



State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY

FILE COPY

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Reply to: State of Utah
Division of Air Quality
P.O. Box 144820
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DAQE-0063-94

February 3, 1994

Gene Marshall
Pacifcorp
1407 West North Temple
Salt Lake City, Utah 84140

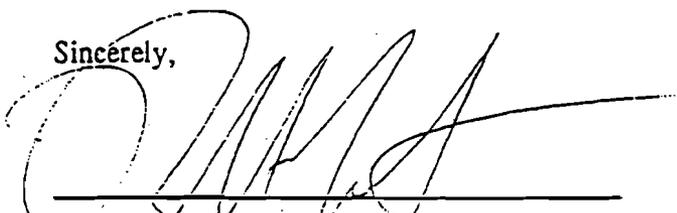
Re: Approval Order For SIP Change
Salt Lake County CDS A1 NA Title V Major

Dear Mr. Marshall:

The attached document is an Approval Order for the above referenced project.

Please direct any technical questions you may have on this project to Mr. Tim Blanchard. He may be reached at (801) 536-4057.

Sincerely,



Russell A. Roberts, Executive Secretary
Utah Air Quality Board

RAR:JTB:dn

cc: Salt Lake City/County Health Department
EPA Region VIII, Mike Owens

Vol 1 1.2e-2



STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

APPROVAL ORDER FOR GADSBY UNITS 1, 2, AND 3 SIP CHANGES

Tim Blanchard, Engineer

APPROVAL ORDER NUMBER
DAQE-0063-94

Date: February 3, 1994

Source

PACIFICORP

Russell A. Roberts
Executive Secretary
Utah Air Quality Board

Vol 1 1.2e-3

Abstract

Utah Power will upgrade the Gadsby Units No. 1 and No. 2 to bring them into compliance with Section IX.H.2.b.BBB for Utah Power and Light in the State Implementation Plan (SIP) for Salt Lake County. The SIP requires that the Gadsby Plant be retrofitted with new burners that meet Reasonable Available Control Technology (RACT).

The above-referenced project has been evaluated and found to be consistent with the requirements of the Utah Air Conservation Rules (UACR) and the Utah Air Conservation Act. A 30-day public comment period was held and all comments received were evaluated. The conditions of this Approval Order (AO) reflect any changes to the proposed conditions which resulted from the evaluation of the comments received. This air quality AO authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This AO applies to the following company:

Utah Power
Division of Pacificorp
Electric Operations
1407 West North Temple
Salt Lake City, Utah 84140

Phone Number (801) 220-2235
FAX Number (801) 220-4307

The equipment listed below in this AO shall be operated at the following location:

Gadsby Plant
1359 West North Temple
Salt Lake City, Utah

Universal Transverse Mercator (UTM) Coordinate System:
4,513.250 meters Northing, 421.650 meters Easting

2. Definitions of terms, abbreviations, and references used in this AO conform to those used in the UACR, Utah Administrative Codes (UAC), State Implementation Plan (SIP) and Series 40 of the Code of Federal Regulations (40 CFR).

These definitions take precedence unless specifically defined otherwise herein.

3. Utah Power shall operate the Gadsby Power Station according to the information submitted in the Notice of Intent dated August 17, 1993, with additional information submitted November 1, 1993.
4. Regardless of any inconsistency between conditions of this AO and Section IX.H.2.b.BBB of the SIP for Utah Power and Light, this AO shall take precedence as provided by R307-1-3.2.4, UAC.

5. A copy of this AO shall be posted on site. The AO shall be available to the employees who operate the air emission producing equipment. These employees shall receive instruction as to their responsibilities in operating the equipment according to all of the relevant conditions listed below.
6. The approved installations shall consist of the following equipment:
 - A. Gadsby 1 - Replace the existing six burners with six new Todd Combustion, Inc.¹ Low-NO_x burners on the existing front fired boiler.
 - B. Gadsby 2 - Replace the existing six burners with six new Todd Combustion, Inc.¹ Low-NO_x burners on the existing front fired boiler.

