		TSP	0.04 lb/hr	ESP	
Asphalt fume control		TSP	3.0	ESP	

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

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BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: MINERAL WOOD INSULATION MANUFACTURING FACILITY

7.0 TON/HOUR MINERAL WOOL

NAME/ADDRESS: ABC MANUFACTURING COMPANY, CASA GRANDA, AZ

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/1/79 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Cupola furnace	13,700 lb/hr	TSP	2 lb/hr	Fabric filter	
	(Charge rate)	CO	55.6 lb/or 2,000		
			ppm		
Blow chamber		TSP	10.8 lb/hr		

NOTES: Operation of cupola furnace restricted to 300 days/year. Facility is not a major source as long as permit conditions are met. Natural gas consumption in blow chamber afterburner shall not exceed 76.6 ft³ per minute.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MINERAL PRODUCTS INDUSTRIES 8.0
(OTHER - 8.7)

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER
<div>168</div>			

9.0 PETROLEUM INDUSTRY

9.1 Petroleum refining

BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: OIL FIELD

NAME/ADDRESS: TEXTFEL PETROLEUM CORPORATION, LOS ANGELES, CA

Site at Kern County, CA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 6/23/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION IX
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Steam generator (for steam response well use)	50x10 ⁶ Btu/hr	SO ₂	0.094 lb/10 ⁶ Btu (B)	Scrubber (Fuel limited to 190 bbl/day of oil with less than 1.13% sulfur)	96
Oil wells (9)		HC	1.9 lb/day per well (B)	HC vapor recovery system on 17 existing and 9 new wells	85

NOTES: Permit states this is not a major source and is exempt from air quality impact analysis. PSD requirements are satisfied if conditions of permit are met.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: PETROLEUM REFINERY 10,000 bbl/day

NAME/ADDRESS: PLACID REFINING COMPANY, DALLAS, TX Site at Nacitoches Parish, LA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/23/78 BASIS:* BACT¹/LAER/BACT²
 FOR NEW/MODIFIED SOURCE

BY EPA REGION VI _____
 (Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Heater		SO ₂	15.7 lb/hr (B)	SO ₂ control - use of low	
		HC	0.9 ton/yr (B)	sulfur fuel from topping	
Boiler		SO ₂	12.5 lb/hr (B)	facility (< 0.45%)	
		HC	0.7 ton/yr (B)		
Flare		SO ₂	0.04 lb/hr (B)	HC control - floating	
		HC	0.035 ton/yr (B)	roof tanks, smokeless	
Storage tanks		HC	45.9 ton/yr (B)	flare, covered oil/water	
				separation equip., mechanical	

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: PETROLEUM REFINERY

10,000 bbl/day

NAME/ADDRESS: PLACID REFINING COMPANY, DALLAS, TX

Site at Nacitoches Parish, LA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/23/78 BASIS: * BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Truck loading		HC	5.5 ton/yr (B)	pump seals, use of air cooling, line flushing	
Miscellaneous		HC	26 ton/yr (B)		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 3 pages

SOURCE TYPE/SIZE: PETROLEUM REFINERY

NAME/ADDRESS: BEACON OIL COMPANY, HANFORD, CA

Site at Hanford, CA

DETERMINATION IS: ~~CONDITIONAL~~/FINAL/PENDING: DATE OF ISSUE: 9/19/78 BASIS:* BACT¹/LAER/~~BACT~~²
FOR ~~NEW~~/MODIFIED SOURCE

BY EPA REGION IX

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:		POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate			Equipment type, etc.	Eff.,%
Crude unit	5,000 bbl/day	SO ₂	27.3 ton/yr	Total heat input of new fired	
Naptha hydro-desulfur-	5,000 bbl/day	NO ₂	74.5 ton/yr	equipment restricted to	
ization unit		TSP	4.87 ton/yr	79.6x10 ⁶ Btu/hr	
Naptha reformer	2,000 bbl/day	CO	6.14 ton/yr		
		HC	7.69 ton/yr		
Sulfur removal system	1.69x10 ⁶ SCFD	SO ₂	22.6 ton/yr; 5.16 lb/ hr (2 hr avg.)	Plant efficiency with 94%+ caustic	
				scrubber with efficiency of 58%	

NOTES: All figures are emission limits for 1985 operation (figures for 1980 also given in permit). Source

exempted from increment and BACT analysis for SO₂ due to allowable emissions of less than 50 tons/year.

