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TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
APPLICATION FOR USE DETERMINATION
FOR POLLUTION CONTROL PROPERTY

TEXAS
COMMISSION
ON ENVIRONMENTAL
QUALITY

The TCEQ has the responsibility to determine whether a property is a pollution control property. A person seeking a use determination must complete the attached application or a copy or similar reproduction. For assistance in completing this form refer to the TCEQ guidelines document, *Property Tax Exemptions for Pollution Control Property*, as well as 30 TAC §17, rules governing this program. For additional assistance please contact the Tax Relief for Pollution Control Property Program, 239-3100. The application should be completed and mailed, along with a complete copy and the appropriate fee, to: TCEQ MC-214, Cashiers Office, PO Box 13088, Austin, Texas 78711-3088.

2008 MAY 23 AM 8:43

CHIEF CLERKS OFFICE

Information must be provided for each field unless otherwise noted.

1. GENERAL INFORMATION

A. What is the type of ownership of this facility?

- Corporation
- Partnership
- Limited Partnership
- Sole Proprietor
- Utility
- Other:

B. Size of company: Number of Employees

- 1 to 99
- 100 to 499
- 500 to 999
- 1,000 to 1,999
- 2,000 to 4,999
- 5,000 or more

C. Business Description: (Provide a brief description of the type of business or activity at the facility)

Electric Generation

2. TYPE OF APPLICATION

- Tier I \$150 Fee
- Tier II \$1,000 Fee
- Tier III \$2,500 Fee
- Tier IV \$500 Fee

NOTE: Enclose a check, money order to the TCEQ, or a copy of the ePay receipt along with the application to cover the required fee.

3. NAME OF APPLICANT

- A. Company Name: Tenaska Gateway Partners, Ltd.
- B. Mailing Address (Street or P.O. Box): 1044 N. 115 Street, Suite 400
- C. City, State, and Zip: Omaha, NE 68154-4446

4. PHYSICAL LOCATION OF PROPERTY REQUESTING A TAX EXEMPTION

- A. Name of Facility or Unit: Tenaska Gateway Generating Station
- B. Type of Mfg. Process or Service: Natural Gas- Fueled, Combined-Cycle Generation
- C. Street Address: SH 315
- D. City, State, and Zip: Mt. Enterprise, Texas 75681-0697
- E. Tracking Number (Optional): GATEWAY-2008-1
- F. Company or Registration Number (Optional): _____

5. APPRAISAL DISTRICT WITH TAXING AUTHORITY OVER PROPERTY

- A. Name of Appraisal District: Rusk County Appraisal District
- B. Appraisal District Account Number: _____

02 11914

6. CONTACT NAME

A. Company/Organization Name	<u>Tenaska, Inc.</u>
B. Name of Individual to Contact:	<u>David D. Johnson</u>
C. Mailing Address (Street or P.O. Box):	<u>1044 N. 115 Street, Suite 400</u>
D. City, State, and Zip:	<u>Omaha, NE 68154-4446</u>
E. Telephone number and fax number:	<u>Tel:(402)691-9533 Fax:(402) 691-9552</u>
F. E-Mail address (if available):	<u></u>

7. RELEVANT RULE, REGULATION, OR STATUTORY PROVISION

For each media, please list the specific environmental rule or regulation that is met or exceeded by the installation of this property.

MEDIUM	Rule/Regulation/Law
Air	Title 40 of the Code of Federal Regulations, Chapter 1, Subchapter C, Part 60, Subpart D, Section 60.44a ("40 CFR 60.44Da") Title 30 of the Texas Administrative Code, Part 1, Chapter 117, Subchapter E, Division 1, Rule 117.3010 ("30 TAC 117.3010")
Water	
Waste	

8. DESCRIPTION OF PROPERTY (Complete for all applications)

Describe the property and how it will be used at your facility. Do not simply repeat the description from the Equipment & Categories List. Include sketches of the equipment and flow diagrams of the processes where appropriate. Use additional sheets, if necessary.