Limitations and Tests Procedures

7. Emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

A. Gadsby 1

<u>Pollutant</u>	<u>Lbs/hr</u>	<u>ppmdv</u> <u>(3% O₂, dry)</u>
NO _x	179.00	336

B. Gadsby 2

<u>Pollutant</u>	<u>Lbs/hr</u>	<u>ppmdv</u> <u>(3% O₂, dry)</u>
NO _x	204.00	336

C. Gadsby 3

a. Winter

November 1 through February 28:

<u>Pollutant</u>	<u>Lbs/hr</u>	<u>ppmdv</u> <u>(3% O₂, dry)</u>
NO _x	142.00	168

¹ - Or equivalent with equivalency determined by the Executive Secretary

b. Summer

March 1 through October 31:

<u>Pollutant</u>	<u>Lbs/hr</u>	<u>ppm_{dv}</u> <u>(3% O₂, dry)</u>
NO _x	203.00	168

8. Stack testing to show compliance with the emission limitations stated in the above condition shall be performed as specified below:

A.	<u>Emission Point</u>	<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
	Gadsby 1	NO _x	*	**
	Gadsby 2	NO _x	*	**
	Gadsby 3	NO _x	*	**

B. Testing Status (To be applied above)

* Initial compliance testing is required. The initial test date shall be within 180 days after the start-up of the unit.

** Test every two (2) years after the initial testing.

C. Notification

The applicant shall provide a notification of the test date at least 45 days before the test. A pretest conference shall be held if directed by the Executive Secretary. It shall be held at least 30 days before the test between the owner/operator, the tester, and the Executive Secretary.

The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approvable access shall be provided to the test location.

D. Sample Location

40 CFR 60, Appendix A, Method 1

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2

F. Nitrogen Oxides (NO_x)

40 CFR 60, Appendix A, Method 7, 7A, 7B, 7C, 7D or 7E

G. Calculations

To determine mass emission rates (lbs/hr, etc.), the pollutant concentration as determined by the appropriate methods above, shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.

H. Existing Source Operation

a. Gadsby 1

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the input heat capacity (653 MMBTU/HR).

b. Gadsby 2

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the input heat capacity (742 MMBTU/HR).

c. Gadsby 3

For a emission point, the production rate during compliance testing for the summer-time emission limitations shall be preformed at no less than 90% of the input heat capacity (1,040 MMBTU/HR). The production rate during compliance testing for the winter-time emission limitation shall be no less than 90% of the heat input rate correlating to 70% capacity factor used to calculate the winter-time emission rates (730 MMBTU/HR).

9. Visible emissions from the Gadsby stacks shall not exceed 10% opacity. Opacity observations of emissions from stationary sources shall be conducted in accordance with 40 CFR 60, Appendix A, Method 9.

Fuels

10. The owner/operator shall use only natural gas as a primary fuel and No. 2 fuel oil or better as back-up fuel in the boilers. If any other fuel is to be used an AO shall be required in accordance with R307-1-3.1, UAC. The No. 2 fuel oil may be used only during periods of natural gas curtailment and for maintenance firings. Maintenance firings shall not exceed one-percent of the annual plant BTU requirement. In addition, maintenance firings shall be scheduled between April 1 and November 30 of any calendar year. Records of fuel oil use shall be kept which shows the date the fuel oil was fired, the duration in hours the fuel oil was fired, the amount of fuel oil consumed during each

curtailment, and the reason for each firing. Records shall be made available to the Executive Secretary or his representative upon request, and shall include a period of two years ending with the date of the request.

11. The sulfur content of any fuel burned shall not exceed 0.45% by weight as determined by ASTM Method D-4294-89 or approved equivalent. The sulfur content shall be tested if directed by the Executive Secretary.

