**HUGH L. LANDRUM & ASSOCIATES, INC.**
*Valuation Engineers Since 1963*

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
2009 JAN -7 AM 10:09
CHIEF CLERKS OFFICE

January 6, 2009

Texas Commission on Environmental Quality
LaDonna Castanuela, Chief Clerk
Attention: Agenda Docket Clerk
TCEQ Office of Chief Clerk (MC 105)
P. O. Box 13087
Austin, TX 78711-3087

**Re: Appeal of the Executive Director's Use Determinations regarding Navasota Wharton Energy Partners LP, TCEQ Use Determination No. 07-11926; TCEQ Docket No. 2008-0851-MIS-U.**

To the Honorable Members of the Texas Commission on Environmental Quality:

**Request:** We respectfully request that the TCEQ reverse the decision made by the Executive Director and find a Negative Determination which would deny any exemption on the Heat Recovery Steam Generators (B-8) in Use Determination 07-11926. We concur with the Negative Determination made by the Executive Director for the Steam Turbine (B-10) in the same Use Determination. Since it was not appealed by the property owner within the allotted time frame, the determination on the steam turbine should not be open for discussion.

We oppose the Heat Recovery Steam Generator being determined, even partially, as a pollution control device for many different reasons.

1) **HRSG's themselves do not reduce pollution, the pollution control equipment hanging on or placed inside them do.**

2) **The pollution control equipment that does reduce pollution has previously been exempted under Use Determination 07-11925. To now find a positive determination for the entire HRSG as a pollution control device is effectively exempting that previously exempted equipment twice.**

3) **If the costs of the pollution control components that are exempted under Use Determination 07-11925 are subtracted from the total costs of the HRSG, the only parts left to exempt are the non-pollution control, production components of the HRSG which fails the determination flow chart.**

4) **No distinction was made between HRSG's that have duct burners, which dramatically increase the amount of NOx produced and HRSG's that do not have duct burners.**

**Office 281-484-7000 Fax 281-484-7272 12621 Featherwood Drive, Suite 325 Houston, TX 77034**

5) **All HRSG's that applied were granted a 100% positive determination regardless of whether the applicant applied for a 16% exemption or a 503% exemption.**

6) **The positive determination is based on a comparison of NOx reduction and increased thermal efficiency of the industry standard combined cycle power plant with out of date, simple cycle technology. This effectively expands the definition of pollution control device to include anything that improves energy efficiency.**

**Justification**

1) *HRSG's themselves do not reduce pollution, the pollution control equipment hanging on or placed inside them do.*

Gas fired, combined cycle power plants have been around for many years. We currently appraise a number of gas fired power plants that have HRSG's that are over 20 years old and still in operation today. These plants were built before the recent NOx, SO2 and CO2 air emission standards that we have today. They were built with HRSG's to be more thermally efficient and therefore more financially competitive and profitable. To say that modern, gas fired, combined cycle power plants are built with HRSG's to reduce pollution is simply not true.

These older power plants released a tremendous amount of NOx, SO2 and CO2 into the atmosphere every day even with the HRSG's attached to them. It wasn't until more recent and more stringent air emission standards were imposed that these companies went out and attached air scrubbers, low NOx burners and emission monitors to their HRSG's to begin reducing their pollution output. The HRSG's don't reduce the pollution, the pollution control equipment placed inside them does.

2) *The pollution control equipment that does reduce pollution has previously been exempted under Use Determination 07-11925. To now find a positive determination for the entire HRSG as a pollution control device is effectively exempting that previously exempted equipment twice.*

Navasota Wharton Energy Partners applied for and received a Positive Use Determination for its Continuous Emissions Monitoring Systems (CEMS), Selective Catalytic and Noncatalytic Reduction Systems (SCR), New Stack Construction (HRSG), and HRSG Low NOx Burners in 2007 under Use Determination 07-11925 provided as in Exhibit 1. The applicant has stated "All costs associated of the equipment that is within the granted exemption 07-11925 was not included within this Tier IV Application (07-11926)," but has failed to list or demonstrate in any way that this equipment (07-11925) was actually removed or is not being applied for twice. That would seem to be an extremely simple demonstration to provide and one that would silence a number of our oppositions, but when challenged, the applicant still fails to provide any data.

Having no other information to go on, we believe that a positive determination on the HRSG's as a whole exempts the previously exempted pollution control equipment (07-11925) twice.

3) *If the costs of the pollution control components that are exempted under Use Determination 07-11925 are subtracted from the total costs of the HRSG, the only parts left to exempt are the non-pollution control, production components of the HRSG which fails the determination flow chart.*

If we are able to get past our opposition number 2 and take the applicant's assertions as facts, with no supporting data, we have now exempted all components from the HRSG's that actually reduce pollution. What we are left with is the production equipment that is not capable of reducing pollution. This leftover equipment fails the TCEQ's own Determination Flow Chart Figure 30 TAC 17.15(a), provided as Exhibit 2 in both boxes 3 and 5 which result in box number 4 "Not eligible."

4) *No distinction was made between HRSG's that have duct burners, which dramatically increase the amount of NOx produced and HRSG's that do not have duct burners.*

Many combined cycle, gas fired power plants and cogeneration facilities have additional heating sources within the HRSG's called Duct Burners. These allow for more control of the temperature of the HRSG and therefore more reliability and control of the steam that is generated by the HRSG. As ambient, outdoor temperatures fluctuate throughout the year, they have an impact on the consistency of the temperature within the HRSG needed for steam generation. These duct burners allow a power plant to adjust and maintain constant steam generation throughout the year.