**Heat Recovery Steam Generators and Enhanced Steam Turbine
Tier IV**

Statutes and Regulations

40 CFR 60.44Da establishes standards of performance for NOx for electric utility steam generating units for which construction commenced after September 18, 1978. 30 TAC 117.3010 establishes emissions specifications for NOx for utility electric generation in East and Central Texas, which includes Rusk County.

Property/Equipment Description

The Tenaska Gateway Generating Station (the Plant) is an 845 MW (nominal net capacity) natural gas-fueled, combined-cycle electric generating station. The Plant is a combined-cycle facility including three 170 Megawatt (MW) combustion turbine generators coupled with three thermally efficient heat recovery steam generators (HRSGs) and a single 335 MW steam turbine.

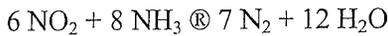
A combined cycle facility consists of one or more gas and steam turbines. The air expansion that occurs during the combustion process turns the gas turbine that drives the generator to produce electricity. The combustion in the gas turbine also produces a hot exhaust gas. In a combined cycle unit the heat produced during the combustion of natural gas is directed to the HRSG to generate steam used to turn a steam turbine. Therefore, both the gas and steam turbines generate electricity, achieving efficiencies of up to 55%.¹

¹ Bay Area 2005 Ozone Strategy

² EPA-452/F-03-032

A simple-cycle plant contains gas turbines without HRSGs or steam turbines. The air expansion that occurs during the combustion process turns the turbine that drives the generator to produce electricity and produces a hot exhaust gas.

One of the benefits of a combined cycle facility is lower NOx emissions per Megawatt-hour (MWh) generated. Assuming the same MWh production, a NOx pollution control device would have to be installed at simple cycle facility to achieve the lower NOx emissions achieved by a combined cycle process. NOx pollution control devices include selective catalytic reduction systems (SCR). A SCR unit reduces NOx emissions by injecting ammonia into the exhaust stream to react with the nitrous oxides to form nitrogen and water under the presence of a catalyst. The chemical reaction proceeds as follows:



The SCR unit consists of a catalytic honeycomb structure installed downstream of the combustion turbine prior the main exhaust stack and an ammonia injection skid. For the large 7FA GE turbines, the SCR installed capital costs range from \$2,000,000 to \$4,500,000 per gas turbine.^{1, 2} Based on the literature review, catalyst cost escalation since the publication of the literature, and the physical location of the plant (Rusk County), \$4,000,000 per turbine is the estimated cost to install a SCR unit at the Tenaska Gateway Plant.

In the combined-cycle configuration specific to the Plant, the HRSGs and the enhanced steam turbine provide an additional 335 MW capacity without the installation of SCR units to meet the NOx emissions requirements on a lbs-NOx per MW-hour generation basis. The total installed costs of the HRSGs and enhanced steam turbine is \$48,038,345.

Comparing the NOx emissions on a MWh basis shows that a simple cycle configuration would yield approximately 66% more NOx. The calculations are demonstrated by the following:

