

**TECHNICAL SUPPORT DOCUMENT**

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN  
APPLICATION FOR A PART 70 OPERATING PERMIT

SUBMITTED BY

Nevada Cogeneration Associates # 2

for

**NCA #2 Black Mountain Station  
Rural Las Vegas, Nevada**

**Part 70 Operating Permit Number: A00391**  
SIC Code - 4931: Electric Generation



Clark County  
Department of Air Quality Management  
Permitting Section  
August 2002

***This Technical Support Document (TSD) accompanies the proposed Part 70 Operating Permit (OP by the Clark County Department of Air Quality Management (DAQM)) NCA #2.***

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## I. EXECUTIVE SUMMARY

Nevada Cogeneration Associates #2 (NCA #2) Black Mountain Facility is an 85 megawatt combined cycle natural gas power plant located in the Black Mountain airshed, co-located with Pabco, Clark County, Nevada. This cogeneration plant produces electric power for sale on the grid, and thermal energy and chilled water which is supplied to Pabco for use in its gypsum wallboard production facility located adjacent to NCA #2.

The facility is located in a Prevention of Significant Deterioration (PSD) area which is attainment for all criteria pollutants. NCA #2 is a Major Part 70 source for nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO), and is a non-major Part 70 source for particulate matter ten microns or less in diameter (PM<sub>10</sub>), volatile organic compounds (VOC), ammonia (NH<sub>3</sub>) sulfur dioxide (SO<sub>2</sub>) and Hazardous Air Pollutants (HAPs).

The initial Authority to Construct (ATC) certificate was issued to NCA #2 on January 17, 1991 with the corresponding Section 16 Operating Permit (OP) issued on July 16, 1992. There have been six modification ATC/OPs issued to this facility.

Each of the three GE LM-2500 gas turbines have been fitted with selective Catalytic Reduction (SCR) units for NO<sub>x</sub> control and oxidation catalysts for CO and VOC control. Continuous monitoring systems for NO<sub>x</sub> and CO have been installed and are continuously operated as required by federal and local regulations.

The table below lists facility potential to emit (PTE) as of the most recent ATC/OP issued February 26, 2002.

**Table 1-1: Maximum Facility Potential to Emit (PTE) in Tons Per Year**

PM10	NO <sub>x</sub>	CO	SO <sub>x</sub>	VOC	HAP	NH <sub>3</sub>
67.10	166.32	140.60	9.22	26.28	6.01	83.46

Clark County Department of Air Quality Management (DAQM) is the current name of the local agency, and any reference to Clark County Health District Air Pollution Control Division (APCD) in this document and the operating permit shall be considered as DAQM and vice versa.

DAQM prepared this document in accordance with the latest DAQM guidelines, policies, supervisory and managerial instructions, verbal and/or written, issued before April 7, 2008.

Based on information submitted by the applicant and a technical review performed by DAQM staff, the DAQM proposes the issuance of a Part 70 Operating Permit to NCA #2 located in Apex, NV.

## II. LIST OF ABBREVIATIONS

Act	Clean Air Act of 1990 and Amendments
APC	Air Pollution Control
AQD	Air Quality Division
AQR	Clark County Air Quality Regulations previously known as APCR
ATC	Authority to Construct
BACT	best available control technology
BTU	British thermal unit
CCHD	Clark County Health District or District Board of Health of Clark County
CEMS	continuous emission monitoring system
CFR	Code of Federal Regulations
CO	carbon monoxide
DAQM	Clark County Department of Air Quality Management
Dscf	dry standard cubic foot
EF	Emission factor
EPA	Environmental Protection Agency
E.U.	Emission unit
File	all files at DAQM
g/dscm	grams per dry standard cubic meter
gr/dscf	grains per dry standard cubic foot
HAP	Hazardous Air Pollutant as defined by AQR Section 0
Hr	Hour
ID	identification number
Lb	Pound
MMbtu	million British thermal units
NA	not applicable
NO <sub>x</sub>	oxides of nitrogen
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standard from 40 CFR Part 60
NSR	New Source Review
OP	Operating Permit
PCD	pollution control device
PM	particulate matter
PM <sub>10</sub>	particulate matter less than 10 microns in size
PSD	Prevention of Significant Deterioration
PTE	Potential To Emit
Ppm	part per million
ppmv	parts per million by volume
ppmvd	parts per million by volume, dry
Rev.	Revised
SCC	Source Classification Code
Scfm	Standard cubic foot per minute
SIC	Standard Industrial Classification
SIP	State Implementation Plan (for Clark County, Nevada)
SO <sub>2</sub>	sulfur dioxide
Tpy	tons per year
TSD	Technical Support Document
VMT	Vehicular miles traveled
VOCs	volatile organic compounds

### III. INTRODUCTION

#### A. General

**Company Name:** Nevada Cogeneration Associates # 2

**Facility Name:** Black Mountain Cogeneration Plant

**Facility Location** East Lake Mead Blvd  
(adjacent to PABCO Gypsum)  
Las Vegas, NV 89124

**Address (Mailing/Billing):** 420 N. Nellis Blvd. #A3-117  
Las Vegas, NV 89110

**Airshed / Hydrographic Basin** Black Mountain / 215

**Township, Range, Section:** T20S, R64E, S7

**Telephone Numbers:** (702) 651-1224 Genevieve E. Marenco-Director  
(702) 644-1474 FAX

**Source SIC:** 4911– Electric Services

#### B. Location Description

Nevada Cogeneration Associates # 2 (NCA #2) is located in the Gypsum Wash area, east of Sunrise Mountain approximately six miles north of the Las Vegas Wash adjacent to PABCO Gypsum. The facility is located in a PSD area which is in attainment of the National Ambient Air Quality Standards for all criteria pollutants.

#### C. Description of Process

NCA #2 is an 85 megawatt combined cycle natural gas power plant. This cogeneration plant produces electric power for sale on the grid, and thermal energy and chilled water which is supplied to PABCO Gypsum for use in its gypsum wallboard production facility located adjacent to NCA #2.

Approximately 520,000 pounds per hour of turbine exhaust gas (process gas) are piped to PABCO through an insulated, stainless steel duct. This process gas is not ducted through the SCR system because the resulting ammonia in the exhaust stream would be deleterious to the wallboard plant product and workers. An absorption liquid chiller cools 145 gallons of water per minute to 48 °F which is piped to PABCO for wallboard process use. Low-pressure steam extracted from the steam turbine is used to drive the chiller.

NCA #2 currently has three GE LM-2500 combustion gas turbines fitted with heat regenerative steam generators (HRSG), Selective Catalytic Reduction (SRC), and oxidation catalysts producing approximately 85 MW under base load conditions. The GE LM-2500 gas turbine system consists of a 9,500-rpm gas generator and a 3,600-rpm power turbine which is coupled to an air-cooled Brush AC generator rated at 21,700 kW. Each turbine uses a maximum of 4,800 scfm (standard

cubic feet per minute) of natural gas and 180,000 cfm of ambient air. The inlet air has two stages of filtration and can be cooled using an evaporative cooling section or heated with steam coils. A nominal 17,000 pounds per hour of superheated steam at 555 °F and 450 psig is injected to the combustion chamber to reduce the formation of NO<sub>x</sub> to less than 22 parts per million. The turbine exhausts at approximately 500,000 pounds per hour at 958 °F. As a result of a 1999 EPA consent decree and Modification 5 issued by DAQM in 1999, the SCR must operate 85 percent of the turbine unit operating time. This allows for 15 percent of operating time without SCR controls. Because NCA #2 is a true cogeneration facility, low temperature excursions are more common than in base load facilities that only produce electricity. Conditions in the permit from the EPA consent decree include startup and shutdown limitations, the allowable operation of the turbine units without SCR but with steam injection during SCR downtimes, and operationally specific NO<sub>x</sub> concentration levels. Best Available Control Technology (BACT) for the existing turbine units includes steam injection, SCR, CO catalysts and natural gas combustion.

Each turbine unit was permitted with its respective HRSG as one emission unit to reflect worst-case emissions. The Zurn HRSG acquires heat from the exhaust of gas turbines. A duct burner supplies supplemental heat. Each HRSG consists of a high-pressure evaporator and superheater, and an intermediate pressure evaporator and superheater, an economizer section, and a low-pressure evaporator integrated with a deaerator.

The GE steam turbine generator is rated for 29,740 kW. It has an 11 stage condensing unit, a TEWAC generator and is operated at 3,600 rpm. The steam turbine is designed for 236,000 pounds per hour of superheated steam at 840 psig inlet pressure, 900 °F inlet temperature, and three inches mercury of exhaust pressure.

The three existing gas turbines are currently permitted for 8,760 hours per year of natural gas operation only. The HRSGs are treated as part of the turbines and may also fire for 8,760 hours per year.

An Ecodyne cooling tower with double drift eliminators provides cooling for the turbine units. The manufacturer guaranteed drift is 0.0007 percent (through the use of a double drift eliminator) of the circulating water rate of 26,600 gallons per minute. This unit is permitted to operate 8,760 hours per year. As air passes through the water in the tower, some of the water containing total dissolved solids (TDS) is entrained in the air and carried out of the tower as drift. This drift is a source of PM<sub>10</sub> emissions. PM<sub>10</sub> emissions are calculated as a function of TDS, water circulation rates and operating hours. By permit condition, TDS levels must not exceed 38,500 ppm on an annual average nor 57,750 ppm at any time.

Other equipment on site includes a 300 hp Detroit emergency fire pump, a 440 hp Caterpillar emergency diesel generator, a substation with two transformers which step up the electricity from 13,800 volts to 138,000 volts for use by Nevada power, and a 167 ton Carrier hermetic absorption liquid chiller which chills water to 48 °F for export to PABCO.

#### **D. Permitting History**

This section contains a summary table and discussion of the facility's permitting history prepared by DAQM. In this section, "File" refers to records and documents available at DAQM. The table and discussions of this section are only based on the records and documents available at present.

**Table III-1: Detailed Facility Permitting History**

<b>DATE</b>	<b>ACTIVITY</b>
<b>Year 1989</b>	
<b>June 10, 1989</b>	Notice of Proposed Action was published for the preliminary approval of an application submitted by Bonneville Nevada Corporation (BNC) for the construction of a cogeneration plant near the Georgia-Pacific Plant in the Apex Dry Lake area of Clark County.
<b>July 5, 1989</b>	Bonneville Nevada Corporation (BNC) submitted its registration application for the natural gas-fired combined cycle cogeneration plant located adjacent to the existing PABCO wallboard plant and approximately 12 miles east of Las Vegas.
<b>July 19, 1989</b>	Notice of Proposed Action was published to request public comment on the preliminary approval of the ATC application for the natural gas-fired combined cycle cogeneration facility with a nominal electrical output of 85 MW. (No proof that it was published but NPA was signed on this date.)
<b>July 28, 1989</b>	EPA Region 9 transmitted its comments on the application to CCHD-APCD and a copy of the comments was sent to BNC.
<b>August 2, 1989</b>	EPA Region 9 submitted to CCHD-APCD its comments on the ATC application of BNC regarding control technology (selection of steam injection to control NOx emission results in reasonable capital and operating costs and excellent control of NOx emissions), emission limits and other permit requirements and requested a copy of the final ATC along with the responses to all EPA and public comments.
<b>October 9, 1989</b>	BNC submitted to CCHD-APCD its responses to the letter of EPA Region 9 dated August 2, 1989 regarding control technology (selection of steam injection to control NOx emission results in reasonable capital and operating costs and excellent control of NOx emissions), emission limits and other permit requirements.
<b>November 8, 1989</b>	BNC informed CCHD-APCD that it has reviewed its BACT determination for CO emissions and will install a CO catalyst to control CO emissions.
<b>November 10, 1989</b>	BNC submitted the results of the BACT determination for CO as requested by CCHD-APCD on October 30, 1989 per Sec. 12.2.6 of APC Regulations.
<b>Year 1990</b>	
<b>May 2, 1990</b>	CCHD-APCD sent a letter to BNC asking to submit any information at least one week prior to the meeting and informed BNC that APCD has established communications with the State of Colorado as an offered evidence by BNC of a recent permitting decision in Colorado wherein SCR technology was not required.
<b>June 12, 1990</b>	Agreement to the ATC (Reg. # A391) was issued to Bonneville Nevada Corporation's Cogeneration Plant consisting of: 3 GE LM-2500 Combustion Gas Turbine Generators, 3 Heat Recovery Steam Generators, and 1 Steam Turbine.
<b>October 17, 1990</b>	EPA Region 9 sent a letter to the Public commission of Nevada concerning the Notice of Application for a Permit to Construct filed pursuant to Utility Environmental Protection Act (UEPA) by Bonneville Nevada Corporation for the Georgia Pacific Combined Cycle Cogeneration Facility. EPA also informed that it has reviewed the CCHD-APCD's record of decision and found that the PSD issued to BNC failed to comply with the requirements of Part C of CAA and the applicable Clark County SIP and that the Commission should not consider the PSD permit issued to BNC as being valid or having met all the required federal, state, and local air quality regulations.
<b>November 3, 1990</b>	BNC submitted to EPA Region 9 the heat recovery steam generator performance for the cogeneration projects and emission rates/summary of emissions for using No. 2 fuel oil.
<b>November 7, 1990</b>	BNC submitted to EPA Region 9 for confirmation of its action on the second proposal to fully resolve EPA's concerns as follows: 1. BNC will conduct a 2-year SCR field Test of SCR technology on a single heat

	<p>recovery steam generator (HRSG) at either the Georgia-Pacific or the PABCO facility.</p> <ol style="list-style-type: none"> <li>2. During the SCR Field Test, BNC shall provide access to EPA and CCHD during normal business hours for the purpose of inspecting the HRSG and the SCR.</li> <li>3. The Acceptability Criteria for SCR shall not exceed 12 ppm of NO<sub>x</sub> calculated as hourly average and ammonia slip shall not exceed 1.1:1.0, defined as a molar ratio of NH<sub>3</sub>:NO<sub>x</sub>.</li> <li>4. If SCR Field Test demonstrates that the SCR attains the Acceptability Criteria, NBC shall retrofit SCRs on the remaining 5 HRSGs at the Georgia-Pacific and PABCO facilities. If not, BNC may remove the SCR and NO<sub>x</sub> emission limits shall remain at 25 ppm.</li> <li>5. BNC's commitments to undertake these actions are to be embodied in a consent decree.</li> <li>6. BNC agrees to limit the use of No. 2 fuel oil as a standby fuel to a maximum of 216 hours per year unless PSD permit is modified.</li> </ol>
<b>November 30, 1990</b>	<p>EPA Region 9 requested BNC to send a letter restating its commitment to the conceptual agreement on a resolution to the permit issues for BNC/GP and BNC-PABCO which is a prerequisite to a letter from EPA to the Nevada Public Service Commission. EPA requested the following to be included in the letter:</p> <ol style="list-style-type: none"> <li>1. Letter be addressed to CCHD-APCD.</li> <li>2. Installation of SCR on one turbine/waste heat boiler.</li> <li>3. Target concentration to be 12 ppm of NO<sub>x</sub> at 15% O<sub>2</sub>.</li> <li>4. Two years test period; and maximum of 36 months from termination of a successful demonstration to installation of the last (sixth) SCR unit on the cogeneration units at GP and PABCO.</li> </ol>
<b>December 3, 1990</b>	<p>BNC informed CCHD-APCD that it continues to be willing to pursue offsets within Las Vegas Valley in lieu of the SCR Field Test and proposed to undertake the following:</p> <ol style="list-style-type: none"> <li>1. BNC will conduct a 2-year SCR field Test of SCR technology on a single heat recovery steam generator (HRSG) at either the Georgia-Pacific or the PABCO facility.</li> <li>2. During the SCR Field Test, BNC shall provide access to EPA and CCHD during normal business hours for the purpose of inspecting the HRSG and the SCR.</li> <li>3. The Acceptability Criteria for SCR shall not exceed 12 ppm of NO<sub>x</sub> calculated as hourly average and ammonia slip shall not exceed 1.1:1.0, defined as a molar ratio of NH<sub>3</sub>:NO<sub>x</sub>.</li> <li>4. If SCR Field Test demonstrates that the SCR attains the Acceptability Criteria, NBC shall retrofit SCRs on the remaining 5 HRSGs at the Georgia-Pacific and PABCO facilities. If not, BNC may remove the SCR and NO<sub>x</sub> emission limits shall remain at 25 ppm.</li> <li>5. BNC's commitments to undertake these actions are to be embodied in a consent decree.</li> </ol> <p>BNC agrees to limit the use of No. 2 fuel oil as a standby fuel to a maximum of 216 hours per year unless PSD permit is modified.</p>
<b>December 10, 1990</b>	<p>Bonneville Nevada Corporation (Source No. A-030) requested CCHD-APCD that the present name be changed from Nevada Cogeneration Associates #1 (NCA #1) for Source No. A-360 and Nevada Cogeneration Associates #2 (NCA #2) for Source No. A-391.</p>
<b>December 16, 1990</b>	<p>Notice of Proposed Action for NCA #2 was published to request public comment on the preliminary approval of the ATC application for the natural gas-fired combined cycle cogeneration facility (nominal electrical output of 85 MW) with a provision to use No. 2 fuel oil for not more than 9 days per calendar year under the circumstances when the supply of natural gas is curtailed.</p>
<b>Year 1991</b>	
<b>January 4, 1991</b>	<p>NCA #2 submitted to CCHD-APCD an Application for an ATC for a Natural Gas-</p>