However, duct burners are gas fired burners that generate NOx, SO2 and CO2, many times, more pollutants than the gas turbine burners produce. This would make the HRSG a pollution generator; meaning a gas fired, combined cycle power plant with a HRSG with duct burners would produce <u>more</u> pollutants than a simple cycle gas turbine with no HRSG.

The Executive Director makes no distinction between HRSG's with duct burners and HRSG's without duct burners even though the quantity of pollutants generated are dramatically different. The Executive Director has evaluated the best case scenario, no duct burners, and applied it to all HRSG's. We don't believe that the Executive Director was given all of the information available regarding duct burners and the pollution generating capabilities of HRSG's and therefore cannot make a proper ruling applicable to all HRSG's.

5) *All HRSG's that applied were granted a 100% positive determination regardless of whether the applicant applied for a 16% exemption or a 503% exemption.*

Of the applications received by the TCEQ for Use Determination on HRSG's many of them were requesting less than 100% exemption based on the calculation used to determine the pollution reduction. Some of these included pollution control calculations from 13%, 22%, 35%, 61.5%, 165%, 226%, 299%, 398% to 504%. See Exhibit 3. We understand the Executive Director's desire to have one standard determination for all similar HRSG's, but don't agree with it. The property owners know their plants better than the Executive Director or I do and, therefore, each application should be evaluated on its own, based on its own merits.

6) *The positive determination is based on a comparison of NOx reduction and increased thermal efficiency of the industry standard combined cycle power plant with out of date, simple cycle technology. This effectively expands the definition of pollution control device in include anything that improves energy efficiency.*

The applicant compares the NOx emission of the new power plant with NOx emissions from hypothetical, out of date technology. It is our belief that if this hypothetical, out of date technology were in place and in use today it would have to meet the same air emission standards that the current plant is under. This would imply that no NOx reduction would occur as the older technology would have to be

retrofitted with new pollution control devices to meet today's standards. The applicant is comparing apples and oranges to arrive at a desired result.

In considering thermal energy efficiency improvement, the Executive Director is opening a Pandora's Box as most new technology in Industrial properties is more energy efficient in some way and could thereby be considered a pollution control device.

- A new steam boiler that is more energy efficient and emits fewer pollutants than the old boiler that it replaces could be considered a pollution control device along with the entire Tier I pollution control equipment that is hanging off the unit.
- All of the heat exchangers used throughout the refineries and chemical plants in the State that use a waste heat source to warm a cooler product stream could be considered pollution control devices because they are more thermally efficient than generating the heat by burning natural gas. Heat exchangers are a closed loop system. No pollution or product is released.
- A new, energy efficient ethylene furnace that produces the same amount of product with less natural gas and produces less pollution because of its state of the art pollution control equipment than a hypothetical, out of date unit would be considered due to its increased thermal efficiency and NOx reduction even though it's a giant furnace.

These examples don't make sense to me the same way a steam boiler could get a positive determination because it uses a waste heat stream and natural gas burners to boil water and yet a similar boiler that uses only natural gas burners could not.

**Conclusion**

We hope that the Commission will consider our arguments and reverse the Executive Director's Positive Use Determination for the HRSG's. This equipment has never qualified for a full or even a partial exemption before and we feel that they don't today. We are certain that all of the equipment that truly reduces pollution at this site has already been exempted (07-11925). We just feel that this is a step above and beyond what Proposition 2 allows and what is being done in coal fired and nuclear power plants, refineries, chemical plants and all other industrial facilities across the State. Once we exempt a process unit as a whole because it has pollution control equipment attached to it, our approach to all process units will have to change and the exemptions will grow exponentially and undeservedly.

We have included as an Addendum a letter from the Texas Conference of Urban Counties expressing their shared concerns regarding the Determination on the HRSG's.

Thank you for your time. Should you have any further questions or require any additional information on this matter, please, do not hesitate to contact my office.

Sincerely,

*Hugh L. Landrum, Jr.*

Hugh L. Landrum, Jr., PE, RPA RTA
Hugh L. Landrum & Associates, Inc.

# Exhibit 1

## TCEQ Use Determination 07-11925

Exempted Pollution Control Equipment
Associated with the HRSG's

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J.R.

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 19, 2008

CHIEF APPRAISER
**WHARTON** COUNTY APPRAISAL DISTRICT
**2407 1/2 N RICHMOND RD**
**WHARTON TX 77488**

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

**NAVASOTA WHARTON ENERGY PARTNERS LP**

for:

**COLORADO BEND**
**3821 S STATE HWY 60**
**WHARTON TX 77488-**

Appraisal District Account Number: **10258-000-000-00**

This facility is located in **WHARTON** 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 -11925**. Please contact the Tax Relief for Pollution Control Property Program at (512) 239-3100 if you have any questions.

Sincerely,

Ron Hatlett
Tax Relief for Pollution Control Property Program

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

The TCEQ has the responsibility to determine whether a property is a pollution control property. A person seeking a use determination for pollution control property must complete the attached application or use 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 at (512) 239-3100. The application should be completed and mailed, along with a complete copy and appropriate fee, to: TCEQ MC-214, Cashiers Office, P.O. Box 13088, Austin, Texas 78711-3088.