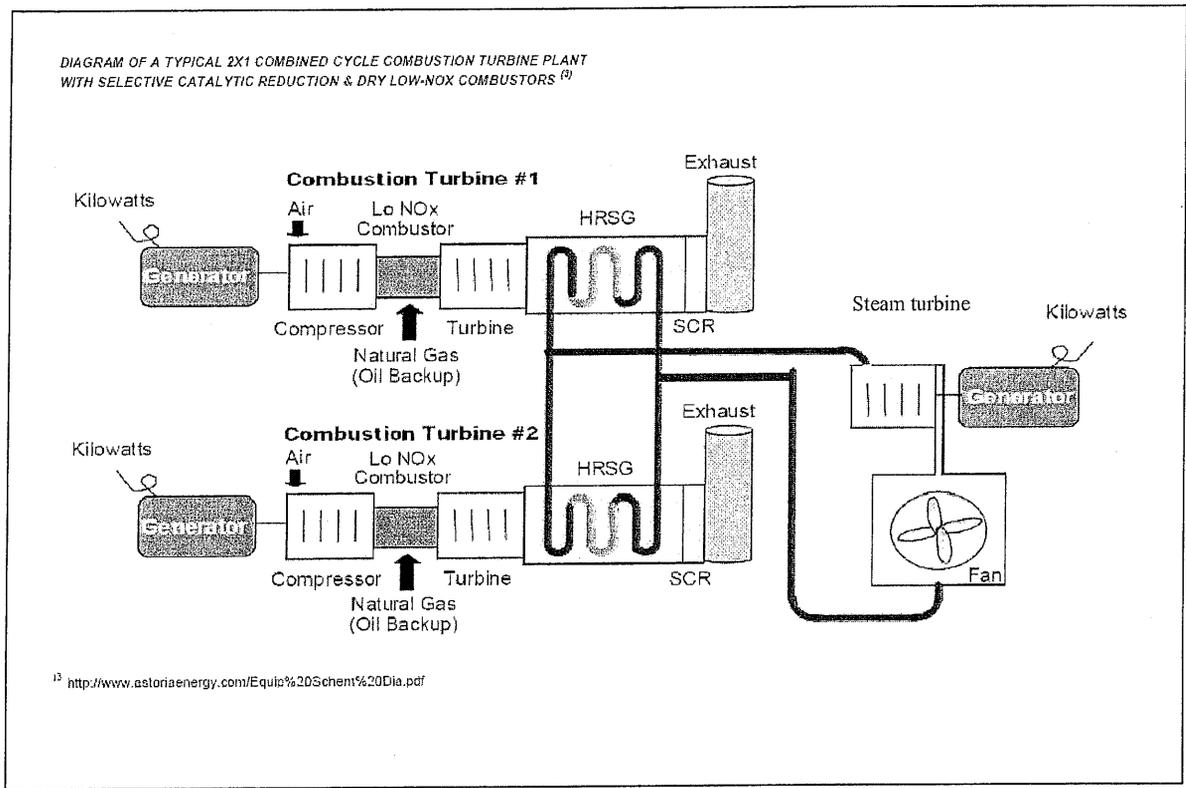
<u>Configuration</u>	<u>MW</u>	<u>Capacity Factor</u>	<u>Calculated MW</u>	<u>Increased NOx Emissions</u>
Combined Cycle	845	1.00	=845	
Simple Cycle	510	1.66	=845	66%

To achieve the reduced NOx emissions demonstrated by the combined cycle configuration, the simple cycle plant must install a SCR. Recognizing that the heat recovery steam generators and subsequent enhanced steam turbines have an economic benefit associated with them, the basis of this application is predicated on a substitution basis. If Tenaska did not install the additional heat recovery equipment, they would have had to install NOx pollution control devices in addition to the existing low NOx burner currently installed. The hypothetical installation of SCR units on each gas turbine would achieve the corresponding NOx emissions reductions. Therefore, this application seeks only the equivalent SCR cost for the exemption value of the HRSG and enhanced steam turbines.