	Fired Cogeneration Plant located adjacent to PABCO Gypsum Plant about 3 miles from the nearest boundary of Nellis Air Force Base approximately 12 miles East of Las Vegas.
<b>January 17, 1991</b>	ATC (Reg. # A391) was issued to NCA #2 Cogeneration Plant consisting of: 3 GE LM-2500 Combustion Gas Turbine Generators, 3 Heat Recovery Steam Generators, and 1 Steam Turbine.
<b>May 21, 1991</b>	The Public Service Commission of Nevada issued an order of the findings of facts and conclusions of law on the application of BNC to transfer UEPA Permit # 198 and # 197 to Nevada Cogeneration Associates (NCA) #1 and #2, respectively.
<b>May 29, 1991</b>	The Public Service Commission of Nevada granted the Permit to Construct to NCA #2 for meeting all the requirements of NRS 704.820 to 704.900 and also granted permission to BNC to transfer the authority granted in UEPA Permit No. 197 to NCA #2 to construct 85 MW combined cycle cogeneration facility adjacent to PABCO Gypsum Board production facility.
<b>August 14, 1991</b>	Permit to Disturb Soil (Permit # 91-08-22) was issued by CCHD-APCD for the cogeneration project.
<b>August 20, 1991</b>	Forsgen Associates informed CCHD-APCD about LAER requirements for CO in EPA Region 9 as requested by APCD from the Permittee. It was mentioned in the letter that EPA does not do LAER installations but gave the responsibility to the Regional Air Quality Groups such as SCQAD. It was also added that LAER and BACT are the same for CO in non-attainment areas and was less than 10 ppm and that per SCQAD, any source that produces more than 1 lb/day of CO to install BACT/LAER technology is required, and for any power plant that consumes more than 25 MM Btu/hr must reach less than 10 ppm for CO emission. The SCQAD recommended them to use an automatic continuous monitoring that will correct O <sub>2</sub> directly without a separate calculation.
<b>November 25, 1991</b>	Notice of the change in control of NCA #2 was received by CCHD-APCD.
<b>December 6, 1991</b>	Application for Transfer of an Operating Permit due to change of ownership was received by CCHD-APCD.
<b>Year 1992</b>	
<b>April 13, 1992</b>	CCHD-APCD informed NCA #2 and PABCO that PABCO cannot utilize the waste heat from the cogeneration facility until an ATC/OP has been issued, pursuant to the pending Application for an ATC Modification for PABCO. The ducting and associated hardware to convey NCA #2 waste heat slip stream to the 9 Calcining Mills can be installed as part of the permitted NCA #2 cogeneration facility.
<b>July 7, 1992</b>	NCA #2 submitted an ATC application for Caterpillar 3412 DITA to CCHD-APCD.
<b>July 15, 1992</b>	Operating Permit # A-391T1 for Caterpillar Generator Set - 600-810 HP was issued by CCHD-APCD. This permit expired on July 15, 1993.
<b>July 16, 1992</b>	Operating Permit Conditions (Permit # A-391T1) for NCA #2 was issued by CCHD-APCD.
<b>October 5, 1992</b>	NCA #2 informed CCHD-APCD of the start of testing the first turbine and requested the issuance of the Operating Permit of the facility.
<b>November 23, 1992</b>	Agreement to Operating Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the (GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines) was issued to NCA #2.
<b>November 25, 1992</b>	Notice of Intention to Issue Bonds and Notice of Public Hearing was published in the Las Vegas Review Journal. The purpose of the public hearing is regarding a plan of financing for certain facilities in the County which will consist of an approximately 85 MW gas-fired electric generating unit and related facilities located in an approximately 25.5 acres of land. Pursuant to the County Economic Development Revenue Bond Law, Sections 244A.669 to 244A.763 inclusive, Nevada Revised Statutes as amended, the County is authorized to issue the Bonds to finance the acquisition, improvement, equipping of the Project.

<b>December 14, 1992</b>	<p>Operating Permit # A39103 for Combustion Gas Turbine, GE LM-2500 - PE MG5602, 29,500 BHP; S/N: 481-650 A was issued to NCA #2.</p> <p>Operating Permit # A39102 for Combustion Gas Turbine, GE LM-2500 - PE MG5602, 29,500 BHP; S/N: 481-654 B was issued to NCA #2.</p> <p>Operating Permit # A39103 for Combustion Gas Turbine, GE LM-2500 - PE MG5602, 29,500 BHP; S/N: 481-655 C was issued to NCA #2.</p>
<b>December 21, 1992</b>	NCA #2 submitted an ATC application to CCHD-APCD (The equipment applied was not mentioned in the application).
<b>Year 1993</b>	
<b>January 27, 1993</b>	Modification Application for Operating Permit # A391 was submitted to CCHD-APCD for the change of PM emission limit of 5 lbm/hour for each turbine from the current limit of 1 lbm/hour.
<b>January 29, 1993</b>	Desert Research Institute informed CCHD-APCD that the NCA #2 Monitoring site instrumentation and samples for TSP and PM <sub>10</sub> has been installed on January 20, 1993 and was operational on January 21, 1993.
<b>February 25, 1993</b>	<p>CCHD APC Hearing Board has granted the request for a variance from Condition #8 of NCA #2's Operating Permit with the following conditions:</p> <ol style="list-style-type: none"> <li>1. Variance is effective February 11, 1993 and expires February 10, 1994.</li> <li>2. Natural gas shall be the only fuel permitted during the term of the variance. If there is a loss of the natural gas supply, the facility shall cease operations until the supply of natural gas is re-established.</li> <li>3. During the term of variance, but no less than 90 days prior to expiration date, NCA #2 shall either request a revision of the OP conditions.</li> <li>4. NCA #2 shall observe the compliance schedules: 90 days prior to February 10, 1994, NCA #2 shall submit performance test protocol; within 60 days after expiration date, NCA #2 shall conduct a performance test on each CGT; and within 45 days after completion of performance test, NCA #2 shall submit a report of the results.</li> </ol>
<b>March 21, 1993</b>	Notice of Proposed Action for the ATC Modification due to an increase of the permitted emission limit for PM from 1.0 to 5.0 lb/hr/CTG when the units operate on natural gas fuel. Was published in the Las Vegas Review Journal.
<b>May 11, 1993</b>	ATC Modification to increase the permitted emission limit for PM from 1.0 to 5.0 lb/hr/CTG was issued to NCA #2.
<b>May 25, 1993</b>	Agreement to Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the (GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines) was issued to NCA #2.
<b>September 3, 1993</b>	Agreement to Revised Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the (GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines) was issued to NCA #2.
<b>September 15, 1993</b>	NCA #2 informed CCHD-APCD of the change in control of ownership of the facility.
<b>September 30, 1993</b>	Agreement to Revised Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the (GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines) was issued to NCA #2.
<b>December 14, 1993</b>	NCA #2 requested CCHD-APCD that the PM <sub>10</sub> and SO <sub>2</sub> emissions derived from the actual emissions during the peak month of 1993 using the results of the performance test of April 1993 be used as basis for the fees billed under Part 70 in 1994.
<b>Year 1994</b>	
<b>February 18, 1994</b>	NCA #2 submitted its annual Relative Accuracy Test (RATA) as required in Condition H.1 of the OP. Results reflected that CEMS was functioning well.

<b>April 6, 1994</b>	NCA #2 responded to CCHD-APCD's letter of March 22, 1994 regarding reporting requirements for the SCR Field Test . Submitted items for clarification: <ol style="list-style-type: none"> <li>(Item 2) Earliest date of the field test to be conducted which is April 5, 1995. NCA #2 would like to conduct for a full-year test which would conclude June 30, 1995.</li> <li>(Item 4) Alternative NOx control scenarios could be considered after the field test is completed. NCA #2 understood that it could investigate and propose field test, options for reducing emissions other than through increased NOx control using SCR technology and EPA and the District will review BACT under the circumstances.</li> <li>Modify overall 30-day average emissions to average emissions while SCR in operation and add average emissions when SCR not in operation.</li> </ol>
<b>July 1, 1994</b>	Agreement to Revised Permit Conditions for Permit Nos. A39101 through A39103, inclusive (GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines) was issued to NCA #2.
<b>November 4, 1994</b>	NCA #2 submitted to CCHD-APCD an Application for ATC Modification #1 due to additional unit of Caterpillar Diesel 3406B D1 emergency Generator for the Natural Gas-Fired Cogeneration Plant located adjacent to PABCO Gypsum Plant about 3 miles from the nearest boundary of Nellis Air Force Base approximately 12 miles East of Las Vegas.  NCA #2 submitted to CCHD-APCD an Application for ATC Modification #2 due to additional unit of Detroit Diesel 10647312 emergency Generator for the Natural Gas-Fired Cogeneration Plant located adjacent to PABCO Gypsum Plant about 3 miles from the nearest boundary of Nellis Air Force Base approximately 12 miles East of Las Vegas.
<b>November 28, 1994</b>	Operating Permit # A39104 for Emergency Generator, Detroit Diesel; 330 BHP was issued to NCA #2.  Operating Permit # A39105 for Emergency Generator, Caterpillar Diesel; 440 BHP was issued to NCA #2.
<b>November 30, 1994</b>	CCHD-APCD informed NCA #2 on the review of the federal Acid Rain Program and has made a preliminary determination that NCA #2's facility is affected under the program.
<b>December 7, 1994</b>	NCA #2 submitted a protocol for the performance of Relative Accuracy Tests (RATA) at the Black Mountain cogeneration facility which is scheduled on January 18, 1995.
<b>December 20, 1994</b>	NCA #2 responded CCHD-APCD's letter of November 30, 1994 that its facility is affected by the federal Acid Rain Program. NCA #2 informed that it is a cogeneration facility as defined in 40 CFR 72.6 and should be exempt from the Acid Rain Program. The three natural gas combustion units at the cogeneration facility were constructed after November 15, 1990 and each of them supplies less than 219,000 MW to the utility system. An order granting the application for certification as a qualifying cogeneration facility was issued to Bonneville Nevada Corporation (BNC - which was its former name) by EPA.
<b>Year 1995</b>	
<b>January 12, 1995</b>	NCA #2 submitted its annual Relative Accuracy Test (RATA) as required in Condition H.1 of the OP.
<b>July 12, 1995</b>	NCA #2 informed EPA Region 9 that it has requested a 2-year extension on the installation of SCRs at the cogeneration facilities for the purpose of researching and determining definite costs, operating parameters and emission guarantees on the SCR alternatives and by December 31, 1995, NCA #1 and NCA #2 would have selected NOx control equipment fully operational on all turbine emission stacks.
<b>July 14, 1995</b>	CCHD-APCD informed EPA Region 9 on NCA #2's request submitted to APCD to

	<p>amend the schedule for installing Selective Catalytic Reduction (SCR) on 5 turbines operating at the two sites. APCD informed that NCA #2's understanding that they should prepare additional specifics on alternative scenarios to SCR. During the next 2 years, NCA #2 intend to further evaluate these 3 technologies and choose one and install the selected control unit over a 3-year period as required in the current ATC and OP.</p>
<b>August 21, 1995</b>	<p>EPA Region 9 sent a memo to NCA #1 and NCA #2 regarding EPA's concern that the BACT is installed at the facility and NCA's interest in pursuing control technology other than selective reduction SCR and any agreement by EPA to extend the timeline would require the following minimum criteria:</p> <ol style="list-style-type: none"> <li>1. NCA's agreement to accept a 9 ppm concentration limit and corresponding mass emission rate in the ATC.</li> <li>2. Agreement by the source to continue operation of the existing SCR until the source installs other control equipment.</li> <li>3. NCA's agreement to specific dates and deadlines in the modified permit.</li> </ol>
<b>September 18, 1995</b>	<p>CCHD-APCD informed EPA Region 9 that the memo sent to NCA #1 and NCA #2 regarding Condition B needs to be rephrased to correspond to the methodology used to conduct the SCR experiment during the last 2 years. The experiment indicates that NOx emissions should remain under 9 ppm when the SCR unit is on line. The emissions would exceed 9 ppm but be under 20 ppm, when the unit is not on line. Therefore, condition B should include that the exhaust gases shall not exceed 9 ppm for more than 10% of the operating hours in a given quarter, with the exception of those hours when Georgia Pacific is not accepting exhaust gases due to an outage and the SCR is not in service due to low exhaust temperatures. APCD asked EPA that if this proposed changes is satisfactory, then APCD would ask NCA #1 and NCA #2 to submit a final application to modify the conditions of the ATC and OP.</p>
<b>October 12, 1995</b>	<p>ATC Modification #3 was issued to NCA #2 for the Ecodyne 2CFF-60595L2610-20 Cooling Tower with Drift Eliminators.</p> <p>CCHD-APCD informed NCA #2 that the Part 70 Permit Application submitted on October 19, 1995 is incomplete and the following tasks have to be performed:</p> <ol style="list-style-type: none"> <li>1. Amending the Existing Agreement to Permit Conditions</li> <li>2. Presentation of Compliance Schedule</li> <li>3. Inclusion of additional applicable requirements not listed in the application</li> </ol>
<b>October 27, 1995</b>	<p>APCD Director informed the Chief Health Officer that a Corrective Action Order for NCA #1 and NCA #2 to assure that BACT is being met and to establish a compliance plan for installing BACT for minimizing NOx emissions from both facilities for publication on November 17, 1995.</p>
<b>November 17, 1995</b>	<p>Announcement of finding regarding SCR Experiment and a Notice of Proposed Amendments to Operating Permit conditions for NCA #1 and NCA #2 was issued in the Las Vegas Review Journal. The District found that the field test for SCR met the criteria for acceptance and the test is deemed a success. The purpose of the proposed amendments to the permit conditions was to assure that NOx emissions can reach the limitation of 9 ppm and establish a schedule for installing controls which can sustain compliance with 9 ppm at both facilities</p>
<b>December 5, 1995</b>	<p>NCA #1 and NCA #2 informed CCHD-APCD that the Permittee withholds the comments on the proposed amendments because of the appeal pending before CCHD APC Hearing Board regarding the success of the SCR Field Test. The Permittee has indicated its right to comment on the proposed amendments after an appeal of the SCR Field Test results has been decided by the Board.</p>
<b>December 13, 1995</b>	<p>EPA Region 9 informed CCHD-APCD that it has received the Announcement of finding regarding SCR Experiment and a Notice of Proposed Amendments to Operating Permit conditions for NCA #1 and NCA #2 and that it reiterated its</p>

	support for the District's decision that the selective catalytic reduction (SCR) unit at the NCA #1 facility has operated successfully according to the permit conditions.
<b>Year 1996</b>	
<b>January 8, 1996</b>	CCHD-APCD informed NCA #2 that on November 17, 1995, the District published a two-part Notice of Proposed Action. The first part contained a finding that SCR experiment was a success. The second part contained proposed amendments to operating permit conditions, including a schedule for research and alternative control technology and the installation of control technology to reduce NOx emissions. APCD also informed that it has reviewed a Notice from NCA #2 appealing the finding. The District has received a letter from EPA supporting the District's action as an essential step to ensure that NCA meets the intent of the original agreement and applies BACT to control NOx emission at the facility and therefore the District is issuing the revised operating permit conditions.
<b>January 9, 1996</b>	Protocol for Performing the Relative Accuracy Test (RATA) at NCA #2 facility was submitted to CCHD-APCD.
<b>March 1, 1996</b>	NCA #2 submitted the results of the annual Relative Accuracy Test (RATA) as stipulated in condition H.1 of the Operating Permit.
<b>March 21, 1996</b>	CCHD-APCD informed NCA #2 on the appeal of SCR field Test success that NCA #2 has decided to request a 6-month continuance of the SCR Field Test. The District agreed to a postponement of the submittal of the rebuttal until a date determined by the APC Hearing Board.
<b>March 27, 1996</b>	EPA Region 9 sent a letter to CCHD-APCD explaining its position on the BACT requirement for the NCA#2 facility and strongly urged the district to reject NCA's request for extension of time to meet BACT requirements since there has been a 6-year delay in installing the required control technology.  NCA #2 requested CCHD-APCD the issuance of an OP for the cooling tower.
<b>May 1, 1996</b>	Operating Permit with Conditions A391 (Modification #3) was issued to NCA #2.
<b>June 5, 1996</b>	NCA #2 informed CCHD-APCD that it remained committed to entering a settlement agreement with the District in lieu of litigation to produce a resolution identifying SCR as control technology that is inappropriate for NCA's facilities and supports the district's conclusion that steam injection is the appropriate NOx emission control technology.
<b>June 6, 1996</b>	EPA Region 9 responded to CCHD-APCD's letter of June 5, 1996 concerning the installation of Selective Catalytic Reduction (SCR) at the NCA facilities. EPA indicated its support for the District's position that the test was a success as well as EPA's position that SCR is BACT for the NCA facilities. EPA believed that SCR is BACT for NCA's facilities and that it is not appropriate for the District to reconsider this issue since the District correctly decided that the SCR test was a success and urge the CCHD-APC Hearing Board to uphold the District's decision.
<b>July 11, 1996</b>	A Settlement Agreement was signed between NCA #2 and CCHD for the installation of a selective catalytic reduction equipment at the facility.
<b>July 26, 1996</b>	NCA #2 submitted an Application for ATC Modification # 4 to CCHD-APCD and requesting that the Operating Permit be revised to incorporate the various terms and conditions.
<b>August 21, 1996</b>	NCA #2 Legal Counsel (Harding Lawson Associates) informed CCHD-APCD that NCA does not support the condition of the ATC requiring NCA to use raw data from CEMS for direct compliance versus compliance indicating. NCA's view was that CMS should be classified as compliance-indicating, and not direct compliance. The NCA turbines are subject to Subpart GG of the 40 CFR Part 60. Subpart GG imposes emission limits on both SO <sub>2</sub> and NOx emissions and requires that CMS be installed for NOx. However, it is clear from the NSPS rules that the CMS data is not intended to be used to directly determine compliance and therefore requested that the CMS be used as an indication of compliance.