(See addendum for emission reduction list and additional requirements)

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 3 pages

SOURCE TYPE/SIZE: PETROLEUM REFINERY

NAME/ADDRESS: BEACON OIL COMPANY, HANFORD, CA

Site at Hanford, CA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 9/19/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IX
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Sour water stripper	140 bbl/day				
Barrel tanks (2)	10,000 bbl. ea.	HC	0 (L)	Vapor recovery system	100
Barrel tank	20,000 bbl.	HC	0 (L)	Vapor recovery system	100
Cooling tower	600 gal/min.	HC	5.18 lb/day		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL REQUIREMENTS:

Beacon shall install a floating cover on the existing gunnited holding pond. Beacon shall limit the flow of process waste water to 49.6 gal/min (annual average) and 54.5 gal/min. (24 hr avg). Beacon shall retain and maintain in operation the existing vapor recovery system on all product loading facilities of gasoline stocks or finished gasoline. Beacon shall not flare on a continuous or regular basis any process gases produced in any of the new equipment. Additional requirements on fuel usage and sulfur content.

EMISSION REDUCTIONS OF HCALLOWABLE EMISSIONS FOR 1985 OPERATION FROM NEW EQUIPMENT

<u>Measure</u>	<u>Reductions (Tons/year)</u>	<u>Pollutant</u>	<u>1985 Limit (tons/year)</u>
Less fuel oil	1.2	SO ₂	49.9
Tanks-vapor recovery	516.9	NO ₂	74.5
Waste water measures	57.3	TSP	4.87
Less cooling water	0.3	CO	6.14
Pump controls	<u>48.9</u>	HC	44.9
Potential emissions	624.6		
Net emission	<u>283.6</u>		
Reductions	341.0		

ADDITIONAL DETERMINATIONS - PETROLEUM INDUSTRY 9.0
(PETROLEUM REFINING - 9.1)

NAME - LOCATION	SIZE/FACILITIES b=boiler, heater t=tank	REGION	BACT/LAER
Ashland Petroleum Company Ashland, KY	Unknown (b, catalyst regenerator)	IV	x
Ashland Petroleum Company Catlettsburg, KY	Unknown (b, catalyst regenerator, reformer)	IV	x
Hydrocarbon Development Corp. Natchez, MS	15,000 bbl/day (b,t)	IV	x
Gulf Oil Corporation Belle Chasse, LA	89,000 bbl/day (b, catalyst regenerator)	VI	x
Sinclair Oil Corporation Sinclair, WY	Unknown (b)	VIII	x
Lake Charles Refining Company Lusk, WY	10,000 bbl/day (b,t)	VIII	x
Manatee Energy Company Miami, FL	15,000 bbl/day (b,t)	IV	x
Tosco Corporation Martinez, CA	20,000 bbl/day (reformer)	IX	x
Cascade Energy, Inc. Rainier, OR	Unknown (b)	X	x
Exxon Company Kern County, CA	25x10 ⁶ Btu/hr (b)	IX	x
Shell Oil Company Kern County, CA	50x10 ⁶ Btu/hr (b)	IX	x
Ashland Petroleum Company Ashland, KY	86x10 ⁶ Btu/hr (b, hydrogen fluoride alkylation unit, fugitive HC)	IV	x
Semarck California, Inc. Kern County, CA	20,000 bbl/day (b, storage tanks, Claus plant)	IX	x
VIRCO St. Croix, U.S. VI	Unknown (b,t)	II	x
Exxon Bayway, NJ	30,000 bbl/day (fugitive VOC)	II	x

10.0 WOOD PROCESSING

10.1 Chemical wood processing (pulp mills)

10.2 Other

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 3 pages

SOURCE TYPE/SIZE: KRAFT PULP MILL

PULPING CAPACITY 1034 TONS/DAY

NAME/ADDRESS: BOISE CASCADE, P.O. BOX 500, WALLULA, WA 99363

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/24/78 BASIS: * BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION X

