



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road, MS#5505  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

March 16, 2007

*Certified Mail – Return Receipt Requested*

Ms. Jeanne Zokovitch Paben  
Senior Staff Attorney / Director ACES Program  
Wild Law  
1415 Devils Dip  
Tallahassee, FL 32308

RE: Public Records Request

Dear Ms. Zokovitch Paben:

We are in receipt of your letter dated March 1, 2007 requesting public records and also regarding notifications of all future actions taken regarding the Taylor Energy Center. In our letter of response dated March 9, 2007 we addressed your request for notification of all future actions taken regarding Taylor Energy Center. This letter of response is regarding your request for any public records that the Department may have on file for Taylor Energy Center. As we mentioned in the previous correspondence, Taylor Energy has not submitted an application as of yet. However, the Department does have e-mail correspondence regarding the Taylor Energy Center. Therefore, please find enclosed these public records that you requested.

If you have any questions, please contact Mr. Koerner or me at 850/488-0114 and Mr. Halpin at 850/245-8002. In addition, you may contact Ms. Robinette or Mr. Goorland in our Office of General Counsel at 850/245-2242.

Sincerely,

Trina L. Vielhauer, Chief  
Bureau of Air Regulation

Attachments

TLV/vg

cc: Mr. Michael Halpin, DEP Siting Coordination Office\* [mike.halpin@dep.state.fl.us](mailto:mike.halpin@dep.state.fl.us)  
Mr. Scott Goorland, DEP Office of General Counsel\* [scott.goorland@dep.state.fl.us](mailto:scott.goorland@dep.state.fl.us)  
Ms. Rebecca Robinette, DEP Office of General Counsel\* [rebecca.robinette@dep.state.fl.us](mailto:rebecca.robinette@dep.state.fl.us)  
Ms. Patty Adams, DEP Bureau of Air Regulation\* [patty.adams@dep.state.fl.us](mailto:patty.adams@dep.state.fl.us)  
Mr. Al Linero, DEP Bureau of Air Regulation\* [alvaro.linero@dep.state.fl.us](mailto:alvaro.linero@dep.state.fl.us)

(\*) All of the above cc's were sent an electronic copy with received receipt requested with out the attachments.

7006 2760 0005 4026 0294

**U.S. Postal Service™**  
**CERTIFIED MAIL™ RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

For delivery information visit our website at [www.usps.com](http://www.usps.com)®

**OFFICIAL USE**

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark  
Here

Sent To	
Jeanne Zokovitch Paben	
Street, Apt. No. or PO Box Devils Dip	
City, State, ZIP+4 Tallahassee, FL 32308	
PS Form 3800, August 2006	See Reverse for Instructions

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jeanne Zokovitch Paben, Esq.  
 WildLaw  
 1415 Devils Dip  
 Tallahassee, FL 32308

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature <b>X</b> <i>[Signature]</i>	<input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee
B. Received by: (Printed Name) <i>BETHAS PABEN</i>	C. Date of Delivery <i>3/19/07</i>
D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No	

3. Service Type	
<input checked="" type="checkbox"/> Certified Mail	<input type="checkbox"/> Express Mail
<input type="checkbox"/> Registered	<input checked="" type="checkbox"/> Return Receipt for Merchandise
<input type="checkbox"/> Insured Mail	<input type="checkbox"/> C.O.D.

4. Restricted Delivery? (Extra Fee)	<input type="checkbox"/> Yes
-------------------------------------	------------------------------

2.

7006 2760 0005 4026 0294



**From:** Gibson, Victoria  
**Sent:** Friday, March 16, 2007 3:40 PM  
**To:** Halpin, Mike; Goorland, Scott; Robinette, Rebecca; Adams, Patty; Linero, Alvaro  
**Cc:** Vielhauer, Trina; Koerner, Jeff  
**Subject:** Letter of Response to WildLaw for its Public Records Request -- sent out Mar 16th.pdf - Adobe Reader

**Importance:** High

**Attachments:** Letter of Response to WildLaw for its Public Records Request -- sent out Mar 16th



Letter of Response  
to WildLaw ...

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached documents. This may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the documents.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:  
<http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicants, the engineering community, and the public. Please advise this office of any changes to your e-mail address.

Thank you,  
DEP, Bureau of Air Regulation

*Vickie*

Victoria Gibson, Administrative Secretary for  
Trina Vielhauer, Chief  
Bureau of Air Regulation  
Department of Air Resource Management  
[victoria.gibson@dep.state.fl.us](mailto:victoria.gibson@dep.state.fl.us)  
850-921-9504 fax 850-921-9533

**Adams, Patty**

---

**From:** Koerner, Jeff  
**Sent:** Friday, February 23, 2007 1:51 PM  
**To:** Kirts, Christopher  
**Subject:** RE: Taylor County waste contact

Thanks, Chris!

Jeff

---

**From:** Kirts, Christopher  
**Sent:** Friday, February 23, 2007 11:21 AM  
**To:** Koerner, Jeff  
**Subject:** FW: Taylor County waste contact

fyi

-----Original Message-----

**From:** Halpin, Mike  
**Sent:** Friday, February 23, 2007 9:40 AM  
**To:** Fitzsimmons, Michael  
**Cc:** Kirts, Christopher  
**Subject:** Taylor County waste contact

Mike --

I was contacted by Jack Doolittle of ECT regarding the proposed Taylor County Energy Center. In addition to letting us know that application would be arriving in mid-March, Jack wanted to find out who his contacts would be for Solid Waste Management Facilities & Class-I Landfills.

Basically, it sounds as if they will be submitting a Site Certification Application with little information about their by-product storage areas, other than to say that they will comply with 62-701. I believe that ECT would like to schedule a meeting with the appropriate District folks to discuss these specific issues in more detail in order to ensure that the District's concerns are addressed.

Can you let me know who the appropriate District contact should be for Jack?

Thanks

Mike Halpin  
Administrator, Siting Coordination Office  
850/245-8005

3/15/2007

**Adams, Patty**

---

**From:** Becky Berentsen [BeckyB@hgslaw.com]  
**Sent:** Tuesday, February 20, 2007 8:58 AM  
**To:** Koerner, Jeff  
**Subject:** RE: Taylor SCA copies - question

Wonderful, I will update our list. Thanks for the quick reply. Becky

>>> "Koerner, Jeff" <Jeff.Koerner@dep.state.fl.us> 2/20/2007 8:03 AM >>>  
Becky,

One complete and 5 of just the Air Permit Application would be great.

Thanks!

Jeff Koerner, BAR - Air Permitting North  
Florida Department of Environmental Protection  
850/921-9536

---

**From:** Becky Berentsen [mailto:BeckyB@hgslaw.com]  
**Sent:** Monday, February 19, 2007 2:03 PM  
**To:** Koerner, Jeff  
**Subject:** Taylor SCA copies - question

Mr. Koerner - I am keeping a list of the copies we are to send out of the Taylor Energy SCA. I recently received your e-mail stating that you will need 6 copies. Angela had spoken with Scott Goorland and he asked that we send 1 full copy of the SCA, and 3 sets of just the Air Permit Application. To clarify my list, would you like 6 complete sets of the SCA? Or one complete and 5 of just the Air Permit Application? Please let me know. Thanks for your assistance - Becky

Becky Berentsen  
Legal Assistant to Angela Morrison Uhland and Dan Stengle  
Hopping Green & Sams, P.A.  
123 South Calhoun St.  
P.O. Box 6526  
Tallahassee, FL 32314  
(850) 222-7500  
Fax: (850) 224-8551  
Email: [BeckyB@hgslaw.com](mailto:BeckyB@hgslaw.com)  
Direct No.: (850) 425-3456

Notice: The information contained in this email message is Attorney/Client Privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copy of this communication is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone at (850) 425-3456 and delete the original message. Thank you.

3/15/2007

**Adams, Patty**

---

**From:** Becky Berentsen [BeckyB@hgslaw.com]  
**Sent:** Monday, February 19, 2007 2:03 PM  
**To:** Koerner, Jeff  
**Subject:** Taylor SCA copies - question

Mr. Koerner - I am keeping a list of the copies we are to send out of the Taylor Energy SCA. I recently received your e-mail stating that you will need 6 copies. Angela had spoken with Scott Goorland and he asked that we send 1 full copy of the SCA, and 3 sets of just the Air Permit Application. To clarify my list, would you like 6 complete sets of the SCA? Or one complete and 5 of just the Air Permit Application? Please let me know. Thanks for your assistance - Becky

Becky Berentsen  
Legal Assistant to Angela Morrison Uhland and Dan Stengle  
Hopping Green & Sams, P.A.  
123 South Calhoun St.  
P.O. Box 6526  
Tallahassee, FL 32314  
(850) 222-7500  
Fax: (850) 224-8551  
Email: [BeckyB@hgslaw.com](mailto:BeckyB@hgslaw.com)  
Direct No.: (850) 425-3456

Notice: The information contained in this email message is Attorney/Client Privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copy of this communication is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone at (850) 425-3456 and delete the original message.  
Thank you.

3/15/2007

**Adams, Patty**

---

**From:** Vielhauer, Trina  
**Sent:** Tuesday, October 31, 2006 12:21 PM  
**To:** Oven, Hamilton; Koerner, Jeff  
**Subject:** RE: Taylor County Energy Center

ok. We'll be there. What room # is the Energy conference room?

---

**From:** Oven, Hamilton  
**Sent:** Tuesday, October 31, 2006 11:17 AM  
**To:** Vielhauer, Trina; Koerner, Jeff  
**Subject:** RE: Taylor County Energy Center

Jack Doolittle asked that BAR be represented.

---

**From:** Vielhauer, Trina  
**Sent:** Tuesday, October 31, 2006 11:11 AM  
**To:** Oven, Hamilton  
**Cc:** Koerner, Jeff  
**Subject:** RE: Taylor County Energy Center

Thanks, Buck. We'll plan to be there unless we hear they want to meet separately on PSD.

---

**From:** Oven, Hamilton  
**Sent:** Tuesday, October 31, 2006 10:41 AM  
**To:** Halpin, Mike; Linero, Alvaro; Vielhauer, Trina; Koerner, Jeff; Stoutamire, Jim; Tedder, Richard  
**Cc:** Kirts, Christopher; Maher, Jim; Seiler, Ann; Skinner, Karen; Korokous, Landa; Goorland, Scott  
**Subject:** Taylor County Energy Center

ECT wants to come in for a pre-application meeting on the Taylor Energy Center @ 10:00 a.m. on November 8. We'll meet in the energy Office Conference Room.

NE District, do you want us to set up a Call In Number?

3/15/2007



**Adams, Patty**

---

**From:** Koerner, Jeff  
**Sent:** Friday, February 09, 2007 8:47 AM  
**To:** Tom Davis (tdavis@ectinc.com)  
**Subject:** Taylor

Tom,

I spoke with Angela Morrison earlier in the week. She asked how many copies we would need for our office and I said four. It looks like we'll need 6 copies.

Thanks!

Jeff Koerner, BAR - Air Permitting North  
Florida Department of Environmental Protection  
850/921-9536

**Adams, Patty**

---

**From:** Koerner, Jeff  
**Sent:** Tuesday, February 20, 2007 8:04 AM  
**To:** 'Becky Berentsen'  
**Subject:** RE: Taylor SCA copies - question

Becky,

One complete and 5 of just the Air Permit Application would be great.

Thanks!

Jeff Koerner, BAR - Air Permitting North  
Florida Department of Environmental Protection  
850/921-9536

---

**From:** Becky Berentsen [mailto:BeckyB@hgslaw.com]  
**Sent:** Monday, February 19, 2007 2:03 PM  
**To:** Koerner, Jeff  
**Subject:** Taylor SCA copies - question

Mr. Koerner - I am keeping a list of the copies we are to send out of the Taylor Energy SCA. I recently received your e-mail stating that you will need 6 copies. Angela had spoken with Scott Goorland and he asked that we send 1 full copy of the SCA, and 3 sets of just the Air Permit Application. To clarify my list, would you like 6 complete sets of the SCA? Or one complete and 5 of just the Air Permit Application? Please let me know. Thanks for your assistance - Becky

Becky Berentsen  
Legal Assistant to Angela Morrison Uhland and Dan Stengle  
Hopping Green & Sams, P.A.  
123 South Calhoun St.  
P.O. Box 6526  
Tallahassee, FL 32314  
(850) 222-7500  
Fax: (850) 224-8551  
Email: [BeckyB@hgslaw.com](mailto:BeckyB@hgslaw.com)  
Direct No.: (850) 425-3456

Notice: The information contained in this email message is Attorney/Client Privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copy of this communication is strictly prohibited. If you have received this communication in error, please immediately notify us by telephone at (850) 425-3456 and delete the original message. Thank you.

3/15/2007

**Adams, Patty**

---

**From:** Oven, Hamilton  
**Sent:** Tuesday, October 31, 2006 12:17 PM  
**To:** Vielhauer, Trina; Koerner, Jeff  
**Subject:** RE: Taylor County Energy Center

Jack Doolittle asked that BAR be represented.

---

**From:** Vielhauer, Trina  
**Sent:** Tuesday, October 31, 2006 11:11 AM  
**To:** Oven, Hamilton  
**Cc:** Koerner, Jeff  
**Subject:** RE: Taylor County Energy Center

Thanks, Buck. We'll plan to be there unless we hear they want to meet separately on PSD.

---

**From:** Oven, Hamilton  
**Sent:** Tuesday, October 31, 2006 10:41 AM  
**To:** Halpin, Mike; Linero, Alvaro; Vielhauer, Trina; Koerner, Jeff; Stoutamire, Jim; Tedder, Richard  
**Cc:** Kirts, Christopher; Maher, Jim; Seiler, Ann; Skinner, Karen; Korokous, Landa; Goorland, Scott  
**Subject:** Taylor County Energy Center

ECT wants to come in for a pre-application meeting on the Taylor Energy Center @ 10:00 a.m. on November 8.  
We'll meet in the energy Office Conference Room.

NE District, do you want us to set up a Call In Number?

**Adams, Patty**

---

**From:** Kirts, Christopher  
**Sent:** Friday, February 23, 2007 11:21 AM  
**To:** Koerner, Jeff  
**Subject:** FW: Taylor County waste contact

fyi

-----Original Message-----

**From:** Halpin, Mike  
**Sent:** Friday, February 23, 2007 9:40 AM  
**To:** Fitzsimmons, Michael  
**Cc:** Kirts, Christopher  
**Subject:** Taylor County waste contact

Mike -

I was contacted by Jack Doolittle of ECT regarding the proposed Taylor County Energy Center. In addition to letting us know that the application would be arriving in mid-March, Jack wanted to find out who his contacts would be for Solid Waste Management Facilities & Class-I Landfills.

Basically, it sounds as if they will be submitting a Site Certification Application with little information about their by-product storage areas, other than to say that they will comply with 62-701. I believe that ECT would like to schedule a meeting with the appropriate District folks to discuss these specific issues in more detail in order to ensure that the District's concerns are addressed.

Can you let me know who the appropriate District contact should be for Jack?

Thanks

Mike Halpin  
Administrator, Siting Coordination Office  
850/245-8005

3/15/2007

**Adams, Patty**

---

**From:** Vielhauer, Trina  
**Sent:** Tuesday, October 31, 2006 12:11 PM  
**To:** Oven, Hamilton  
**Cc:** Koerner, Jeff  
**Subject:** RE: Taylor County Energy Center

Thanks, Buck. We'll plan to be there unless we hear they want to meet separately on PSD.

---

**From:** Oven, Hamilton  
**Sent:** Tuesday, October 31, 2006 10:41 AM  
**To:** Halpin, Mike; Linero, Alvaro; Vielhauer, Trina; Koerner, Jeff; Stoutamire, Jim; Tedder, Richard  
**Cc:** Kirts, Christopher; Maher, Jim; Seiler, Ann; Skinner, Karen; Korokous, Landa; Goorland, Scott  
**Subject:** Taylor County Energy Center

ECT wants to come in for a pre-application meeting on the Taylor Energy Center @ 10:00 a.m. on November 8.  
We'll meet in the energy Office Conference Room.

NE District, do you want us to set up a Call In Number?

3/15/2007

**Adams, Patty**

---

**From:** Oven, Hamilton

**Date:** Tuesday, October 31, 2006 11:41 AM

**To:** Halpin, Mike; Linero, Alvaro; Vielhauer, Trina; Koerner, Jeff; Stoutamire, Jim; Tedder, Richard

**Cc:** Kirts, Christopher; Maher, Jim; Seiler, Ann; Skinner, Karen; Korokous, Landa; Goorland, Scott

**Subject:** Taylor County Energy Center

ECT wants to come in for a pre-application meeting on the Taylor Energy Center @ 10:00 a.m. on November 8. We'll meet in the energy Office Conference Room.

NE District, do you want us to set up a Call In Number?

3/15/2007

## Adams, Patty

---

From: Vielhauer, Trina  
Sent: Thursday, March 08, 2007 9:50 AM  
To: Koerner, Jeff; Halpin, Mike  
Cc: Goorland, Scott; Robinette, Rebecca; Kahn, Joseph; Adams, Patty; Mulkey, Cindy  
Subject: Taylor energy

We have received a request for any public record we may have related to the proposed Taylor energy center facility. I will scan and send you all this letter from Jeanne Zokovitch later today.