Records & Miscellaneous

12. The Executive Secretary shall be notified in writing upon start-up of the installation as an initial compliance inspection is required. Eighteen months from the date of this AO the Executive Secretary shall be notified in writing of the status of installation if installation is not completed. At that time the Executive Secretary shall require documentation of the continuous installation of the operation and may revoke the AO in accordance with R307-1-3.1.5, UAC. If construction is complete and operation has commenced a notice is not required.
13. All records referenced in this AO which are required to be kept by the owner/operator shall be made available to the Executive Secretary or his representative upon request. Examples of records to be kept at this source shall include the following as applicable:
 - A. Fuel oil consumption (Condition 10)
 - B. Maintenance records (Condition 10)
 - C. Upset, breakdown episodes (Condition 16)
 - D. Emergency plan (Condition 17)
14. All installations and facilities authorized by this AO shall be adequately and properly maintained. All pollution control vendor recommended equipment shall be installed, maintained, and operated. Instructions from the vendor or established maintenance practices that maximize pollution control shall be used. All necessary equipment control and operating devices such as pressure gauges, amp meters, volt meters, flow rate indicators, temperature gauges, CEMs, etc., shall be installed and operated properly and easily accessible to compliance inspectors. A copy of all manufacturers' operating instruction for pollution control equipment and pollution emitting equipment shall be kept on site. These instructions shall be available to all employees who operate the equipment, and shall be made available to compliance inspectors upon their request.
15. The owner/operator shall comply with R307-1-3.5, UAC. This rule addresses emission inventory reporting requirements.
16. The owner/operator shall comply with R307-1-4.7, UAC. This rule addresses unavoidable breakdown reporting requirements. The owner/operator shall calculate/estimate the excess emissions whenever a breakdown occurs. The total of excess emissions shall be reported to the Executive Secretary as directed for each calendar year.
17. The owner/operator shall submit to the Executive Secretary an emergency plan within 60 days of the date of this AO. The plan shall identify what control measures the owner/operator shall implement when an emergency episode is declared by the Executive

Director of the Department of Environmental Quality. Specific emission reduction measures shall be outlined for all three levels (Alert, Warning, Emergency). The values for the various levels are listed in R307-1-5, UAC. Also see 40 CFR, Part 51, Subpart H (40 CFR 51.150 to 153) and appendix L. The emergency plan shall be approved by the Executive Secretary. The Alert Level actions to be taken should be curtailment of all unnecessary activities causing air pollution. The other two levels of actions should be a progressive curtailment of production and activities causing pollution, to the point of complete shutdown of operations.

Any future modifications to the equipment approved by this order must also be approved in accordance with R307-1-3.1.1, UAC.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including the UACR.

Annual emissions for this source, the Gadsby power station, are currently calculated at the following values:

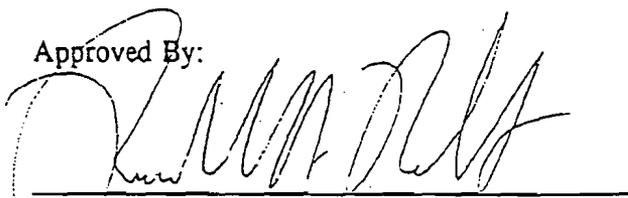
<u>Pollutant</u>	<u>Tons/vr</u>
Particulate	63.15
PM ₁₀	61.31
SO ₂	67.73
NO _x	2511.58
CO	458.61
VOC nonmethane	16.55

These calculations are for the purposes of determining the applicability of Prevention of Significant Deterioration and nonattainment area major source requirements of the UACR.

In accordance with the requirements of Title V of the 1990 Clean Air Act, the following pollutants may be subject to an operating permit fee. Both the fee rate and the class of pollutants are subject to change by state, the federal agencies, or both.

<u>Pollutant</u>	<u>Tons/vr</u>
PM ₁₀	61.31
SO _x	67.73
NO _x	2511.58
CO	458.61
VOC nonmethane	16.55

Approved By:



Russell A. Roberts, Executive Secretary
Division of Air Quality