## 1. GENERAL INFORMATION

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

- ☐ Corporation
- ☐ Sole Proprietor
- ☐ Partnership
- ☐ Utility
- ☑ Limited Partnership
- ☐ Other

B. Size of company: Number of Employees

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

C. Business Description: **Electricity Manufacturing (SIC 4911)**

## 2. TYPE OF APPLICATION

- ☑ **Tier I $150 Application Fee**
- ☐ **Tier III $2,500 Application Fee**
- ☑ **Tier II $1,000 Application Fee**
- ☐ **Tier IV $500 Application Fee**

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

## 3. NAME OF APPLICANT

A. Company Name: Navasota Wharton Energy Partners LP

B. Mailing Address (Street or P.O. Box): 403 Corporate Woods

C. City, State, ZIP: Magnolia, TX 77354

## 4. PHYSICAL LOCATION OF PROPERTY REQUESTING A TAX EXEMPTION

A. Name of facility: Colorado Bend

B. Type of Mfg Process or Service: Electricity Manufacturing (SIC 4911)

C. Street Address: 3821 S. State Hwy 60

D. City, State, ZIP: Wharton, TX 77488

E. Tracking Number Assigned by Applicant: DPCOBend2008A

F. Customer Number or Regulated Entity Number: N/A

## 5. APPRAISAL DISTRICT WITH TAXING AUTHORITY OVER PROPERTY

A. Name of Appraisal District: Wharton

B. Appraisal District Account Number: 10258-000-000-00; 10-20500000-0200-67099; 20063-000-055-00

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07-11925

## 6. CONTACT NAME (must be provided)

| | | |
|---|---|---|
| A. Company/Organization Name: | Duff and Phelps LLC | |
| B. Name of Individual to Contact: | Greg Maxim | |
| C. Mailing Address: | 919 Congress Ave. | Suite 1450 |
| D. City, State, ZIP: | Austin, TX 78701 | |
| E. Telephone number and fax number: | (512) 671-5580 | Fax (512) 671-5501 |
| F. E-Mail address (if available): | gregory.maxim@duffandphelps.com | |

## 7. RELEVANT RULE, REGULATION, OR STATUTORY PROVISION

Please reference Section 8. Each item is detailed with the proper statute, regulation, or environmental regulatory provision.

## 8. DESCRIPTION OF PROPERTY

The Colorado Bend Energy Center (the "Facility"), owned by Navasota Wharton Energy Partners LP, is a combined cycle natural-gas fired power plant located in Wharton, Wharton County, Texas. The Facility is intended to have a total capacity of 825 Mw, built in three phases. Phase has a capacity of 275 Mw and was completed in June of 2007. Phase 2, currently under construction, is to be completed in June of 2008 and will also have a 275 Mw capacity. Each phase consists of 2 GE 7-EA combustion turbine units utilizing the GE Dry Low NOx combustion control system technology, 2 heat recovery steam generating (HRSG) units, and one steam turbine unit. The Facility utilizes a cooling tower within the circulating water system for condenser cooling water needs and condensate return purposes.

Schedule 10 reflects pollution control additions for Phase I in service during 2007 as well as projected pollution control additions for Phase II to be completed and recorded to project actuals and in service.

**Item #1 & 13 Demisters or Mist Eliminators Added Tier I - A-2**

*30 Texas Administrative Code §111.151(a); 30 Texas Administrative Code §111.153; 40 CFR 60 Subpart D Sec. 60.42*

Each gas combustion turbine and steam turbine has been equipped with demisters that allow oil to be captured at each seal oil system, thereby preventing air pollution.

**Item #2 & 14 Continuous Emission Monitors (CEMS) Tier I - A-61**

*30 Texas Administrative Code §115; 30 Texas Administrative Code §117.8110 (a); 30 Texas Administrative Code §111.111a(2); 40 CFR §60.13; 40 CFR 60 Subpart DA; 40 CFR 60 Subpart GG*

Continuous Emissions Monitoring Systems (CEMs) have been installed at all the combined cycle unit stacks for continuous monitoring of nitrogen oxides (NOx) and carbon monoxide (CO) in accordance with both federal and state regulations. The CEMs help to control, reduce, and monitor emissions.

**Item #3 & 15 Selective Catalytic and Non-catalytic Reduction Systems Tier I - A-80**

*30 Texas Administrative Code §106.512; 40 CFR 60 Subpart D Sec. 60.44*

A Selective Catalytic Reduction (SCR) system has been installed on all gas turbines at the facility. SCR systems work by injecting aqueous ammonia (NH3) into the exhaust gas stream - upstream from a catalyst. Nitrogen oxides, NH3, and oxygen react on the surface of the catalyst to reduce nitrogen oxide (NOx) emissions. This system reduces NOx emissions as required by federal and state regulations.

**Item #16 Water/Steam Injection System Tier I - A-84**

*30 Texas Administrative Code §106.512; 40 CFR 60 Subpart D Sec. 60.44*

Steam injection equipment has been installed on the gas turbines in order to decrease NOx levels in the exhaust gas. The cooling of combustion gases from steam (or water) injection in the combustion chamber allows for the decrease in NOx emissions.

**Item #4 & 17 New Stack Construction (HRSG) Tier I - A-182**

*30 Texas Administrative Code §106.512(6)(B); 30 Texas Administrative Code §111.151; 30 Texas Administrative Code §111.153*

Flue gas emissions from each of the combined cycle units are exhausted through a stack on the HRSG. The exhaust stacks control the dispersion of the emissions into the atmosphere including any remaining amounts of nitrogen oxides (NOx), sulfur oxides (SOx), or carbon monoxides (CO) thereby reducing air contamination.