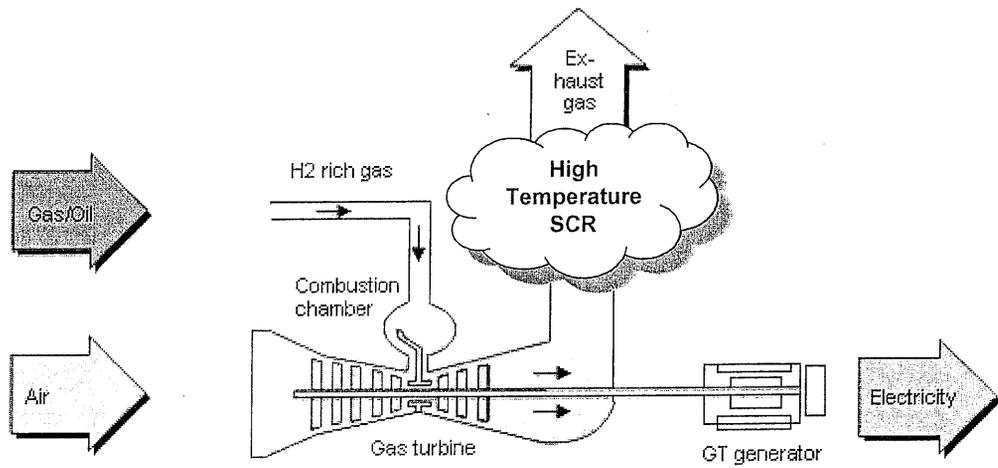
Tenaska Gateway Tier IV Methodology

	Generation / Emission Technology	
	<u>HRSG / Steam Turbine</u>	<u>SCR Technology</u>
HRSG Cost	\$34,640,309	-
Enhanced Steam Turbine	13,398,037	-
SCR Equivalent Cost	-	12,000,000
Total Capital Costs	\$48,038,346	\$12,000,000
Exemption %	25%	100%

The following diagram depicts a normal combined cycle configuration with low NOx combustion system and an SCR controlling the NOx emissions. This diagram is shown to show the normal configuration of a SCR installation.



The following diagram depicts a simple cycle power plant with a hypothetical high temperature SCR installed at the heat exhaust point of the simple cycle gas turbines.



9. PARTIAL PERCENTAGE CALCULATION

This section is to be completed for Tier III and IV applications. For information on how to conduct the partial percentage calculation, see the application instructions document. Attach calculation documents to completed application.

10. PROPERTY CATEGORIES AND COSTS

List each control device or system for which a use determination is being sought. Provide additional attachments for more than 3 properties.

Property	Taxable on 1/01/94?	DFC Box	ECL #	Estimated Cost	Use %
Land					
Property					
Heat Recovery Steam Generators / Enhanced Steam Turbine	No	B,3	B-8 / B-9	\$48,038,346	25%
Totals				\$48,038,346	25%

\$12,009,587

11. EMISSION REDUCTION INCENTIVE GRANT

(For more information about these grants, see the Application Instruction document).

Will an application for an Emission Reduction Incentive Grant be filed for this property/project?

Yes No

12. APPLICATION DEFICIENCIES

After an initial review of the application, the TCEQ may determine that the information provided with the application is not sufficient to make a use determination. The TCEQ may send a notice of deficiency, requesting additional information that must be provided within 30 days of the written notice.

13. FORMAL REQUEST FOR SIGNATURE

By signing this application, you certify that this information is true to the best of your knowledge and belief.

Name: Jerry K. C. Date: 3/7/08
 Title: Chief Financial Officer of
 Company: Tenaska VII, Inc. General Partner of Tenaska VII Partners, L.P. Managing General Partner

Under Texas Penal Code, Section 37.10, if you make a false statement on this application, you could receive a jail term of up to one year and a fine up to \$2,000, or a prison term of two to 10 years and a fine of up to \$5,000.

14. DELINQUENT FEE/PENALTY PROTOCOL

This form will not be processed until all delinquent fees and/or penalties owed to the TCEQ or the Office of the Attorney General on behalf of the TCEQ are paid in accordance with the Delinquent Fee and Penalty Protocol. (Effective September 1, 2006)



Tax Relief for Pollution Control Property

Application Form – Effective January 2008

DISCLAIMER

This document is intended to assist persons in applying for a use determination, pursuant to Title 30 Texas Administrative Code Chapter 17 (30 TAC 17). Conformance with these guidelines is expected to result in applications that meet the regulatory standards required by the Texas Commission on Environmental Quality (TCEQ). However, the TCEQ will not in all cases limit its approval of applications to those that correspond with the guidelines in this document. These guidelines are not regulation and should not be used as such. Personnel should exercise discretion in using this guidelines document. It should be used along with other relevant information when developing an application.