LARRY SIMS AND PAUL BOYS

(206) 442-1106

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Recovery boiler (No. 2)	238 ADT/day	TSP	0.44 gr/scf/476 (N)	ESP	99.5
	feed or 738,000 ^a		lb/day		
		SO ₂	160 ppm/5424 lb/day (B)	Impinger type wet scrubber	95
		Opacity	35% (N)		
Lime kiln	544 tons/day	TSP (gas)	0.067 gr/scf/466 (B)	Venturi scrubber	
			lb/day		
	or 847 ADT				

NOTES: ^a Pounds black liquor dry solids/day; ADT means Air Dried Tons.

Where no NSP requirement, state standards apply for opacity - 20%

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

RACT/LAER CLEARINGHOUSE REPORT

Page 2 of 3 pages

SOURCE TYPE/SIZE: KRAFT PULP MILL

PULPING CAPACITY 1034 TONS/DAY

NAME/ADDRESS: BOISE CASCADE, P.O. BOX 500, WALLULA, WA 99363

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/24/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION X

LARRY SIMS AND PAUL BOYS

(206) 442-1106

(Agency)

(Person)

(Phone)

<u>PERMIT PARAMETERS:</u>		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Lime kiln (continued)			TSP (oil)	0.12 gr/scf/906 (B)		
				1b/day		
			Opacity	20% (S)		
			SO ₂	5 ppm/19 lb/day (B)		
No.2 Dissolver vent	253 ADT		TSP	71 lb/day (N)	Chemico-type scrubber	
			Opacity	20% (S)		
Decker hood	200 ADT		TSP	0.01 ADT/2 lb/day (B)		
			Opacity	20% (S)		

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 3 of 3 pages

SOURCE TYPE/SIZE: KRAFT PULP MILL

PULPING CAPACITY 1034 TONS/DAY

NAME/ADDRESS: BOISE CASCADE, P.O. BOX 500, WALLULA, WA 99363

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 2/24/78 BASIS: * BACT¹/LAER, BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION X LARRY SIMS AND PAUL BOYS (206) 442-1106
(Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Hogfuel boiler	200,000 lb/hr	TSP	0.04 gr/scf/459 (B)	I.D. Zurn Air System,	
	steam		lb/day	type MTSA, two parallel	
		Opacity	20% (S)	impinger type scrubbers	
Power boiler	200,000 lb/hr	TSP	299 lb/day (B)		
gas-oil (major)	steam	SO ₂	3025 lb/day (B)		
		Opacity	20% (S)		

NOTES: _____

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** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - WOOD PROCESSING 10.0
(CHEMICAL WOOD PULPING - 10.1)

NAME - LOCATION	SIZE/FACILITIES (b=boiler st=smelt tank, l=lime kiln, f=black liquor furnace)	REGION	BACT/LAER
Boise Southern Company Deridder, LA	535 ton/day (newsprint machine)	VI	x
Leaf River Forest Products New Augusta, MS	550 ton/day (b,st,l,f)	IV	x
Continental Forest Industries Port Wentworth, GA	800 ton/day (f,l,st)	IV	x
International Paper Company Gardnir, OR	1033 ton/day (l,b,st)	X	x
Boise Cascade St. Helens, OR	1150 ton/day (l)	X	x
Union Camp Corporation Autauga, AL	1223 ton/day (b,st,l)	IV	x
Federal Paperboard Reigelwood, NC	Unknown (b,f)	IV	x
Parsons and Whittemore Clairborne, AL	Unknown (b,f,l)	IV	x
Alabama River Pulp Company Clairborne, AL	Unknown (b,f,l)	IV	x
Union Camp Corporation Montgomery, AL	Unknown (st,b,f)	IV	x
Container Corporation of America Fernidina Beach, FL	Unknown (b,st)	IV	x
Tennessee River Pulp and Paper Mill Counce, TN	Unknown (f,b,st)	IV	x
Proctor and Gamble Georgia	1400 ton/day (b,l,st)	IV	x
Hoerner Waldorf Corporation Missoula, Montana	Unknown (b,l,st)	VIII	x
Carolina Kraft Corporation Bennettsville, SC	Unknown (f,l,st)	IV	x
Continental Forest Industries Hopewell, VA	Unknown (b,f,st)	III	x
Georgia-Pacific Corporation Halifax, NC	700 ton/day (f,l,st)	IV	x