**Item #5 & 18 New Stack Construction (Auxiliary Boiler) Tier I - A-182**

*30 Texas Administrative Code §106.512(6)(B); 30 Texas Administrative Code §111.151; 30 Texas Administrative Code §111.153*

Emissions from the auxiliary boiler are exhausted through a stack, which controls the dispersion of the emissions into the atmosphere including any remaining amounts of nitrogen oxides (NOx), thereby reducing air contamination.

**Item #6 & 19 Water Recycling Systems (Boiler Blowdown) Tier I - W-58**

*30 Texas Administrative Code §210; 30 Texas Administrative Code §308; 30 Texas Administrative Code §327; 30 Texas Administrative Code §307; Texas Water Code, Subchapter D, Section 26.121; 40 Code of Federal Regulations, Ch. 1, §403.5*

The system collects blow-down water and drains from the HRSGs and routes it to the respective blow-down sump and then to the cooling tower basin for reuse. The collection and reuse of the blow-down water and HRSG drains minimizes the amount of waste generated by the plant and the amount of makeup water required by the plant.

**Item #7 & 20 Oil / Water Separators Tier I - W-67**

*30 Texas Administrative Code §307; Texas Water Code, Subchapter D, Section 26.121; 40 Code of Federal Regulations, Ch. 1, §403.5*

The oil/water separator receives the discharge of each of the combustion and steam turbine area sumps. The oil/water separator separates oil from the stormwater before discharging it to the wastewater treatment facility. This systems prevents wastewater from entering ground and surface water prior to undergoing proper treatment.

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**Item #8 & 21 Dielectric Coatings Tier I - T-32**

*Texas Water Code, Subchapter D, Section 26.121; 30 Texas Administrative Code §307; 30 Texas Administrative Code §334.5 (a); (UTANKS only)*

Cathodic protection (consisting of dielectric coatings) has been applied to all tanks and piping. Cathodic protection prevents corrosion and the resulting release of hydrocarbons or other pollutants into the air, water and ground.

**Item #9 & 22 Secondary Containment (Generator Step-Up Transformers) Tier I - S-6**

*30 Texas Administrative Code §335.4; Texas Water Code, Subchapter D, Section 26.121*

A concrete containment and collection system is constructed around each of the generator step up (GSU) units to prevent any transformer oil accidentally released from coming into contact with the soil or groundwater, thereby preventing contamination.

**Item #10 & 23 Secondary Containment (Chemical and Oil Waste) Tier I - S-6**

*30 Texas Administrative Code §335.4; Texas Water Code, Subchapter D, Section 26.121*

Secondary containment structures are installed in areas where possible oil and chemical wastes may be present. The secondary containments consist of concrete structures and concrete curbing that provide containment of the affected wastes until they can be properly treated and/or removed for off-site disposal. Secondary containments have been installed at the cooling tower, chemical unloading, the aqueous ammonia (NH3) tanks, the auxiliary boiler, the raw water treatment system, the de-mineralized water treatment system, steam turbine generator lube oil, and the main transformers.

**Item #11 & 24 Dry-Low NOx Combustion System Tier II**

*30 Texas Administrative Code §106.512; 40 CFR 60 Subpart D Sec. 60.44*

The Dry Low NOx Combustion System for the combustion turbines when combined with the Selective Catalytic Reduction System are required to meet the air permit requirement for NOx for the two combustion turbine systems installed in the Facility. The actual and final capital expenditures made during Facility construction for these NOx combustion control systems permit the Facility to meet and/or exceed current Facility permit limits for NOx emissions through the installation of such Combustion System control technology.

**Item #12 & 25 HRSG Low NOx Burners Tier II**

*30 Texas Administrative Code §106.512; 40 CFR 60 Subpart D Sec. 60.44*

The Heat Recovery Steam Generators (HRSGs) are equipped with duct burners for supplementary firing capability. Each of the HRSG duct burner systems are of a low NOx emissions design, which reduces pollution from nitrogen oxides.

**Item #26 & 27 Secondary Containment (Combustion Turbines) Tier I - S-6**

*30 Texas Administrative Code §335.4; Texas Water Code, Subchapter D, Section 26.121*

A concrete containment and collection system is constructed around each of the combustion turbine units to prevent any oil or lubricants accidentally released from coming into contact with the soil or groundwater, thereby preventing contamination.

## 9. PARTIAL PERCENTAGE CALCULATION

N/A.

## 10. PROPERTY CATEGORIES AND COSTS

See attached Schedule 10.

## 11. EMISSION REDUCTION INCENTIVE GRANT

Will an application for an Emission Reduction Incentive Grant be on file for this property/project:

[ ] Yes [X] 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 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: _____ DATE: 18 MARCH 2008

TITLE: Director

COMPANY: Duff & Phelps LLC

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 9/1/2006)

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Navasota - Colorado Bend - Phase I
3821 S. State Hwy 60
TCEQ Use Determination Application - 2008
Scheule 10
Tier I

