COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

DR. JOHN PATTERSON, FR. JOHN RAUSCH, and WENDELL BERRY,	
Plaintiffs	No. 2009-00426
v.	
EAST KENTUCKY POWER COOPERATIVE, INC.	
Defendant	

PLAINTIFFS' RESPONSE TO DEFENDANT'S ANSWER

On February 9, 2010, the Public Service Commission ("Commission") issued an order treating Defendant East Kentucky Power Cooperative, Inc.'s (EKPC) Answer as a motion to dismiss. The Commission further ordered the Complainants to file a response to the "affirmative defenses and arguments asserted in EKPC's Answer." February 9, 2010 Order at second page. Therefore, pursuant to the Commission's Order, Complainants John A. Patterson, M.D., MSPH, Father John Rausch, and Wendell Berry, offer this response.

I. REVIEW OF PROCEDURAL POSTURE

The genesis of this case can be found in another, previous case before the Commission. The Sierra Club, Kentucky Environmental Foundation and Kentuckians for the Commonwealth [collectively "Groups"], who were original Complainants in this case, were interveners in the Commission's case reviewing EKPC's 2009

Integrated Resource Plan. *See* In the Matter of 2009 Integrated Resource Plan Of East Kentucky Power Cooperative, Inc. Case No. 2009-00106. In the 2009 Integrated Resource Plan case, the Commission stated that:

> a case to review an IRP is not an appropriate forum for an intervener to challenge a prior Commission decision which granted a CPNC to construct a new generating unit based on a finding of need. Such a challenge may be initiated by a complaint filed by an interested party, or by the Commission on its own motion, pursuant to KRS 278.260.

Case No. 2009-00106, Order at 7-8, (Ky. PSC, July 13, 2009). Thus, following this statement, on October 28, 2009 the Groups, along with Dr. Patterson, Father Rausch, and Mr. Berry initiated a challenge of a prior Commission decision which granted a CPCN to construct a new generating unit based on a finding of need by filing a complaint pursuant to KRS § 278.260.

The Commission then dismissed Claims 1 and 9[1] and also dismissed the Sierra Club, the Kentucky Environmental Foundation (KEF), and Kentuckians for the Commonwealth (KFTC) as Complainants. Case No. 2009-00426, Order (Ky. PSC, Dec. 22, 2009). Defendant then filed an answer to the Commission's Dec. 22 order. Case No. 2009-00426, Answer of East Kentucky Power Cooperative, Inc. to Plaintiffs'

[1] Claim One asserted the CPCN is no longer valid because EKPC must obtain financing from private entities, not through Rural Utility Services ("RUS") as was the understanding of the Commission when the CPCN was granted. Claim Three asserted the CPCN is void because EKPC failed to commence construction within the one-year period as required by statute. The Commission's Order referred to Plaintiffs' Claim Three as Claim Nine because the Commission's Order referred to the seven different factual bases for Claim Two as separate claims. However, seven different factual bases are cumulative and synergistic in nature.

Complaint (Ky. PSC, Jan. 4, 2010) (herein after "Defendant's Answer"). The Commission treated Defendant's Answer as a motion to dismiss, though it offers no authority to do so, and gave Complainants 20 days to respond to EKPC's "affirmative defenses and arguments asserted in EKPC's Answer." Case No. 2009-00426, Order (Ky. PSC, Feb. 9, 2010).[2]

II. ARGUMENT

A. COMPLAINTANTS HAVE "STANDING"

One of Defendant's affirmative defenses is that Complainants lack "standing." Defendant's Answer at 4. However, as an initial matter, technically speaking "standing" is a term that arises from Article III of the United States Constitution, and applies only the Federal Judicial Branch. Complainants do not have to meet this standard in this state executive branch tribunal. Instead, Complainants must only show what is necessary under KRS 278.260(1) to become a Complainant. That is, they must show that they are directly interested in the rate, practice or act of EKPC.

In any event, EKPC argues that Complainants are not customers of EKPC but rather are customers of distribution cooperatives and therefore should not be permitted as complainants. Answer at 4. The Commission routinely allows parties who are not direct customers of EKPC, or in EKPC's definition parties who only have an "indirect" interest in the rates, practices or acts of EKPC. *See e.g.* Case No.

[2] Complainants are not completely clear on what "arguments" the Order orders Complainants to respond to but attempt below to completely comply with what Complainants understand the order to require.

2009-00106, Order (Ky. PSC, July 28, 2009) (Granting Motion for Full Intervention of Gallatin Steel who uses electricity in the Owen Electric Cooperative, who is in turn provided with generation and transmission service by EKPC); Case No. 2009-00476, Order (Ky. PSC, Jan. 5, 2010) (same). It is true that intervention can rest upon two independent grounds and it may be that the Commission granted intervention not based on the special interests of the intervener. Nevertheless, like Gallatin Steel, Complainants are members and thus owners of distribution cooperatives which are in turn members and owners of EKPC.