<b>August 26, 1996</b>	NCA #2 informed CCHD-APCD that it is in the process of implementing changes to its CEMS in compliance with the OP modification conditions. Since its existing CEMS analyzers were not physically affected, changed or modified, Relative Accuracy Test Audit (RATA) was not needed for these reporting changes.
<b>August 29, 1996</b>	CCHD-APCD issued ATC that fails to provide for installation of SCR Systems, or an equivalent system, on three turbines at NCA #2 facility. The ATC was issued in contravention of APC Regulations Sec. 15.6.3.2 through Sec. 15.6.3.5 that require Notice of Proposed Action and to EPA of an application for permit and of the operating permit conditions. The ATC is ineffective and invalid.  ATC Modification #4 (A-391) was issued to NCA #2 for the installation of a Cooling Tower (Ecodyne 2CFF-60595L2610-20 with Drift Eliminators)  Operating Permit with Conditions A391 (Modification #4) was issued to NCA #2.
<b>September 24, 1996</b>	EPA sent a copy of the Notice of Violation to CCHD-APCD and NCA #2 pursuant to Sec. 113 (a)(1) of CAA. EPA found that both facilities have been and are in violation of CAA's PSD as incorporated into the federally approved implementation plan for the State of Nevada as set forth in Sec. 15 of the APC Regulations such as review of the District's determination regarding the success of the SCR Field Test and for its failure to order the Selective Catalytic Reduction (SCR) system as BACT for NOx emissions within 60 days of final order determining that the SCR Field Test was a success.
<b>September 26, 1996</b>	NCA #2 sent a check in the amount of \$ 215,000 to CCHD-APCD in accordance with the Settlement Agreement between CCHD-APCD and NCA on July 11, 1996. The Agreement provided, however, that the contribution obligation would be suspended if any "action" was filed against NCA requiring that NCA install SCR or other NOx emission control technology to monthly operation of either plant to reduce NOx emissions. NCA has been advised that EPA has installed such action against NCA. If this action is filed before October 1, 1996, NCA has no obligation to make the contributions contemplated by the Agreement until that action is resolved.
<b>October 4, 1996</b>	The city of North Las Vegas informed CCHD-APCD regarding the road paving projects funded by NCA #1 and NCA#2 and requested the remit of \$ 38,069.14 to the City of North Las Vegas' PM-10 Paving Account so that the funds can be assessed to begin the paving projects.
<b>October 7, 1996</b>	NCA #2 informed CCHD-APCD that it will begin its reporting requirements of the revised OP on January 1, 1997. A new Data Acquisition Unit (DAU) and software was needed for the CEMS and NCA has to submit a revised CEMS protocol Program which would outline the new methods in which the data is gathered and presented in the quarterly reports that will be submitted to APCD.
<b>November 13, 1996</b>	NCA#1 and NCA#2 requested a variance for each facility to operate without a CEMS along with the DAU for a period of 7 days. The variance was needed for each facility to remove the existing DAU from the service to install and troubleshoot the new system.
<b>November 25, 1996</b>	CCHD-APCD informed NCA#1 and NCA#2 that both facilities are permitted to operate without CEMS and its DAU in order to install and troubleshoot a new system. APCD has approved the operation without CEMS and DAU from December 9, 1996 to December 15, 1996 for NCA#2 and from December 16, 1996 to December 22, 1996 for NCA #1.
<b>Year 1997</b>	
<b>April 14, 1997</b>	NCA #2 reported to CCHD-APCD that the facility has experienced an 8-hour rolling incident which exceeded the facility's NOx limit of 22 ppm which occurred on March 14, 1997.
<b>October 17, 1997</b>	NCA #2 informed CCHD-APCD about its plan to replace the building which houses

	the CEMS since the current building is too small for the equipment. The CEMS has to be out of service for 8 days to transfer the analyzers and to install tubing and wiring to the new building. The transfer occurred from October 28, 1997 to November 4, 1997.
<b>December 23, 1997</b>	NCA #2 submitted to EPA Region 9 a copy of the ATC Modification to ensure that the permit is issued to meet the installation and operation dates set forth in the Draft Consent Decree.
<b>Year 1998</b>	
<b>March 4, 1998</b>	CCHD-APCD sent a letter of completeness of the ATC Modifications #4 and #5 to NCA #2.
<b>March 8, 1998</b>	Notice of Proposed Action for NCA #2's ATC Modification involving the installation of three (3) Selective Catalyst Reduction(SCR) limits of the three (3) heat recovery steam generators located at the facility.
<b>April 7, 1998</b>	NCA #2 responded to the concerns raised and agreements reached during the March 24, 1998 Conference Call regarding the Draft Consent Decree for the NCA facilities.
<b>April 9, 1998</b>	ATC Modification #5 (A-391) was issued to NCA #2 for the installation of a Selective Catalyst Reduction (SCR) unit on each of the three (3) Heat Recovery Steam Generators.
<b>May 18, 1998</b>	CCHD-APCD informed NCA #2 regarding the Notices of Appeal for NCA facilities for the issuance of ATC Modification #5 for NCA #2 on April 9, 1998 which has not become effective until signed by both parties. APCD suggested NCA #2 to sign the ATC and maintain the appeal status to resolve the issues through APCD and EPA.
<b>May 21, 1998</b>	NCA #2 sent to CCHD-APCD a list of agreements reached during the May 11, 1998 meeting. List of agreements are the following: <ol style="list-style-type: none"> <li>1. Start-up period shall end when heat recovery steam generators generate intermediate pressure steam at 450 psig and superheat at 550 deg. F.</li> <li>2. Rolling average to determine compliance with NOx emission limits.</li> <li>3. Averaging of SCR operational time and 80% of the time that the gas turbines are in operation.</li> <li>4. Testing of cooling tower waters be omitted.</li> </ol>
<b>July 10, 1998</b>	ATC Modification #5 (Source # A391) was issued by CCHD-APCD for the installation of a Selective Catalyst Reduction Unit on each of the three (3) Heat Recovery Steam Generators to NCA #2.
<b>September 23, 1998</b>	NCA #2 submitted to CCHD-APCD information on the frequency of measurement for TDS monitoring of the Cooling towers for both facilities.
<b>October 21, 1998</b>	CCHD-APCD required NCA #2 to obtain and/or redeem emissions reduction credits (ERCs) in the amount of 336.8 tons for the year 1997.
<b>November 17, 1998</b>	CCHD-APCD submitted its comments regarding EPA's latest comments on NCA application sent by EPA on November 12, 1998.
<b>November 25, 1998</b>	CCHD-APCD informed NCA #2 that performance test report dated November 18, 1998 submitted by Parsons Engineering Science for NCA's three gas turbines retrofitted with SCR units were found acceptable by APCD.
<b>December 22, 1998</b>	CCHD-APCD informed NCA #2 that the performance test protocol dated December 15, 1998 submitted by Parsons Engineering Science for conducting a Relative Accuracy Test audit (RATA) on 3 natural gas-fired turbines has been found acceptable by APCD.
<b>Year 1999</b>	
<b>January 11, 1999</b>	CCHD-APCD informed NCA #2 that the protocol for the quality assurance and quality control (QA/QC) plan for the ammonia slip Predictive Emissions Monitoring System (PEMS) has been found acceptable by APCD.
<b>January 25, 1999</b>	Notice of Proposed Action was published in the Las Vegas Review Journal for the installation of a Selective Catalyst Reduction Unit on each of the three (3) Heat Recovery Steam Generators to NCA #2.

<b>January 29, 1999</b>	<p>US Attorney General at the request of EPA filed a civil action pursuant to Sec. 113 (b) of CAA against NCA (1 and 2) facilities. The PSD violations at NCA #2 facility were the following:</p> <ol style="list-style-type: none"> <li>1. NCA #2 PSD permit contained limitations including an appeal process before the CCHD-APCD Hearing Board that was limited to review of the District's determination regarding the success of the SCR Field Test and an acquisition and installation schedule for SCR as BACT for the 3 gas combustion turbines at NCA #2 facility and if the SCR Field Test was deemed a success by the District.</li> <li>2. NCA #2 has violated the terms and conditions of the PSD Permit and the Nevada SIP by failing to comply with the Schedules set forth in NCA #2 PSD permit for the acquisition and installation of SCR at the facility. Specifically, NCA #2 has failed to order the SCR Field Test was a success.</li> <li>3. NCA #2 has violated the district PSD Regulations and the Nevada SIP, by commencing construction of its facility without applying BACT for the control of NOx emissions from the facility as required by Sec. 15.13.9.2 of APC Regulations.</li> <li>4. Pursuant to Sec. 113 (b) of CAA, NCA #2 is subject to permanent injunction against it to require installation and operation of BACT for the control of NOx and it maybe assessed a civil penalty of not more than \$ 25,000 penalty for each violation of applicable SIP provisions in Sec. 15 of APC Regulations. Relief requested to assess a civil penalty of not more than 4 25,000 per day of violation by NCA #2 for violation of Nevada's SIP and the Act, and to compel NCA #2 to comply with its 1991 PSD permit, the Nevada SIP and the Act to avoid violations in the future.</li> </ol>
<b>February 3, 1999</b>	<p>US DOJ-Environmental Enforcement Division notified the NDEP regarding the Notice of Proposed Commencement of a Civil Action against NCA #1 and #2 facilities. DOJ alleged that NCA facilities has violated CAA by failing to install BACT for the removal of NOx emissions from the exhaust of 5 natural gas turbines as required by the District.</p>
<b>February 8, 1999</b>	<p>NCA #2 Legal counsel (McCutchen, et al) responded to EPA's counter proposal to modify the draft Consent Decree relating to the installation and operation of SCR in both facilities.</p>
<b>March 9, 1999</b>	<p>ATC Modification #5 (Source # A391) was issued by CCHD-APCD for the installation of a Selective Catalyst Reduction Unit on each of the three (3) Heat Recovery Steam Generators to NCA #2.</p>
<b>March 10, 1999</b>	<p>CCHD-APCD informed that the RATA test results conducted for NCA #2 on January 19 and 20, 1999 are acceptable to APCD.</p>
<b>April 14, 1999</b>	<p>NCA #2 informed CCHD-APCD that the installation of Selective Catalyst Reduction (SCR) systems for the reduction of NOx emissions for NCA #2 has requested the issuance of an OP for the SCR systems.</p>
<b>April 20, 1999</b>	<p>ATC/OP (A391) Modification #5 was issued to NCA #2 for the installation of a Selective Catalyst Reduction Unit on each of the 3 Heat Recovery Steam Generators.</p>
<b>June 21, 1999</b>	<p>CCHD-APCD informed NCA #2 that the Relative Accuracy Test Audit (RATA) of the Predictive Emissions Monitoring System(PEMS) test results submitted by Parsons Engineering Science on June 7, 1999 has been found acceptable by APCD.</p>
<b>August 27, 1999</b>	<p>Motion to Enter Consent Decree representing a settlement of civil claims of the US against NCA facilities for violating CAA and Nevada SIP was filed by the US DOJ-Environmental Enforcement Division on behalf of EPA.</p>
<b>September 30, 1999</b>	<p>NCA #2 informed CCHD-APCD that the Consent Decree filed by US DOJ-Environmental Enforcement Division on behalf of EPA has been completed through payment of civil penalty of \$ 200,000 in settlement of the violations.</p>
<b>December 23, 1999</b>	<p>CCHD-APCD informed NCA #2 that the RATA test protocol dated December 15, 1999 for by Parsons Engineering Science for the effluent stack of Units A, B and C</p>

	which are General electric LM-2500, Combustion Natural Gas Turbines equipped with Heat Recovery Steam Generators (HRSG) and retrofitted with SCR to control NOx emissions has been found acceptable.
<b>Year 2000</b>	
<b>March 21, 2000</b>	CCHD-AQD informed NCA #2 that the RATA test results dated March 3, 2000 submitted by Parsons Engineering Science for the effluent stack of units of A, B and C which are General electric LM-2500, Combustion Natural Gas Turbines equipped with Heat Recovery Steam Generators (HRSG) and retrofitted with SCR to control NOx emissions has been found acceptable.
<b>June 30, 2000</b>	CCHD-AQD informed NCA #2 of the Administrative Revisions of the ATC/OP Modification #5 (A-391).
<b>July 19, 2000</b>	NCA #2 submitted to CCHD-APCD its comments regarding the Administrative Revision changes to ATC/OP (A-391) on the allowable PM-10 emissions of its cooling tower and requested that an ATC/OP be re-issued to reflect the proper emission limits of 128.6 lbs/day of PM-10 from the cooling tower which is same as before.
<b>July 28, 2000</b>	CCHD-AQD informed NCA #2 of the revisions of the ATC/OP (A-391) regarding the allowable PM-10 emissions of its cooling towers and informed that the permit has been amended back to reflect 128.6 lbs/day emissions which is consistent with the control requirements section of the permit.
<b>Year 2001</b>	
<b>January 17, 2001</b>	CCHD-AQD informed NCA #2 that the RATA dated January 5, 2001 submitted by Parsons Engineering Science for the CEMS has been found acceptable for determining the relative accuracy of the installed CEMS.
<b>March 16, 2001</b>	Application to modify facility by adding one peaker unit. Modification 6
<b>August 7, 2001</b>	Request for daily cooling tower water sampling.
<b>September 18, 2001</b>	Withdrew modification request to add peaker unit, requested Modification 6 to continue modernizing permit and water sampling change to daily.
<b>Year 2002</b>	
<b>February 26, 2002</b>	ATC/OP 00391 Modification 6 issued

**Table III-2: Permits Issued to NCA #2**

YEAR	DATE ISSUED	PERMIT NUMBER	DESCRIPTION
1990	06/12/90	A-391	Agreement to the ATC (Reg. A391) was issued to Bonneville Nevada Corporation - Cogeneration Plant consisting of: Three (3) GE LM-2500 Turbine Generators; Three (3) Heat Recovery Steam Generators; and One (1) Steam Turbine
1991	01/17/91	A-391	ATC Reg. #A391 was issued to NCA #2 Cogeneration Plant consisting of: Three (3) GE LM-2500 Turbine Generators; Three (3) Heat Recovery Steam Generators; and One (1) Steam Turbine
1992	07/15/92	A-391T1	Operating Permit # A-391T1 for Caterpillar Generator Set - 600-800 HP was issued. <i>This Permit expired on July 15, 1993.</i>
	11/23/92	A39101 to A39103	Agreement to Operating Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines was issued.
	12/14/92	A39101	Operating Permit # A39101 for Combustion Gas Turbine, GE LM-2500 - PE MG5602, 29,500 BHP; S/N: 481-650 A
		A39102	Operating Permit # A39102 for Combustion Gas Turbine, GE LM-2500 - PE MG5602, 29,500 BHP; S/N: 481-654 B
		A39103	Operating Permit # A39103 for Combustion Gas Turbine, GE LM-2500 - PE MG5602, 29,500 BHP; S/N: 481-655 C
1993	05/11/93	A391	ATC Modification to increase the permitted emission limit for PM from 1.0 to 5.0 lb/hr/CTG was issued.
	05/25/93	A39101 to A39103	Agreement to Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines was issued.
	09/03/93	A39101 to A39103	Agreement to Revised Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines was issued.
	09/30/93	A39101 to A39103	Agreement to Revised Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines was issued.