10. PROPERTY CATEGORIES AND COS

| PROPERTY | PROJECT ID. NO. | IN SERVICE DATE | TAXABLE ON OR BEFORE 1/1/94? (Y / N) | DECISION FLOW CHART (DFC) BOX | ECL NUMBER | ESTIMATED PURCHASE COST | % EXEMPT | EXEMPT COST |
|---|---|---|---|---|---|---|---|---|
| Demisters | 1 | 2007 | N | 12 | A-2 | $ 119,958 | 100% | $ 119,958 |
| Continuous Emissions Monitoring Systems (CEMS) | 2 | 2007 | N | 12 | A-61 | $ 372,148 | 100% | $ 372,148 |
| Selective Catalytic and Non-Catalytic Reduction Systems | 3 | 2007 | N | 12 | A-80 | $ 2,926,408 | 100% | $ 2,926,408 |
| New Stack Construction (HRSG) | 4 | 2007 | N | 12 | A-182 | $ 1,582,741 | 100% | $ 1,582,741 |
| New Stack Construction (Aux Boiler) | 5 | 2007 | N | 12 | A-182 | $ 78,101 | 100% | $ 78,101 |
| Water Recycling Systems (Boiler Blowdown) | 6 | 2007 | N | 12 | W-58 | $ 627,393 | 100% | $ 627,393 |
| Oil/Water Separator | 7 | 2007 | N | 12 | W-67 | $ 144,470 | 100% | $ 144,470 |
| Dielectric Coatings (Cathodic Protection) | 8 | 2007 | N | 12 | T-32 | $ 780,480 | 100% | $ 780,480 |
| Secondary Containment (Generator Step-Up Transformer) | 9 | 2007 | N | 12 | S-6 | $ 410,668 | 100% | $ 410,668 |
| Secondary Containment (Chemical and Oil Waste) | 10 | 2007 | N | 12 | S-6 | $ 955,662 | 100% | $ 955,662 |
| Secondary Containment (Combustion Turbines) | 26 | 2007 | N | 12 | S-6 | $ 1,413,982 | 100% | $ 1,413,982 |
| | | | | | Tier I Total | $9,412,012 | | $ 9,412,012 |

Navasota - Colorado Bend - Phase I
3821 S. State Hwy 60
TCEQ Use Determination Application - 2008
Scheule 10
Tier II

10. PROPERTY CATEGORIES AND COS

| PROPERTY | PROJECT ID. NO. | IN SERVICE DATE | TAXABLE ON OR BEFORE 1/1/94? (Y / N) | DECISION FLOW CHART (DFC) BOX | ECL NUMBER | ESTIMATED PURCHASE COST | % EXEMPT | EXEMPT COST |
|---|---|---|---|---|---|---|---|---|
| Dry-Low NOx Combustion System | 11 | 2007 | N | 13 | | $ 10,706,860 | 100% | $ 10,706,860 |
| HRSG Low NOx Burners | 12 | 2007 | N | 13 | | $ 1,155,333 | 100% | $ 1,155,333 |
| | | | | | Tier II Total | $ 11,862,193 | | $ 11,862,193 |
| | | | | | Grand Total | | | $ 21,274,204 |



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Navasota - Colorado Bend - Phase I
3821 S. State Hwy 60
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Scheule 10
Tier I

10. PROPERTY CATEGORIES AND COS

| PROPERTY | PROJECT ID. NO. | IN SERVICE DATE | TAXABLE ON OR BEFORE 1/1/94? (Y / N) | DECISION FLOW CHART (DFC) BOX | ECL NUMBER | ESTIMATED PURCHASE COST | % EXEMPT | EXEMPT COST |
|---|---|---|---|---|---|---|---|---|
| Demisters | 13 | CWIP | N | 12 | A-2 | $ 119,958 | 100% | $ 119,958 |
| Continuous Emissions Monitoring Systems (CEMS) | 14 | CWIP | N | 12 | A-61 | $ 287,408 | 100% | $ 287,408 |
| Selective Catalytic and Non-Catalytic Reduction Systems | 15 | CWIP | N | 12 | A-80 | $ 2,926,408 | 100% | $ 2,926,408 |
| Water/Steam Injection | 16 | CWIP | N | 12 | A-84 | $ 904,344 | 100% | $ 904,344 |
| New Stack Construction (HRSG) | 17 | CWIP | N | 12 | A-182 | $ 1,582,741 | 100% | $ 1,582,741 |
| New Stack Construction (Aux Boiler) | 18 | CWIP | N | 12 | A-182 | $ 78,101 | 100% | $ 78,101 |
| Water Recycling Systems (Boiler Blowdown) | 19 | CWIP | N | 12 | W-58 | $ 707,178 | 100% | $ 707,178 |
| Oil/Water Separator | 20 | CWIP | N | 12 | W-67 | $ 185,227 | 100% | $ 185,227 |
| Dielectric Coatings (Cathodic Protection) | 21 | CWIP | N | 12 | T-32 | $ 980,614 | 100% | $ 980,614 |
| Secondary Containment (Generator Step-Up Transformer) | 22 | CWIP | N | 12 | S-6 | $ 955,662 | 100% | $ 955,662 |
| Secondary Containment (Chemical and Oil Waste) | 23 | CWIP | N | 12 | S-6 | $ 410,668 | 100% | $ 410,668 |
| Secondary Containment (Combustion Turbines) | 27 | CWIP | N | 12 | S-6 | $ 1,413,982 | 100% | $ 1,413,982 |
| | | | | | Tier I Total | $10,552,292 | | $10,552,292 |

Navasota - Colorado Bend - Phase II
3821 S. State Hwy 60
TCEQ Use Determination Application - 2008
Scheule 10
Tier II