Patty,  
Can you be the lead in gathering stuff? I don't think there is much because we don't have an application yet.

If you all can check your files and emails and get your items or lack thereof to patty, that would be great.

Mike and Cindy,  
Can you coordinate with other media that may have something?

I will draft letter responding to her request to be on a copy list as we have done several similar letters.

Vickie,  
Can you work up a draft response letter based on what we have sent previously to sierra club? Addressee is Jeanne Zokovitch Paben, senior staff attorney, WildLaw, 1415 devils dip, tall, FL, 32308.

Can you also call her and let her know we have the request and are working on it. 878 895.

Thanks.

Trina Vielhauer

-----  
Sent from my BlackBerry Wireless Handheld

**Adams, Patty**

---

**From:** Quinn, Jim L  
**Sent:** Wednesday, January 17, 2007 11:34 AM  
**To:** Vielhauer, Trina; Holladay, Cleve; Oven, Hamilton  
**Cc:** Stahl, Chris  
**Subject:** Taylor County proposed Comprehensive plan amendment

To All:

Thanks for meeting with me this morning on this issue.

I appreciate your willingness to review this document on short notice.

As discussed we will need your comments (or a no comment) by this Friday January 19.

Please call me at 245-2167 if you have any questions.

Jim Quinn

3/15/2007



**Adams, Patty**

---

**From:** Oven, Hamilton  
**Date:** Thursday, January 18, 2007 9:44 AM  
**To:** Quinn, Jim L  
**Cc:** Skinner, Karen; Halpin, Mike; Vielhauer, Trina  
**Subject:** Taylor County Proposed Comp Plan Amendment

I have no objections to the proposed amendment.

Two minor comments:

On page 4 of 8 on the Data and Analysis Supporting Amendment No. CPA 05-5 there is a reference to no population increase with respect to recreation impacts.

If you are going to have a power plant employing over 800 employees over a 4-5 year period and over 300 employees during operation, it is reasonable to assume some increased demand on recreation facilities in the County.

On page I-16 of CPA 05-5, there is a reference to protection of air quality and a Best Available control Technology Determination (BACT). The correct statutory reference should be s. 403.087, F.S., not 403.501-518, F.S. 403.501-.518, F.S. is the Florida Electrical Power Plant Siting Act. It does not directly require a BACT process.

3/15/2007

**Adams, Patty**

---

**From:** Halpin, Mike  
**Sent:** Thursday, January 18, 2007 1:15 PM  
**To:** Kahn, Joseph; Vielhauer, Trina  
**Subject:** FYI  
**Attachments:** Taylor Energy Center-PSC presentation handout 01-10-07.pdf

See below e-mail:

---

**From:** Oven, Hamilton  
**Sent:** Thursday, January 18, 2007 1:14 PM  
**To:** Halpin, Mike; Goorland, Scott  
**Subject:** FW: IGCC information

---

**From:** Susan Glickman [mailto:susanglickman@verizon.net]  
**Sent:** Thursday, January 18, 2007 11:32 AM  
**To:** Linero, Alvaro  
**Cc:** Rich Furman; Rhonda Roff; Oven, Hamilton  
**Subject:** IGCC information

Hi Al,

I wanted to share with you this presentation, prepared by Rich Furman, on the gasification technology and encourage you to talk further with Rich. As you know, TECO is proposing to build 2 new units for a combined total of 630 MW. They believe the technology is cost effective and readily available.

Thanks,  
Susan

Susan Glickman  
Natural Resources Defense Council  
Southern Alliance for Clean Energy  
P O Box 310  
Indian Rocks Beach FL 33785  
727-595-7314 office  
727-742-9003 cell  
727-499-6954 fax  
[susanglickman@verizon.net](mailto:susanglickman@verizon.net)  
[www.nrdc.org](http://www.nrdc.org)  
[www.cleanenergy.org](http://www.cleanenergy.org)

3/15/2007

Russ,

I just wanted to take a moment and comment on the proposed strategy for developing the mercury TMDL's for Florida. I made a few comments at the meeting on 2/15/07, but I'm not a quick thinker and I need a little time to mull things over.

The message I've gotten from the two meetings we've had is that the state wants to put together as scientifically defensible TMDL program as possible. While we (the state) always have a desire to develop programs and rules this way, there is a strong sense that this particular program is going to be aggressively litigated, putting additional pressure to being able to defend whatever program is developed.

I've looked at the outline you've put together and have a few comments and questions. In general, I am a little worried about some of the components of the plan and the ability of the department to control the adequacy and the timely completion of them. In particular, I am referring to the air chemistry and transport model, and the aquatic mercury model. Both were presented as not currently being adequate for the job.

But first I'd like to get some clarification on the goal of this program. And I apologize for speaking from ignorance here, for not knowing the details of the regulatory requirements. It seems to me that there are two goals that the proposed strategy is tackling. The first goal is the development of total maximum daily loads of mercury to water bodies in the state. I take this to mean the maximum amount (with some safety margin) of mercury that a water body can tolerate without causing some specified harm to humans, critters, or the general environment. The second goal is to determine the sources of this mercury and to devise a regulatory program that reduces the loading sufficient to meet the TMDL's. Is there a distinction between these two goals in the regulatory requirements? Clearly, the second goal must follow the first if you are going to do anything about the problem, but can the two goals be separated for the purpose of our regulatory process? I bring this point up because the flow chart presented at the meeting combines these two goals into a single interdependent process.

It seems to me that the first goal, establishing appropriate TMDL's, can be accomplished through the use of the aquatic mercury model (if I understand what that model does), in conjunction with actual data on mercury in fish, etc. In my simplified understanding of this model, inputs of mercury from air deposition to the water body are taken through the various biogeochemical processes leading to the amount of mercury that could be accumulated in the top predator fish (the principle source of mercury to humans or other land animals). My thought is if the state's water bodies could be classified according to some known characteristics important to mercury cycling (maybe this results in 10 or 25 or 100 types), then using the aquatic mercury model for each type, you could determine the minimum amount of mercury input to the system that results in the threshold for the top fish. This of course is dependent upon the aquatic model's skill for all of the various types of waterbodies.

As previously stated, I am somewhat concerned about the aquatic mercury model and its readiness for regulatory use. It was unclear to me how much more "research and

# **Taylor Energy Center Coal Power Plant Alternatives PC versus IGCC**

Prepared for  
Florida's Public Service Commission

By  
Richard Furman  
Consulting Engineer  
RCFurman2@aol.com  
Office: (305)232-4074  
Cell: (305)439-5604

January 10, 2007

**NEW STUDY SHOWS THAT IGCC PLANTS CAN PROVIDE LOWER  
ELECTRIC COSTS THAN PULVERIZED COAL PLANTS**

**MANY UTILITIES ACROSS THE COUNTRY ARE CHOOSING THIS  
TECHNOLOGY DUE TO LOWER EMISSIONS**

**STUDY SHOWS THAT COAL GASIFICATION CAN ELIMINATE 50 – 90% OF  
AIR POLLUTION FROM TAYLOR ENERGY CENTER**

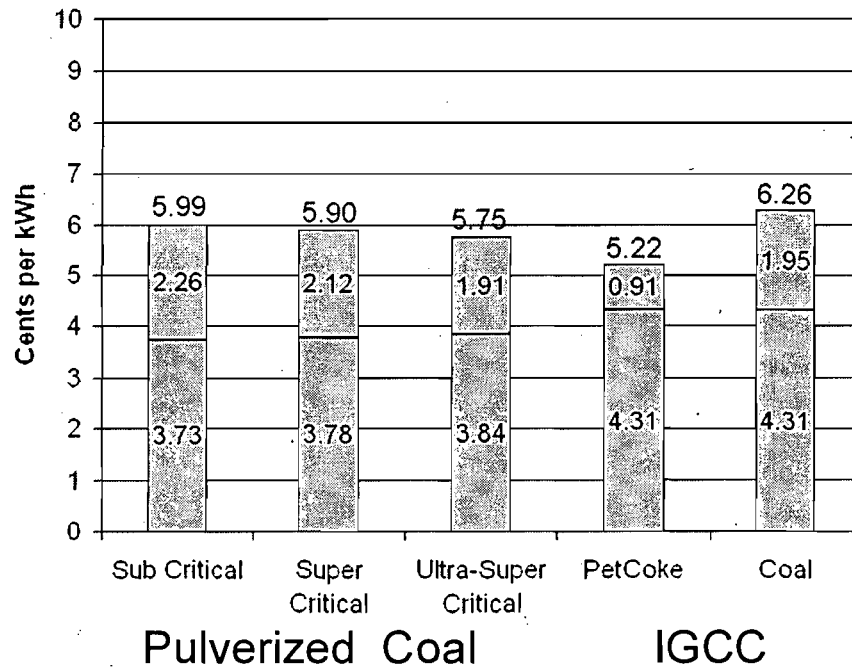
**THE CLEAN AIR ACT SPECIFIES THAT GASIFICATION MUST BE  
EVALUATED TO DETERMINE BEST AVAILABLE CONTROL  
TECHNOLOGY**

My name is Richard Furman. I am a retired consulting engineer and I live in Florida. During my career I have worked for 3 major electric utility companies and have specialized in the areas of new energy technologies, alternative fuels for power plants and pollution control for power plants. No one is paying for me to be here today. I am here today because I believe that gasification offers opportunities to significantly reduce emissions and provide lower cost electricity. I would like you to consider all of the facts before you make a decision that will cause increased health problems for many people, damage the environment and cause significant global warming.

# TABLE OF CONTENTS

<u>Costs of Electricity</u>	<u>Page</u>
New Study Shows that IGCC Plants can Provide Lower Electric Costs in Florida	3
IGCC Plants are Capable of Capturing CO <sub>2</sub> at Much Lower Costs than PC Plants	4
Dept. of Energy Study Shows Lower Future Electric Costs for IGCC Plants than PC Plants	5
<u>Air Pollutant Emissions</u>	
Relative Emission Rate Comparisons for Taylor Energy Center and IGCC Plants	6
Tons Per Year of Emissions Comparisons for Taylor Energy Center and IGCC Plants	7
Summary of Emissions from Recent IGCC Permits and Proposed Permit Levels	8
Emission Rates from Taylor Energy Center Versus Recent IGCC Permit Applications	9
<u>Best Available Control Technology (BACT)</u>	
The Clean Air Act Specifies that Gasification Must be Evaluated to Determine BACT	10
<u>Tampa Electric Company (TECO) and IGCC</u>	
Commercial IGCC Plant has been in Operation for more than 10 Years	11
TECO Announces that they will Build an Additional 630 MW IGCC Plant for Operation in 2013	12
<u>References to Contact</u>	
Government Officials that have Evaluated PC versus IGCC Plants	13
<u>Commercially Operating and Planned Gasification Plants</u>	
2004 World Survey of Operating Gasification Plants	14
Commercially Operating IGCC Plants	15
2004 World Survey of Planned IGCC Plants in the U.S.	16
2006 List of Gasification Projects being Developed in the U.S.	17
2006 List of New IGCC Projects under Development in the U.S.	18
<u>Size and Availability of New IGCC Plants</u>	
Large Size (1200 MW) IGCC Plants are being Built Using Modular Designs	19
New Coal Gasification Plants and IGCC Plants Demonstrate Availabilities Above 90%	20
<u>The Great Plains Synfuels Plant</u>	
Gasification of Coal Since 1984 to Produce Synthetic Natural Gas (SNG)	21
CO <sub>2</sub> Capture and Sequestration has been Operating Commercially Since 2000	22
<u>Environmental Impact Comparisons of PC and IGCC Plants</u>	
Mercury Removal for IGCC Plants - Commercially Operating for more than 20 Years	23
Comparison of Solid Wastes and Potential for Ground Water Contamination	24
Comparison of Water Usage for PC and IGCC Plants	25
<u>The Future Economic Potential for Taylor County</u>	
Renewable Energy and Economic Advantages of using Gasification for Pulp & Power Plants	26
<u>Pulverized Coal Combustion and Gasification Technologies</u>	
The Differences Between Combustion and Gasification	27
Integrated Gasification Combined Cycles (IGCC)	28
Gasification can Use a Wide Range of Fuels and can Produce a Wide Range of Products	29
<u>Resume – Richard C. Furman</u>	30

## Cost of Electricity Comparison Chart for Florida



■ Fuel Costs

■ Non-Fuel Costs

Coal Cost \$2.38/MMBtu

PetCoke Cost \$1.11/MMBtu

PC capacity factor 85%

IGCC capacity factor 80%

rcfurman2@aol.com

### NEW STUDY SHOWS THAT IGCC PLANTS CAN PROVIDE LOWER ELECTRIC COSTS THAN PULVERIZED COAL PLANTS

This chart shows that the costs of electricity for any of the proposed three types of Pulverized Coal (PC) Plants are higher than the cost of electricity for an IGCC plant using Petroleum Coke (PetCoke) in Florida. Although the IGCC plant has a higher capital cost than the PC plants it has a significantly lower fuel cost when using petcoke. The U.S. petroleum refineries in the Gulf coast produce over 25 million tons per year of fuel-grade petcoke that can be used by IGCC plants. This petcoke can provide over 10,000 MW of new generating capacity in the U.S. At the present time almost all of this petcoke is exported to other countries that allow the higher emissions of SO<sub>2</sub> that petcoke produces. The use of petcoke in the U.S. requires the installation of additional FGD systems to PC plants which is usually cost prohibitive. IGCC plants can effectively remove the sulfur from petcoke and sell it as a value added product. Florida's proximity to the Gulf coast refineries enables Florida's utilities to make use of this waste material while reducing emissions and lowering their cost of electricity. Therefore the lowest cost alternative for Florida is the use of IGCC plants utilizing petcoke.

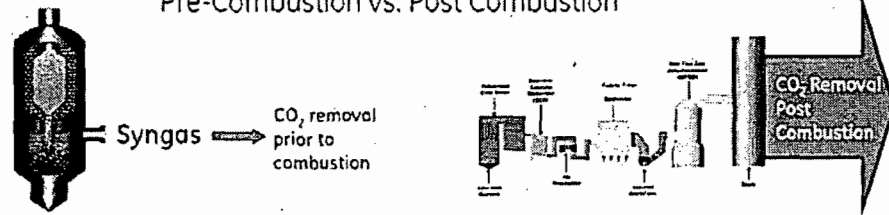
For the past 10 years Tampa Electric has been using petcoke in their 250 MW IGCC plant and have recently announced that they will build an additional 630 MW IGCC plant for operation in 2013. Tampa Electric's President Chuck Black was recently quoted as saying: **"IT'S OUR LEAST COST-GENERATING RESOURCE, SO WE COUNT ON IT AND USE IT EVERY DAY AS PART OF OUR SYSTEM"** in the November 2006 issue of Time Magazine, Inside Business.

#### Sources of data for Cost of Electricity Comparison Chart for Florida:

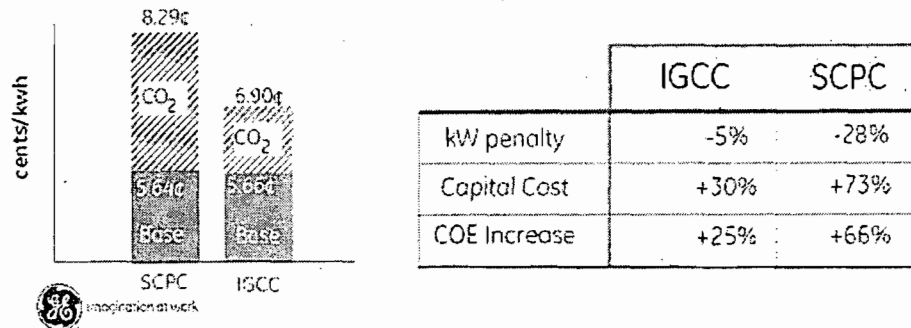
1. Capital, O&M and all non-fuel costs are based upon: Department of Energy/NETL Presentation, Federal IGCC R&D: Coal's Pathway to the Future, by Juli Klara, presented at GTC, Oct. 4, 2006.
2. Efficiencies and fuel consumption calculations are based upon: EPA Final Report, Environmental Footprints and Costs of Coal-Based Integrated Gasification Combined Cycle and Pulverized Coal Technologies, July 2006.
3. Fuel costs are based upon: Department of Energy, Energy Information Administration, Average Delivered Cost of Coal and Petroleum Coke to Electric Utilities in Florida, 2005 and 2004.