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

March 14, 2008

CHIEF APPRAISER
RUSK COUNTY APPRAISAL DISTRICT
PO BOX 7
HENDERSON TX 75653

This letter is to inform you that a Use Determination Application has been filed by:

TENSKA GATEWAY PARTNERS LTD

for:

TENASKA GATEWAY GENERATION STATION
SH 315, PO BOX 697
MOUNT ENTERPRISE TX 75681-0697

Appraisal District Account Number: **NOT LISTED**

This facility is located in **RUSK** County.

A complete copy of the application is included with this letter. We recommend that a copy of this application be shared with the person who conducts the appraisal of this property.

This application has been assigned a tracking number of **07 -11914**. Please contact the Tax Relief for Pollution Control Property Program at (512) 239-3100 if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ron Hatlett".

Ron Hatlett
Tax Relief for Pollution Control Property Program

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

April 8, 2008

TENASKA INC
DAVID D JOHNSON
1044 N 115 ST #400
OMAHA NE 68154 -4446

This letter is to inform you that on 4/8/2008, Use Determination Application, **07-11914** (self assigned tracking number **GATEWAY-2008-1**), was declared to be administratively complete. This application was filed for the following facility:

TENASKA GATEWAY GENERATION STATION
SH 315, PO BOX 697
MOUNT ENTERPRISE TX 75681 0697

The next step in the Use Determination Application process is the technical review of the application. If this is a Tier I, II, or III application the technical review will be completed within sixty days of the administrative complete date. If this is a Tier IV application the technical review will be completed within 30 days of the administrative complete date. If additional technical information is required a notice of deficiency letter (NOD) will be issued. The time period between the issuance of the NOD and the receipt of the response is not counted in determining the length of the technical review. The TCEQ will notify you after the technical review has been completed. In accordance with the statute, the TCEQ has mailed a notice of receipt of this Use Determination Application to the **RUSK** County Appraisal District. Please contact the Tax Relief for Pollution Control Property Program at (512) 239-3100 if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "Ron Hatlett".

Ron Hatlett
Tax Relief for Pollution Control Property Program

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 1, 2008

CHIEF APPRAISER
RUSK COUNTY APPRAISAL DISTRICT
PO BOX 7
HENDERSON, TX 75653

This letter is to inform you that on 5/1/2008, a final determination was issued with regard to Use Determination application 07-11914, filed by:

TENASKA GATEWAY PARTNERS LTD
TENASKA GATEWAY GENERATION STATION
SH 315, PO BOX 697
MOUNT ENTERPRISE, TX 75681

A copy of the use determination is included with this letter. House Bill 3121, enacted during the 77th Legislature Session, established a process for appealing a use determination. The Texas Commission on Environmental Quality (TCEQ) rules that implement the appeals process are at 30 TAC 17.25. Pursuant to 17.25(a)(1), an appeal must be filed within 20 days of receipt of the use determination. Should you choose to appeal the use determination, please submit a copy of your appeal to the TCEQ Tax Relief for Pollution Control Property program at the time of filing the appeal with the Chief Clerk of the commission.

In order to qualify for a tax exemption, the applicant must file an exemption request with your appraisal district. This exemption request must be accompanied by a copy of the positive use determination issued by the TCEQ. If you have any questions regarding this Use Determination or the appeals process, please call me at 512/239-3100.

Sincerely,

A handwritten signature in black ink, appearing to read "David Greer".