ADDITIONAL DETERMINATIONS - WOOD PROCESSING 10.0
(OTHER 10.2)

NAME - LOCATION	SIZE	REGION	BACT/LAER

11.0 MISCELLANEOUS

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: OIL SHALE PROJECT

5000 BPD

NAME/ADDRESS: C-B OIL SHALE VENTURE/RIO BLANCO COUNTY, CO

(Occidental Oil Shale, Inc. and
Ashland Oil of Colorado)

DETERMINATION IS:

CONDITIONAL
FOR NEW/MODIFIED SOURCE

/FINAL/PENDING: DATE OF ISSUE: 12/15/77

BASIS: * BACT¹/LAER/BACT²BY EPA REGION VIII
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:

AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Mine Vent		TSP	16.0 lb/hr		
		SO ₂	7.0 lb/hr		
In-situ gas		TSP	7.4 lb/hr		
		SO ₂	17.4 lb/hr		
Sulfur removal facility for control of gaseous sulfur emissions shall be designed and operated to insure at least 99.0% overall gaseous sulfur recovery and no greater than 15 PPM H ₂ S concentration in the off-gas are continually achieved. 20% opacity limit for mining operation. Control fugitive dust (water and/or chemical sprays) to greatest extent possible.					

NOTES: Permit covers First phase only.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: OIL SHALE PROJECT

5000 BPD

NAME/ADDRESS: C-B OIL SHALE VENTURE/RIO BLANCO COUNTY, CO

(Occidental Oil Shale, Inc. and
Ashland Oil of Colorado)DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 12/15/77
FOR NEW MODIFIED SOURCEBASIS: * BACT¹/LAER BACT²BY EPA REGION VIII
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
Steam boiler		TSP	16.3 lb/hr or 0.1 lb/MMBtu (whichever is less)		
		SO ₂	3.6 lb/hr or 0.8 lb/MMBtu (whichever is less)		
Mine shaft transfer		TSP	1.7 lb/hr		
Shale conveyor		TSP	7.7 lb/hr		
ROM ore handling		TSP	29.2 lb/hr		

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

SOURCE TYPE/SIZE: OIL SHALE PROJECT

11,000 BARREL/DAY

NAME/ADDRESS: RIO BLANCO OIL SHALE PROJECT C-a RANGELY, CO (Gulf Oil and Standard Oil)

DETERMINATION IS: CONDITIONAL FINAL/PENDING: DATE OF ISSUE: 12/15/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION VIII

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Thermaloxidizer/		PART	11.0 lb/hr		
scrubber		SO ₂	167.1 lb/hr - insure 90% gaseous sulfur recovery and no greater than 250 PPMV		
Steam boiler		PART	0.7 lb/hr or (0.1 lb/MMBtu) whichever is less		
		SO ₂	16.6 lb/hr or (0.8 lb/MMBtu) whichever is less		

NOTES: Permit covers First phase of project

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

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BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: OIL SHALE PROJECT

11,000 BARREL/DAY

NAME/ADDRESS: RIO BLANCO OIL SHALE PROJECT C-a RANGELY, CO (Gulf Oil and Standard Oil)

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 12/15/77 BASIS:* BACT¹/LAER/BACT²
FOR NEW MODIFIED SOURCE

BY EPA REGION VIII

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Shaft construction					
(Underground mining)					
Mine Vent		PART	1.6 lb/hr		
Vehicular movement		PART	5.4 lb/hr		
ROM ore handling		PART	9.1 lb/hr		
		Opacity	< 20%		
Fugitive Dust	Must be controlled (water and/or chemically) to greatest extent possible: roads,				
	parking areas, drill pads and shale deposit areas.				