## IGCC - CO<sub>2</sub> Capture

Pre-Combustion vs. Post Combustion



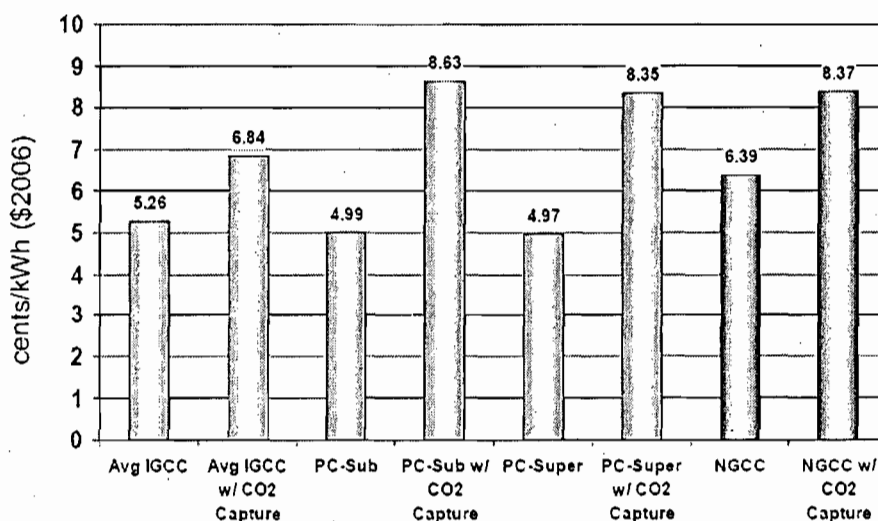
IGCC offers CO<sub>2</sub> capture advantages over SCPC



### IGCC PLANTS ARE CAPABLE OF CAPTURING CO<sub>2</sub> AT MUCH LOWER COSTS THAN PULVERIZED COAL PLANTS

Studies performed by the Electric Power Research Institute (EPRI), American Electric Power (AEP), GE and others all show that IGCC will be more cost effective than pulverized coal plants when carbon reductions are required. The bar chart by GE shows the additional cost that must be added to SCPC and IGCC for CO<sub>2</sub> capture. The table shows the energy penalty and added capital costs for CO<sub>2</sub> capture. The use of a cost for carbon emissions in planning is reasonable given the high likelihood that carbon will be regulated in the future. This exhibit shows the Cost of Energy (COE) for plants designed with the capability to remove CO<sub>2</sub>. The COE with CO<sub>2</sub> capture for PC plants will be an unacceptable 8.29 cents/kwh compared to the COE with CO<sub>2</sub> capture for IGCC plants of 6.90 cents/kwh. This is a 66% increase for PC plants compared to a 25% increase for IGCC plants.

## Cost of Electricity Comparison



January 2006 Dollars, 85% Capacity Factor, 13.6% Levelization Factor, Coal cost \$1.34/10<sup>6</sup>Btu, Gas cost \$7.46/10<sup>6</sup>Btu



Note: Preliminary results as of September 2006. Final report release Date: January 2007

NETL Meeting with Industry Groups - October 11, 2006

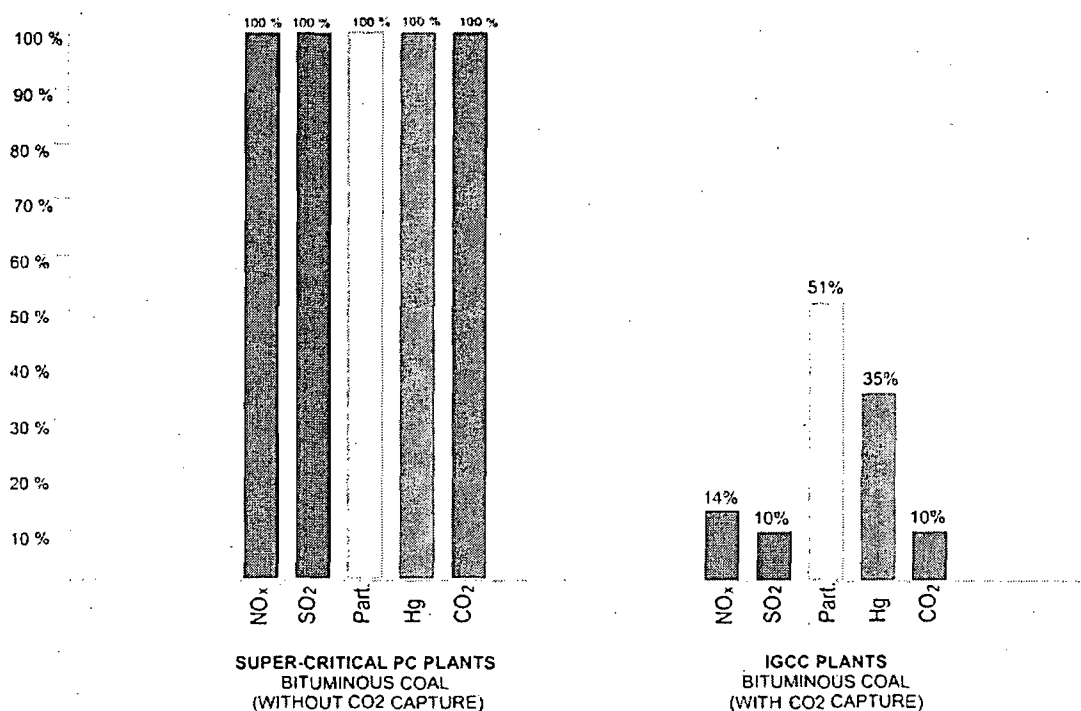
Source: Department of Energy/NETL Presentation, Overview of Coal Gasification Technologies, by Gary Stiegel, presented at NSTAR Meeting, Pittsburgh, PA, Oct. 27, 2006.

## NEW U.S. DEPT. OF ENERGY STUDY SHOWS LOWER FUTURE ELECTRIC COSTS FOR IGCC PLANTS THAN PULVERIZED COAL PLANTS

This recent U.S. Department of Energy presentation shows that the cost of electricity from an IGCC plant is 5.26 cents per kilowatt-hour compared to 4.97 cents per kilowatt-hour for the Pulverized Coal (PC) plant. Therefore the significant emission reductions by using IGCC will only increase the cost of electricity by **0.29 cent per kilowatt-hour**. That amounts to **\$ 2.90 per month** for the average electric customer using 1000 kilowatt-hours per month. This chart also shows that with future requirements to reduce carbon dioxide (CO<sub>2</sub>) emissions the cost of electricity for PC plants will increase to 8.35 cents per kilowatt-hour while only increasing to 6.84 cents per kilowatt-hour for the IGCC plant. That amounts to a **\$ 15.10 per month** higher electric bill for the average electric customer for the PC plant. Therefore the IGCC plants will be less expensive to operate in the future. The net result is much cleaner air now and lower cost electricity in the future. It is important to note that this study was for a mid-west location where delivered coal costs are less than in Florida and petcoke is not available.



## RELATIVE EMISSIONS FROM PROPOSED COAL POWER PLANTS



rcfurman2@aol.com 11/26/05

### MUCH LOWER EMISSIONS FROM IGCC MEANS MUCH FEWER HEALTH PROBLEMS AND LESS DAMAGE TO THE ENVIRONMENT

This chart shows the percentage of emissions that IGCC produces relative to the emissions of the proposed PC plant for the same amount of electricity that is produced. This chart shows that an IGCC plant producing the same amount of electricity as the proposed PC plant will produce dramatically less pollution:

- 86% less smog forming gases (NO<sub>x</sub>)
- 90% less acid rain gases (SO<sub>2</sub>)
- 49% less soot or fine particulate (PM<sub>10</sub>)
- 65% less brain damaging mercury (Hg)
- 90% less global warming gases (CO<sub>2</sub>)

Emission calculations based upon: EPA Final Report, Environmental Footprints and Costs of Coal-Based Integrated Gasification Combined Cycle and Pulverized Coal Technologies, July 2006, DOE Final Report, Major Environmental Aspects of Gasification-Based Power Generation Technologies, Dec. 2002, test results from Eastman's gasification process using activated carbon beds for mercury removal and preliminary emissions data from the Taylor Energy Center

## TOTAL EMISSIONS FROM PROPOSED TAYLOR ENERGY CENTER

### PC PLANT VERSUS IGCC PLANT

	NOX	SO2	Particulates	Mercury	Carbon Dioxide
	(Tons per Year)	(Tons per Year)	(Tons per Year)	(Pounds per Year)	(Tons per Year)
PC	1,731	2,484	347	80	5,834,000
IGCC	245	258	179	28	583,400
% REDUCTION	86%	90%	49%	65%	90%
	less smog forming gases / acid rain gases / fine particulate / brain damage /				global warming gases

### MUCH LOWER EMISSIONS FROM IGCC MEANS MUCH FEWER HEALTH PROBLEMS AND LESS DAMAGE TO THE ENVIRONMENT

This chart shows the percentage of emissions that IGCC produces relative to the emissions of the proposed PC plant for the same amount of electricity that is produced.

This chart shows that an IGCC plant producing the same amount of electricity as the proposed PC plant will produce dramatically less pollution:

- 86% less smog forming gases (NOx)
- 90% less acid rain gases (SO2)
- 49% less soot or fine particulate (PM10)
- 65% less brain damaging mercury (Hg)
- 90% less global warming gases (CO2)

Emission calculations based upon: EPA Final Report, Environmental Footprints and Costs of Coal-Based Integrated Gasification Combined Cycle and Pulverized Coal Technologies, July 2006, DOE Final Report, Major Environmental Aspects of Gasification-Based Power Generation Technologies, Dec. 2002, test results from Eastman's gasification process using activated carbon beds for mercury removal and preliminary emissions data from the Taylor Energy Center

## SUMMARY OF RECENT IGCC PERMITS AND PROPOSED PERMIT LEVELS

Pollutant	Approved Permit				Application Filed, Draft Permit Not Issued Yet							
	Global Energy, Lima, OH, 58 MW	Kentucky Pioneer Energy, KY	Wisconsin Electric Elm R, 600 MW	ERORA Cash Creek, KY, 630 MW	Southern Illinois Clean Energy Complex, IL, 64 MW & 110 MW methane	ERORA, Taylorville, IL, 600 MW	Huacoma, TX, 600 MW	Northwest Energy, TN, 600 MW	AEP, OH, 629 MW	AEP, WV, 629 MW	Mesaba One (606 MW), Mesaba Two (606 MW), Total 1,212 MW	Duke, Edwardsport, IN, 630 MW
	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)
SO <sub>2</sub>	0.021	0.032 -3 hr ave	0.03 -24 hr ave	0.0117 -3 hr ave	0.033 -30 day ave	0.0117 -3 hr ave		0.016 -3 hr ave	0.017	0.017	0.02	Repower, n From BACT
NO <sub>x</sub>	0.097	0.0735 -3 hr ave	0.07 (15 ppmv) -30 day ave	0.0246 -24 hr ave	0.059 -30 day ave	0.0246 -24 hr ave		0.012 -3 hr ave	0.057	0.057	0.05	Repower, n From BACT
Mercury			.56 x 10 <sup>-6</sup>	.197 x 10 <sup>-6</sup> (1)	.547 x 10 <sup>-6</sup>	.19 x 10 <sup>-6</sup> (1)	1.825 x 10 <sup>-6</sup>	1.1 x 10 <sup>-5</sup>			90% removal, .026 tons Phase I and II total	008 tons/yr
PM <sub>10</sub>	0.01	0.011	0.011 (backhalf)				0.015	0.001			0.008	0.1 lbs/hr
PM <sub>2.5</sub>			0.011 (backhalf)	0.0063 -3 hr ave (filterable)	0.00924 (filterable)	0.0063 -3 hr ave (filterable)	0.015	.006 (filterable)	.006 (filterable)			
VOCs	0.0082	0.0044	0.0017 -24 hr ave (LAER)	0.006 -24 hr ave	0.0029	0.006 -24 hr ave	0.004	0.003	0.001	0.001	0.0032	1.4 ppmw
Sulfuric Acid Mist			0.0005 -3 hr ave	0.0026 -3 hr ave	0.0042 -30 day ave	0.0026 -3 hr ave	0.0005	98 tons/yr	98 tons/yr			
Fluorides (2)												
CO	0.137	0.032 -3 hr ave	0.30 -24 hr ave	0.036 -24 hr ave	0.04 -30 day ave	0.036 -24 hr ave	0.04	0.036	0.031	0.031	0.034	0.5 ppmv
Lead			0.0000257									
Sulfur Control Technology	MDEA	MDEA	MDEA	Selexol	MDEA	Selexol	Selexol	Selexol	Selexol	Selexol	MDEA	Selexol
Nox Control Technology	Diluent injection	Diluent injection	Diluent injection	Diluent/SCR	Diluent injection	Diluent/SCR	Diluent/SCR	Diluent/SCR	Diluent injection	Diluent injection	Diluent injection	Diluent/SCR

Source: Declaration of John Thompson, Director of the Clean Air Transition Project for the Clean Air Task Force, submitted to EPA for the Desert Rock air permit, dated November 10, 2006, page 13.

## SUMMARY OF EMISSIONS FROM RECENT IGCC PERMITS AND PROPOSED PERMIT LEVELS

This table summarizes proposed emission levels from IGCC plants that have recently received or applied for air permits. The majority of IGCC plants proposed in the last 12 months have sought to control sulfur using Selexol, a more effective control strategy than MDEA. These plants include, AEP in Ohio and West Virginia, Northwest Energy, Tondur, Duke, ERORA (Illinois and Kentucky). Only one air permit application filed in the last 12 months, Mesaba (filed June 2006) uses the less effective MDEA. Selexol effectively removes sulfur levels to between 0.0117 to 0.019 lb/MMBtu heat input into the gasifier.

As this table shows, a narrow majority of IGCC plants that have filed applications in the last 12 months include SCR to control NO<sub>x</sub>. These include, Northwest Energy, Tondur, ERORA in Illinois and Kentucky, and Duke in Indiana (The Duke plant includes and SCR, but bases reductions on diluent injection only). The NO<sub>x</sub> emission rates for SCR controlled IGCC plants is 0.012 - 0.025 lb/MMBtu based upon heat into the gasifier.

These trends toward Selexol and SCR adoption are occurring faster than USEPA predicted in its recently released (July 2006) report, "Environmental Footprints and Costs of Coal-Based Integrated Gasification Combined Cycle and Pulverized Coal Technologies." The July 2006 EPA report assumed that MDEA and diluent injection would be BACT for the near-term. This report was based upon a "snap shot" of IGCC permits that is out of date. As this table shows, the market has responded with technology faster than the USEPA report anticipated.

The next table is titled "Emissions from Taylor Energy Center versus Recent IGCC Permit Applications". In deciding which emission rates to compare to the proposed TEC emission rates, the highest weight was placed on recently proposed IGCC plants because they represent the most current view of IGCC permit levels. Weight was placed on the EPA report, but recognized, as described above, that it is somewhat out of date. Finally, the least weight was placed on existing IGCC plants and IGCC plants with permits issued prior to 2003 because they do not represent the capabilities of current IGCC technology.

# EMISSIONS FROM TAYLOR ENERGY CENTER VERSUS RECENT IGCC PERMIT APPLICATIONS

	TEC	IGCC			
	Proposed Emission Rates	Sulfur control using MDEA	Sulfur control using Selexol	Nitrogen control using diluent injection	Nitrogen control using both diluent injection and SCR
	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)	(lb/MMBtu)
SO <sub>2</sub>	0.09	0.025 - 0.033 (28% - 36%)	0.0117 - 0.019 (13% - 21%)		
NO <sub>x</sub>	0.07			0.057 - 0.07 (81% - 100%)	0.012 - 0.025 (17% - 36%)
PM	0.013	0.0063 - 0.014 (48% - 108%)			
CO	0.10	0.03 - 0.04 (30% - 40%)			
Hg	0.0000012	0.00000019 - 0.00000056 (16% - 46%)			

Source: IGCC Data from Declaration of John Thompson, Director of the Clean Air Transition Project for the Clean Air Task Force, submitted to EPA for the Desert Rock air permit, dated November 10, 2006, page 15.

## EMISSION RATES FROM TAYLOR ENERGY CENTER VERSUS RECENT IGCC PERMIT APPLICATIONS

This table summarizes the range of recently filed air permit for IGCC plants (filed in the last 12 months plus the most recently issued air permit for We Energies in Wisconsin) and compares them to the proposed emission levels for the TEC plant. An IGCC plant would have significantly lower emissions than the supercritical PC plant proposed by TEC.

The table above shows that:

An IGCC plant with the Selexol process would emit only 13% to 21% of the sulfur dioxide of the proposed TEC plant.

An IGCC plant with the SCR process would only emit 17% to 36% of the nitrogen oxide of the proposed TEC plant.

An IGCC plant would only emit 16% to 46% of the mercury of the proposed TEC plant.

An IGCC plant would also be expected to emit about 40% less PM, two-thirds less CO, and significantly less sulfuric acid mist and VOCs.

**The Clean Air Act specifies that Gasification must be  
Evaluated to Determine the Best Available Control Technology (BACT)**

- The Clean Air Act defines BACT as follows:
- The term "best available control technology" means an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation... emitted or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through the application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each pollutant.
- Indeed, the Act itself is clear – BACT emission limitations must consider "application of production processes and available methods, systems, and techniques, including . . . innovative fuel combustion techniques for control of each pollutant." (42 U.S.C. § 7479(3)).
- Next the analysis of Congressional Intent:
- The legislative history of the CAA makes this point just as clearly. Consider the following statements from Senator Huddleston of Kentucky who proposed the amendment to add the words, "or innovative combustion techniques" to the definition of BACT:
- The definition in the committee bill . . . indicates a consideration for various control strategies by including the phrase "through application of production processes and available methods, systems, and techniques, including fuel cleaning or treatment." And I believe it is likely that the concept of BACT is intended to include such technologies as low Btu gasification and fluidized bed combustion. But, this intention is not explicitly spelled out, and I am concerned that without clarification, the possibility of misinterpretation would remain.
- It is the purpose of this amendment to leave no doubt that in determining best available control technology, all actions taken by the fuel user are to be taken into account – . . . [including] gasification, or liquefaction . . . which specifically reduce emissions.
- [CITE: 123 Cong. Rec. S9434-35 (June 10, 1977) (debate on P.L. 95-95) (emphasis added).]