YEAR	DATE ISSUED	PERMIT NUMBER	DESCRIPTION
1994	07/01/94	A39101 to A39103	Agreement to Revised Permit Conditions for Permit Nos. A39101 through A39103, inclusive for the GE LM-2500 Combustion Gas Turbines (CGT), GE LM-2500 Combustion Gas Turbines, and GE LM-2500 Combustion Gas Turbines was issued.
	11/28/94	A39104	Operating Permit # A39104 for Emergency Generator, Detroit Diesel; 330 BHP was issued.
		A39105	Operating Permit # A39105 for Emergency Generator, Caterpillar Diesel; 440 BHP was issued.
1995	10/12/95	A391	ATC Modification #3 for Ecodyne 2CFF-60595L2610-20 Cooling Tower with Drift Eliminator was issued.
1996	08/29/96	A391	ATC Modification #4 for Ecodyne 2CFF-60595L2610-20 Cooling Tower with Drift Eliminators was issued.
		A391	Operating Permit with Conditions (A391) (Modification #4 was issued.
1999	04/20/99	A391	ATC Modification #5 (A-391) for the Installation of a Selective Catalyst Reduction (SCR) Unit on each of the three (3) Heat Recovery Steam Generators was issued.
2002	02/26/02	A391	ATC Modification # 6 for daily water sampling was issued.

An agreement to conditions of the initial Authority to Construct was first proposed by the Air Quality Division (now DAQM) on June 12, 1990. EPA Region IX reviewed the issuance of this ATC and determined that the proposed ATC failed to comply with the requirements of Part C of the Clean Air Act and applicable Clark County SIP. NCA #2 did not perform an adequate BACT analysis and the District did not make an adequate BACT determination for the control of NOx emissions.

The District and EPA identified Selective Catalytic Reduction (SCR) as the only technology which could potentially achieve a NOx emission limit of 9 ppm. NCA #2 questioned the reliability of the technology. An agreement was reached for a two year SCR field test. A condition for the issuance of the ATC required an SCR unit shall be installed on one of the gas turbines and the performance over a two-year field test would be used to demonstrate the efficiency of the technology.

According to the conditions of the ATC, the determination of BACT for NOx would be made pending the results of the two-year test. If the results demonstrated that the SCR unit attained the acceptable criteria, NCA#1 would retrofit SCR on the remaining two turbine/HRSG units at the facility. If the SCR unit did not meet the criteria, NCA would be able to remove the SCR test unit and the NOx emission limits would remain at 25 ppmvd.

**Table III-5: Acceptability Criteria for SCR Performance After Field Test**

High Ozone Period (4/15-10/31)	Off Ozone (11/1-4/14)
9 ppm or less of NOx, as measured on an hourly basis for any 72 hours during a 30-day average.	9 ppm or less of NOx, as measured on an hourly basis for any 72 hours during a 30-day average.
12 ppm or less NOx based upon a 30-day	12 ppm or less based upon a 30-day average

average	
The molar ratio of NH <sub>3</sub> :NO <sub>x</sub> must be less than or equal to 1.1:1.0 except during periods when hourly data indicates NO <sub>x</sub> emission exceed 9 ppm	The molar ratio of NH <sub>3</sub> :NO <sub>x</sub> must be less than or equal to 1.1:1.0 except during periods when hourly data indicates NO <sub>x</sub> emission exceed 9 ppm
NH <sub>3</sub> slip must not exceed 20 ppmv	NH <sub>3</sub> slip must not exceed 20 ppmv

**Operating Permits – 12/14/92**

Three Section 16 Operating Permits with conditions were issued to NCA #2 for the operation of the three gas turbines on December 14, 1992. The PTE for criteria pollutants and the conditions for the two-year SCR field test were the same as listed in the initial ATC.

**Authority to Construct 5/11/93 and Operating Permit Conditions Modification #1 5/25/93**

This permitting action increased the PM<sub>10</sub> PTE from 1.00 pound per hour and 13.14 tons per year to 5 pounds per hour and 65.70 tons per year to account for the formation of ammonia salt due to the operation of the SCR.

**Authority to Construct/Operating Permit – 11/28/94**

This permit was issued to allow the installation and operation of a Detroit Emergency Generator-330 hp and a 440 hp Caterpillar Emergency Generator. Both generators were limited to 150 hours per year each of operation for testing and maintenance purposes only. The sulfur content of the diesel fuel was limit to less than 0.05 percent by weight. The conditions relating to this emission unit and its corresponding PTE have remained the same and will be carried forward in the Part 70 OP.

**Authority to Construct, Modification #3 10/12/95 and ATC/OP Modification #4 8/29/96**

An existing cooling tower was determined as a new emission unit for PM<sub>10</sub> and subject to APCR Sections 12 and 16. Based upon results of performance testing, NCA #2 agreed to a reduction of the permitted PM<sub>10</sub> PTE of the three existing gas turbines and to install a drift eliminator (0.0007%) on the cooling tower for a zero net emissions increase. The total PM 10 PTE for the facility remained at 65.7 tons per year.

**Authority to Construct Modification #5 4/09/98 reissued 7/10/98**

These permits reflect the revision, whereby SCR or other equivalent systems were not required to be installed as BACT for NO<sub>x</sub>. In addition, the ATC/OP issued was not proposed through public notice or the EPA as required in the SIP approved Section 12.6.3.2 – 15.6.3.5. This ATC/OP issued as a settlement agreement between NCA #2 and the Health District APCD was not recognized by the EPA. Region IX deemed the ATC/OP invalid in a NOV issued to NCA February 9, 1999.

**Authority to Construct Modification #5 3/9/99**

**Authority to Construct/Operating Permit Modification #5 4/20/99**

Under the Clean Air Act and local air regulation, all emission units must meet Best Available Control Technology (BACT) emission limits. As a result of the NOV issued to NCA#2 for failing to install SCR on the turbines, and the agreements reached between EPA and the facility in the Final Consent Decree, APCD proposed an ATC/OP that met the requirements of the Consent Decree, including installation of SCR units on each turbine by April 30, 1999. On April 13, 1998, following a January 12, 1998 Public Notice in the *Review Journal*, APCD issued ATC modification 5 to NCA #2. NCA#2 did not sign the permit as required in Section 12, and filed an appeal of the issuance

on May 6, 1998 regarding concerns with certain conditions. Several meetings between the EPA, the local regulatory authority and the applicant ensued, with a final ATC/OP being issued on April 20, 1999.

#### **Authority to Construct/Operating Permit Modification 6 2/26/02**

On March 16, 2001 NCA #2 proposed the addition of a peaking unit to its facility as Modification 5. On August 7, 2001, as part of the modification, NCA #2 requested a reduction in the sampling frequency of the cooling tower blowdown water from six times per day to once a day citing the frequency as excessive and burdensome. Justification for this reduction is discussed in Section 4 of this document.

NCA #2 withdrew its application to expand the facility on September 18, 2001, but requested DAQM to continue processing the change in the sampling frequency condition in its existing ATC/OP. This action is not a modification by definition in Clark County Air Quality Regulation Section 0 or Section 1 as there is no change in operations that may result in an increase in emissions of any criteria pollutant.

Also through this permitting action, DAQM is reviewing the ATC/OP for NCA #2 to ensure compliance with all applicable regulations and requirements in preparation to complete the Title V permit. Permitting deficiencies and changes addressed in this modification are:

- Record keeping and reporting requirements updated to meet current standards and language;
- Increment consumption included in the ATC/OP as required by AQR Section 12;
- Hourly PTEs added to replace the existing pounds per day limits;
- PTE for turbine NO<sub>x</sub> emissions broken down to reflect specific operational limits with SCR and operational limits without SCR as allowed by the previous permit and the 1999 EPA Consent Decree with no actual change in facility NO<sub>x</sub> PTE;
- Enforceable emission limits for 216 hours of turbine only diesel operation for emergency purposes listed separately; and
- Hazardous Air Pollutants (HAP) delineated and corrected in the ATC/OP.

This permit does not add any new emission units, change any previously permitted operating scenarios or increase any emission limits.

**Table 111-6: Maximum Facility Potential to Emit (PTE) in Tons Per Year**

<b>PM10</b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>x</sub></b>	<b>VOC</b>	<b>HAP</b>	<b>NH<sub>3</sub></b>
<b>67.10</b>	<b>166.32</b>	<b>140.60</b>	<b>9.22</b>	<b>26.28</b>	<b>6.01</b>	<b>83.46</b>

#### **E. Performance Testing**

##### **Applicable Requirements from the February 26, 2002 ATC/OP:**

1. Performance testing is subject to 40 CFR 60 Subpart A; 40 CFR 60 Subpart GG; 40 CFR 60 Subpart Dc; and DAQM's Guideline on Performance Testing.
2. Initial performance tests have been conducted and the results accepted on turbine units A001, A002 and A03.
3. Following initial performance testing, subsequent performance tests for VOCs, PM<sub>10</sub>, NH<sub>3</sub> slip, and opacity shall be conducted on all turbine units and associated duct burners every five years. The last performance tests were accepted in February 1999.

4. Performance testing shall be an initial instrument for determining compliance with emission limitations set forth in Section II of this ATC. However, this does not preclude the use of other credible evidence in determining or showing compliance.
5. The owner/operator shall submit for approval a performance testing protocol which contains test, reporting, and notification schedules; test protocols; and anticipated test dates to the DAQM Compliance Reporting Supervisor and to the Enforcement Office of the US EPA, Region IX, at least 45 days and not more than 90 days prior to the anticipated date of the performance test.
6. The Control Officer will consider approving the owner/operator's requests for alternative performance test methods if proposed in writing in performance test protocols.
7. Pursuant to Section 14 of the AQR, a complete and comprehensive final performance test report shall be submitted to the DAQM Compliance Reporting Supervisor within sixty days from the end of each performance test.
8. Table III-D-1 summarizes NO<sub>x</sub>, CO, VOCs, NH<sub>3</sub>, PM<sub>10</sub> and opacity performance test methods.

**TABLE III-7: Performance Testing Requirements (40 CFR 60, Appendix A)**

Test Point	Pollutant	Method
Turbine/HRSG Exhaust Outlet Stack	NO <sub>x</sub>	Chemiluminescence Analyzer (EPA Method 7E)
Turbine/HRSG Exhaust Outlet Stack	CO	EPA Method 10
Turbine/HRSG Exhaust Outlet Stack	VOCs	EPA Method 25a
Turbine/HRSG Exhaust Outlet Stack	NH <sub>3</sub> Slip	Method Pre-Approved by DAQM/EPA
Turbine/HRSG Exhaust Outlet Stack	Opacity	EPA Method 9
Turbine/HRSG Exhaust Outlet Stack	PM <sub>10</sub>	EPA Method 201/201a and 202
Stack Gas Parameters	---	EPA Methods 1, 2, 3, 4

9. Pursuant to Section 4.5 of the AQR, additional or more frequent performance testing may be required by the Control Officer.

#### **F. Operating Scenario**

The primary operating scenario allows for 8,760 hours per year of operation for the gas turbine/HRSG units. The three turbine units without the duct-fired HRSGs may operate a maximum of 216 hours per year on No. 2 fuel oil only in the event of a natural gas emergency, defined as the loss of pipeline gas. The cooling tower may operate 8,760 hours per year. The emergency diesel fire pump and emergency generator may each operate 150 hours per year for testing and maintenance. Emergency operation as defined in Section 0 of the AQR is excluded from emissions monitoring or reporting.

#### **G. Proposed Exemptions**

NCA #2 has not proposed any exemptions.

### **IV. EMISSIONS INFORMATION**

#### **A. Total Facility Potential To Emit**

The facility potential to emit (PTE) for criteria pollutants as presented in the NCA #2 Part 70 Operating Permit application, reflected the permitted emission limits established in the ATC/OP modification 6 issued February 26, 2002. A difference in HAP emissions as listed in the Part 70 application was corrected in ATC/OP modification 6.

**Table IV-1: Maximum Facility Potential to Emit (PTE) in Tons Per Year**

PM10	NOx	CO	Sox	VOC	HAP	NH <sub>3</sub>
67.10	166.32	140.60	9.22	26.28	6.01	83.46

**B. Emission Units and PTE**

The following table summarizes the current PTE for each process point (emission unit). In the table, E.U.# is the DAQM emission unit number.

**Table IV-2: Emission Units at Facility**

E.U. #	DESCRIPTION	SCC #	TYPE <sup>1</sup>
A001	GE LM-2500 Combustion gas turbine #1 Nat. gas 22.2 MW with HRSG, SCR and oxidation catalyst	20100203	TR1, DF1
A002	GE LM-2500 Combustion gas turbine #2, Nat. gas 22.2 MW with HRSG, SCR and oxidation catalyst	20100203	TR1, DF1
A003	GE LM-2500 Combustion gas turbine #3, Nat. gas 22.2 MW with HRSG, SCR and oxidation catalyst	20100203	TR1, DF1
A004	Detroit Diesel Emergency Fire Pump - 300 hp	20100201	DM
A005	Caterpillar Emergency Diesel Generator – 440 hp	20100101	DM
A006	Ecodyne Cooling Tower S/N 2CFF-60595L2610-20	10100601	P1

<sup>1</sup> Type is a designation for Emissions Unit Billing purposes, DM = Deminimus, P1 = Process Equipment, TR1 = Turbine 2.5 Megawatts or larger, DF1 = Duct Firing Unit/Heat Recovery Steam Generator (HRSG). Fees are listed in Section 18 of the AQR. SCR is defined as Selective Catalytic Reduction.

**Table IV-3: Facility PTE Hourly and Tons per Year per Emission Unit**

Emission Units	PM <sub>10</sub>		NOx (SCR) <sup>1</sup>		NOx (no SCR) <sup>1</sup>		CO		SOx		VOC	
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
A001	3.88	17.00	10.30	40.77	21.50	14.13	10.70	46.71	0.69	3.03	2.00	8.75
A002	3.88	17.00	10.30	40.77	21.50	14.13	10.70	46.71	0.69	3.03	2.00	8.75
A003	3.88	17.00	10.30	40.77	21.50	14.13	10.70	46.71	0.69	3.03	2.00	8.75
A004	1.33	0.10	0.00	0.00	13.33	1.00	4.62	0.35	1.20	0.09	0.27	0.02
A005	0.27	0.04	0.00	0.00	8.26	0.62	1.60	0.12	0.53	0.04	0.13	0.01
A006	3.64	15.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>16.88</b>	<b>67.10</b>	<b>30.90</b>	<b>122.31</b>	<b>86.09</b>	<b>44.01</b>	<b>38.32</b>	<b>140.60</b>	<b>3.80</b>	<b>9.22</b>	<b>6.40</b>	<b>26.28</b>
			<b>Total NOx</b>	<b>166.32 tpy</b>								

<sup>1</sup> 7,446 hours of turbine operation with SCR (85 percent) and 1,314 hours of turbine operation with steam injection only (15 percent) pursuant to 1999 EPA consent order and ATC/ ATC/OP 391, Modification 5.

<sup>2</sup> Pounds per hour emissions for turbine units 1-3 calculated to reflect worst-case scenario. Annualized emissions calculated at 67 °F. Diesel generators each limited to 150 hours per year.

**Table IV-4: Facility PTE for anhydrous ammonia (NH<sub>3</sub>)<sup>1</sup>**

Emission Unit	lbs/hr	tpy	ppm
A001	6.35	27.82	20
A002	6.35	27.82	20
A003	6.35	27.82	20
<b>Total</b>	<b>19.05</b>	<b>83.46</b>	-----

<sup>1</sup> Based upon 7,446 hours of SCR operation (85 percent of operating time) pursuant to 1999 EPA consent order and ATC/OP 391, Modification 5.