NOTES:

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

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BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: GRAPHITE ELECTRODE MANUFACTURING

NAME/ADDRESS: GREAT LAKES CARBON CORPORATION, New York, NY

Site at Benning, AR

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: _____
FOR NEW/MODIFIED SOURCE

BASIS:* BACT¹/LAER/BACT²

BY Region VI

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Graphitizing Furnace		CO	138.32 (B)	Proper building design	
		TSP	0.71 lb/hr (B)		
Materials Preparation		TSP	1.8 lb/hr (B)		
Pneumatic Crane		TSP	2 lb/hr (B)		
Stock cleaning, core		TSP	0.8 lb/hr (B)		
sampling, trimming					
Electrode machining		TSP	1.6 lb/hr (B)		

NOTES: _____

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: COAL CONVERSION PLANT (LOW BTU GAS)NAME/ADDRESS: OFFICE OF PIKE COUNTY JUDGE, PIKE COUNTY COAL GASIFICATION PROJECT, DOUGLAS, KYDETERMINATION IS: CONDITIONAL/~~FINAL~~/PENDING: DATE OF ISSUE: 10/24/78 BASIS:* BACT¹/LAER~~(BACT)~~²
FOR NEW/MODIFIED SOURCEBY REGION IV/KENTUCKY DEPT. OF NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
(Agency) (Person) (Phone)

PERMIT PARAMETERS:		THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
AFFECTED FACILITIES					Equipment type, etc.	Eff.,%
Coal gasifiers with					Smokeless flare tips	
emergency flares						
^a Indirect heat exchangers	(2) 20x10 ⁶ Btu/hr each					
PHASE I AND II			SO ₂	The lesser of 17.84 lb/hr or 1.7 lb/10 ⁶ BTU		
			TSP	The lesser of 7.03 lb/hr or 0.40 lb/10 ⁶ BTU		

NOTES: ^a The indirect heat exchangers can operate in either Phase I or Phase II mode.Phase I represents the source operating mode during which the entire gaseous fuel output from
gasifiers and supplemental No.2 fuel oil will be burned in Indirect Heat Exchangers. Continued =

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: COAL CONVERSION PLANT (LOW BTU GAS)NAME/ADDRESS: OFFICE OF PIKE COUNTY JUDGE, PIKE COUNTY COAL GASIFICATION PROJECT, DOUGLAS, KYDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 10/24/78 BASIS:* BACT¹/LAER/BACT²
FOR NEW/MODIFIED SOURCEBY REGION IV/KENTUCKY DEPT. OF NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION
(Agency) (Person) (Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
PHASE II only		Opacity	20%		
		H ₂ S (in low BTU producer gas)	5 ppm at 85° F	Stretford-Holmes desulfurization system or equal	
Coal handling		Fugitive dust		Wet suppression and enclosure	

NOTES: Phase II represents the source operating mode during which the fuel gas produced by gasifiers will be desulfurized and made available for sale. Indirect heat exchangers will burn only desulfurized fuel gas, No.2 fuel oil and the oils and tar from the gas desulfurization system.

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BACT/LAER CLEARINGHOUSE REPORT

SOURCE TYPE/SIZE: COAL GASIFICATION PLANT

1 TON/HOUR COAL

NAME/ADDRESS: ROCKWELL INTERNATIONAL, CANOGA PARK, CA

Site at Simi Hills, CA

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 7/18/78
FOR NEW/MODIFIED SOURCE

BASIS: * BACT¹ / LAER (BACT)²

BY EPA REGION IX
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS:					
AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff., %
All plant facilities	Permit limits to	TSP	0.94 lb/ton coal feed	Fabric filters (6)	99.9+
	24 ton/day (daily				
	avg.) 9 ton/day				
	(annual avg.)				
		SO ₂	30.0 lb/ton coal feed	Sulfur removal system	
				(Claus plant)	
		NO _x	59.1 lb/ton coal feed	Also for SO ₂ - Limit on S in coal	
				10% daily avg; 5% annual avg.	