## IGCC Technology in Early Commercialization *U.S. Coal-Fueled Plants*

- **Wabash River**
  - 1996 Powerplant of the Year Award\*
  - Achieved 77% availability \*\*
- **Tampa Electric**
  - 1997 Powerplant of the Year Award\*
  - First dispatch power generator
  - Achieved 90% availability \*\*

**Nation's first commercial-scale IGCC plants, each achieving**  
**> 97% sulfur removal**  
**≥ 90% NO<sub>x</sub> reduction**



*\*Power Magazine*

*\*\*Gasification Power Block*



Source: Department of Energy/NETL Presentation, Overview of Coal Gasification Technologies, by Gary Stiegel, presented at NSTAR Meeting, Pittsburgh, PA, Oct. 27, 2006.

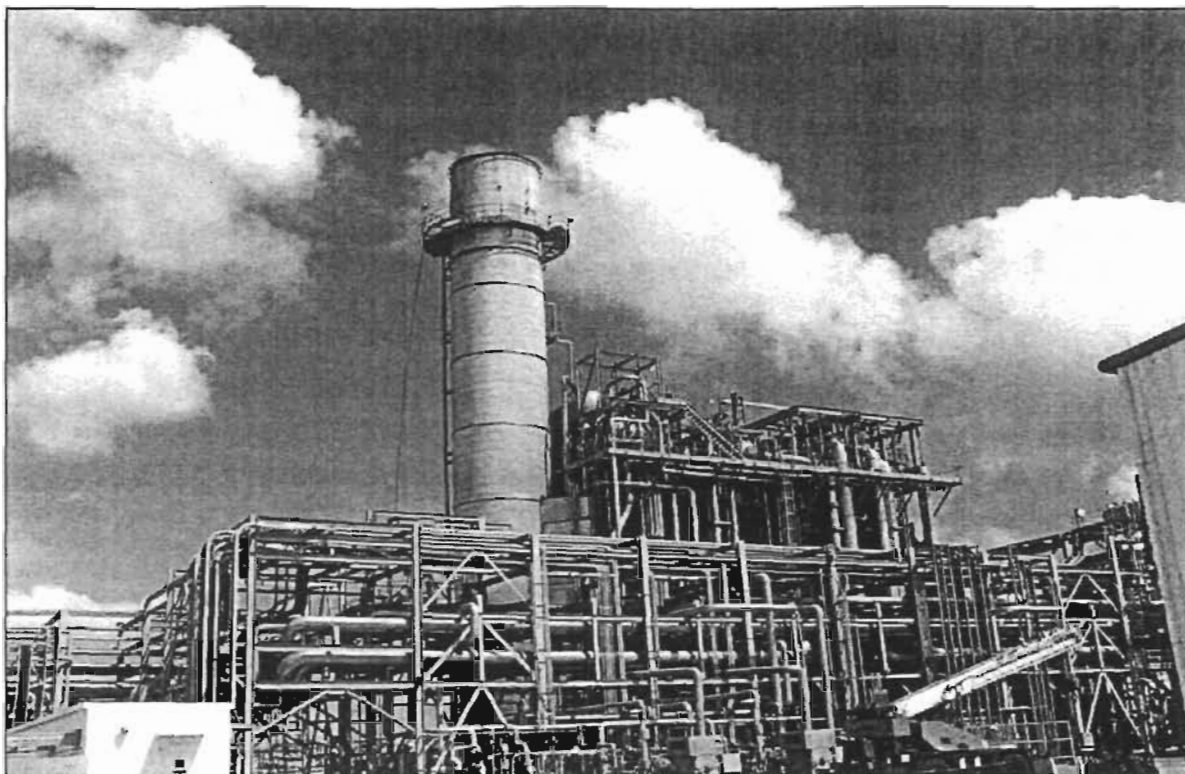
### COMMERCIAL IGCC PLANTS HAVE BEEN IN OPERATION IN THE U.S. FOR MORE THAN 10 YEARS

The Polk Power Plant near Tampa, FL is a greenfield site and the Wabash Power Plant in Indiana is a conversion of an existing unit.

Polk, Florida: The Tampa Electric Polk Power Station began operation in 1996. It produces 250 MW (net) of electricity. It uses a Texaco (now GE) oxygen-blown gasification system. Power comes from a GE 107FA combined cycle system. During the summer peak power months, availability is greater than 90 percent when using back-up fuel. **TAMPA ELECTRIC COMPANY HAS ANNOUNCED THAT THEY WILL BUILD AN ADDITIONAL 630 MW IGCC PLANT FOR OPERATION IN 2013.**

Wabash, Indiana: Wabash River Coal Gasification Repowering Project in Indiana began operation in November 1995. It demonstrated the repowering of an existing coal plant to IGCC. The plant uses an "E-Gas" which is now sold by ConocoPhillips.

For larger size plants multiple units are being proposed which will improve system availability and reduce costs by making use of standard, modular designs.



IGCC PLANT STACK AT POLK POWER PLANT  
TAMPA ELECTRIC COMPANY

**TAMPA ELECTRIC COMPANY HAS ANNOUNCED THAT THEY WILL BUILD AN ADDITIONAL 630 MW IGCC PLANT FOR OPERATION IN 2013.**

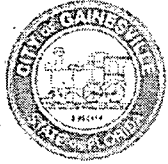
**“IT’S OUR LEAST COST-GENERATING RESOURCE, SO WE COUNT ON IT AND USE IT EVERY DAY AS PART OF OUR SYSTEM” by TAMPA ELECTRIC PRESIDENT CHUCK BLACK from TIME MAGAZINE, Inside Business, November, 2006.**

Tampa Electric started operation of this 315 MW(gross)/250MW(net) IGCC plant in October, 1996 and has recently celebrated its 10th year anniversary. It is the lowest cost plant to operate on Tampa Electric’s System and has won numerous environmental awards. There are at least twenty-four (24) IGCC plants being planned in the United States by utilities and independent power producers. This picture demonstrates the significantly lower emissions from IGCC plants by the facts that the stack is clear and that there is no need for a tall stack. A tall stack is required on all PC plants because the emissions are so high that a significant amount of dilution is required before the ground level emissions are within acceptable limits for people to breath. A conventional PC plant may have a 300 foot stack compared to this 120 foot stack. The much taller PC stack also decreases property values in a much larger surrounding area. This plant was designed about 15 years ago. Since then significant improvements have been made in IGCC emissions control which enable much lower emission levels than what was required for this IGCC plant 15 years ago. Therefore any emissions comparison should be based upon the best available control technologies (BACT) for PC and IGCC plants that are currently being built.

## References to Contact

### Pulverized Coal vs. IGCC Plants

#### *City of Gainesville*



**Pegeen Hanrahan**  
Mayor

City Hall  
200 E. University Avenue  
Gainesville, FL 32602-0490

Station 19, PO Box 490  
Gainesville, FL 32602-0490  
Telephone: (352) 334-5015  
Facsimile: (352) 334-2036  
mayor@ci.gainesville.fl.us

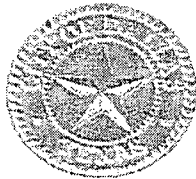
City of Gainesville hired ICF Consultants directly.  
ICF evaluation selected IGCC as best choice.  
Gainesville issued RFI for partners in IGCC plant.



MARK J. HORNICK, P.E.  
GENERAL MANAGER  
POLK POWER STATION  
PHILLIPS POWER STATION

TAMPA ELECTRIC COMPANY  
P.O. BOX 111  
TAMPA, FL 33601-0111  
OFFICE 813-425-5555  
CELL 813-375-6643  
FAX 813-425-5527  
M.J.HORNICK@TECOENERGY.COM

Tampa Electric has operated an IGCC plant for over 10 years. Tampa Electric has announced an additional 630MW IGCC plant to be operating in 2013. The plant manager can answer any questions. Tours of the plant are available.



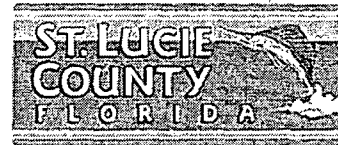
**LAURA MILLER**  
MAYOR

CITY OF DALLAS  
1500 MARILLA, 5EN  
DALLAS, TEXAS 75201  
www.dallascityhall.org

(214) 670-4054  
Fax (214) 670-0646  
Laura.Miller@dallascityhall.com

The Mayor of Dallas has toured the Tampa Electric IGCC plant and is knowledgeable about power plants and pollution control equipment. She has formed a coalition of 22 mayors in Texas to encourage the use of IGCC plants.

**Meranda Carter Cohn**  
City of Dallas, Office of the Mayor  
Acting Chief of Staff/Public Information Manager  
(214) 670-0656  
Meranda.Cohn@dallascityhall.com



**Chris Craft**  
County Commissioner  
District 5

ST. LUCIE COUNTY

2300 Virginia Avenue  
Ft. Pierce, FL 34982-5652  
www.co.st-lucie.fl.us  
Ph: (772) 462-1408  
Fax (772) 462-2131  
Suncom 259-1408  
e-mail: Chris\_Craft@co.st-lucie.fl.us

The St. Lucie County Commission voted 6 to 0 against a 1700MW PC plant proposed by FPL. Commissioner Chris Craft traveled to the Taylor County Commission hearing to advise them on St. Lucie's experience.



## **World Gasification Survey: Summary Operating Plant Statistics 2004**

**117 Operating Plants**

**385 Gasifiers**

**Capacity~45,000 MWth**

**Feeds**

**Coal 49%, Pet. Resid. 36%**

**Products**

**Chemicals 37%, F-T 36%, Power 19%**

**Growth Forecast 5% annual**

**Gasification Technologies Council**

### **2004 WORLD SURVEY OF OPERATING GASIFICATION PLANTS**

Gasification dates back to the 18th century, when "town gas" was produced using fairly simple coal-based gasification plants. But what we think of as modern gasification technology dates back to the 1930's when gasification was developed for chemicals and fuels production. Today (2007), there are around 130 gasification plants worldwide that produce fertilizers, fuels, steam, hydrogen and other chemicals, and electricity. Of these 130 plants, fourteen are IGCC plants.

## Operating IGCC Projects

Project - Location	COD	Megawatts	Feedstock - Products
Nuon (Demkolec) - Netherlands	1994	250	Coal - Power / Coal
Wabash (Global/Cinergy) - USA	1995	260	Coal/Petroleum Coke - Repowering
Tampa Electric Company - USA	1996	250	Coal/Pet. Coke - Power
Frontier Oil, Kansas - USA	1996	45	Coke - Cogeneration
SUV - Czech Republic	1996	350	Coal - Cogeneration
Schwarze Pumpe - Germany	1996	40	Lignite - Power & Methanol
Shell Pernis - Netherlands	1997	120	Visbreaker Tar - Cogen & Hydrogen
Puertollano - Spain	1998	320	Coal/Coke - Power
ISAB: ERG/Mission - Italy	2000	510	Asphalt - Power
Sarlux: Saras/Enron - Italy	2001	545	Visbreaker Tar - Power, Steam, H <sub>2</sub>
Exxon Chemical - Singapore	2001	150	Ethylene Tar - Cogeneration
API Energia - Italy	2001	280	Visbreaker Tar - Power & Steam
Valero Refining - Delaware, USA	2002	160	Coke - Repowering
Nippon Refining - Japan	2003	340	Asphalt - Power
EniPower - Italy (in start-up)	2006	250	Asphalt - Power



Total IGCC Megawatts - 3,880 MW

Total Experience, Operating Hours on Syngas - Almost 1,000,000 hours

Source: Department of Energy/NETL Presentation, Overview of Coal Gasification Technologies, by Gary Stiegel, presented at NSTAR Meeting, Pittsburgh, PA, Oct. 27, 2006.

### COMMERCIALY OPERATING IGCC PLANTS

This table by the Department of Energy shows fourteen commercially operating IGCC plants. Together, these plants have a capacity of 3,880 MW(net) and have almost one million hours of operation on syngas.

These plants use a variety of fuels including coal, petroleum coke biomass, and refinery residues.

Four IGCC plants tend to be the focus of utility interest because they were designed to use coal: 1) Wabash, Indiana, 2) Polk, Florida, 3) Nuon, Netherlands, and 4) Elcogas, Spain. These four commercial IGCC plants have been operating from 9 to 12 years. They have successfully integrated the gasification process with the combined cycle power plant to enable more efficient use of coal while significantly reducing emissions. These plants range in size from 250 to 320 MW per unit.

A second set of plants built after Wabash, Polk, Nuon, and Elcogas are also important in the progression of IGCC. These plants operate at refineries in Italy. They are: Sarlux 545 MW, Sardinia; ISAB Energy 510 MW, Sicily; Api Energia 280 MW, Falconara; and Eni Power 250 MW, Ferrera. The first two demonstrate that IGCC plants can be built at a scale above 500 MW. All three plants were built using non-recourse project financing provided by over 60 banks and other lending institutions. They show that IGCC can be a commercially bankable technology. Both the Sarlux and ISAB Energy plants use more than one gasification "train" and operate with more than 90 percent availability without a spare gasifier. The Italian experience with IGCC, while using refinery residues as fuel, is relevant to discussions of coal-fired or coke-fired IGCC, because essentially the same equipment is utilized in both instances, differing only in the feed preparation and how solids are removed.

The first commercial-scale demonstration IGCC plant in the United States was Southern California Edison's Cool Water Plant located at Barstow, California. It operated between 1984 and 1989. The plant successfully utilized a variety of coals, both subbituminous and bituminous, and had a feed of about 1,200 tons/day. The project used an oxygen-blown Texaco gasifier with full heat recovery using both radiant and convective syngas coolers.

Gasification-Based Projects in  
Development in the United States

Project Owner	State	Fuel	Products	MWe *
American Electric Power	OH	Coal		600-1,200
Baard Generation	OH	Coal	Polygen	200
Cash Creek Generation (Erora)	KY	Coal		675
Clean Coal Power Resources	IL	Coal		2,400
DKRW	WY	Coal	Polygen	350
Duke/Cinergy	IN	Coal		600
Energy Northwest	WA	Coal		600
Erora Group	IL	Coal		675
Excelsior Energy **	MN	Coal		530
First Energy/Consol	OH	Coal		500
Florida Power & Light	FL	Coal		850
Global Energy Pioneer	KY	Coal		550
Global Energy Lima ***	OH	Coal		550
Leucadia National	LA	Coke		430
Madison Power	IL	Coal		500
Mohave Generating Station	CA	Coal		900-1,000
Mountain Energy	ID	Coal		500
Orlando Uul/Southern	FL	Coal		185
Power Holdings	IL	Coal	SNG	400 (stm)
Rentech	WY	Coal	Diesel	105
Royster Clark/Rentech ***	IL	Coal	Polygen	25
Southeast Idaho Energy	ID	Coal		500
Steelhead Energy ***	IL	Coal		545
Synfuel	OK	Coal		600
Tondu Energy	IN	Coal		640
Xcel Energy	CO	Coal		150
Otter Creek	MT	Coal	Diesel	100,000 b/d

\* MWe in electrical plant output equivalent

Source: DOE Report, 2004 World Survey Results – Gasification – Current Industry Perspective.

**THIS TABLE SHOWS THE RESULTS OF THE SURVEY CONDUCTED IN 2004 FOR THE DEPARTMENT OF ENERGY THAT LISTS THE PROPOSED IGCC PLANTS TO BE BUILT IN THE U.S.**

Since completion of this 2004 survey, there have been additional noteworthy market and public policy developments that will likely result in a significant increase in future coal and petroleum coke-based gasification capacity in the United States above the level suggested by this survey.

First, continued high petroleum and natural gas prices have resulted in a number of new gasification-based projects proposed in the U.S. since completion of this survey. Twenty-seven projects have been identified through a review of industry developments.

While it is unlikely that all of these projects will proceed to construction, the energy market, with petroleum prices peaking at more than \$70 per barrel and natural gas exceeding \$11.00 per mcf by September 2005, is providing a favorable climate for gasification-based power generation and polygeneration projects in the U.S.

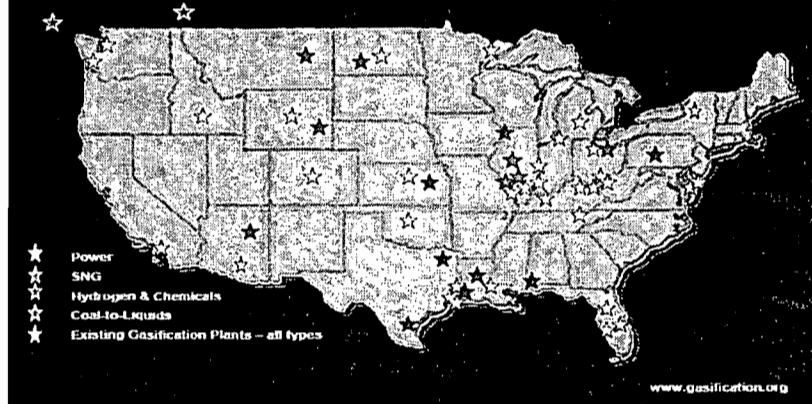
Second, the passage of the Energy Policy Act of 2005 provides significant federal financial incentives for a wide variety of gasification-based projects in the U.S. The new law authorizes direct federal outlays of as much as \$5.4 billion in grants, investment tax credits, loans, and cost sharing that could help fund an estimated 16 gasification-based plants. Additional authority was created for 80% loan guarantees for an estimated 17 additional gasification projects.