**Table IV-5: Enforceable Concentration Limitations For Each Turbine and Duct Burner Unit, (ppmvd @ 15 percent oxygen), 3-Hour Average**

	NOx	CO	NH <sub>3</sub>	VOC	PM <sub>10</sub>
With SCR	<12	23	20	0.0041lb/MMBtu	20.4 lb/hr
Without SCR	<25	23	0	0.0015lb/MMBtu	14.1 lb/hr

**Table IV-6: Estimated Hazardous Air Pollutant Emissions (HAPs), Per Turbine, Tons Per Year<sup>1</sup>**

HAP	1-Turbine w/ HRSG Unit Natural Gas tpy	Emission Factor lb/MMBtu	2- Emer. Generators tpy	Emission Factor lb/MMBtu
Formaldehyde	0.627	7.1 x 10 <sup>-4</sup>	0.004	7.89x10 <sup>-4</sup>
Benzene	0.069	1.2 x 10 <sup>-5</sup>	<0.002	7.76x10 <sup>-4</sup>
Acrolein	0.006	6.4 x 10 <sup>-6</sup>	-----	1.20x10 <sup>-5</sup>
Naphthalene	0.003	1.3 x 10 <sup>-6</sup>	-----	6.10x10 <sup>-4</sup>
Toluene	0.465	1.3 x 10 <sup>-4</sup>	<0.002	3.40x10 <sup>-3</sup>
Propylene Oxide	0.661	2.9 x 10 <sup>-5</sup>	<0.002	
Acetaldehyde	0.063	4.0 x 10 <sup>-5</sup>	<0.002	2.00x10 <sup>-4</sup>
Xylenes	0.108	6.4 x 10 <sup>-5</sup>	<0.002	1.10x10 <sup>-3</sup>
Sub TOTAL TPY	<b>2.00</b>	-----	<b>0.014</b>	-----
<b>TOTAL for facility</b>	<b>6.01 TPY</b>			

<sup>1</sup> Emission factors from AP-42, Tables 3.1-3 and 3.3-2 (Rev. April, 2000.) Only those HAPs with a PTE of at least one pound per year are listed.

HAP emissions were revised from the existing permit and corrected using the emission factors from AP-42, Tables 3.1-3 and 3.3-2 (Rev. April, 2000.) Only those HAPs with a potential to exceed 0.0005 tons per year (1.0 pounds per year) are listed. These factors are being used by DAQM to more accurately determine HAP emissions and possible source subjectivity to MACT standards per

the April 2001 promulgated rule. This facility will not emit more than 10 tpy of any one HAP or 25 tpy in combination, and is therefore not subject to MACT for combustion turbines.

#### **Insignificant (de minimus) emission units at facility**

There were 14 emission units listed in the Part 70 Operating Permit application. None are large enough or otherwise qualify as emission units to be included in the PTE of the facility.

Diesel storage tank: A 250,000 gallon vertical diesel storage tank is on site. Potential emissions are based upon the permitted use of No. 2 fuel oil by the turbines for 216 hours (9 days) per year, which equates to 810,000 gallons/year. EPA's TANK program was used to determine VOC emissions. No HAPs are emitted from the tank. PTE of the tank: Standing loss = 16 lb/yr  
Withdrawal loss = 0.32 lb/yr for a total of 16.32 lb/yr (0.0082 tpy).

#### Generator Lube Oil Tanks:

Three 215-gallon generator lube oil tanks are on site. All three vent to the atmosphere as a fugitive source of VOCs. Using TANKS, both actual and maximum emissions are estimated at less than 0.004 pounds per year per tank. The total PTE from all three tanks is less than 1 pound per year. This is a de minimus source as defined by Part 70 regulations.

#### Steam Turbine Lube Oil Tank:

This tank has a reported throughput of 330 gallons per year with a maximum throughput of 440 gallons per year. The emissions from this source are less than 1 pound per year.

#### Steam Turbine Lube Oil Conditioner Tank:

This is a 270-gallon tank used for filtering the steam turbine lube oil. It has the same throughput as the tank above and emits less than 1 pound per year.

#### Oil/Water Sump:

This 1,000-gallon sump contains an average of 12 percent lube oil and 88 percent water. Because of the small amount of oil and relatively low volatility of the lube oil, emissions are expected to be less than 1 pound per year.

#### Gas Turbine Lube Oil Tanks:

There are three 150 gallon tanks on site. Actual throughput was reported at 715 gallons per year per tank with a maximum throughput of 1,000 gallons per year per tank. These tanks are equipped with demisters to control oil mist. The emissions from these tanks are de minimus.

#### Calibration Gases:

Nitrogen dioxide (NO<sub>2</sub>) and carbon monoxide (CO) are fed directly into the sensors located in the stacks from cylinders to calibrate the continuous emission monitors. These gases are fed for 5 minutes per day and approximately 4 – 144 cubic feet cylinders of each gas are used every six weeks. This equates to 4,992 cubic feet per year, with the following calculated emissions:

NOx  $4992 \times 0.116 \text{ lb/cu.ft.} = 579.1 \text{ lb/yr} = 0.29 \text{ ton/yr}$  as a fugitive emission.  
CO  $4992 \times 0.078 \text{ lb/cu.ft.} = 389.5 \text{ lb/yr} = 0.1 \text{ tons per year}$  fugitive

#### Fire Water Pump Diesel Storage Tank:

This is a 350 gallon aboveground, horizontal, diesel storage tank. Estimated throughput is 338 gallons per year with maximum throughput of 1,950 gallons per year. Emissions as calculated via TANKS are 0.33 lb of VOC per year.

#### Gasoline Storage and Dispensing:

One 1000-gallon horizontal aboveground gasoline tank is on site for dispensing fuel into company vehicles. A Stage I vapor recovery system is located on the tank. There are no Stage II recovery systems on the nozzles. Estimated VOC emissions using TANKS and an annual throughput of 6,000 gallons per year are 288 lb/yr of VOC and 76.34 lb/yr of HAPs. This is an insignificant source.

#### Unburned Natural Gas Releases:

Natural gas is typically composed of approximately 10 percent non-methane hydrocarbons, which are ozone precursors and regulated under the Clean Air Act. It does not contain any listed HAPs. Unburned natural gas results from the occasional purging of the duct burner bleed valve on the emergency block and bleed system. These emissions were calculated using the pipe and gas pressure and volume, the timing of releases and the Ideal Gas Laws. Estimated gas releases for process produce 8 pounds or 0.004 tons of VOCs per year.

#### Steam and Water Treatment:

Although there are many sources of steam at the facility, the only substance the steam will contain are those added to the water for treatment. A review of the MSDS sheets showed only Hydroquinone as VOC or HAPs. Actual and maximum use of the Betz product is 834 pounds per year (100 gallons per year). With a hydroquinone content of 2.5 percent, assuming 100 percent evaporation rate, a minimum solution absorption rate of 90 percent, the PTE of VOC and HAPs as hydroquinone is 21 pounds per year.

#### Mobile sources:

Mobile sources include a portable engine for welding, forklifts, trucks and other vehicles. These are considered de minimus sources for this facility.

#### Evaporation Pond:

NCA #2 is permitted as a zero discharge facility. The evaporation pond is used to contain all the liquid discharged from the cooling tower and water treatment systems. The pond is approximately 8 acres in surface area and 5 feet deep with a double lined system of hypalon and PVC layers. Emissions from the spray system consist of PM10 but are considered de minimus. No HAPs or VOCs are emitted.

## **V. APPLICABLE REQUIREMENTS**

### **A. Overview of Applicable Requirements**

The DAQM has determined that the following public law, statutes and associated regulations, ordered by hierarchical authority, are applicable requirements:

1. Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq.;
2. Title 40 of the Code of Federal Regulations (CFR), including Part 70 and others;
3. Nevada Revised Statutes (NRS), Chapter 445, Sections 401 through 601;
4. Portions of the AQR that are included in the State Implementation Plan (SIP), for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from Authority To Construct permits and Section 16 OPs issued by DAQM are federally enforceable since these permits were issued pursuant to SIP-included sections of the AQR.

5. Portions of the AQR that are not included in the SIP. These locally applicable requirements are locally enforceable only.

The applicable requirements will be discussed under the following subheadings and in the following order:

- B. Part 70 Operating Permit Requirements**
- C. Locally Applicable Requirements**
- D. SIP Applicable Requirements**
- E. Federal Applicable Requirements** (40 CFR Part 60, 64, and 50)
- F. Authority To Construct Conditions**
- G. Section 16 Operating Permit Conditions**

Please note that no discussion will be accorded to the Nevada Revised Statutes (NRS) or the Clean Air Act Amendments (CAAA) because these public laws establish the general authority for the Regulations mentioned.

DAQM has included the more relevant text from the applicable requirements in this document for convenience. These "in part" sections or subsections are marked with a "p" for partial. Please refer to the appropriate regulation for the complete text.

#### **B. Part 70 Operating Permit Program Requirements**

AQR SECTION 19 - PART 70 OPERATING PERMITS [Rev. 05/24/01] AQR Section 19 details Part 70 Operating Permit Program requirements. Section 19 and the AQR Part 70 (Title V) Program received Final Approval on November 30, 2001 with publication of that approval appearing in the Federal Register December 5, 2001 Vol. 66, No. 234.

**Discussion:** Please reference pages 19-1 through 19-28 of the AQR. The applicable requirements of Section 19 are incorporated into the conditions of the Part 70 OP. These regulations may be accessed on the Internet at:

[http://www.co.clark.nv.us/air\\_quality/air\\_quality\\_information.htm](http://www.co.clark.nv.us/air_quality/air_quality_information.htm)

#### **C. Locally Applicable Requirements**

Locally applicable requirements are portions of the AQR that are locally enforceable only. These rules have not been approved by EPA for inclusion into the State Implementation Plan (SIP). Full text of these regulations may be accessed on the Internet at:

[www.co.clark.nv.us/air\\_quality/air\\_quality\\_information.htm](http://www.co.clark.nv.us/air_quality/air_quality_information.htm)

or viewed at the Department of Air Quality offices. Requirements and conditions that appear in the Part 70 OP which are related only to non-SIP rules will be notated as locally enforceable only.

AQR SECTION 0 – DEFINITIONS [Rev. 05/24/01] pages 0-1 through 0-49

AQR SECTION 12 – PRECONSTRUCTION REVIEW FOR NEW OR MODIFIED STATIONARY SOURCES [Rev. 05/24/01]

AQR Pages 12-I through 12-71

**Discussion:** On August 29, 2001, the Ninth District Circuit Court remanded review of Sections 12 and 0 back to the EPA, negating SIP approval of these sections.

AQR SECTION 25.1 - UPSET/BREAKDOWN, MALFUNCTIONS [Rev., 12/19/96] (*in part*)

25.1 Operation of any plant or equipment which causes emissions of air contaminants in excess of limits set by these Regulations is in violation of these Regulations unless:

25.1.1 Such emissions resulted from a malfunction.

**Discussion:** In determining whether a Malfunction has occurred, the CONTROL OFFICER, HEARING OFFICER, or HEARING BOARD may use guidelines from subsection 25.1.1. The burden of proof will be upon the Operator.

AQR SECTION 12 - PRECONSTRUCTION REVIEW FOR NEW OR MODIFIED STATIONARY SOURCES [Rev., 01/22/98] (*in part*)

Note: Section 12 requirements for the air pollutants emitted by this facility are summarized in the following tables. Please see AQR Section 12 for the related text.

**Table V-1: Section 12 Requirements in a Prevention of Significant Deterioration (PSD) Area**

Pollutant	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC
<i>Major Source</i>	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy
<i>Notice of Proposed Action</i>	Yes, If PTE ≥ 15 tpy or NEI ≥ 15 tpy	Yes, If PTE or NEI ≥ 40 tpy	Yes, If PTE ≥ 70 tpy or NEI ≥ 70 tpy	Yes, If PTE or NEI ≥ 40 tpy	Yes, If PTE or NEI ≥ 40 tpy
<i>Control Technology</i>	BACT	BACT	BACT	BACT	BACT
<i>Permitting 'de minimus'</i>	1 tpy	2 tpy	2 tpy	1 tpy	2 tpy
<i>Continuous Emissions Monitoring</i>	Yes, Opacity per NSPS	Yes, if PTE ≥ 100 tpy & NEI ≥ 40 tpy	Yes, if PTE ≥ 100 tpy & NEI ≥ 100 tpy	Yes, if PTE ≥ 100 tpy & NEI ≥ 40 tpy	No
<i>Pre Construction Ambient Air Monitoring</i>	Yes, If PTE ≥ 100 tpy & NEI ≥ 15 tpy & impact ≥ 10 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 14 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 & NEI ≥ 100 tpy & impact ≥ 575 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 13 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy
<i>Post Construction Ambient Air Monitoring</i>	Yes, If PTE ≥ 100 tpy & NEI ≥ 15 tpy & impact ≥ 16 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 14 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 & NEI ≥ 100 tpy & impact ≥ 2000 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 50 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy
<i>Additional Impact Analysis</i>	Yes, If PTE ≥ 100 tpy & NEI ≥ 15 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 100 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy

tpy = tons per year, NEI = NET EMISSION INCREASE, PTE = POTENTIAL TO EMIT

12.1.1 Persons who must apply

12.1.1.1 Any person who proposes to install or construct any new STATIONARY SOURCE (as defined in Section 0), or make MODIFICATION (as defined in Section 0) to any existing STATIONARY SOURCE shall apply for an "AUTHORITY TO CONSTRUCT" CERTIFICATE prior to COMMENCING CONSTRUCTION unless a source has COMMENCED CONSTRUCTION, or MODIFICATION prior to August 25, 1971, and has not undergone a MODIFICATION, or reconstruction since such time.

AQR SECTION 40 - PROHIBITIONS OF NUISANCE CONDITIONS [Rev., 05/18/84]

40.1 No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance.

AQR SECTION 43- ODORS IN THE AMBIENT AIR [REV. 12/28/78]

43.1 An ODOR occurrence shall be deemed a violation when a complaint is received and substantiated within two hours by the CONTROL OFFICER. The CONTROL OFFICER shall deem the ODOR occurrence a violation if he is able to detect the ODOR twice within a period of one hour, if the ODOR is of such a nature as to cause a nuisance, and these detections being separated by at least 15 minutes.

**D. State Implementation Plan (SIP) Applicable Requirements**

Note: The terms State Implementation Plan (SIP), Implementation Plan (IP), and Clark County Implementation Plan (CCIP) are essentially synonymous. They refer to those AQR that have been approved by the EPA for inclusion into the SIP. These rules are federally enforceable. For the sake of simplicity and consistency, the term SIP will be used exclusively in this document.

The DAQM has included the more relevant subsections in this document for convenience. Please refer to the AQR for the complete text.

AQR SECTION 1 - DEFINITIONS [ Rev., 09/03/81] The full text of this section consists of 106 definitions and may be accessed on the internet at:

**[www.co.clark.nv.us/air\\_quality/air\\_quality\\_information.htm](http://www.co.clark.nv.us/air_quality/air_quality_information.htm)**

or viewed at the Department of Air Quality offices.

AQR SECTION 4 - CONTROL OFFICER [Rev., 12/19/96] (*in part*)

4.3 The Control Officer, or his representative, may enter into and inspect any property, premises or place on or at which an air contaminant source is located or is being

constructed, installed or established at any reasonable time for the purpose of ascertaining the state of compliance with these Regulations.

- 4.3.1 No person shall:
- 4.3.2 Refuse entry or access to any authorized representative of the DAQM who requests entry for purposes of inspection, as provided in this section, and who presents appropriate credentials.
- 4.3.3 Obstruct, hamper or interfere with any such inspection.
- 4.3.4 If requested, the owner or operator of the premises shall receive a report setting forth all facts found which relate to compliance status.
- 4.4 The Control Officer at any time may require from any person such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and may require that such disclosures be certified by a professional engineer registered in the State. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report.
- 4.5 The Control Officer may require any person responsible for emission of air contaminants to make or have made tests to determine the emission of air contaminants from any source, whenever the Control Officer has reason to believe that an emission in excess of that allowed by the Air Quality Division Regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. The Control Officer shall be given a copy of the test results in writing and signed by the person responsible for the tests.
- 4.6 The Control Officer may conduct tests of emissions of air contaminants from any source. Upon request of the Control Officer, the person responsible for the source to be tested shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.

#### AQR SECTION 5 - INTERFERENCE WITH CONTROL OFFICER [Adopted circa 1967]

- 5.1 It is unlawful for any person:
  - 5.1.1 To hinder, obstruct, delay, resist, interfere with, or attempt to interfere with, the Control Officer, or any individual to whom authority has been duly delegated for the performance of any duty by these Regulations.
  - 5.1.2 To refuse to permit the Control Officer or any individual to whom such authority has been delegated, to administer or perform any function provided for herein, by refusing him at any reasonable time entrance to property or premises, except a private residence, containing

equipment or open fire, discharging, or suspected and believed to be discharging, smoke, dust, gas, vapor, or odor into the open air.

- 5.1.3 To fail to disclose information when requested under oath or otherwise, to the Control Officer or any individual to whom such authority has been delegated.