10. PROPERTY CATEGORIES AND COS

| PROPERTY | PROJECT ID. NO. | IN SERVICE DATE | TAXABLE ON OR BEFORE 1/1/94? (Y / N) | DECISION FLOW CHART (DFC) BOX | ECL NUMBER | ESTIMATED PURCHASE COST | % EXEMPT | EXEMPT COST |
|---|---|---|---|---|---|---|---|---|
| Dry-Low NOx Combustion System | 24 | CWIP | N | 13 | | $ 13,252,427 | 100% | $ 13,252,427 |
| HRSG Low NOx Burners | 25 | CWIP | N | 13 | | $ 1,155,333 | 100% | $ 1,155,333 |
| | | | | | Tier II Total | $ 14,407,760 | | $ 14,407,760 |
| | | | | | Grand Total | | | $ 24,960,052 |



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And Associates

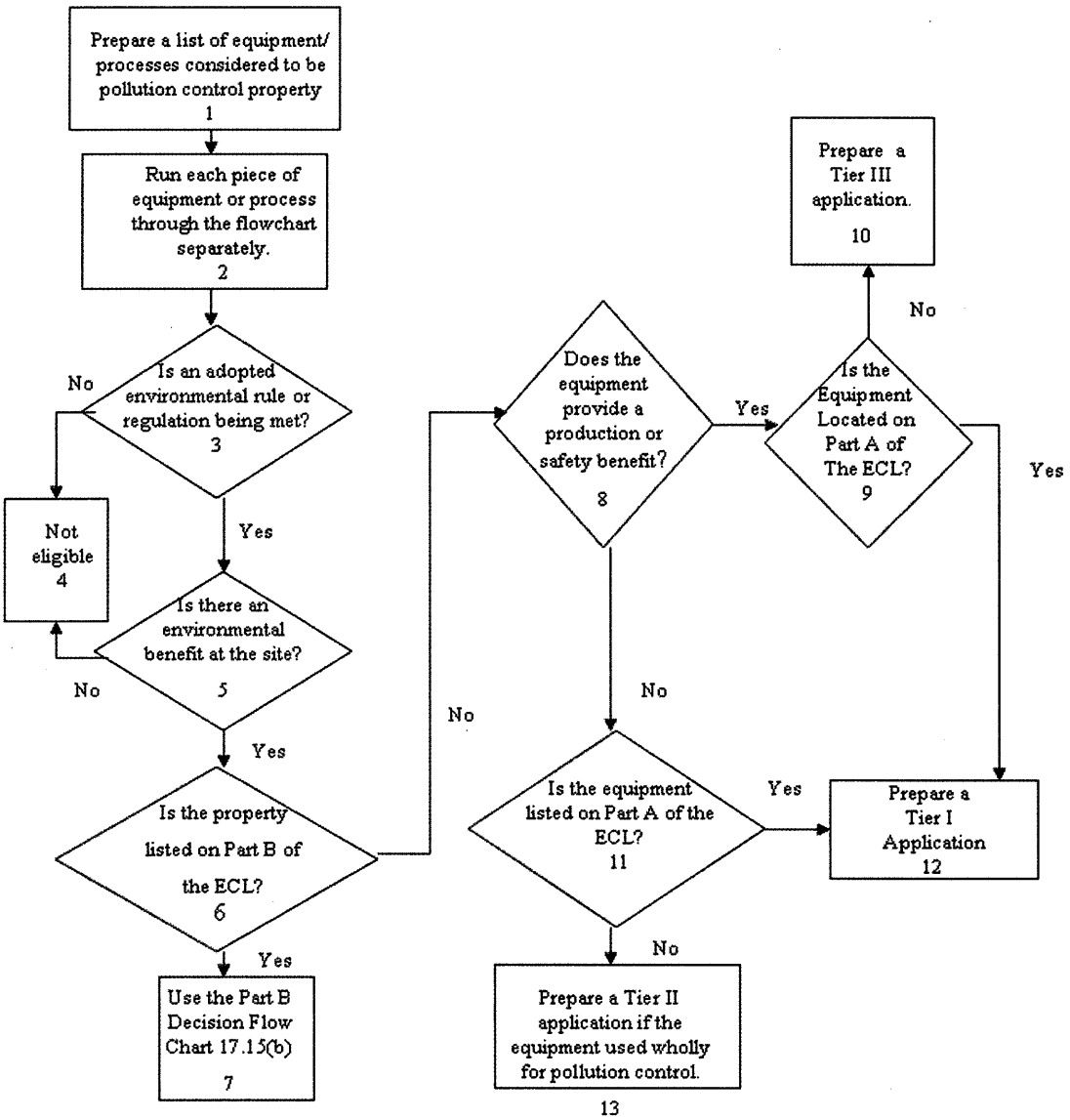
# Exhibit 2

## TCEQ Decision Flow Chart

Figure: 30 TAC 17.15(a)

Figure: 30 TAC §17.15(a) **Decision Flow Chart**

Applicants must use this flowchart for each piece of equipment or process. In order for a piece of equipment or process to be eligible for a positive use determination the item must generate 'yes' answers to the questions asked in boxes 3 and 5. ECL means the Equipment and Categories List adopted under Texas Tax Code, §11.31(g).




Boxes 2 through 5 are used to determine if the property is pollution control property. Boxes 6 through 13 are used to determine the percentage of the use determination.

Where:

- Prepare a list of all property that is considered to be pollution control property.
- Process each item on the list through the flow chart separately.
- Determine the specific state, local, or federal environmental regulation, rule or law that is being met or exceeded by the use of this property.
- Determine the environmental benefit that this property provides at the site where it is installed.
- Determine if the property is listed on Part B of the ECL
- Determine if the equipment is only partly used for pollution control. If it is used only partly, and is not listed on Part A of the Equipment and Categories List (ECL), then a Tier III application must be filed and the partial determination calculation detailed in §17.17 Partial Determinations must be used.
- If the equipment is listed in Part A on the ECL, determine the reference number for that item. Include all equipment for the project in a single list that is included with the application
- If the equipment is not in Part A on the list prepare a Tier II application.