Third, the transportation bill—also passed and signed into law in August 2005—provides a 50-cent per gallon credit for coal-based Fischer Tropsch fuels produced and used in the U.S.

Finally, the expectations of more stringent environmental constraints and the potential requirements for carbon capture and sequestration have become more likely and more relevant to decision makers. The strategic choices for generation capacity for many decision makers are now influenced by the potential to adapt to these environmental and carbon policies. Gasification provides a versatile option to satisfy environmental and carbon policy requirements and is increasingly becoming the technology of choice.

This combination of favorable energy market conditions and strong public policy support establishes a foundation for significant additions to gasification capacity in the U.S. in the coming years for the production of clean power, fuels, and chemicals.

## Publicly Announced Gasification Project Development



Source: Phil Arrick, "Experience with Gasification of Low-Rank Coals," presented at Workshop on Gasification Technologies, Bismark North Dakota, June 28, 2006.

- In the United States, there are 40 to 50 IGCC and gasification projects that are under development. Examples include the following IGCC projects:
- **Two 629 MWe IGCC plants** to be built by the nation's largest utility, American Electric Power Company (AEP), in Ohio and West Virginia scheduled to be operational in 2010;
- **600 MWe IGCC plant** proposed by the nation's fourth largest utility, Cinergy (now part of Duke), near Edwardsport, Indiana;
- **550 MW IGCC plant** planned by Mississippi Power Company in Kemper County, MS
- **630 MW IGCC plant** proposed by Tondur Corp. in Corpus Cristi, Texas
- **630 MW IGCC plant** planned by Tampa Electric Company in Polk County, FL to operate in 2013
- **630 MW IGCC plant** proposed by Energy Northwest in Washington
- **366 MW IGCC plant** proposed by Summit in Oregon,
- **Three repowering projects** to take old PC plants and convert them to IGCC by NRG in CT, DE, and NY. Each would be 630 MW
- **500 MW IGCC plant** to be built by BP in Carson, CA with CO2 capture for enhanced oil recovery
- **Two 630 MW IGCC plants** proposed by the ERORA Group (one in Illinois and one in Kentucky) and
- **Two 606 MWe IGCC units** in Hoyt Lake Minnesota by Excelsior Energy

Source: John Thompson, Desert Rock testimony, page 7, November 8, 2006 and DOE press release Nov. 30, 2006 -

## PUBLICLY ANNOUNCED IGCC AND GASIFICATION PROJECTS

The range of IGCC projects under development in the United States includes proposals that would be fueled with petroleum coke, bituminous coal, subbituminous coal, and lignite. For example, the Department of Energy Announced in August 2006 that it had received tax credit applications under the Energy Policy Act of 2005 from 18 IGCC projects-- 10 using bituminous coal, six using subbituminous coal, and two that would use lignite[1].

IGCC technology is commercially available from four major companies: GE, ConocoPhillips, Siemens and Shell. The gasification industry has undergone many changes in the past few years that have given confidence to industry and lenders that IGCC can obtain sufficient performance warranties to build new IGCC plants. GE, a major company in the power field, has purchased ChevronTexaco's gasification business, and has partnered with Bechtel to offer fully warranted IGCC plants. ConocoPhillips has purchased the E-Gas technology from Global Energy. Siemens has purchased the German gasification technology formerly offered by Future Energy. Shell has partnered with Udhde and Black and Veatch.

[1] DOE, Fossil Energy Techline, issued August 14, 2006, "Tax Credit Programs Promote Coal-Based Power Generation Technologies."

## US Gasification Development *Coast to Coast, and North to South*

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• American Electric Power OH, WV</li> <li>• Agrium/Blue Sky AK</li> <li>• Baard Generation OH</li> <li>• BP/Edison Mission CA</li> <li>• Cash Creek Generation KY</li> <li>• Clean Coal Power IL</li> <li>• DKRW WY</li> <li>• Duke/Cinergy IN</li> <li>• Energy Northwest WA</li> <li>• Erora Group IL</li> <li>• Excelsior Energy MN</li> <li>• First Energy/Consol OH</li> <li>• Leucadia National LA</li> </ul> | <ul style="list-style-type: none"> <li>• Madison Power IL</li> <li>• Mountain Energy ID</li> <li>• NRG Energy DL</li> <li>• Orlando Util/Southern FL</li> <li>• Otter Creek MT</li> <li>• Power Holdings IL</li> <li>• Rentech MS</li> <li>• Royster Clark/Rentech IL</li> <li>• Southeast Idaho ID</li> <li>• Steelhead Energy IL</li> <li>• Synfuel OK</li> <li>• WMPI PA</li> <li>• Xcel Energy CO</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



Most large projects are for power, but also substitute natural gas and liquid fuels.

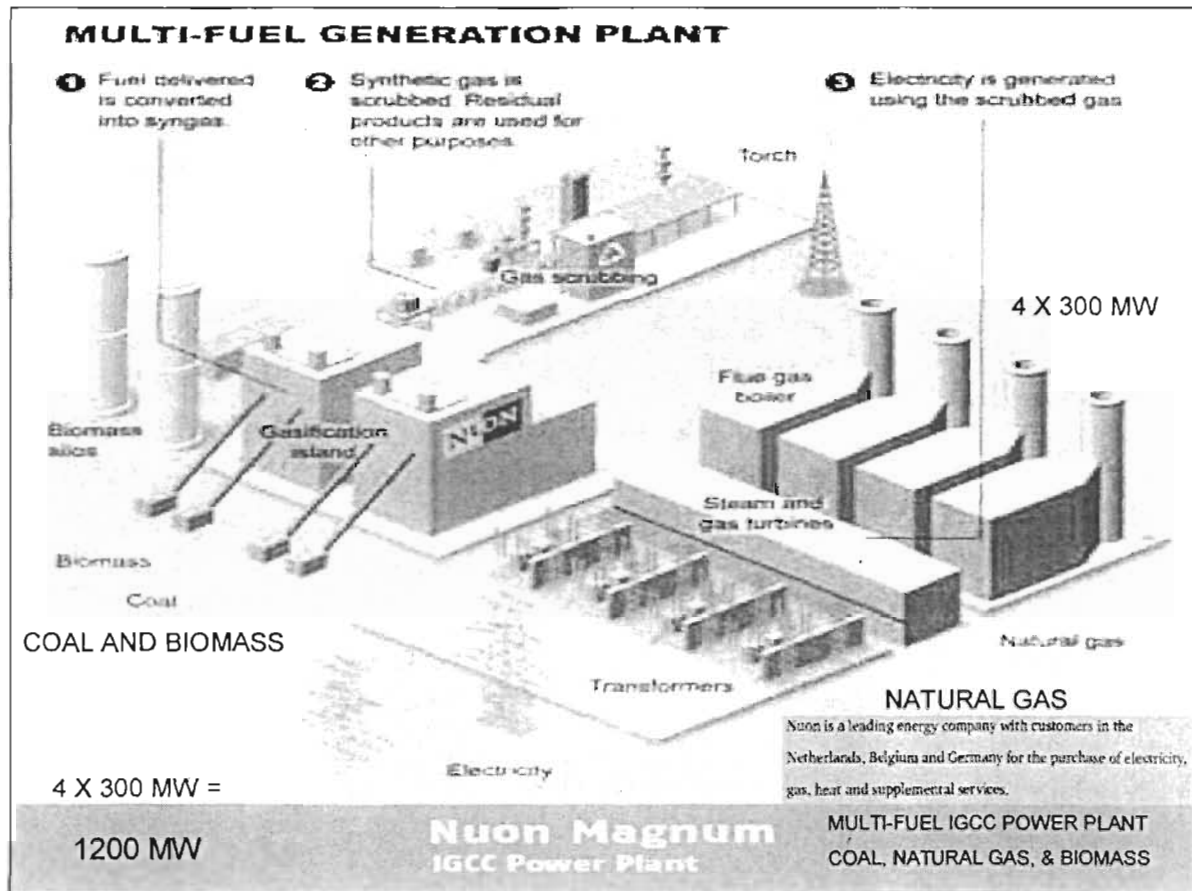
NETL Working with Industry, DOE, and EPA to Develop a Clean Coal  
Courtesy of Buras and Roe

Source: Department of Energy/NETL Presentation, Overview of Coal Gasification Technologies, by Gary Stiegel, presented at NSTAR Meeting, Pittsburgh, PA, Oct. 27, 2006.

### LIST OF NEW IGCC PROJECTS UNDER DEVELOPMENT IN THE U.S.

A recent DOE Report (1) lists 28 IGCC projects that are planned in the U.S. by utilities and independent power producers.

1. Department of Energy/NETL Report, Tracking New Coal-Fired Power Plants, by Scott Klara and Eric Shuster, September 29, 2006.



## LARGE SIZE PLANTS ARE BEING BUILT USING MODULAR DESIGN THAT IMPROVES SYSTEM RELIABILITY, INCREASES EFFICIENCIES AND PROVIDES FUEL FLEXIBILITY

The Nuon Utility in the Netherlands, Belgium and Germany has been successfully operating an IGCC plant on coal and biomass for the past 12 years at about 253 MW. Nuon recently announced that they are building a 1200 MW plant which will consist of four 300 MW units. This design requires no additional scale-up from the design of their existing plant and makes use of readily available combined-cycle plants that have been used with natural gas. This modular design provides additional system reliability, increased efficiencies, fuel flexibility and any possible size.

The standard IGCC unit is now 300 MW. Most manufacturers are supplying 600 MW plants which consist of two 300 MW units. This is due to the fact that the gasifiers have been sized to produce the amount of synthesis gas needed for the 300 MW combined-cycle plants that are already in-service using natural gas. Therefore the 630 MW unit that Tampa Electric is building for operation in 2013 consists of two units the same size as their existing unit that has been operating for the past 10 years. Therefore there is no additional scale-up required. Any large size plant can be built by using additional 300 MW units. Four manufacturers have 300 MW IGCC units that have been operating successfully for the last 10 to 12 years. GE states that "IGCC technology can satisfy output requirements from 10 MW to more than 1500 MW, and can be applied in almost any new or repowering project where solid and heavy fuels are available."

([www.gepower.com/prod\\_serv/products/gas\\_turbines\\_cc/en/igcc/index](http://www.gepower.com/prod_serv/products/gas_turbines_cc/en/igcc/index))

## Availability & Reliability – Solids Gasification in China

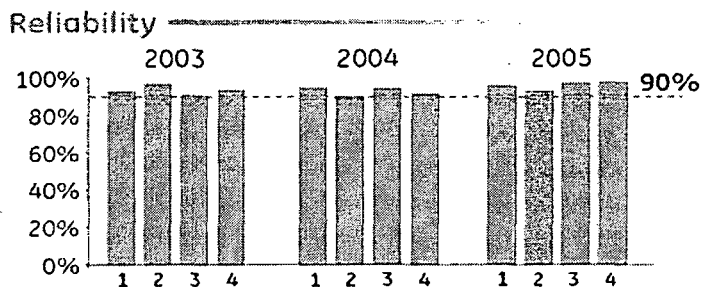
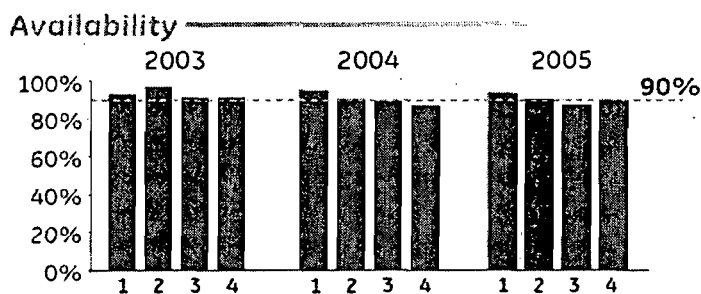
### GE Technology in China Four Coal Plants

Availability = (1 - (unplanned outage + planned outage) / 8760) \* 100%

Reliability = (1 - (unplanned outage) / 8760) \* 100%



imagination at work



- **Source: Commercial Experience of GE's Gasification Technology in China by Qianlin Zhuang, GE Energy, Presented at GTC, Oct 3, 2006**

**RECENT COAL GASIFICATION PLANTS AND IGCC PLANTS DEMONSTRATE AVAILABILITIES ABOVE 90% REQUIRED BY THE UTILITY INDUSTRY.**

**NOW GE OFFERS TO TAKE ON RESPONSIBILITY FOR EVERYTHING “FROM COAL OFF THE COAL PILE TO ELECTRONS ON THE GRID”** by ED LOWE, GE GENERAL MANAGER OF GASIFICATION, from TIME MAGAZINE, Inside Business, November, 2006.

This chart by GE shows that their 4 new coal gasification plants that have been operating in China for the past 3 years have been operating at greater than 90 % reliability.

An additional advantage of an IGCC plant is that it can operate on various fuels. If the gasifier is out-of service for maintenance the power plant can still operate on natural gas or diesel fuel. This is not possible with a PC plant which is usually designed for one type of coal. Older IGCC plants built in the early 1990s such as Polk and Wabash that operate without a spare gasifier have demonstrated availabilities above 85% (1).

A recent Gas Turbine World article (2) reported on the capacity factors of the more recently built IGCC plants in Italy that utilize refinery waste such as asphalt as a fuel. As the report notes, the availability of these plants are between 90% and 94%. Major vendors of IGCC plants such as GE, Shell and ConocoPhillips will warrant that new IGCC plants will achieve greater than 90% availability with a spare gasifier. The economic comparisons conducted for Tampa Electric's IGCC plant indicates that it is more cost effective to operate on natural gas or diesel fuel than to build a spare gasifier to increase plant availability. Therefore IGCC plants are being built without a spare gasifier. They will be able to operate above 90% availability by using their back-up fuel of either natural gas or diesel.

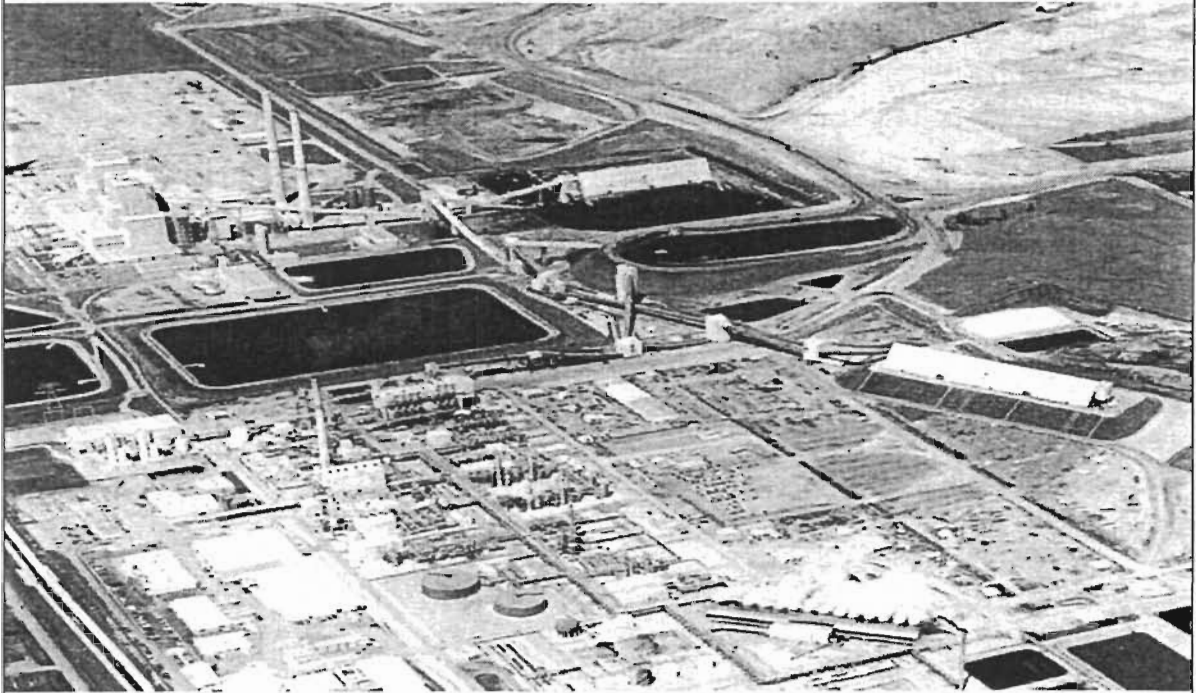
Reliability and availability are measures of the time a plant is capable of producing electricity. Reliability takes into account the amount of time when a plant is not capable of producing electricity because of unplanned outages. Availability takes into account the time when a plant is not capable of producing electricity because of planned and unplanned outages.