NOTES: Water sprays shall be used to control fugitive emissions from aggregate coal storage and loading areas.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

**** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment**

BACT/LAER CLEARINGHOUSE REPORT

Page 1 of 2 pages

SOURCE TYPE/SIZE: TIRE MANUFACTURING FACILITYNAME/ADDRESS: FIRESTONE TIRE AND RUBBER COMPANY, AKRON, OHIOSite at Lavergne, TNDETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/22/78 BASIS:* BACT¹ LAER BACT²
FOR NEW/MODIFIED SOURCEBY EPA REGION IV
(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Boiler		HC		Nat. gas or No.6 oil	
Storage tank		HC	Minor	None	
Slab handling		HC	Neg	None	
Cooling systems					
Cement mix area		HC	9.93 lb/hr	None	
Cement extruder		HC	Neg	None	
Tubers		HC	91.3 ton/yr (L)	None	
Roll colendering line		HC	Neg	None	

NOTES: Offsets were obtained from cord cutting, tire building, and tire doping operations at existing facilities.

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

BACT/LAER CLEARINGHOUSE REPORT

Page 2 of 2 pages

SOURCE TYPE/SIZE: TIRE MANUFACTURING FACILITY

NAME/ADDRESS: FIRESTONE TIRE AND RUBBER COMPANY, AKRON, OHIO

Site at Lavergne, TN

DETERMINATION IS: CONDITIONAL/FINAL/PENDING: DATE OF ISSUE: 11/22/78 BASIS:* BACT¹ LAER BACT²
FOR NEW/MODIFIED SOURCE

BY EPA REGION IV

(Agency)

(Person)

(Phone)

PERMIT PARAMETERS: AFFECTED FACILITIES	THROUGHPUT CAPACITY, weight rate	POLLUTANT(S) EMITTED	EMISSION LIMIT(S) AND BASIS FOR**	CONTROL STRATEGY DESCRIPTION	
				Equipment type, etc.	Eff.,%
Tire building		HC		None	
Tire doping		HC	0	Water base dope	100
Tire painting and repairing		HC	63.5 Btu/hr	None	

NOTES: Offsets were obtained from cord cutting, tire building, and tire doping operations at existing facilities

* Circle one. BACT-1 indicates determination made under pre-1977 amendments; BACT-2 indicates post-1977 amendments to CAA.

** Basis symbols: Use B = BACT, N = NSPS, S = SIP, L = LAER, P = PSD Increment

ADDITIONAL DETERMINATIONS - MISCELLANEOUS 11.0

NAME - LOCATION	SIZE/FACILITIES	REGION	BACT/LAER

TECHNICAL REPORT DATA

(Please read instructions on the reverse before completing)

1. REPORT NO. EPA-450/2-79-003		3. RECIPIENT'S ACCESSION NO.	
4. TITLE AND SUBTITLE COMPILATION OF BACT/LAER DETERMINATIONS		5. REPORT DATE May 1979 (Date of Issue)	
7. AUTHOR(S) Jack A. Wunderle		6. PERFORMING ORGANIZATION CODE	
9. PERFORMING ORGANIZATION NAME AND ADDRESS PEDCo Environmental, Inc. Chester Towers 11499 Chester Rd. Cincinnati, Ohio 45246		8. PERFORMING ORGANIZATION REPORT NO.	
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		11. CONTRACT/GRANT NO. 68-02-2603, Task 42	
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		14. SPONSORING AGENCY CODE	
15. SUPPLEMENTARY NOTES This report will be supplemented from time to time as new determinations require. Users of this report should contact Regional Offices to get number of subsequent reports.			
16. ABSTRACT The report gives the results of a survey of Regional files for PSD and nonattainment permits issued. The original permit applications in the Regions' files were reviewed and summary sheets completed from the data contained in the applications. The main purpose of the summary sheets was to let people know where similar source category determinations have been made. Only a selected number of determinations per category are shown on the summary sheets followed by a total listing of locations where all other similar category determinations have been made. The vast majority of these determinations are BACT and up to January 1979.			
17. KEY WORDS AND DOCUMENT ANALYSIS			
a. DESCRIPTORS		b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution Industrial Processes Combustion Sources Control Equipment Coal Oil		Bark Nitrogen Oxides Scrubbers Baghouses Electrostatic Precipitators	Air Pollution Control Stationary Sources BACT LAER Sulfur Dioxide Particulate
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