David Greer
Team Leader, Pollution Prevention

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

May 1, 2008

TENASKA INC
DAVID D JOHNSON
1044 N 115 ST #400
OMAHA, NE 68154 4446

This letter is to inform you that on 5/1/2008, the technical review of Use Determination Application 07-11914 was completed. This application is for:

TENASKA GATEWAY PARTNERS LTD
TENASKA GATEWAY GENERATION STATION
SH 315, PO BOX 697
MOUNT ENTERPRISE, TX 75681 0697

The use determination is included with this letter. In order to request an exemption, a copy of this Use Determination, along with a completed exemption request form #50-248 (can be found at www.cpa.state.tx.us), must be provided to the Chief Appraiser of the appropriate appraisal district. This request must be made by April 30.

House Bill 3121, enacted during the 77th Legislative Session, established a process for appealing a use determination. The Texas Commission on Environmental Quality (TCEQ) rules that implement the appeals process are at 30 TAC 17.25. Pursuant to 17.25(a)(1), an appeal must be filed within 20 days of receipt of the use determination. Should you choose to appeal the use determination, please submit a copy of your appeal to the TCEQ Tax Relief for Pollution Control Property program at the time of filing the appeal with the Chief Clerk of the commission.

If you have any questions or require any additional information, please contact the Tax Relief for Pollution Control Property Program at (512) 239-3100.

Sincerely,

A handwritten signature in black ink, appearing to read "David Greer".

David Greer
Team Leader, Pollution Prevention

Buddy Garcia, *Chairman*
Larry R. Soward, *Commissioner*
Bryan W. Shaw, Ph.D., *Commissioner*
Glenn Shankle, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

USE DETERMINATION

The Texas Commission on Environmental Quality has reviewed Use Determination Application, 07-11914, filed by:

**TENSKA GATEWAY PARTNERS LTD
TENASKA GATEWAY GENERATION STATION
SH 315, PO BOX 697
MOUNT ENTERPRISE TX 75681**

The pollution control property/project listed in the Use Determination Application is:

This facility has three combustion turbine generators coupled with three thermally efficient heat recovery steam generators (HRSGs) and one enhanced steam turbine. This application is a Tier IV application seeking a partial use determination for the HRSGs and the enhanced steam turbines.

The outcome of the review is:

A 100% positive use determination for the three Heat Recovery Steam Generators. This equipment is considered to be pollution control equipment and was installed to meet or exceed federal or state regulations.

A negative determination is issued for the steam turbine. The use of the steam turbine does not provide an environmental benefit at the site. The steam turbine is not considered to be pollution control equipment.


Executive Director

May 1, 2008
Date

TAX RELIEF FOR POLLUTION CONTROL PROPERTY: TECHNICAL REVIEW DOCUMENT

Reviewed By: RLH

App. No.: 07 - 11914

Review Start Date: 4/8/2008

Company Name: TENSKA GATEWAY PARTNERS LTD

Facility Name: TENASKA GATEWAY GENERATION STATION

County: RUSK Outstanding Fees: N

Batch/Voucher Number: B99788

ADMINISTRATIVE REVIEW

Administrative Complete Date: 4/8/2008

TIER LEVEL

What Tier is this application? The application was filed as a Tier IV application. Is this the appropriate level?

The property listed on this application, Heat Recovery Steam Generators and a steam turbine are items B8 and B10 on the Equipment and Categories List. This application was filed as a Tier IV. Tier IV is the appropriate level for this application.

RELEVANT RULE, REGULATION, OR STATUTORY PROVISION

The rule listed in the application is: 40 CFR 60.44Da

The appropriate rule is: 40 CFR 60.44Da

Explain why this is the appropriate rule?

40 CFR 60.Subpart DA: Standards of Performance for New Stationary Sources. Standards of performance for Electric Utility Steam Generating Units for Which Construction is Commenced after September 18, 1978. This is an appropriate rule.

BRIEF DESCRIPTION OF PROPERTY

The property is described as:

This facility has three combustion turbine generators coupled with three thermally efficient heat recovery steam generators (HRSGs). This application is a Tier IV application seeking a partial use determination for the three HRSGs and the enhanced steam turbines. To generate the equivalent amount of power using combustion turbine they would have needed to install a Selective Catalytic Reduction System. The application requests a partial determination.