(1) “Tampa Electric's presentation of operating results”, by Mark Hornick, Plant Manager, presented during plant tours.

(2) “Refinery IGCC plants are exceeding 90% capacity factor after 3 years”, by Harry Jaeger, Gas Turbine World, January-February 2006.

### THE GREAT PLAINS SYNFUELS PLANT

The Gasification Plant shown in the foreground began Operating in 1984 in North Dakota & uses 6 million tons per year of Lignite Coal to Produce 54 Billion cubic feet of Synthetic Natural Gas (SNG) and 4 million tons per year of Carbon Dioxide used for EOR. The Antelope Valley Power Plant shown in the background uses 5 million tons of Lignite Coal for the two 440 MW Units.



(Source: "The New Synfuels Energy Pioneers" by Stan Stelter, Introduction by Former President Jimmy Carter, published by Dakota Gasification Co.- 2001, A subsidiary of Basin Electric Power Cooperative, page 48)

### GASIFICATION OF LIGNITE COAL SINCE 1984 TO PRODUCE SYNTETIC NATURAL GAS (SNG)

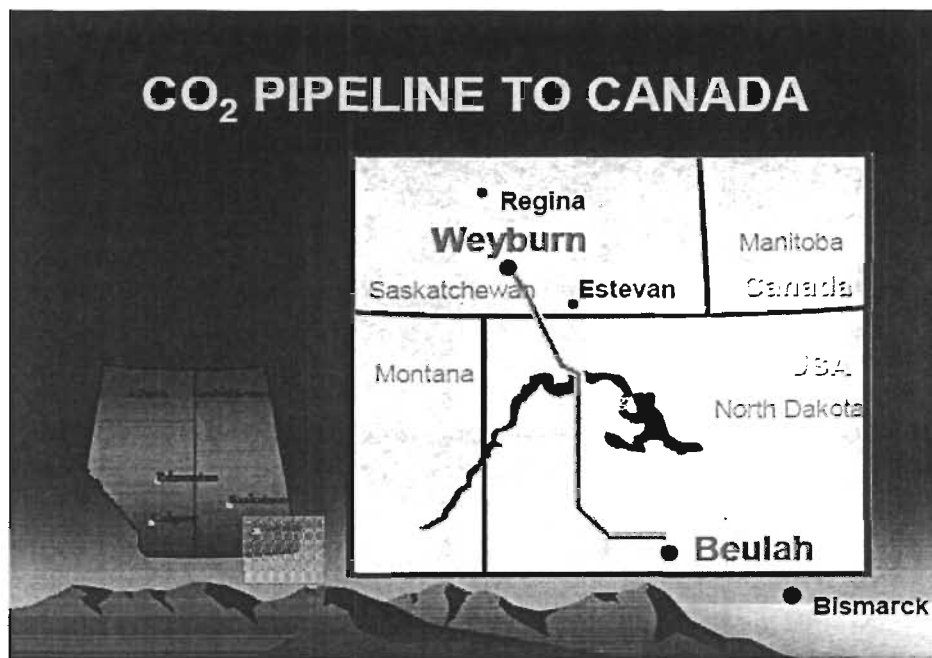
#### (FUEL PRODUCTION CAPACITY EQUAL TO 1000 MW OF NATURAL GAS COMBINED CYCLE POWER PLANTS )

The Great Plains Synfuels Plant in Beulah, North Dakota is a good example of a lignite-fired gasification plant. It began operating on lignite in 1984 and today produces more than 54 billion cubic feet of Synthetic Natural Gas from 6 million tons of lignite per year.

Adjacent to the Great Plains Synfuels Plant is the Antelope Valley Station which consists of two 440 MW lignite coal power plants that also started operation on lignite in the early 1980s.

Both plants are owned by the Basin Electric Power Cooperative. Al Lukes, Senior Vice President and COO of the Dakota Gasification Company, presented a paper at the 2005 Gasification Technologies Conference entitled "Experience with Gasifying Low Rank Coals" which showed the significantly lower emissions from the lignite-fired gasification plant than the lignite-fired power plant. I recently asked Al Lukes which technology he would select today for a power plant, and he said **"definitely the gasification technology"**.





( Source: Experience Gasifying ND Lignite by Al Lukes, Dakota Gasification Company, The Great Plains Synfuels Plant presented at the Montana Energy Future Symposium)

### **CARBON DIOXIDE CAPTURE & SEQUESTRATION HAS BEEN OPERATING COMMERCIALY SINCE 2000 FOR ENHANCED OIL RECOVERY**

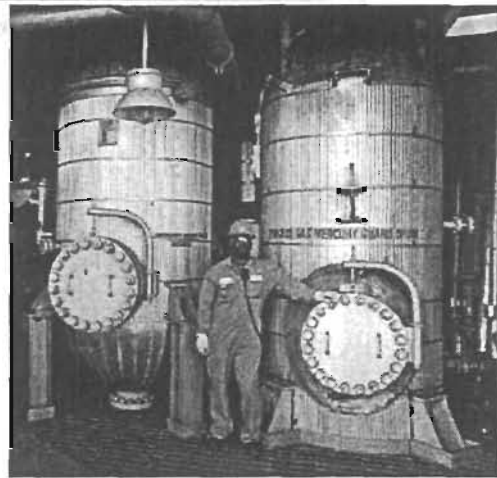
In 2000, the Great Plains Synfuels Plant (the lignite gasification plant) added a CO<sub>2</sub> recovery process to capture the CO<sub>2</sub>. It transports the CO<sub>2</sub> by pipeline 200 miles to the Weyburn oil fields where it is used for enhanced oil recovery (EOR). In this way, the CO<sub>2</sub> does not become a global warming emission source but is sold as a useful byproduct to recover additional oil from depleted oil fields and the CO<sub>2</sub> is sequestered underground. This CO<sub>2</sub> recovery process is expected to help extract 130 million extra barrels of oil from this oil field. This demonstrates the ability to use lignite coals in the gasification process and to efficiently recover and use the CO<sub>2</sub>.



EASTMAN GASIFICATION SERVICES COMPANY

## Vapor-Phase Mercury Removal

>94% Removal



### Demonstrated for 21 years at Eastman !

The cost of volatile mercury removal by IGCC is estimated to be < \$0.25/MWh, almost an order of magnitude lower than for PC technologies using activated carbon, according to a 2002 DOE report by Parsons (DOE Report, "The Cost of Mercury Removal in an IGCC Plant", September, 2002).

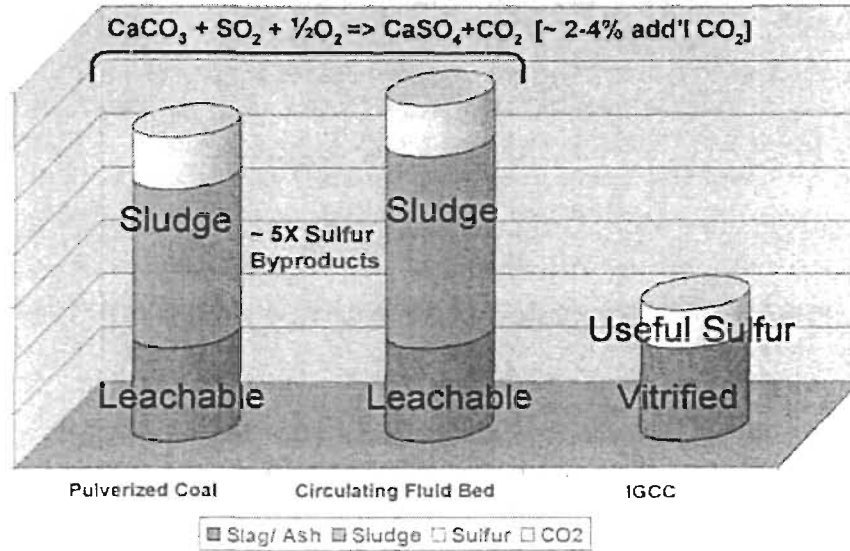
**EASTMAN**

### EFFICIENT MERCURY REMOVAL FOR IGCC PLANTS HAS BEEN COMMERCIALY OPERATING FOR MORE THAN 20 YEARS

This plant uses activated carbon beds for removing more than 94% of the mercury from the synthesis gas and has been in commercial operation for over 21 years. However it is not economically possible to use this efficient mercury removal process for conventional Pulverized Coal (PC) plants due to the much larger quantities of stack gas in a PC plant. Therefore a recent Electric Power Research Institute (EPRI) Journal article titled "Mercury Control for Coal-Fired Power Plants", Summer 2005, page 19 states:

**"No technology designed specifically to control mercury in coal plants is in use anywhere in the world, or has even undergone long term testing."**

# IGCC: Lowest Collateral Wastes



**No Add'l CO<sub>2</sub> Associated with Sulfur Removal for IGCC**

Slide provided by G.E. Power Systems

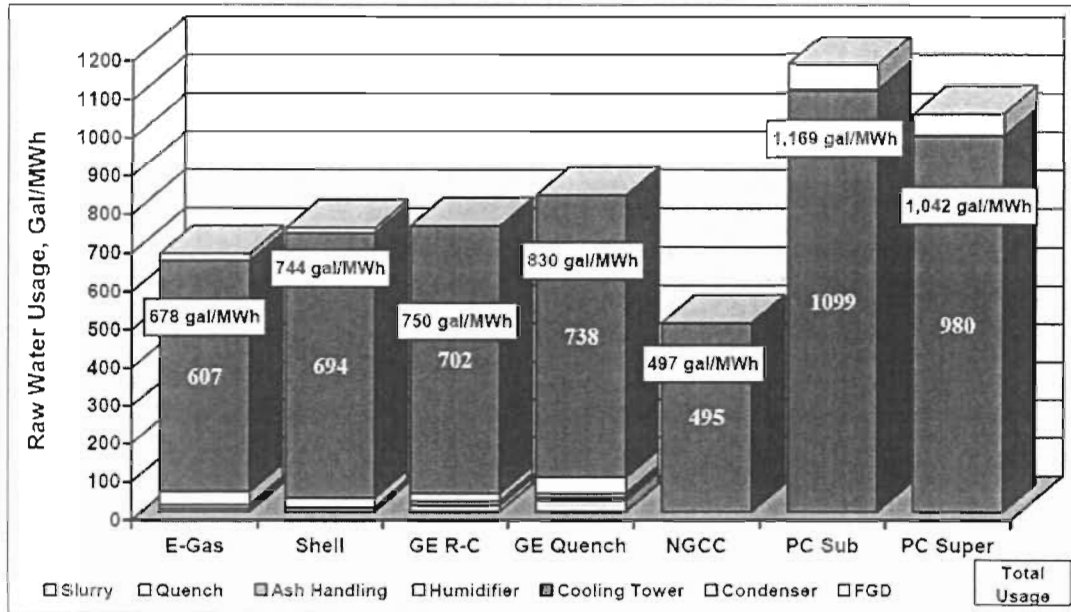
**EASTMAN**

## MUCH LESS SOLIDS WASTES FROM IGCC AND LESS POTENTIAL FOR GROUND WATER CONTAMINATION

This chart shows the significantly less solid waste that is produced by IGCC. Instead of large quantities of scrubber sludge to dispose of IGCC produces useful sulfur byproduct. Leachable ash and scrubber sludge from the PC plants can cause ground water contamination. Instead of a leachable fly ash to dispose of IGCC produces a non-leachable slag that can be used in asphalt. The higher temperatures for gasification than combustion has a benefit because coal ash has a softening temperature of about 2250 F. Therefore, the coal ash goes through a molten state when gasified then cools to become an inert, vitrified slag that can be sold as a byproduct or disposed of as a non-leachable material.

## 30% to 40% Less Water Usage With IGCC

Comparison of Raw Water Usage for Various Fossil Plants, gallons per MWh



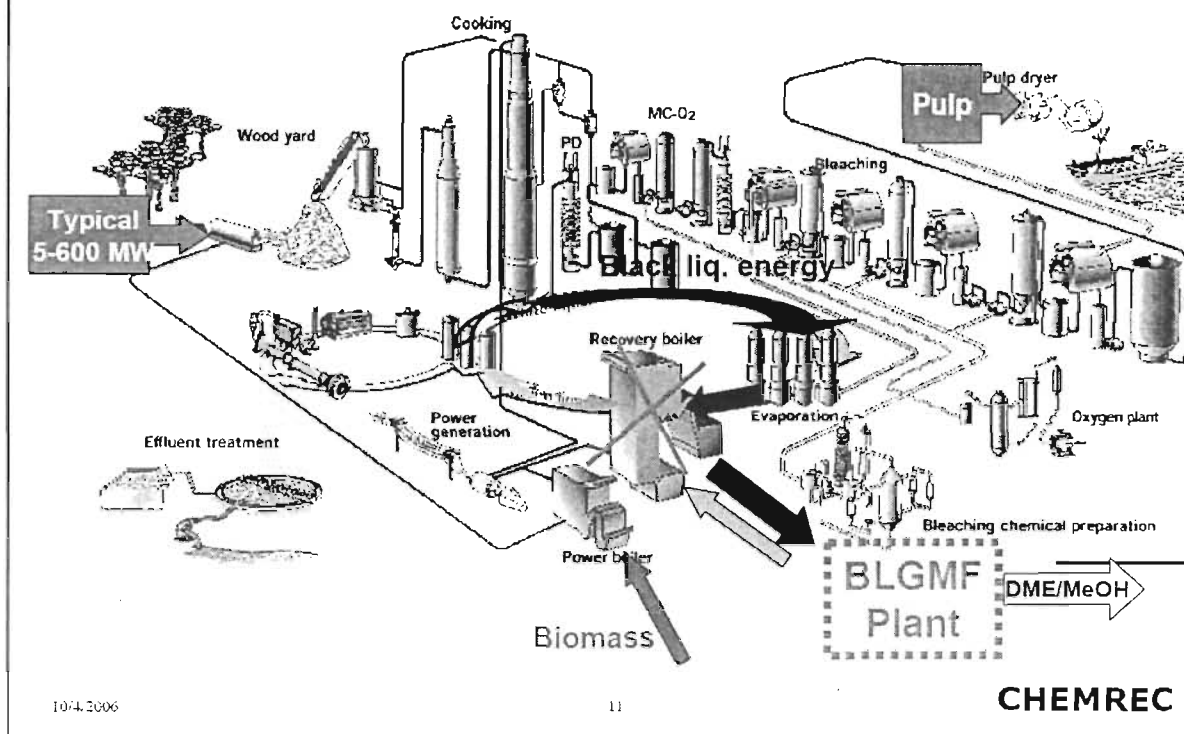
Source: [Power Plant Water Usage and Loss Study](#), DOE/NETL Report, August 2005, by Gary Stiegel, et al.

### IGCC PLANTS USE 30% TO 40% LESS WATER THAN A PC PLANT

The 30 to 40 % less water usage for an IGCC plant is due mostly to the fact that a combined cycle power plant is being used. A combined cycle power plant consists of both a gas turbine and a steam turbine for power generation. The gas turbine portion of the power generation cycle does not require the large quantities of water for cooling that are needed for the steam turbine cycle. Since a PC plant generates all of its electricity from the steam turbine cycle it requires larger amounts of water.

Combined cycle plants are more energy efficient but require a clean fuel such as natural gas, diesel, or synthesis gas. The older simple cycle was only a steam turbine, which must be used for PC plants due to the contaminants in the combustion products.