# Exhibit 3

## Listing of All Tier IV Applications Submitted

Comparison of Exemption Requested and Exemption Granted

# HB 3732 Tier IV Exemptions

| Application | Name of Applicant | County, Location | Type of Equipment | Cost of Equip | Type of Calculation | Sought | TCEQ Determination if any | Representation |
|---|---|---|---|---|---|---|---|---|
| 08-211914 | Tenaska Gateway | Mt.Enterprise, Rusk | HSRG and Enahanced Steam Turbine | $48,040,000 | Compared with Simple Cycle with SCR | 25% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-211915 | Tenaska Frontier | Shiro, Grimes | HSRG and Enahanced Steam Turbine | $55,180,000 | Compared with Simple Cycle with SCR | 22% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-211916 | Florida Power and Light | Forney, Kaufman | HSRG and Enahanced Steam Turbine | $129,890,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211917 | Lamar Power Partners-FPL | Paris, Lamar | HSRG and Enahanced Steam Turbine | $69,950,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211921 | Rio Nogales | Sequin, Guadalupe | HSRG and Enahanced Steam Turbine | $55,820,000 | Compared with Simple Cycle with SCR | 22% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-211926 | Navasota Wharton | Colorado Bend, Wharton | HSRG and Enahanced Steam Turbine | $36,640,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211927 | Navasota Odessa | Odessa, Ector | HSRG and Enahanced Steam Turbine | $39,600,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211942 | Odessa-Ector Power Partners | Odessa, Ector | HSRG and Enahanced Steam Turbine | $119,550,000 | Compared with Simple Cycle with SCR | 13% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-211943 | Guadalupe Power | Marlon, Guadalupe | HSRG and Enahanced Steam Turbine | $112,500,000 | Compared with Simple Cycle with SCR | 14% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-211964 | GentexPower Corporation | Bastrop, Bastrop | HSRG and Enahanced Steam Turbine | $94,690,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211965 | Calpine Contstruction-Magic V | Edinburg, Hidalgo | HSRG and Enahanced Steam Turbine | $60,640,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211966 | Freestone Power-Fairfield | Fairfield, Freestone | HSRG and Enahanced Steam Turbine | $62,270,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211967 | Deer Park Energy Center | Deer Park, Harris | HSRG and Enahanced Steam Turbine | $72,900,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211968 | Corpus Christi Cogeneratn | Corpus Christi, Nueces | HSRG and Enahanced Steam Turbine | $45,970,000 | Output-based Emissions | 71% | 100% on HRSG, 0% on Turbine | |
| 08-211969 | Brazos Valley Energy | Richmond, Fort Bend | HSRG and Enahanced Steam Turbine | $56,910,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211970 | Baytown Energy | Baytown, Chambers | HSRG and Enahanced Steam Turbine | $58,410,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211971 | Borger Energy Blackhawk st | Borger, Hutchinson | HSRG and Enahanced Steam Turbine | $13,900,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211972 | GS Electric Generation Coop | Mustanq, Denver City, Yoakum | HSRG and Enahanced Steam Turbine | $53,360,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-211994 | Freeport Energy Center | Freeport, Brazoria | HSRG and Enahanced Steam Turbine | $41,300,000 | % Reduction of Emissions compared with Old Plant | 100% | 100% on HRSG, 0% on Turbine | Dow |
| 08-212000 | Frontera Generation | Mission, Hidalgo | HSRG and Enahanced Steam Turbine | $51,740,000 | Compared with Simple Cycle with SCR | 16% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-212001 | Bastrop Energy | Cedar Creek, Bastrop | HSRG and Enahanced Steam Turbine | $36,600,000 | Compared with Simple Cycle with SCR | 22% | 100% on HRSG, 0% on Turbine | Thomson |
| 08-212003 | NRG Texas-Cedar Bayou IV | Baytown,Champers | HSRG and Enahanced Steam Turbine | $95,060,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-212004 | NRG Texas-Limestone | Jewett, Limestone | HSRG (Economizers within boiler) | $9,340,000 | Output-based Emissions | 100% | No Decision | Duff & Phelps |
| 08-212005 | NRG Wharton | Houston, Harris | HSRG | $12,840,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-212015 | Pasadena Cogeneration | Pasadena, Harris | HSRG and Enahanced Steam Turbine | $36,700,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-212016 | Channel Energy | Pasadena, Harris | HSRG and Enahanced Steam Turbine | $54,210,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-212202 | Wise Electric Power | Poolville, Wise | HSRG | $46,000,000 | Efficiency-Based Output | 61.2% | No Decision | Cummings |
| 08-212203 | Ennis Power Plant | Ennis, Ellis | HSRG and Enahanced Steam Turbine | $22,020,000 | Efficiency-Based Output | 61.2% | No Decision | Cummings |
| 08-212210 | Topaz Power | Corpus Christi, Nueces | HSRG and Enahanced Steam Turbine | $120,890,000 | Output-based Emissions | 100% | 100% on HRSG, 0% on Turbine | Duff & Phelps |
| 08-212211 | Topaz Power | Corpus Christi, Nueces | HSRG and Enahanced Steam Turbine | $121,100,000 | Output-based Emissions | 100% | No Decision | Duff & Phelps |
| 08-212268 | Wolf Hollow | Granbury, Hood | HSRG | $35,000,000 | Efficiency-Based Output | 61.2% | No Decision | Cummings |
| 08-212269 | Gregory Power Partners | Gregory, San Patricio | HSRG | $35,100,000 | Efficiency-Based Output | 61.2% | No Decision | Cummings |
| 08-212270 | Sabine Cogeneration Plant | Orange, Orange | HSRG | $34,000,000 | Efficiency-Based Output | 61.2% | No Decision | Cummings |
| 08-212271 | Midlothian Energy | Venus, Ellis | HSRG and Enahanced Steam Turbine | $41,830,000 | Efficiency-Based Output | 35% | No Decision | |
| 08-212272 | Hays Energy | San Marcos, Hays | HSRG and Enahanced Steam Turbine | $44,150,000 | Efficiency-Based Output | 35% | No Decision | |
| 08-212696 | EN Services | Marshall, Harrison | HSRG and Enahanced Steam Turbine | | | | | |
| | | | | $2,024,100,000 | | | | |