AQR SECTION 8 - PERSONS LIABLE FOR PENALTIES - PUNISHMENT: DEFENSE [Rev., 12/28/78]

- 8.1 All persons owning, operating, or in control of any equipment or property who shall cause, permit, or participate in, any violation of these Regulations shall be individually and collectively liable to any penalty or punishment imposed by and under these Regulations.
- 8.2 It shall be a defense to any prosecution instituted against any employee or a person owning, operating, or conducting any business, industry, or operation that the acts complained of were done and performed pursuant to the orders and directions of such owner or operator, or his agent or representative, conducting such business, industry or operation.

AQR SECTION 9 - CIVIL PENALTIES [Rev., 04/24/97]

- 9.1 Any person who violates any provision of these Regulations, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by the DAQM is guilty of a civil offense and shall pay civil penalty levied by the Hearing Board of not more than \$10,000. Each day of violation constitutes a separate offense.
- 9.2 Any person aggrieved by an order issued pursuant to this section is entitled to review as provided in Chapter 233B of NRS.

AQR SECTION 10 - COMPLIANCE SCHEDULES [Rev., 11/18/93]

- 10.1 Any existing source not in compliance with emission limitations hereinafter adopted, or which is not operating under a compliance schedule approved by the Hearing Board, shall submit a compliance schedule to the Control Officer for review no later than 90 days after adoption of such emission limitations.

AQR SECTION 11 - AMBIENT AIR QUALITY STANDARDS [Rev., 05/27/93] (*in part*)

- 11.1 The following concentrations of air contaminants shall not be exceeded at any single point in the ambient air:

- 11.1.1 Sulfur oxides as sulfur dioxide:  
Annual arithmetic mean                      60  $\mu\text{g}/\text{m}^3$  (0.02 ppm)

Maximum 24-hr. concentration 260  $\mu\text{g}/\text{m}^3$  (0.1 ppm)  
Maximum 3-hr. concentration 1300  $\mu\text{g}/\text{m}^3$  (0.5 ppm)

11.1.2  $\text{PM}_{10}$

Annual arithmetic 50  $\mu\text{g}/\text{m}^3$   
Maximum 24-hr. Concentration 150  $\mu\text{g}/\text{m}^3$

11.1.3 Carbon monoxide:

Maximum 8-hr. Concentration 10  $\text{mg}/\text{m}^3$  (9.0 ppm)  
Maximum 1-hr. Concentration 40  $\text{mg}/\text{m}^3$  (35.0 ppm)

11.1.5 Nitrogen dioxide:

Annual arithmetic mean 100  $\mu\text{g}/\text{m}^3$  (0.05 ppm)

AQR SECTION 15- SOURCE REGISTRATION [Rev. 9/3/81] (*in part*)

15.1 Any person who causes, lets, permits, suffers, or allows the emission of air contaminants, whether or not limits are established by these Regulations for emission of such contaminants, shall register with the Control Officer on forms provided by the Control Officer. The Application for the Registration shall be accompanied by the appropriate fee as specified in Section 18 of these Regulations.

15.1.1 Name and address of business;

15.1.2 Nature of business;

15.1.3 Name of local person responsible for compliance with these Regulations;

15.1.4 Information on methods of refuse disposal;

15.1.5 Information on fuel used for space heat, process heat, or power generation;

15.1.6 A description of the specific nature and quantity of the air contaminants emitted, together with corresponding location or locations of the sources;

15.1.7 Any such other information as may be requested by the Control Officer necessary to determine compliance with these Regulations;

15.1.8 Applicability of the registration requirements of this section shall be determined by the Control Officer within thirty (30) days of receipt of a written request for such determination.

15.2 The following sources of emission of air contaminants shall be exempt from the registration provisions of this section:

15.2.1 Internal combustion engines installed in motor vehicles and special mobile equipment;

15.2.2 Natural gas-fired or liquefied petroleum gas-fired or oil-fired equipment (burning No. 1 and No. 2 fuel oil), furnaces, boilers, water heaters, or steam generators, having not over one million BTU's per hour total input.

- 15.3 The lack of emission limits or controls in these 33 Regulations for items requiring a Registration Certificate shall not be a bar to the requirement for said certificate.
- 15.4 The Registrant shall provide any information regarding the emission of air contaminants into the atmosphere as the Control Officer may require, and said Registrant shall maintain such registration in current status by notifying the Control Officer of any significant change in any item of information furnished in compliance herewith.
- 15.5 Registration for stationary sources shall be renewed annually on February 24th of each year, and shall include payment of an annual fee as required in Subsection 16.3 and Section 18 of these Regulations.
- 15.6 Pre-Construction Review for New and Modified Sources.
- 15.6.1 No person shall install or construct any new stationary source or relocate, or make modifications to any existing single source which will increase or change the effects or characteristics of air contaminants discharged, or install an air cleaning device, unless an "Authority to Construct" Certificate therefore has been issued by the Control Officer.
- 15.6.1.1 Application for Authority to Construct Certificate hereinafter called "Certificate" shall be made on forms furnished by the Control Officer.
- 15.6.1.2 Each application shall be accompanied by a report and plans, which contain site information, stack data, the nature, size, design, method of operation, amount of emissions and information on equipment to be used for measurement and control. The information shall be sufficient in scope to enable the Control Officer to make any determination pursuant to the requirements of Subsection 15.6.2 of these Regulations.
- 15.6.1.3 Each application and report shall be signed by the applicant, and when required by the Control Officer, shall be certified by a licensed professional engineer as to the accuracy of the technical information concerning the equipment and/or control device contained in the report. The signature of the applicant shall constitute an agreement that the applicant shall assume responsibility for the capability of the new source and/or control device to comply with the Regulations when in operation;
- 15.6.1.4 Any additional information, plans, specifications, evidence or documentation relating to emissions or control of emissions that the Control Officer may require shall be furnished upon request;
- 15.6.1.5 Any change or alterations to the plans or report affecting the emission from the stationary source shall be reported to the Control Officer and shall be approved prior to implementation.
- 15.6.2 No Certificate will be issued unless the Control Officer has approved the location of the stationary source, and the applicant shows to the satisfaction of the Control Officer that;
- 15.6.2.1 That all other stationary sources owned or operated by the Applicant within the State or by any entity controlling, controlled by, or under common control with the applicant in

State are subject to emission limitations and are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards under the Clean Air Act.

- 15.6.2.2 That these emissions will not prevent or interfere with the attainment or maintenance of Air Quality Standards (in Section 11);
- 15.6.2.3 That these emissions will not interfere with Reasonable Further Progress as described in the Las Vegas Valley Air Quality Implementation Plan;
- 15.6.2.4 After January 1, 1979, an applicant for source of carbon monoxide or hydrocarbons, within the Las Vegas Valley, or which may significantly contribute to CO or HC within the Las Vegas Valley shall submit such information as required by the Control Officer so that an analysis can be made of alternative sites, sizes, production processes and environmental control techniques for the source, which demonstrates that the benefits of the proposed source significantly outweigh the environmental and social costs imposed as a result of its location, construction, or modification. The Control Officer may require that the analysis be performed by the applicant. The costs of performing the analysis shall be borne by the applicant.
- 15.6.2.5 The requirements of Subsection 15.6.2.4 are made pursuant to Section 172b(11)(A) of the Clean Air Act Amendments P.L. 95-95.
- 15.6.3 Public Notification, Public Participation, Deadlines, Minor Sources Exemption
- 15.6.3.1 The Control Officer shall notify all applicants within twenty (20) days as to the completeness of the application or any deficiency in the application or information submitted. In the event of a deficiency of notification the date of receipt of the application shall be the date on which the Control Officer receives all required information.
- 15.6.3.2 Within forty (40) days after receipt of a complete application, the Control Officer shall publish in newspapers of general circulation within Clark County, Nevada, a notice listing the following items:
- i. advising receipt of application;
  - ii. availability of information on the application which is not confidential;
  - iii. availability of review and analysis of the application based on its compliance with applicable regulation;
  - iv. preliminary determination whether construction should be approved, approved with conditions or disapproved;
  - v. opportunity for any person to request that the Control Officer hold a public hearing where interested persons can appear and submit written or oral comments on the air quality impact of the source, the air quality modeling used, alternatives to the stationary source, the control technology required, and other

appropriate considerations. The request must be filed in writing within thirty (30) days of the date of the publication of the notice above.

- 15.6.3.2.1 For sources subject to Subsection 15.13 (Prevention of Significant Deterioration) the notice shall include a summary of the increments to baseline concentration consumed by the proposed source.
- 15.6.3.2.2 The Control Officer shall hold the public hearing within fifty (50) days of the date of the publication of the notice, if the request is filed.
- 15.6.3.3 Within fifty (50) days, but no sooner than thirty (30) days, after the date of publication of the notice, unless a public hearing is held, the Control Officer shall act on the application by issuing a Certificate of Authority to Construct, which may include conditions, or by issuing a finding of disapproval. The Control Officer shall consider all written comments and testimony from the public hearing, if held, before taking final action.
- 15.6.3.3.1 If a public hearing is held, the Control Officer shall act on the application within thirty (30) days of the public hearing.
- 15.6.3.4 Exception. Subsections 15.6.3.2 and 15.6.3.3 do not apply to minor sources (as defined). Within twenty (20) days of the receipt of a complete application the Control Officer shall act on the application.
- 15.6.3.5 The Control Officer shall notify the applicant, the State Air Pollution Control Agency (Nevada Department of Environmental Protection) and the U.S. Environmental Protection Agency of each action taken under Subsection 15.6.3. Copies of the application and copies of review reports, conditions of approval, and operating permit conditions shall be available for public inspection and also shall be sent to the State and EPA.  
  
If at any time prior to issuing an Operating Permit the Control Officer determines that:
  - 15.6.4.1 The proposed construction, installation, alteration, or establishment will not be in accordance with the provisions of the plans, specifications, and other design material required to be submitted under these Regulations; or
  - 15.6.4.2 The design material or the construction itself is of such a nature that it patently cannot bring such source into compliance with these Regulations:
  - 15.6.4.3 He shall issue a Stop Order prohibiting the construction, installation, establishment, or alteration of the source.
- 15.6.5 The Stop Order shall set forth the reasons for its issuance and the effective time and date. The Hearing Board shall meet within ten (10) days of filing of an appeal to review the action of the Control Officer in accordance with the provisions of Section 7 of these Regulations.

- 15.6.6 The Control Officer may cancel a Certificate issued under this section if the construction is not commenced within one year of date of issuance or if during construction work is suspended for one year.
- 15.7 A Certificate shall not relieve any owner or operator of the responsibility to comply with all applicable Local, State, and Federal Regulations.
- 15.8 The relocation, construction or modification of a single air contaminant source and/or control device must be approved in advance by the Control Officer.
- 15.9 New equipment or changes of process capable of becoming a source of air pollution shall be provided with the maximum control capability which is technically practicable.
- 15.10 The provisions of this section shall apply to all single air contaminant sources within Clark County except those specifically mentioned below:
- 15.10.1 Comfort heating equipment with a gross heat input of less than one million BTU's per hour.
- 15.10.2 Comfort ventilating systems.
- 15.10.3 Mobile internal combustion engines and vehicles used for transport of passengers or freight.
- 15.10.4 Vacuum cleaning systems used exclusively for residential or commercial housekeeping.
- 15.11 Applicability of the requirements of this section shall be determined by the Control Officer within thirty (30) days of receipt of a written request for such determination.
- 15.12 Certificates issued by the Control Officer shall not be deemed to be an acceptance or approval of operation of any article, machine, equipment, process or other contrivance listed on said Certificate by the Control Officer or his agent. The Certificate shall not be construed to show compliance on the part of the Registrant with the Regulations contained herein, limiting the emission of air contaminants into the atmosphere.
- 15.13 Prevention of Significant Deterioration
- 15.13.1 Applicability - this section applies to all new, re-constructed or modified sources of non-criteria pollutants, nitrogen oxides, and sulfur dioxide throughout Clark County and sources of particulate, carbon monoxide and volatile organic compounds in the attainment areas of Clark County. This section also applies to sources inside the non-attainment areas which may cause a significant impact in the attainment areas for particulate, carbon monoxide and volatile organic compounds.
- 15.13.2 Ambient Air Increments (c) - All attainment areas in Clark County are designated Class II, which refers to a level of increase in air quality levels allowed.

Increases in pollutant concentration over the Baseline Concentration (defined in Section 1) shall be limited to the following:

Particulate Matter:

Increment

	( $\mu\text{g}/\text{M}^3$ )
Annual Geometric Mean	19
24-Hour Maximum	37

Sulfur Dioxide:

Annual Arithmetic Mean	20
24-Hour Maximum	91
3-Hour Maximum	512

For either the 24-hour period or the 3-hour period, the applicable maximum allowable increase may be exceeded during one such period per year at any one location.

15.13.3 Ambient Air Ceilings (d) - No concentration of a pollutant shall exceed the concentration listed in Section 11 of these Regulations.

15.13.4 Restrictions on area classification (e) and Redesignation (g). No area can be reclassified as a Class III area. Areas may be reclassified as a Class I area in accordance with procedures and regulations by the Nevada State Environmental Commission and by the EPA (50 CFR 51.24G).

15.13.5 Exclusions from Increment Consumption (f) - the following concentrations shall be excluded in determining compliance with a maximum allowable increase:

(i) Concentrations of particulate matter attributable to the increase in emissions from temporary construction related activities; emissions from unpaved roads, cleared areas, natural surfaces, and paved roads, are not to be excluded.

15.13.7 Stack Heights (h) - The degree of emission limitation required for control of any air pollutant under this plan shall not be affected in any number by:

15.13.7.1 So much of a stack height in existence before December 31, 1970, as exceeds good engineering practice; or

15.13.7.2 Any other dispersion technique implemented before then.

15.13.8 Review of stationary sources and modifications (i) - Source applicability.

15.13.8.1 No stationary source or modification shall begin actual construction unless, as a minimum, requirements equivalent to those contained in Subsections:

- 15.13.9 (Control Technology Review) (j)
- 15.13.10 (Source impact analysis) (k)
- 15.13.11 (Air Quality models) (l)
- 15.13.12 (Air Quality analysis) (m)
- 15.13.13 (Source information) (n)
- 15.13.14 (Additional Impact Analysis) (o)
- 15.13.15 (Sources Impacting Federal Class I Areas - Additional Requirements) (p)

- 15.13.16 (Public Participation) (q)
- 15.13.17 (Source Obligation) (r)

of this section have been met.

#### 15.13.9 Control Technology Review (j)

15.13.9.1 A stationary source or modification shall meet all applicable emission limitations in these regulations.

15.13.9.2 A new or modified stationary source shall apply best available control technology for each pollutant subject to these regulations.

15.13.10 Source Impact Analysis (k) - The owner or operator of the proposed source or modification shall demonstrate that Allowable Emission (as defined) increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions, including secondary emissions, would not cause or contribute to air pollution in violation of:

15.13.10.1 Any ambient air quality standard listed in Section 11 of these Regulations; or

15.13.10.2 Any applicable maximum allowable increase over the Baseline Concentration in any area.

#### 15.13.11 Air Quality Models (1)

15.13.11.1 The Control Officer will issue and periodically update a policy document specifying how: All estimates of ambient concentrations required under Subsection 15.13.8 shall be based on the applicable air quality models approved by EPA, data bases, and other requirements; a substitution or modification of a model shall be subject to public comment procedures developed in accordance with Subsection 15.6 of this section. Models approved by EPA are described in the "Guideline on Air Quality Models" (OAQPS 1.2-080, U. S. EPA Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711).

#### 15.13.12 Air Quality Analysis (m)

##### 1) Preapplication Analysis

(i) Any application for a certificate under this section shall contain an analysis of ambient air quality in the area that the stationary source or modification would affect for each pollutant emitted;

(ii) With respect to any such pollutant for which no Ambient Air Quality Standard exists, the analysis shall contain such air quality monitoring data as the Control Officer determines is necessary to assess ambient air quality for the pollutant in any area that the emissions of that pollutant would affect;

- iii) With respect to any such pollutant (other than non-methane hydrocarbons) for which such a standard does exist, the analysis shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant could cause or contribute to a violation of the standard or any maximum allowable increases, if the air quality impact (calculated in Subsections 15.13.8 and 15.13.9) of that pollutant exceeds the following de minimus air quality levels:

Carbon Monoxide	0.5 mg/M3	8 hr avg
Nitrogen Dioxide	14 µg/M3	annual
Total Suspended Particulate	10 µg/M3	24 hr avg
Sulfur Dioxide	13 µg/M3	24 hr avg
Ozone	(SEE NOTE BELOW)	
Lead	0.1 µg/M3	24 hr avg

NOTE: A Potential to Emit of 50 tons per year or more of volatile organic compounds.