## The Recovery Boiler is changed to a Gasification Plant for Production of Motor Fuels



### THE FUTURE ECONOMIC POTENTIAL FOR TAYLOR COUNTY DEPENDS UPON THE USE OF GASIFICATION FOR BOTH THE POWER PLANT AND THE PULP MILL

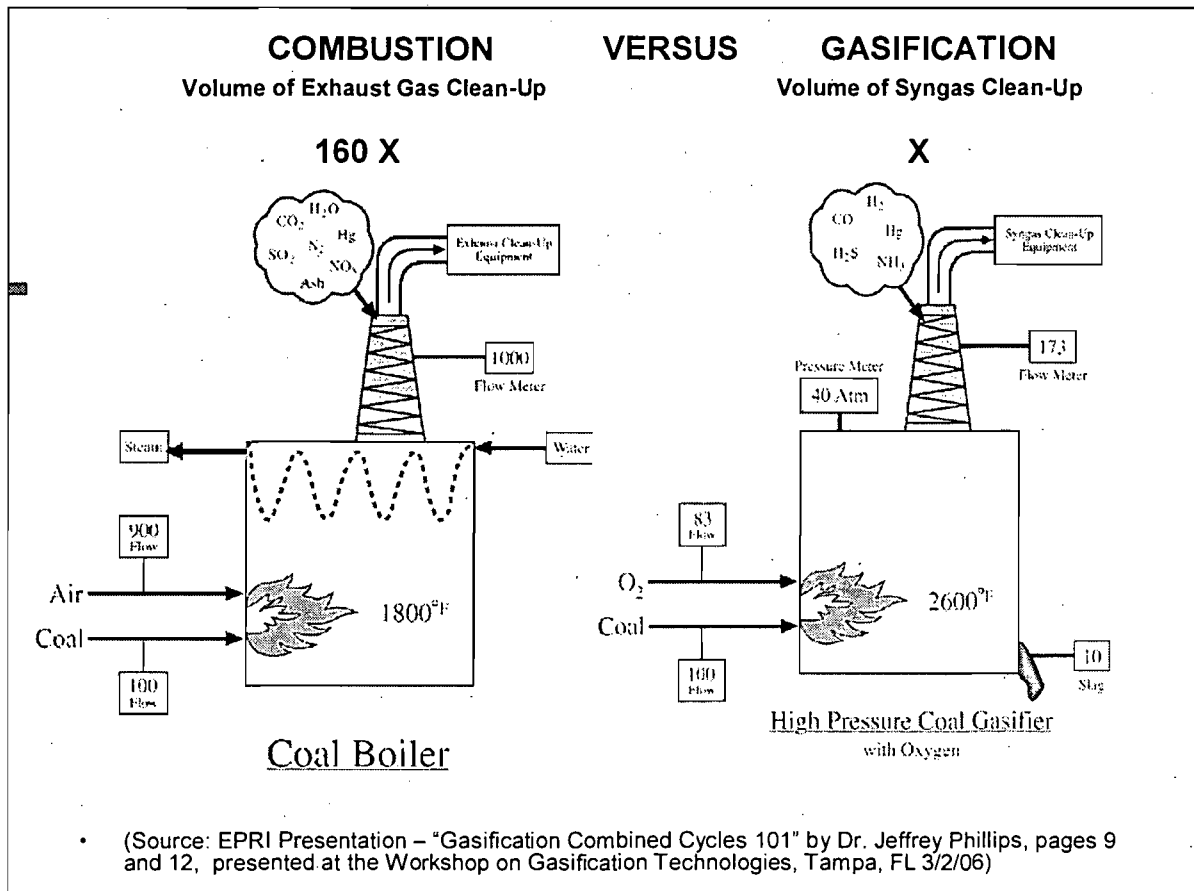
There can be certain synergies that exist between a pulp mill and a power plant that are located next to each other if they both use gasification. There is a plant in Sweden that gasifies the black liquor from a pulp mill. The advantages of using gasification are that it is able to produce various fuels and chemicals that are much higher value products in addition to power and pulp that are already being produced. These higher value fuels and chemicals will provide higher profits for the pulp mill and the power plant and more jobs. The problem with the existing pulp mill and the proposed pulverized coal (PC) plant is that they produce a single product from a single raw material. The profitable plants in the future will have multiple raw materials and multiple high value products to respond to changing market conditions. A recent presentation by Chemrec (1) which is operating the plant in Sweden and an economic report by Princeton University and Navigant Consulting (2) shows the significant profits and environmental benefits of using gasification in the pulp industry to replace the aging black liquor boilers. By using gasification now for the new power plant and gasification in the future for the pulp mill Taylor County will be able to use their renewable resources, wood wastes and all types of coal as raw materials for both the power plant and the pulp mill and produce a wide range of fuels and chemicals in addition to pulp and power. In the future renewable biomass and gaseous fuels produced by the pulp mill can be used efficiently in an IGCC power plant but not in a PC plant. Therefore by choosing the PC plant now you will be eliminating the future potential that exists for these two plants working more economically together.

(1) Production of Biomass-Based DME and Methanol via Black Liquor Gasification, presented at Gasification Technologies Conference

2006 Washington, DC, October 1-4, 2006, by Ingvar Landälv, Chemrec AB, [www.chemrec.se](http://www.chemrec.se)

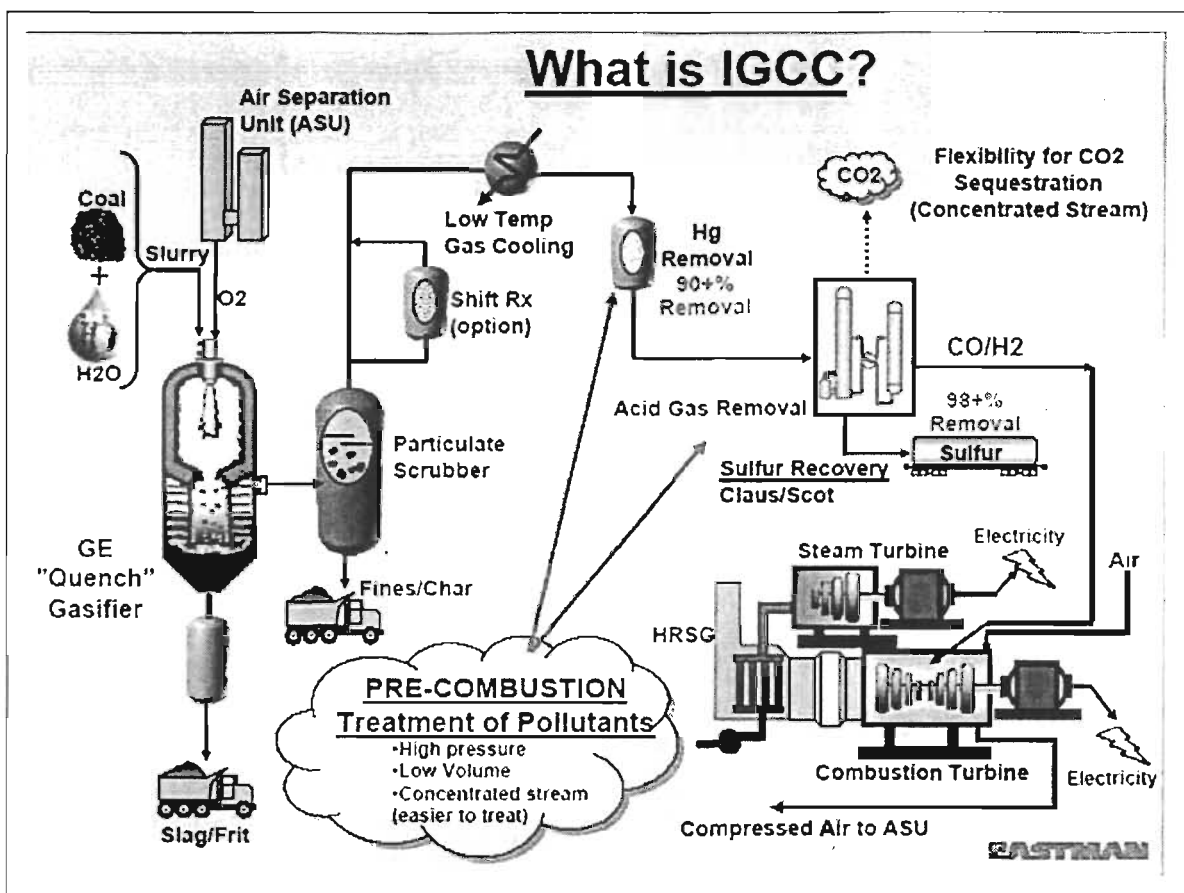
(2) A Cost-Benefit Assessment of Biomass Gasification Power Generation in the Pulp and Paper Industry, FINAL REPORT, October 8,

2003, by Princeton University, Politecnico Milano, and Navigant Consulting



## WHAT ARE THE DIFFERENCES BETWEEN COMBUSTION AND GASIFICATION?

It is important to understand the difference between combustion which is used in a coal power plant and coal gasification. The coal boiler operates at 1800 F and atmospheric pressure. The coal gasifier operates at 2600 F and 40 atmospheres pressure. The flow meters show the pounds of material that need to be processed for the same amount of electricity. Prior to gasification the nitrogen is separated from the air and the oxygen alone is used in the gasifier. Therefore for the same amount of electricity the gasifier produces 173 pound of synthesis gas versus 1000 pounds of exhaust gas from the boiler. Since the gasifier operates at higher pressure there is also a much smaller volume of gas that needs to be treated for pollutants and therefore the size of the equipment and capital cost is much smaller. The exhaust gas volume that needs to be treated from a coal boiler is 160 times larger than the volume of the synthesis gas that can also be cleaned of pollutants. The form of the pollutants from the gasifier makes it possible for very efficient recovery of potential pollutants using proven commercially available equipment that is operating in the natural gas and petrochemical industries. Proven commercially available technologies are not presently available for the proposed new coal boilers for mercury and CO<sub>2</sub>. This is one of the main reasons that we need to use gasification.



### WHAT IS INTEGRATED GASIFICATION COMBINED CYCLE (IGCC)?

Integrated Gasification Combined Cycle (IGCC) is the efficient integration of the coal gasification process with the pre-combustion removal of pollutants and the generation of electricity using a combined cycle power plant. Due to the high pressure and low volume of the concentrated synthesis gas that is produced it is capable of higher levels of pollutant removal at lower costs than PC combustion.

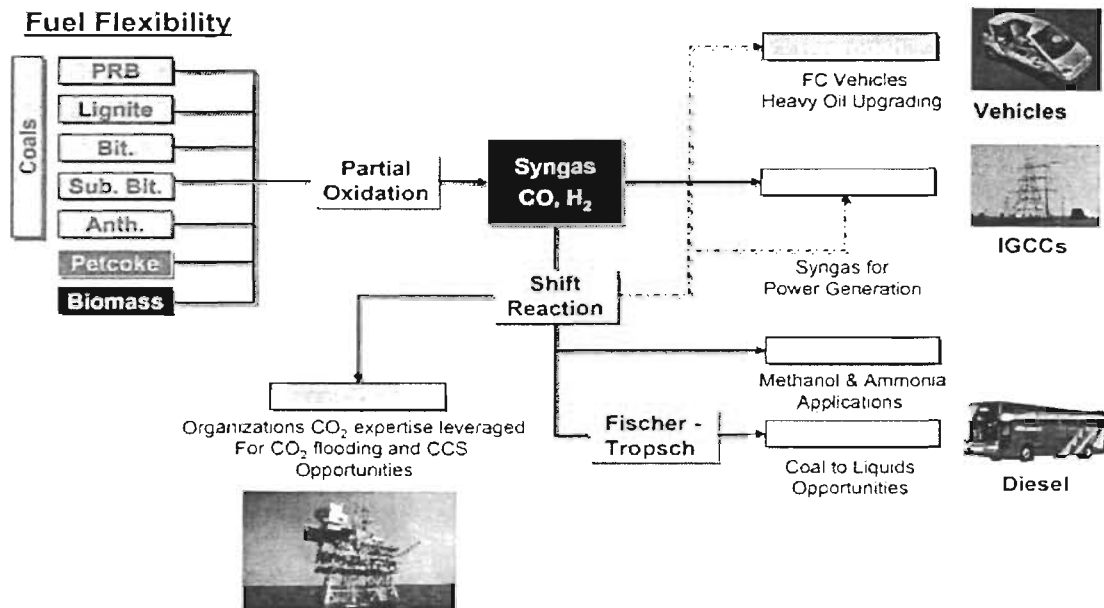
IGCC is a method of producing electricity from coal and other fuels. In an IGCC plant, coal is first converted to "syngas" composed primarily of hydrogen, carbon monoxide and carbon dioxide. After removing particulate matter, sulfur and other pollutants, the cleaned syngas is combusted in a combined-cycle power block to produce electricity.

In the first step of the IGCC process, coal is slurred with either water or nitrogen and enters the gasifier. It is mixed with oxygen, not air, which is provided to the gasifier from an air separation unit. The coal is partially oxidized at high temperature and pressure to form syngas. The syngas leaves the gasifier, while the solids are removed from the bottom of the gasifier. The operating conditions in the gasifier vitrify the solids. In other words, the solids are encased in a glass-like substance that makes them less likely to leach into groundwater when disposed of in a landfill as compared to solid wastes from a conventional coal plant.

After leaving the gasifier, the syngas undergoes several clean-up operations. Particulate matter is removed. Next, a carbon bed can be used to take out mercury. Finally, sulfur (in the form of H<sub>2</sub>S) is removed from the syngas in a combination of steps that usually involve hydrolysis followed by an adsorption operation using MDEA (methyldiethanolamine) or Selexol. The H<sub>2</sub>S that is removed from the syngas is usually converted into elemental commercial-grade sulfur using a Claus plant.

The clean syngas enters a combustion turbine where it is burned to produce electricity. The heat from the exhaust gases is captured in a heat recovery steam generator (HRSG) and the resulting steam is used to produce more electricity. The combustion turbine, combined with the HRSG, is the same configuration commonly used for natural gas combined cycle (NGCC) plants. In Europe and Japan, some IGCC units have installed selective catalytic reduction (SCR) to control nitrogenous oxide (NO<sub>x</sub>) emissions from the turbine, but in the United States, NO<sub>x</sub> emissions at existing IGCC plants have been reduced with diluent injection only.

Shell has the enabling clean coal technologies...



- Source: [Shell Coal Gasification in North America](#)  
by Milton Hernandez, Shell U.S. Gas & Power, Presented at GTC, Oct. 2, 2006

## GASIFICATION (ALSO CALLED PARTIAL OXIDATION) CAN USE A WIDE RANGE OF FUELS AND CAN PRODUCE A WIDE RANGE OF PRODUCTS

The fuel flexibility of gasification is demonstrated by its ability to use all types of coal, petroleum coke, biomass, refinery wastes, and waste materials. The synthesis gas (also called syngas) produced consists of mainly carbon monoxide (CO) and hydrogen (H<sub>2</sub>) which are used as the raw materials to produce (or synthesize) a wide range of chemicals. This syngas can also be used as fuel directly for a combined cycle power plant called an IGCC (Integrated Gasification Combined Cycle) plant. It can be further processed in a shift reactor to produce hydrogen and carbon dioxide (CO<sub>2</sub>). The hydrogen can be used as a fuel or used to improve fuels in a refinery. The CO<sub>2</sub> can be used for enhanced oil recovery to produce additional oil from aging oil fields. The CO and H<sub>2</sub> can also be further processed by the Fischer-Tropsch Process to produce liquid fuels. This demonstrates the wide range of products that can be produced by gasification. The production of multiple products from a single plant is called polygeneration. Economic analyses have indicated that polygeneration of fuels, chemicals and electricity improves the profitability of gasification plants.



## **Adams, Patty**

---

**From:** Halpin, Mike  
**Sent:** Thursday, March 08, 2007 11:17 AM  
**To:** Vielhauer, Trina  
**Cc:** Goorland, Scott; Robinette, Rebecca; Kahn, Joseph; Adams, Patty; Mulkey, Cindy; Koerner, Jeff  
**Subject:** RE: Taylor energy

Trina -

We (Siting) received a direct request dated March 1, 2007 from the same person, but the request was only to be placed on our list to receive notifications and copies of activities. Although we have no notifications or activities, it appears that we placed her on a list of interested persons while I was out of the office earlier this week.  
Mike

-----Original Message-----

**From:** Vielhauer, Trina  
**Sent:** Thursday, March 08, 2007 9:50 AM  
**To:** Koerner, Jeff; Halpin, Mike  
**Cc:** Goorland, Scott; Robinette, Rebecca; Kahn, Joseph; Adams, Patty; Mulkey, Cindy  
**Subject:** Taylor energy

We have received a request for any public record we may have related to the proposed Taylor energy center facility. I will scan and send you all this letter from Jeanne Zokovitch later today.

Patty,

Can you be the lead in gathering stuff? I don't think there is much because we don't have an application yet.

If you all can check your files and emails and get your items or lack thereof to patty, that would be great.

Mike and Cindy,

Can you coordinate with other media that may have something?

I will draft letter responding to her request to be on a copy list as we have done several similar letters.

Vickie,

Can you work up a draft response letter based on what we have sent previously to sierra club? Addressee is Jeanne Zokovitch Paben, senior staff attorney, WildLaw, 1415 devils dip, tall, FL, 32308.

Can you also call her and let her know we have the request and are working on it. 878 6895.

Thanks.

Trina Vielhauer

-----  
Sent from my BlackBerry Wireless Handheld



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

February 7, 2007

Ms. Kristin Henry, Esq.  
Ms. Joanne Spalding, Esq.  
Sierra Club  
85 Second Street, 2<sup>nd</sup> Floor  
San Francisco, California 94105

*Sent via email with received receipt requested: [kristin.henry@sierraclub.org](mailto:kristin.henry@sierraclub.org) and [joanne.spalding@sierraclub.org](mailto:joanne.spalding@sierraclub.org)*

RE: Notification Request

Dear Ms. Henry and Ms. Spalding:

We are in receipt of your letter dated February 1, 2007 regarding notifications of future permitting actions regarding Glades Power Park and Taylor County Energy Center. We appreciate your continued interest in power plant permitting activities in Florida. As I indicated in my letter to you dated December 22, 2006, we have added the Sierra Club to our copy list for the Glades Power Park project. However, as yet we have not received an application for the Taylor County Energy Center. Our statutes do not require nor tracking systems allow us to track notification requests for as yet unsubmitted PSD applications or Site Certification projects. Therefore, at this time we are unable to add you on to a mailing list for the Taylor County Energy Center.