Is an adequate description and purpose of the property provided? Does it list the anticipated environmental benefits? Are sketches and flow diagrams provided if needed?

An adequate description of the property was provided, and the purpose of the property was listed. The anticipated environmental benefit is listed. Sketches and flow diagrams were provided.

DECISION FLOWCHART(30 TAC 17.15(a))

Mark the appropriate boxes: Box 3 Box 5 Box 6(IV) Y Box 10(III) Box 12(I) Box 13(II)

PART B DECISION FLOWCHART (17.15(b))

Mark the appropriate boxes: Box 1Y Box 2 Y Box 3 Y

Describe how the property flowed through the Decision Flowchart:

The Heat Recovery Steam Generators (HRSGs) are listed on Part B of the Equipment &

Categories List as item B-8. As Part B equipment the HRSGs leave the Decision Flow Chart at Box 6 and pass through Box 1 of the Part B Decision Flow Chart with a yes answer. Since the use of HRSGs provide an environmental benefit of reduced NOx emissions at the site there is a yes answer for Box 2. Since there is a reduction in NOx emissions there is an environmental rule which is being met, so there is a yes answer to Box 3. The steam turbine passes through Box 1 on the Part B Decision Flow Chart with a yes answer. Since the use of the steam turbine does not provide an environmental benefit at the site a no answer is the result of Box 2. The steam turbine is not eligible for a positive determination.

TIER III or IV APPLICATIONS

Does your calculation agree with the applicants?

No. The application contains a proposed formula for calculating the pollution control value of the HRSGs and the steam turbine. The formula is outcome determinative, and its focus is not on the pollution control aspect of the property. The Executive Director disagrees with this formula.

PROPERTY CATEGORIES AND COSTS

Is the table completed correctly? Has the applicant certified that all listed property became taxable for the first time after January 1, 1994? Is all information necessary for conducting the technical review included.

The table was completed correctly. The applicant certified that all listed property became taxable for the first time after January 1, 1994. All the information necessary for conducting the technical review was included on the application.

TECHNICAL DEFICIENCIES

Is the application complete as received: Y If the application was not administratively complete explain below when justifying the final decision in the final determination section. If the application was not technically complete then:

Provide the language to be used in the Notice of Deficiency (NOD) letter:

Summarize the NOD response:

Provide the language used in the second NOD letter:

Summarize the second NOD response:

Provide the language used in the thied NOD letter:

Summarize the third NOD response:

FINAL DETERMINATION

If the property description has been summarized enter the detailed property description:

This facility has three combustion turbine generators coupled with three thermally efficient heat recovery steam generators (HRSGs). This application is a Tier IV application seeking a partial use determination for the three HRSGs and the enhanced steam turbines. To generate the equivalent amount of power using combustion turbine they would have needed to install a Selective Catalytic Reduction System. The application requests a partial determination.

Provide the reason for your final determination:

The Heat Recovery Steam Generators meet all of the requirements of Chapter 17. A positive use determination based on the most appropriate formula should be issued for the Heat Recovery Steam Generators. The most appropriate formula has been determined by the Executive Director. A negative determination should be issued for the steam turbine. The use of the steam turbine does not result in there being an environmental benefit at the site.

Provide the language for the final determination.

A positive use determination of 100% for the three Heat Recovery Steam Generators. A negative determination is issued for the steam turbine. The use of the steam turbine does not provide an environmental benefit at the site. The steam turbine is not considered to be pollution control equipment.

Highlight the required signatures and establish the appropriate due dates.

Reviewed: *Ronald Hatlett* Date Signed: 5/1/2008

Peer Reviewed: *Gary M. Arthur* Date Signed: 5/1/2008

Team Leader: *Dave L.* Date Signed: 5/1/08

Section Manager: *Gladys M. [Signature]* Date Signed: MAY 1 2008

Division Director: *Gladys M. [Signature]* Date Signed: MAY 1 2008