- (iv) In general, the continuous air quality monitoring data that is required shall have been gathered over a period of at least one year and shall represent at least the year preceding receipt of the application, except that, if the Control Officer determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than four months), the data that is required shall have been gathered over at least that shorter period.

2) Post Construction Monitoring

The owner or operator of a major stationary source or major modification shall, after construction of the stationary source or modification, conduct such ambient monitoring as the Control Officer determines is necessary to determine the effect emissions from the stationary source or modification may have, or are having, on air quality in an area.

- 3) The owner or operator of a major stationary source or major modification shall meet the requirements of Appendix B to Part 58 of the CFR 40 during the operation of monitoring stations for purposes of satisfying paragraph (m) of this section.

15.13.13 Source Information (n)

The owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or make any determination required under this section.

- 1) Such information shall include:

- (i) A description of the nature, location design capacity, and typical operating schedule of the source or modification, including specifications and drawings showing its design and plant layout;
  - (ii) A detailed schedule for construction of the source or modification;
  - (iii) A detailed description as to what system of continuous emission reduction is planned for the source or modification, emission estimates, and any other information necessary to determine that best available control technology would be applied.
- 2) Upon request of the Control Officer, the owner or operator shall also provide information on:
- (i) The air quality impact of the source or modification, including meteorological and topographical data necessary to estimate such impact; and
  - (ii) The air quality impacts, and the nature extent of any or all general commercial, residential, industrial, and other growth which has occurred since August 7, 1977, in the area the source or modification would affect.

15.13.14 Additional Impact Analyses:

15.13.14.1 The owner or operator shall provide an analysis of the impairment to visibility, soils and vegetation that would occur as a result of the source or modification and general commercial, residential, industrial, and other growth associated with the source or modification.

15.13.14.2 The owner or operator shall provide an analysis of the air quality impact projected for the area as a result of general commercial, residential, industrial, and other growth associated with the source or modification.

15.13.15 Sources Impacting Federal Class I Areas - Additional Requirements Title 40 Part 51 CFR, Subsection 51.24 (q) is adopted herein by reference: Except where the words "The plan" appear substitute "this section" and where the words "reviewing authority" appear substitute "Control Officer".

**Discussion:** NCA #2 is located in a PSD area. It was determined that this facility had no significant impacts upon the Las Vegas Valley; therefore all subsection 15.13 regulations apply, and subsection 15.14 does not apply. The NSR permit ATC/OP 391 Modification # 6 was thoroughly reviewed for compliance with the regulatory requirements of Section 15 and determined to be accurate and complete.

AQR SECTION 16- OPERATING PERMITS [Rev. 1/25/90]

16.1 No PERSON shall cause, suffer, or allow the operation of any EMISSION UNIT in a STATIONARY SOURCE or in a GASOLINE STATION unless an OPERATING PERMIT has been issued by the CONTROL OFFICER and such permit is current and valid.

16.2 The OPERATING PERMIT will require an annual fee.

- 16.2.1 Failure to remit the fee within thirty (30) calendar days of invoicing date is a violation of Section 16 of these Regulations.
- 16.2.2 An OPERATING PERMIT shall not be valid unless the annual fee is paid within sixty (60) days of the invoicing date.
- 16.3 The CONTROL OFFICER may issue an OPERATING PERMIT on a provisional basis to any new EMISSION UNIT requiring some reasonable time for initial testing, or to any EXISTING SOURCE which is not in compliance with applicable emission limitations, but which has had a compliance schedule or variance approved by the HEARING BOARD.
- 16.3.1 OPERATING PERMITS may be issued to new EMISSION UNITS upon completion of CONSTRUCTION and upon verification that the new EMISSION UNITS conform to the information originally submitted with application for certificate and the conditions of the certificate.
- 16.4 Conditions to OPERATING PERMITS
- The CONTROL OFFICER may issue an OPERATING PERMIT with conditions, agreed upon in writing by the applicant, that specify emission limits, production rates, control methods, etc. These conditions may also limit the hours or periods of operation.
- 16.4.1 These conditions are subject to annual review by the CONTROL OFFICER. After the review with the permittee, the CONTROL OFFICER may impose or MODIFY conditions to assure continuing compliance with all sections of these Regulations.
- 16.4.2 Violation of the conditions of the permit shall constitute a violation of this section.
- 16.5 The OPERATING PERMIT conditions for new or MODIFIED STATIONARY SOURCES commencing CONSTRUCTION after May 1, 1981, shall include a description of additional CONTROL MEASURES the OPERATOR will undertake, as necessary, if a nearby monitoring station indicates that an applicable AMBIENT AIR quality standard or increment has been exceeded.
- 16.5.1 The CONTROL MEASURES shall be taken within 24 hours of notification to the OPERATOR by the CONTROL OFFICER.
- 16.5.2 The CONTROL OFFICER shall consider the possible effects of emissions from other nearby or influential sources prior to notifying the OPERATOR.
- 16.6 No PERSON shall willfully deface, alter, forge, counterfeit, or falsify a permit to operate any article, machine, equipment, process or other contrivance.
- 16.7 An OPERATING PERMIT for an EMISSION UNIT shall not be transferable by operation of law or otherwise, from one location to another, nor from one piece of equipment or process to another, but it may be transferred from one PERSON to another upon payment of the required fee, and approval by the CONTROL OFFICER.

16.8 OPERATING PERMITS for an EMISSION UNIT are subject to revocation or suspension for violation of these Regulations. Upon a determination by the CONTROL OFFICER that a permittee is in violation of these Regulations, the CONTROL OFFICER may serve upon the permittee, through personal service or by certified mail, a Notice of Suspension or Revocation of OPERATING PERMIT, setting forth in detail the violations charged. Such suspension or revocation shall become final and effective ten (10) days after service of the written notice, and the OPERATING PERMIT thereupon surrendered to the CONTROL OFFICER, unless the permittee files with the HEARING BOARD, in writing, within ten (10) days after service of the Notice of Suspension or Revocation, an appeal from such action of the CONTROL OFFICER. The filing of such appeal shall stay the suspension or revocation of the permit pending a decision thereon by the HEARING BOARD. The HEARING BOARD shall meet to decide the appeal no later than thirty (30) days after the filing of the permittee's appeal, and after public hearing on said appeal, affording the permittee and the CONTROL OFFICER full opportunity to present evidence, and testimony may affirm, MODIFY or set aside the action taken by the CONTROL OFFICER. For this purpose, public notice of less than thirty (30) days may be given of such appeal hearing.

16.9 If the OPERATING PERMIT is canceled, suspended, or revoked, any fee paid shall be forfeit.

**Discussion:** The Section 16 operating permits and the ATC/OP 391 Modification #6 were thoroughly reviewed for compliance with this regulation and determined to be accurate and complete.

AQR SECTION 18 - PERMIT AND TECHNICAL SERVICE FEES [Rev., 04/27/97] (*in part*)

Note: This facility is subject to various fees detailed in Section 18. Selected fees are included in this TSD for convenience.

p 18.1 Operating Permit Fees:

18.1.2	Operating Permit issued pursuant to Section 19: This permit is issued to any new or Modified Stationary Source subject to the Part 70 Program.	No charge
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18.2 Annual Emission Unit Fees:

18.6 Annual Part 70 Emission Fee:

18.6.1 In addition to the NSR Emission Unit Fee, each Major Stationary Source and each Stationary Source subject to Federal Performance Standards, shall pay an Annual Part 70 Emission Fee.

18.6.2 The Annual Part 70 Emission Fee shall be based on the total number of tons of Actual Annual Emissions for all Regulated Air Pollutants (rounded off to the nearest whole number).

18.6.2.1 Actual Annual Emissions shall mean the following:

- (a) Measured Emissions for any emissions monitored by a continuous emissions monitoring system (CEMS) over the previous calendar year, or
- (b) Estimated Emissions for any emissions calculated based on annual facility production over the previous calendar year.

18.6.4 Annual PART 70 EMISSION Fees:

18.6.4.1	Annual PART 70 EMISSION Fee shall be determined on the number of tons (to the nearest tenth of a ton) of all REGULATED AIR POLLUTANTS, except as provided in Subsection 18.6.4.2, multiplied by the following fee:	\$39.40
18.6.4.2	For the Carbon Monoxide Emissions portion, the Annual Part 70 Emission Fee shall be determined on the number of tons (to the nearest tenth of a ton) of Carbon Monoxide multiplied by the following fee:	\$13.30

**Discussion:** NCA #2 is not delinquent on any fees due DAQM. The annual Part 70 emissions fees are based on the total number of tons of estimated actual annual emissions for all regulated air pollutants. Until others are established, equations and emission factors listed above shall be used to calculate actual emissions.

AQR SECTION 24 - SAMPLING AND TESTING - RECORDS AND REPORTS [Adopted circa 1967] (*in part*)

- 24.1 Any person operating any article, machine, equipment, or other contrivance for which registration is required by these Regulations, shall permit the Control Officer, or his agent to install and maintain sampling and testing facilities as are reasonable and necessary for measurement of emissions of air contaminants. Where existing facilities for sampling or testing are inadequate, the Control Officer may, in writing, require the Registrant to provide and maintain access to, such facilities as are reasonably necessary for sampling and testing purposes by the Control Officer, or his authorized agent, in order to secure information that will disclose the nature, extent, quantity, or degree of air contaminants discharged into the atmosphere from the article, machine, equipment, or other contrivance described in the Registration form or records.
- 24.2 The owner or operator of any point source as defined in Title 40 CFR, Part 51.1, Paragraph (k), published in the Federal Register on November 25, 1971, shall maintain records of the nature and amounts of emissions from such source and/or any other information as may be deemed necessary by the Control Officer to determine whether such source is in compliance with applicable emission limitations or other control measures.

AQR SECTION 25.2 - UPSET/BREAKDOWN, MALFUNCTIONS [Rev., 12/19/96]

25.2 Reporting and Consultation:

25.2.1 UPSET/BREAKDOWNS or EMERGENCIES, as defined in Section 0 shall be reported to the CONTROL OFFICER within one (1) hour of the onset of the UPSET/BREAKDOWN.

25.2.2 The Operator shall consult with the CONTROL OFFICER to devise actions designed to minimize the impact of excess EMISSIONS.

AQR SECTION 26 - EMISSION OF VISIBLE AIR CONTAMINANTS [Rev., 07/08/85] *(in part)*

26.1 A person shall not discharge into the atmosphere, from any single source whatsoever, any air contaminants for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period, which is:

26.1.1 Of such opacity to a degree equal to 20% obscuration or greater.

AQR SECTION 29 - SULFUR CONTENTS OF FUEL OIL [Rev., 12/16/93] *(in part)*

p 29.1 It is unlawful for any person to store, offer for sale, burn, or cause to be burned, within Clark County at any time, any Diesel Fuel Oil having a sulfur content in excess of 0.05 percent by weight.

AQR SECTION 70 –EMERGENCY PROCEDURES [Rev. 1/28/73]

70.1 If the CONTROL OFFICER determines that either a generalized condition of AIR POLLUTION or the operation of one or more particular sources of air contaminant is causing or may cause imminent danger to human health or safety, he may declare that an episode condition such as an alert, warning or an emergency exists. The CONTROL OFFICER may order the prohibition, restriction, reduction or discontinuance of the EMISSIONS of any air contaminant which is causing or may cause aggravation of the condition. The CONTROL OFFICER shall utilize Section 6 of the Air Quality Implementation Plan for the State of Nevada which is entitled, EMERGENCY EPISODE PLAN, as a guide for the actions during an episode condition.

70.2 Any order issued pursuant to Subsection 70.1 above, shall expire by limitation 24 hours after it takes effect, unless affirmed and extended, modified or set aside by the HEARING BOARD within that period of time.

70.3 Enforcement of restrictions on MOTOR VEHICLE operations may be carried out by law enforcement agencies having jurisdiction within incorporated or unincorporated areas of the HEALTH DISTRICT.

70.4 The OWNER or OPERATOR of any STATIONARY SOURCE which EMITS 100 short tons (90.7 metric tons) or more per year of any air contaminant shall prepare and submit to the CONTROL OFFICER a standby plan for reducing or eliminating EMISSIONS of air pollutants during periods of an AIR POLLUTION Alert, AIR POLLUTION Warning, or AIR POLLUTION Emergency as defined in the EMERGENCY EPISODE PLAN.

70.4.1 Each such plan shall be submitted within 90 days of this regulation and shall be subject to review and approval of the CONTROL OFFICER. Any such plan will be approved unless the CONTROL OFFICER notifies the OWNER OR OPERATOR within 60 days that

such plan has been disapproved. The CONTROL OFFICER will set forth reasons for any disapproval. (This subsection effective 1/28/73.)

- 70.4.2 The provision of Subsection 70.4.1 shall supersede that contained as part of the EMERGENCY EPISODE PLAN which relates to the time of submittal of standby plans.
- 70.4.3 Each such plan shall identify the air pollutants EMITTED by the source, the specific facility from which each air pollutant is EMITTED, the manner in which reduction of EMISSIONS will be achieved during an AIR POLLUTION Alert, Warning, or Emergency, and the approximate reduction in EMISSIONS to be achieved by each reduction measure.
- 70.4.4 During an AIR POLLUTION Alert, Warning, or Emergency a copy of such plan shall be made available on the source premises for inspection by the CONTROL OFFICER.
- 70.5 Upon notification by the CONTROL OFFICER that an AIR POLLUTION Alert, Warning, or Emergency has been declared, the OWNER OR OPERATOR of each source which has a standby plan approved by the CONTROL OFFICER shall implement the EMISSION reduction measures specified in such plan.
- 70.6 Any OWNER OR OPERATOR of a STATIONARY SOURCE not subject to the requirements of Subsection 70.1 of this section shall, when requested by the CONTROL OFFICER in writing, prepare and submit a standby plan in accordance with this section.

**Discussion:** The emergency episode plan submitted by NCA #2 will be included in its entirety as an enforceable condition in the Part 70 OP.

#### AQR SECTION 80 - CIRCUMVENTION [Rev., 12/28/78]

- 80.1 A person shall not build, erect, install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of these Regulations. This section shall not apply to cases in which the only violation involved is of Subsection 40.140 of the Nevada Revised Statutes or of Section 40 of these Regulations.

#### AQR SECTION 81 - PROVISIONS OF REGULATIONS SEVERABLE [Rev., 12/28/78]

- 81.1 If any provision of these Regulations or the application thereof to any person or circumstances is held invalid or unconstitutional, such invalidity or unconstitutionality shall not affect the other provisions or applications of these Regulations which can be given effect without the invalid provision or application, and to this end the provisions of these Regulations are declared to be severable.

### **E. Federal Applicable Requirements**

#### 40 CFR PART 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES(NSPS)

## **Subpart A - General Provisions**

### **§ 60.1 Applicability.**

(a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

(c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994]

### **§ 60.7 Notification and record keeping.**

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §§60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(6) A notification of the anticipated date for conducting the opacity observations required by §§60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.

(7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §§60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.

(b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected

facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

**Discussion:** The ATC/OP issued 2/26/02 and the Part 70 OP contain the applicable requirements.

(f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.

If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.

(h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994]

#### **§ 60.8 Performance tests.**

(a) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and

malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present.

(e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(2) Safe sampling platform(s).

(3) Safe access to sampling platform(s).

(4) Utilities for sampling and testing equipment.

conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989]

**Discussion:** Performance tests on the turbines were performed on January 25-27, 2000 on all three turbine units. The data contained in the performance test reports was found to be adequate and acceptable for compliance determination.

#### **§ 60.11 Compliance with standards and maintenance requirements.**

(a) Compliance with standards in this part, other than opacity standards, shall be determined only by performance tests established by §60.8, unless otherwise specified in the applicable standard.

(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

#### **§ 60.12 Circumvention.**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

#### **§ 60.13 Monitoring requirements.**

§ 60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.

(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of all continuous emission monitoring systems installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photodetector assembly.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.<sup>46</sup>

(2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners and operators complying with the requirements in §60.7(f) (1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or mg/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:

(1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases.

(2) Alternative monitoring requirements when the affected facility is infrequently operated.

(3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.

(4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.

(5) Alternative methods of converting pollutant concentration measurements to units of the standards.

(6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells. 47

(7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.

(8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

(9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point.

(j) An alternative to the relative accuracy test specified in Performance Specification 2 of appendix B may be requested as follows:

(1) An alternative to the reference method tests for determining relative accuracy is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the relative accuracy test in section 7 of Performance Specification 2 and substitute the procedures in section 10 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or

other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the relative accuracy test and substitute the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the relative accuracy test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS relative accuracy test will be reviewed and may be rescinded at such time following successful completion of the alternative RA procedure that the CEMS data indicate the source emissions approaching the level of the applicable standard. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g) (2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of relative accuracy testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a relative accuracy test of the 48CEMS as specified in section 7 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999]

**Discussion:** NCA#2 operates CEMS for NO<sub>x</sub> and CO in a method compliant with this regulation.

#### **Subpart Dc- Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units**

Source: 55 FR 37683, Sept. 12, 1990, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

**Discussion:** The heat recovery steam generator provides supplemental heat by combusting natural gas. As reported in the Design-Performance Summary sheet of the Zurn HRSG supplied by NCA, the heat input is 29.5 MMBtu/hr.