The following information was also contained in my letter of December 22, 2006 but is repeated here for your convenience. The Department will be posting documents related to power plant Site Certification at the following websites:

Main Website for Siting Coordination Office:

<http://www.dep.state.fl.us/siting/default.htm>

Web Site for Power Plant Siting Overview:

[http://www.dep.state.fl.us/siting/Programs/Power\\_Plant\\_Siting\\_Overview.htm](http://www.dep.state.fl.us/siting/Programs/Power_Plant_Siting_Overview.htm)

Web Site for Power Plant Applications in Process:

[http://www.dep.state.fl.us/siting/Highlights/applications\\_in\\_process.htm](http://www.dep.state.fl.us/siting/Highlights/applications_in_process.htm)

In addition, the Department's Division of Air Resource Management will be posting documents related to power plant PSD projects at the following websites:

Main Website for Division of Air Resource Management:

<http://www.dep.state.fl.us/Air/default.htm>

Web Site for New Source Review PSD Construction Permits:

<http://www.dep.state.fl.us/Air/permitting/construction.htm>

You can also email or telephone Mr. Koerner, Mr. Linero or Mr. Halpin to inquire about the status of power plant applications. Upon identification of a specific pending project the Sierra Club is interested in, please email us your request to be notified of further actions on that pending project.

If you have any questions, please contact Mr. Linero or Mr. Koerner at 850/488-0114 or Mr. Halpin of the Site Certification Coordination Office at 850/245-8002. In addition, you may contact Ms. Robinette or Mr. Goorland in our Office of General Counsel at 850/245-2242.

Sincerely,



Trina L. Vielhauer

Email copies: Mr. Michael Halpin, Department's Siting Coordination Office  
Mr. Scott Goorland, Department's Office of General Counsel  
Ms. Rebecca Robinette, Department's Office of General Counsel  
Mr. Jeff Koerner, Department's Division of Air Resource Management  
Ms. Patty Adams, Department's Division of Air Resource Management  
Mr. Al Linero, Department's Division of Air Resource Management

Best Available Copy



RECEIVED

FEB 1 2007

February 1, 2007

BUREAU OF LAND MANAGEMENT

Via Certified Mail

Trina Vielhauer, Bureau Chief  
Division of Air Resource Management  
2600 Blair Stone Road MS 5500  
Tallahassee, Florida 32399-2400

Re: Placement on Departmental Mailing List for All Notices of Agency Action  
Related To Application for Title V Air Permits or NSR/PSD Construction  
Permits for Taylor County Energy Center or Glades Power Park

Dear Ms. Vielhauer:

Pursuant to Chapter 120.60(3), Florida Statutes, please place the following persons on the departmental mailing list for all notices of agency action related to applications for Title V Air Permits and New Source Review (NSR) and Prevention of Significant Deterioration (PSD) permits for the Taylor County Energy Center or Glades Power Park coal fired power plants:

Kristin Henry, Esq.  
85 Second Street, 2<sup>nd</sup> Floor  
San Francisco, CA 94105  
415-977-5716  
415-977-5793 (fax)  
[kristin.henry@sierraclub.org](mailto:kristin.henry@sierraclub.org)

Joanne Spalding, Esq.  
85 Second Street, 2<sup>nd</sup> Floor  
San Francisco, CA 94105  
415-977-5725  
415-977-5793 (fax)  
[joanne.spalding@sierraclub.org](mailto:joanne.spalding@sierraclub.org)

Thank you for your prompt attention to this request.

Sincerely,

Kristin Henry  
Staff Attorney

## Gibson, Victoria

**From:** Kristin.Henry@sierraclub.org  
**Sent:** Wednesday, February 07, 2007 4:18 PM  
**To:** Gibson, Victoria  
**Subject:** Re: Response to Sierra Club's Second Request for Notification on Power Plants

**Attachments:** Second Response Letter to Sierra Club.pdf



Second Response  
Letter to Sier...

This email verifies that I received the following email.

Kristin Henry  
Staff Attorney  
Sierra Club  
85 Second Street  
San Francisco, CA 94105-3441  
415.977.5716 phone  
415.977.5793 fax  
kristin.henry@sierraclub.org

### PRIVILEGE AND CONFIDENTIALITY NOTICE

This message is intended only for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law as attorney-client and work-product confidential or otherwise confidential communications. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication or other use of a transmission received in error is strictly prohibited. If you have received this transmission in error, immediately notify me at the telephone number above.

"Gibson,  
Victoria"  
<Victoria.Gibson@  
dep.state.fl.us>

02/07/2007 11:16  
AM

To  
<kristin.henry@sierraclub.org>,  
<joanne.spalding@sierraclub.org>

cc  
"Halpin, Mike"  
<Mike.Halpin@dep.state.fl.us>,  
"Goorland, Scott"  
<Scott.Goorland@dep.state.fl.us>,  
"Robinette, Rebecca"  
<Rebecca.Robinette@dep.state.fl.us>  
, "Koerner, Jeff"  
<Jeff.Koerner@dep.state.fl.us>,  
"Adams, Patty"  
<Patty.Adams@dep.state.fl.us>,  
"Linero, Alvaro"  
<Alvaro.Linero@dep.state.fl.us>,  
"Vielhauer, Trina"  
<Trina.Vielhauer@dep.state.fl.us>,  
"Swearengin, Lisa"  
<Lisa.Swearengin@dep.state.fl.us>

Subject  
Response to Sierra Club's Second  
Request for Notification on Power  
Plants

<<Second Response Letter to Sierra Club.pdf>>

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached documents. This may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the documents.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site:  
<http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicants, the engineering community, and the public. Please advise this office of any changes to your e-mail address.

Thank you,  
DEP, Bureau of Air Regulation

Vickie

Victoria Gibson, Administrative Secretary for Trina Vielhauer, Chief Bureau of Air Regulation Department of Air Resource Management [victoria.gibson@dep.state.fl.us](mailto:victoria.gibson@dep.state.fl.us)  
850-921-9504 fax 850-921-9533 (See attached file: Second Response Letter to Sierra Club.pdf)

**bson, Victoria**

---

**From:** Joanne.Spalding@sierraclub.org

**Sent:** Wednesday, February 07, 2007 2:56 PM

**To:** Gibson, Victoria

**Subject:** Re: Response to Sierra Club's Second Request for Notification on Power Plants

Dear Vickie,

Thank you for your response to our request for notification.

Regards,  
Joanne

Joanne Spalding  
Staff Attorney  
Sierra Club  
85 Second Street, Second Floor  
San Francisco, CA 94105  
415-977-5725  
415-977-5793 (Fax)  
[joanne.spalding@sierraclub.org](mailto:joanne.spalding@sierraclub.org)

2/8/2007

**Adams, Patty**

---

**From:** Gibson, Victoria  
**Sent:** Monday, February 05, 2007 4:39 PM  
**To:** 'mreimer@earthjustice.org'; 'dguest@earthjustice.org'; Halpin, Mike; Goorland, Scott; Robinette, Rebecca; Koerner, Jeff; Adams, Patty; Linero, Alvaro  
**Cc:** Vielhauer, Trina  
**Subject:** Reponse to Earthjustice on Notification Request  
**Attachments:** Response letter for Notifications - Earthjustice.pdf



Response letter for  
Notificati...

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached documents. This may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the documents.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicants, the engineering community, and the public. Please advise this office of any changes to your e-mail address.

Thank you,

DEP, Bureau of Air Regulation

*Vickie*

Victoria Gibson, Administrative Secretary for  
Trina Vielhauer, Chief  
Bureau of Air Regulation  
Department of Air Resource Management  
victoria.gibson@dep.state.fl.us  
850-921-9504 fax 850-921-9533





# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Solis  
Secretary

February 5, 2007

*Certified Mail -- Return Receipt Requested*

Ms. Monica K. Reimer, Esquire  
Earthjustice  
111 South Martin Luther King Jr. Blvd.  
Tallahassee, Florida 32301

*Sent via email with received receipt requested: [mreimer@earthjustice.org](mailto:mreimer@earthjustice.org) and [dquest@earthjustice.org](mailto:dquest@earthjustice.org)*

RE: Notification Request

Dear Ms. Reimer:

We are in receipt of your letter dated January 12, 2007 regarding notifications of all future actions taken regarding Glades Power Park and Taylor County Energy Center. We appreciate Earthjustice's interest in power plant permitting activities in Florida. We have added Earthjustice to our mailing list for our recently received application for the Florida Power & Light Glades Power Park project. However, our statutes do not require nor our tracking systems allow us to track notification requests for as yet unsubmitted PSD applications or Site Certification projects. Therefore, at this time we are unable to add you on to a mailing list for the Taylor County Energy Center. Upon issuance of any Department action, the applicant will publish notice in a newspaper of general circulation. Please contact our Office of General Counsel if you have questions regarding the petition or official comment period requirements.

The Department will be posting documents related to power plant Site Certification at the following websites:

Main Website for Siting Coordination Office:

<http://www.dep.state.fl.us/siting/default.htm>

Web Site for Power Plant Siting Overview:

[http://www.dep.state.fl.us/siting/Programs/Power\\_Plant\\_Siting\\_Overview.htm](http://www.dep.state.fl.us/siting/Programs/Power_Plant_Siting_Overview.htm)

Web Site for Power Plant Applications in Process:

[http://www.dep.state.fl.us/siting/Highlights/applications\\_in\\_process.htm](http://www.dep.state.fl.us/siting/Highlights/applications_in_process.htm)

In addition, the Department's Division of Air Resource Management will be posting documents related to power plant PSD projects at the following websites:

Main Website for Division of Air Resource Management:

<http://www.dep.state.fl.us/Air/default.htm>

Web Site for New Source Review PSD Construction Permits:

<http://www.dep.state.fl.us/Air/permitting/construction.htm>

You can also email or telephone Mr. Koerner, Mr. Linero or Mr. Halpin to inquire about the status of power plant applications. Upon identification of a specific pending project the Earthjustice is interested in, please email us your request to be notified of further actions on that pending project.

If you have any questions, please contact Mr. Linero or Mr. Koerner at 850/488-0114 or Mr. Halpin of the Site Certification Coordination Office at 850/245-8002. In addition, you may contact Ms. Robinette or Mr. Goorland in our Office of General Counsel at 850/245-2242.

Sincerely,



Trina L. Vielhauer

Email copies: Mr. Michael Halpin, Department's Siting Coordination Office  
Mr. Scott Goorland, Department's Office of General Counsel  
Ms. Rebecca Robinette, Department's Office of General Counsel  
Mr. Jeff Koerner, Department's Division of Air Resource Management  
Ms. Patty Adams, Department's Division of Air Resource Management  
Mr. Al Linero, Department's Division of Air Resource Management

## Adams, Patty

---

**From:** Vielhauer, Trina  
**Sent:** Friday, February 16, 2007 10:47 AM  
**To:** Adams, Patty  
**Subject:** FW: Miccosukee contact

**Attachments:** Gene Duncan.vcf



Gene Duncan.vcf (4  
KB)

For Glades. Steve Terry is the guy to copy on Glades items.

-----Original Message-----

**From:** Mulkey, Cindy  
**Sent:** Friday, February 16, 2007 10:32 AM  
**To:** Vielhauer, Trina  
**Subject:** Miccosukee contact

Trina,  
I hope I forwarded Gene's voice message properly so you could hear what he said.

The Real Estate guy is Steve Terry  
305-223-8380 ext. 2243

PO Box 440021  
Miami, Florida 33144-0021

He said he would be interested in being copied on any action from this office.  
He also gave him Al's number in case he had any specific questions about the project pertaining to air.

Cindy Mulkey  
Engineering Specialist  
Bureau of Air Regulation  
South Permitting Section  
(850) 921-8968  
FAX (850) 921-9533  
SC 291-8968

-----Original Message-----

**From:** Vielhauer, Trina  
**Sent:** Wednesday, February 14, 2007 9:51 AM  
**To:** Mulkey, Cindy  
**Cc:** Linero, Alvaro  
**Subject:** FW:

Cindy,  
Would you mind calling Mr. Duncan (attached- he is the water contact) to find out the right air contact for the Miccosukee Tribe? We need to get them on the Glades list.

Thanks!  
Trina

## Adams, Patty

---

**From:** Gibson, Victoria  
**Sent:** Monday, February 05, 2007 4:39 PM  
**To:** 'mreimer@earthjustice.org'; 'dguest@earthjustice.org'; Halpin, Mike; Goorland, Scott; Robinette, Rebecca; Koerner, Jeff; Adams, Patty; Linero, Alvaro  
**Cc:** Vielhauer, Trina  
**Subject:** Reponse to Earthjustice on Notification Request  
**Attachments:** Response letter for Notifications - Earthjustice.pdf



Response letter for  
Notificati...

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached documents. This may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the documents.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicants, the engineering community, and the public. Please advise this office of any changes to your e-mail address.

Thank you,

DEP, Bureau of Air Regulation

*Vickie*

Victoria Gibson, Administrative Secretary for  
Trina Vielhauer, Chief  
Bureau of Air Regulation  
Department of Air Resource Management  
victoria.gibson@dep.state.fl.us  
850-921-9504 fax 850-921-9533



## Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

February 5, 2007

*Certified Mail -- Return Receipt Requested*

Ms. Monica K. Reimer, Esquire  
Earthjustice  
111 South Martin Luther King Jr. Blvd.  
Tallahassee, Florida 32301

*Sent via email with received receipt requested: [mreimer@earthjustice.org](mailto:mreimer@earthjustice.org) and [dguest@earthjustice.org](mailto:dguest@earthjustice.org)*

RE: Notification Request

Dear Ms. Reimer:

We are in receipt of your letter dated January 12, 2007 regarding notifications of all future actions taken regarding Glades Power Park and Taylor County Energy Center. We appreciate Earthjustice's interest in power plant permitting activities in Florida. We have added Earthjustice to our mailing list for our recently received application for the Florida Power & Light Glades Power Park project. However, our statutes do not require nor our tracking systems allow us to track notification requests for as yet unsubmitted PSD applications or Site Certification projects. Therefore, at this time we are unable to add you on to a mailing list for the Taylor County Energy Center. Upon issuance of any Department action, the applicant will publish notice in a newspaper of general circulation. Please contact our Office of General Counsel if you have questions regarding the petition or official comment period requirements.

The Department will be posting documents related to power plant Site Certification at the following websites:

Main Website for Siting Coordination Office:

<http://www.dep.state.fl.us/siting/default.htm>

Web Site for Power Plant Siting Overview:

[http://www.dep.state.fl.us/siting/Programs/Power\\_Plant\\_Siting\\_Overview.htm](http://www.dep.state.fl.us/siting/Programs/Power_Plant_Siting_Overview.htm)

Web Site for Power Plant Applications in Process:

[http://www.dep.state.fl.us/siting/Highlights/applications\\_in\\_process.htm](http://www.dep.state.fl.us/siting/Highlights/applications_in_process.htm)

In addition, the Department's Division of Air Resource Management will be posting documents related to power plant PSD projects at the following websites:

Main Website for Division of Air Resource Management:

<http://www.dep.state.fl.us/Air/default.htm>

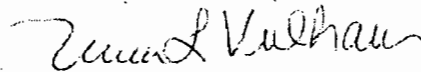
Web Site for New Source Review PSD Construction Permits:

<http://www.dep.state.fl.us/Air/permitting/construction.htm>

You can also email or telephone Mr. Koerner, Mr. Linero or Mr. Halpin to inquire about the status of power plant applications. Upon identification of a specific pending project the Earthjustice is interested in, please email us your request to be notified of further actions on that pending project.

If you have any questions, please contact Mr. Linero or Mr. Koerner at 850/488-0114 or Mr. Halpin of the Site Certification Coordination Office at 850/245-8002. In addition, you may contact Ms. Robinette or Mr. Goorland in our Office of General Counsel at 850/245-2242.

Sincerely,



Trina L. Vielhauer

Email copies: Mr. Michael Halpin, Department's Siting Coordination Office  
Mr. Scott Goorland, Department's Office of General Counsel  
Ms. Rebecca Robinette, Department's Office of General Counsel  
Mr. Jeff Koerner, Department's Division of Air Resource Management  
Ms. Patty Adams, Department's Division of Air Resource Management  
Mr. Al Linero, Department's Division of Air Resource Management

## Adams, Patty

---

**From:** Vielhauer, Trina  
**Sent:** Friday, February 16, 2007 10:47 AM  
**To:** Adams, Patty  
**Subject:** FW: Miccosukee contact

**Attachments:** Gene Duncan.vcf



Gene Duncan.vcf (4  
KB)

For Glades. Steve Terry is the guy to copy on Glades items.

-----Original Message-----

**From:** Mulkey, Cindy  
**Sent:** Friday, February 16, 2007 10:32 AM  
**To:** Vielhauer, Trina  
**Subject:** Miccosukee contact

Trina,  
I hope I forwarded Gene's voice message properly so you could hear what he said.

The Real Estate guy is Steve Terry  
305-223-8380 ext. 2243

PO Box 440021  
Miami, Florida 33144-0021

He said he would be interested in being copied on any action from this office.  
I also gave him Al's number in case he had any specific questions about the project  
pertaining to air.

Cindy Mulkey  
Engineering Specialist  
Bureau of Air Regulation  
South Permitting Section  
(850) 921-8968  
FAX (850) 921-9533  
SC 291-8968

-----Original Message-----

**From:** Vielhauer, Trina  
**Sent:** Wednesday, February 14, 2007 9:51 AM  
**To:** Mulkey, Cindy  
**Cc:** Linero, Alvaro  
**Subject:** FW:

Cindy,  
Would you mind calling Mr. Duncan (attached- he is the water contact) to find out the  
right air contact for the Miccosukee Tribe? We need to get them on the Glades list.

Thanks!  
Trina