# Addendum

## Texas Conference of Urban Counties

Letter of Opposition

TEXAS *Conference of*
# Urban Counties

**Chairman**
Judge
Mike Bradford
*Midland County*

**Chair Elect**
Commissioner
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*Hidalgo County*

**Executive Director**
Donald Lee

**Member Counties**
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*Dallas ~ Denton*
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*Hays ~ Hidalgo*
*Hunt ~ Jefferson*
*Johnson ~ Kaufman*
*Lubbock ~ McLennan*
*Midland ~ Nueces*
*Randall ~ Rockwall*
*San Patricio ~ Tarrant*
*Travis ~ Williamson*
*Wise*

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January 5, 2009

Commmissioner Buddy Garcia
Chairman, Texas Commission on Environmental Quality
MC-100
P.O. Box 13087
Austin, Texas 78711-3087
Hand Delivered

Re: **Opposition to the Proposed Pollution Control Tax Exemption Determinations on HRSG Units by TCEQ (Docket Nos. 2008-0850-MIS-U; 2008-0849-MIS-U; and others)**

Dear Chairman Garcia:

The Texas Conference of Urban Counties respectfully requests that the TCEQ reject the staff proposal to make a pollution control use determination of 61% for Heat Recovery Steam Generators (HRSG).

The analysis provided in the Executive Director's brief does not support the exemption of the value of a HRSG as a pollution control device. The method proposed is to subtract the "thermal efficiency increase" from 100% to arrive at a 61% determination on the value of the pollution control property.

This new method is makes no more sense than the methodologies found in the original applications. Nothing in the brief directly ties energy efficiency to the production value of the purported pollution control property. Without such a link, simply subtracting out the efficiency increase and assuming the remainder is the proper determination amount produces nonsensical results:

- A piece of equipment that increases energy efficiency by 39% receives a 61% partial determination as pollution control property.
- A piece of equipment that increases energy efficiency by 100% (or more) qualifies for nothing.
- A piece of equipment that provides no energy efficiency increase would qualify for a total exemption.

There may well be a simple way to correctly calculate the productive value and pollution control value of a HRSG, but clearly this calculation is not that way. The Urban Counties are open to any discussion to assist the TCEQ in finding a resolution to this issue, but there has yet to be analysis provided that supports an exemption determination.

It appears that the TCEQ Executive Director does not consider HRSGs to be entirely pollution control equipment. However, the fact that the TCEQ previously granted 100% determinations based on flawed calculations makes it imperative that the TCEQ carefully consider the consequences of

the latest proposal. In the absence of a better alternative, the TCEQ should take advantage of the structure it already has to determine partial exemptions. The TCEQ should use the Tier III process, which uses procedures that are long established and widely accepted in determining partial use exemptions.

The TCEQ should also consider using the "productive value test" suggested by Wayne Frazell of Pritchard and Abbott during the stake holder meetings. In order to determine if a piece of equipment has full or partial productive value, just determine the impact on production of its removal. For example, if a catalytic converter is removed from an engine, the engine continues to produce the same horsepower. In this case, if the HRSG is removed, the steam driven generator simply does not function. This would seem to be a clear indication that a HRSG is used to produce a product (steam) that is sold or used in production and as such, is not pollution control property.

As competitors in the market, power generation companies have the right and the obligation to cut their costs and increase their production through the use of new and innovative equipment that is more practical and efficient. However, the people of Texas and the state legislature never intended for the Prop. 2 program to become a windfall tax break for businesses that install more efficient modern equipment that incidentally reduces pollution, but whose specific installation is not required by federal, state, or local law.

It is useful to recall that during the rulemaking to develop the Tier IV process, the Attorney General and several of the legislative sponsors of HB 3732 made it clear that the list of equipment contained in the bill is not, and was not intended to be, an expansion of the Prop. 2 Program. The Urban Counties reiterates its stance at the time that the passage of HB 3732 does not require TCEQ to grant any exemptions for Part B property nor does it change the standards for making exemption determinations.

Thank you for considering our concerns and we hope that the TCEQ will take steps to ensure that the Prop 2 process continues to be administered carefully in order to avoid creating a substantial shift in the property tax base to the detriment of residential taxpayers.

Sincerely,

Donald Lee
Executive Director

cc:
Fort Bend County Appraisal District
Brazoria County Appraisal District