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

**Discussion:** The HRSG units meet the applicability requirement in paragraph (a) above, and therefore the paragraph (c) above applies.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under §60.14.  
[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996]

#### **60.48c Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

### **Subpart GG-Standards of Performance for Stationary Gas Turbines**

#### **§ 60.330 Applicability and designation of affected facility.**

(a) The provisions of this subpart are applicable to the following affected facilities: All stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules per hour, based on the lower heating value of the fuel fired.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after October 3, 1977, is subject to the requirements of this part except as provided in paragraphs (e) and (j) of §60.332.

[44 FR 52798, Sept. 10, 1979, as amended at 52 FR 42434, Nov. 5, 1987]

#### **§ 60.332 Standard for nitrogen oxides.**

(a) On and after the date of the performance test required by §60.8 is completed, every owner or operator subject to the provisions of this subpart as specified in paragraphs (b), (c), and (d) of this section shall comply with one of the following, except as provided in paragraphs (e), (f), (g), (h), (i), (j), (k), and (l) of this section.

(1) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:  $STD = 0.0075 (14.4/Y) + F$

where:

STD=allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y=manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F=NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section.

(2) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine, any gases which contain nitrogen oxides in excess of:  $STD = 0.0150 (14.4/Y) + F$

where:

STD=allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y=manufacturer's rated heat rate at manufacturer's rated peak load (kilojoules per watt hour), or actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F=NOx emission allowance for fuel-bound nitrogen as defined in paragraph (a)(3) of this section.

(3) F shall be defined according to the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (percent by weight)	F (NOx percent by volume)
$N \leq 0.015$ .....	0
$0.015 < N \leq 0.1$ .....	$0.04(N)$
$0.1 < N \leq 0.25$ .....	$0.004+0.0067(N-0.1)$
$N > 0.25$ .....	0.005

where:

N=the nitrogen content of the fuel (percent by weight).

or:

Manufacturers may develop custom fuel-bound nitrogen allowances for each gas turbine model they manufacture. These fuel-bound nitrogen allowances shall be substantiated with data and must be approved for use by the Administrator before the initial performance test required by §60.8. Notices of approval of custom fuel-bound nitrogen allowances will be published in the Federal Register.

(b) Electric utility stationary gas turbines with a heat input at peak load greater than 107.2 gigajoules per hour (100 million Btu/hour) based on the lower heating value of the fuel fired shall comply with the provisions of paragraph (a)(1) of this section.

**Discussion:** NCA #2 is permitted such that each combustion turbine shall be limited to 285 MMBtu/hr lower heat value natural gas fuel rate. The provisions of paragraph (a)1 above apply. The BACT limit of 12 ppm with SCR and 23 ppm without SCR are both far more stringent than the NSPS limit above. This requirement has been met.

**§ 60.333 Standard for sulfur dioxide.**

On and after the date on which the performance test required to be conducted by §60.8 is completed, every owner or operator subject to the provision of this subpart shall comply with one or the other of the following conditions:

(a) No owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any stationary gas turbine any gases which contain sulfur dioxide in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis.

(b) No owner or operator subject to the provisions of this subpart shall burn in any stationary gas turbine any fuel which contains sulfur in excess of 0.8 percent by weight.

[44 FR 52798, Sept. 10, 1979]

**Discussion:** The current ATC/OP requires pipeline quality natural gas only. The sulfur standard above has been met. Compliance will be monitored through recordkeeping of sulfur content from suppliers.

#### **§ 60.334 Monitoring of operations.**

(b) The owner or operator of any stationary gas turbine subject to the provisions of this subpart shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

(1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.

(2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with paragraph (b) of this section.

**Discussion:** By conditions in the ATC/OP and in the Part 70 OP, NCA #2 is required to provide a statement from the pipeline gas provider concerning sulfur content with each annual report. These reports must be maintained by the applicant .

#### **§ 60.335 Test methods and procedures.**

(b) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided for in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (f) of this section.

(c) The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in §§60.332 and 60.333(a) as follows:

(2) The monitoring device of §60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with §60.332 at 30, 50, 75, and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer.

(3) Method 20 shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO<sub>x</sub> emissions shall be determined at each of the load conditions specified in paragraph (c)(2) of this section.

#### **40 CFR Part 60-Standards of Performance For New Stationary Sources**

Appendix A-Test Methods  
Appendix B-Performance Specifications  
Appendix C-Determination of Emission Rate Change  
Appendix D-Required Emission Inventory Information  
Appendix F-Quality Assurance Procedures

#### **40 CFR 72 and 40 CFR 75 Acid Rain Requirements**

**Discussion:** This is a Qualifying Facility (QF) NOT subject to Acid Rain requirements.

### **VI. COMPLIANCE**

#### **A. Compliance Plan and Compliance Certification**

##### REGULATORY REQUIREMENTS

The following AQR detail the requirements for submittal of a Compliance Plan and Compliance Certification in Part 70 OP Applications:

19.3 Part 70 Permit Applications

19.3.3.4 The following air pollution control requirements:

- (a) Citation and description of all applicable requirements, including requirements applicable to emission units that cause the source to be subject to the Part 70 Program.
- (b) Description of or reference to any applicable test method for determining compliance with each applicable requirement.

p 19.3.3.8 A compliance plan for all Part 70 Sources shall contain the following:

- (a) A description of the compliance status of the source with respect to all applicable requirements.
- (b) A statement that the source will continue to comply with applicable requirements for which the source is in compliance.
- (c) For applicable requirements that become effective during the permit term, the compliance schedule shall include a statement that the source will meet such requirements in a timely manner including a more detailed schedule if expressly required by an applicable requirement.

- (d) A compliance schedule must be submitted for sources not in compliance with all applicable requirements at the time of permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

19.3.3.9 Requirements for compliance certification:

- (a) A certification of compliance with all applicable requirements by a Responsible Official shall be submitted to the Control Officer each year or more frequently if specified by the underlying applicable requirement.
- (b) A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods.
- (c) A schedule for submission of compliance certifications during the permit term.
- (d) A statement indicating the source's compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

**B. Source's Compliance Statement**

Table C-1 Summary of Compliance Status of each emission unit

E.U. #	DESCRIPTION	SCC #	Status
A001	GE LM-2500 Combustion gas turbine #1 Nat. gas 22.2 MW with HRSG, SCR and oxidation catalyst	20100203	In Compliance
A002	GE LM-2500 Combustion gas turbine #2, Nat. gas 22.2 MW with HRSG, SCR and oxidation catalyst	20100203	In Compliance
A003	GE LM-2500 Combustion gas turbine #3, Nat. gas 22.2 MW with HRSG, SCR and oxidation catalyst	20100203	In Compliance
A004	Detroit Diesel Emergency Fire Pump - 300 hp	20100201	In Compliance
A005	Caterpillar Emergency Diesel Generator – 440 hp	20100101	In Compliance
A006	Ecodyne Cooling Tower S/N 2CFF-60595L2610-20	10100601	In Compliance

Source also states compliance status for all insignificant and de minimus sources as listed previously in this document.

**Authority To Construct /Operating Permit Conditions\_**

AUTHORITY TO CONSTRUCT/OPERATING PERMIT, MODIFICATION #6, ISSUED 02//26/02

Please see Appendix A of the Part 70 OP for a copy of this ATC.

The Part 70 OP contains methods to assure compliance with all applicable ATC conditions. This ATC/OP requires CEMS for NOx and CO, recording and reporting of hours of operation, consumption of fuels, and maximum emission limits for emission units.

**Compliance Status with 40 CFR 60 New Source Performance Standards**

Standards	Compliance Requirements	Compliance Status	Methods of Compliance
Subpart A- General provisions	Submit emission data, including monitoring and performance test data	In Compliance	Record keeping; submissions of quarterly emission reports from CEMS
Subpart Dc- Standards of Performance for Small Industrial- Commercial- Institutional Steam Generating Units	Record keeping	In Compliance	Record keeping and reporting requirements in Part 70 Operating Permit
Subpart GG- NSPS for Stationary Gas Turbines	BACT for SO <sub>2</sub> and NOx	In Compliance	NOx emissions controlled by SCR and steam injection, monitored by CEMS. Allowable fuel sulfur content of less than 0.8 percent by weight demonstrated by record keeping.

**New Rule and Regulation Compliance**

In the compliance certification within the Part 70 Operating Permit application, NCA #2 stated, "NCA will in a timely manner, comply with all changes in all applicable requirements and comply with any new applicable requirements that become effective during the permit term."

### C. Monitoring For Compliance

Comment [VG2C1]: Updated version of chart prepared by consultant of JHG

Emission Unit #	Process Description	Start-Up Date	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A1, A02, A03	Combustion Turbines	1992	CO and NOx		CEMS (Data Test 400)	Monitoring and recording of exhaust gas concentrations with extractive analysis. Volumetric flow rate is used to calculate mass emission.
			Ammonia	Local only, Section 12	Predictive Emissions Monitoring	PEMS, as approved, must be used to predict, record and report ammonia slip.
			CO, NOx, SO <sub>2</sub> , PM <sub>10</sub> , VOC Ammonia		Stack testing once every five years. Fuel consumption recordkeeping and reporting	Stack testing by EPA Methods 3A, 201A, 6C, 7E, 10 and 18 as approved by DAQM and EPA in current ATC/OP.  Compliance for HAPs and non-CEMS monitored emissions shall be based on fuel consumption and emission factors.  Recording is required for compliance demonstration.  SO <sub>2</sub> will be monitored through sulfur content in the fuels (diesel for emergency use limited to 216 hours and only in the event of loss of gas supply as an emergency; natural gas 8,760, recordkeeping of hours of operation.
A01, A02, A03			Fuel			GC analysis of natural gas delivered to the facility is performed on a daily basis by the supplier, currently Kern River Pipeline at either their Daggett, CA or Fillmore, UT locations. Recordkeeping of sulfur content quarterly. Excess emissions report if sulfur exceeds 0.05 percent by weight.
				Subpart GG AQR Section 26	Opacity ≤ 20% (fugitive)	Visual emissions shall be made on a continuous basis. Immediate logging of any opacity noted, and correction of opacity exceedance. Reporting of upset/breakdown.

Emission Unit #	Process Description	Start-Up Date	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A04, A05	Detroit Diesel Emergency Generator; Caterpillar Emergency Generator	1992	NO <sub>x</sub> , CO, SO <sub>2</sub> , VOC, HAPs, PM <sub>10</sub>		Hours of operation for testing and maintenance only	Recordkeeping of hours of operation, fuel use and emission factors.  Recordkeeping of sulfur content of diesel fuel at each delivery.
A06	Ecodyne Cooling Tower	1994	PM <sub>10</sub>		Total Dissolved Solids Water flow rate recordkeeping	Daily testing of TDS to ensure levels below permitted levels. Recordkeeping of TDS, circulating water rate, hours of operation.

## VII ADMINISTRATIVE REQUIREMENTS

This document was prepared in accordance with the latest interpretation of DAQM guidelines, policies, verbal and or written supervisory and managerial instruction, issued on or before March 25, 2002.

Section 19 requires that DAQM identify the original authority for each term or condition in the Part 70 Operating Permit. Such reference of origin or citation is denoted by [italic text in brackets] after each Part 70 Permit condition.

DAQM proposes to issue the Part 70 Operating Permit conditions on the following basis:

Legal:

On December 5, 2001 in Federal Register Volume 66, Number 234 FR30097 the EPA fully approved the Title V Operating Permit Program submitted for the purpose of complying with the Title V requirements of the 1990 Clean Air Act Amendments and implementing Part 70 of Title 40 Code of Federal Regulations.

Factual:

NCA #2 submitted the initial Part 70 operating permit application August 24, 1995. An amended application submitted August 12, 1996 was deemed complete. On October 1, 1999, NCA #2 submitted a revised Title V Part 70 Operating Permit application to include installation and operation of SCR units on units 2 and 3. NCA #2 has supplied all the necessary information for DAQM to draft Part 70 Operating Permit conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:

DAQM has determined that NCA #2 will continue to determine compliance through the use of CEMS, quarterly reporting, daily recordkeeping, coupled with annual certifications of Compliance. DAQM proceeds with the preliminary decision that a Part 70 Operating Permit should be issued as drafted to NCA #2 for a period not to exceed 5 years.

**Table VI-8: Clark County Department of Air Quality Management- Air quality Regulations and State Implementation Plan**

Applicable Section - Title	Applicable Subsection - Title	SIP	Affected Emission Unit	Compliance Method
0. Definitions	applicable definitions	no	entire facility	recordkeeping
1. Definitions	applicable definitions	yes	entire facility	recordkeeping
4. Control Officer	all subsections	yes	entire facility	recordkeeping
5. Interference with Control Officer	all subsections	yes	entire facility	recordkeeping
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire facility	recordkeeping
9. Civil Penalties	all subsections	yes	entire facility	recordkeeping
10. Compliance Schedule	when applicable; applicable subsections	yes	entire facility	recordkeeping
11. Ambient Air Quality Standards	applicable subsections	yes	entire facility	recordkeeping
12. Preconstruction Review for New or Modified Stationary Sources	§ 12.1 General Application Requirements for New and Modified Sources of Air Pollutants. § 12.2.5 Requirements for PM <sub>10</sub> Sources in the PSD Area. § 12.2.10 Requirements for CO Sources in the PSD Area. § 12.2.13 Requirements for VOC Sources in the PSD Area. § 12.2.15 Requirements for NO <sub>x</sub> Sources in the PSD Area. § 12.2.18 HAP Sources in Clark County § 12.3 Owner/Operator Notification, Application Processing Deadlines, Notice of Proposed Action Procedures, and Public Hearings. § 12.8 Issuance of Authority to Construct Certificate with conditions.	no	entire facility	recordkeeping performance testing reporting
15. Source Registration	all subsections <b>except</b> §15.14 Source registration for Areas Exceeding Air Quality Standards	yes	entire facility	recordkeeping performance testing reporting
16. Operating Permits	all subsections	yes	entire facility	recordkeeping

Applicable Section - Title	Applicable Subsection - Title	SIP	Affected Emission Unit	Compliance Method
18. Permit and Technical Service Fees	§ 18.1 Operating Permit Fees. § 18.2 Annual Emission Unit Fees. § 18.4 New Source Review Application Review Fee. § 18.5 Part 70 Application Review Fee. § 18.6 Annual Part 70 Emission Fee. § 18.14 Billing Procedures	yes	entire facility	recordkeeping
19. Part 70 Operating Permit	§ 19.2 Applicability § 19.3 Part 70 Permit Applications § 19.4 Part 70 Permit Content § 19.5 Permit Issuance, Renewal, Reopenings, and Revisions § 19.6 Permit Renewal by the EPA and Affected States § 19.7 Fee Determination and Certification	NA	entire facility	recordkeeping
24. Sampling and Testing - Records and Reports	§ 24.1 Requirements for installation and maintenance of sampling and testing facilities. § 24.2 Requirements for emissions recordkeeping. § 24.3 Requirements for the record format. § 24.4 Requirements for the retention of records by the emission sources.	yes	entire facility	recordkeeping reporting
25.1 Upset/Breakdown, Malfunctions	§ 25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions.	no	entire facility	recordkeeping reporting
25.2 Upset/Breakdown, Malfunctions	§ 25.2 Reporting and Consultation.	yes	entire facility	recordkeeping reporting
26. Emission of Visible Air Contaminants	§ 26.1 Limit on opacity (≤ 20% for 3 minutes in a 60 minute period)	yes	entire facility	recordkeeping Method 9 (EPA)
40. Prohibitions of Nuisance Conditions	§ 40.1 Prohibitions	no	entire facility	recordkeeping
41. Fugitive Dust	§ 41.1 Prohibitions	yes	entire facility	recordkeeping
42. Open Burning	§ 42.1 Burning of Combustibles § 42.4 Open burning	yes	entire facility	recordkeeping
43. Odors In the Ambient Air	§ 43.1 Prohibitions	no	entire facility	recordkeeping

Applicable Section - Title	Applicable Subsection - Title	SIP	Affected Emission Unit	Compliance Method
60. Evaporation and Leakage	all subsections	yes	entire facility	recordkeeping
70. Emergency Procedures	all subsections	yes	entire facility	recordkeeping
80. Circumvention	all subsections	yes	entire facility	recordkeeping