More importantly, the Complainants are members of EKPC because EKPC is owned by its distribution cooperatives which are in turned owned by Complainants and the other cooperative customers. Furthermore, the Commission passes EKPC rate increases through to distribution cooperatives, demonstrating the direct effect between the customers who feel the effect of the rate increases from distribution cooperatives via EKPC and EKPC. *See e.g.* Case No. 2008-00409, Order, (March 31, 2009). Accordingly, Complainants are members and owners of EKPC and have a direct interest in Smith 1 and its impacts on the rates and services of EKPC.

EKPC claims that the Commission uses a more liberal approach for intervention in existing cases. Answer at ftnt. 8. EKPC cites no authority for this claim and offers no reason why this should be the

case. In fact, the Commission has been liberal in allowing complainants to move forward. Furthermore, the complaint statutory authority only requires a complainant to be directly interested whereas the intervention regulation requires a special interest that is not otherwise adequately represented. Thus, the language of the law does not support EKPC's claim.

B. RES JUDICATA AND COLLATERAL ESTOPPEL DO NOT APPLY

Defendant's next affirmative defense is that res judicata and collateral estoppels require that the complaint in this case be dismissed in its entirety. This argument completely ignores the Commission's recent statement in EKPC's own IRP case that a complaint can be used to request that a CPCN be revoked. *See* Case No. 2009-00106, Order at 7-8, (Ky. PSC, July 13, 2009).

Res judicata and collateral estoppels do not apply to this case because at least two of the elements needed to apply these doctrines are missing. Again, technically speaking, res judicata "involves two distinct subparts: 'claim preclusion,' which embodies the typical definition of res judicata, and 'collateral estoppel' or 'issue preclusion." *Yeoman v. Commonweatlth, Health Policy Board*, 983 S.W.2d 459, 464-5 (Ky. 1998). These subparts do not apply because Complainants were not part of the proceeding Defendant's reference and because there are different factual issues in this case.

For Defendant to prove claim preclusion, they must "show the following elements are met: (1) identity of the parties; (2) identity of the causes of action; (3) the case must have been resolved on the merits." *Id.* at 464. In the present case, the Complainants were not part of the prior proceeding. This precluded them from having their interests heard and protected. Thus, Defendant is incorrect in asserting res judicata, or claim preclusion.

Similar to claim preclusion, to establish collateral estoppel, the following elements must be shown: 1) identity of issues; 2) a final decision on the merits; 3) a necessary issue with the estopped party having been provided a full opportunity to litigate; and 4) a prior losing litigant. *See Moore v. Commonwealth*, 954 S.W.2d 317, 319 (Ky. 1997). The third element listed above requires that the party to be estopped must have been a party in the prior action and must have had a full opportunity to litigate the issue. In this case, collateral estoppel cannot apply because the Complainants were not a party to the prior case. Thus, Defendant's defense of collateral estoppel is invalid.

Furthermore, the issues in this case are different from issues in the original case granting the CPCN and even the case that reviewed the CPCN after Warren County distribution cooperative decided to not join EKPC. Section III.C as well as Claim Two of the Complaint plainly state that the facts Complainants rely upon occurred after the Commission granted the Certificate and even after the Commission

reviewed the Certificate. Furthermore, in the review of the Certificate, the principle issue was the effect Warren REC's decision to not join EKPC would have on the need for Smith 1. That is not one of the issues Complainants are currently pursuing. Thus, res judicata does not apply.

C. ALL FACTS AND REASONABLE INFERENCES AS SET FORTH IN THE COMPLAINT MUST BE VIEWED IN THE LIGHT MOST FAVORABLE TO COMPLAINTS. EVEN IF THIS WAS NOT THE CASE, EKPC'S CLAIM THAT THERE HAVE NOT BEEN SIGNIFICANT CHANGES SINCE THE COMMISSION REVIEWED THE CERTIFICATE IS WITHOUT MERIT.

The Commission has decided to treat the Defendant's Answer as a motion to dismiss due to the "specific arguments raised as well as EKPC's requested relief" that the complaint be dismissed. However, the Order cites no authority for this action. Regardless, in Kentucky, it is well settled that with regard to a motion to dismiss "that the pleadings should be liberally construed in a light most favorable to the [non-moving party] and all allegations taken in the complaint to be true." *Gall v. Scroggy*, 725 S.W.2d 867, 869 (Ky. Ct. of App. 1987) *citing Ewell v. Central City*, 340 S.W.2d 479 (1960). EKPC's Answer has been converted into a motion to dismiss so EKPC is the moving party. Thus, the Commission cannot consider any factual claims that EKPC set forth as its Answer that in any way contradicts the Complaint. Therefore, none of these factual allegations in the Answer can be a basis for dismissing this case. Furthermore, without the benefit of discovery, Complainants are unable to respond to every factual claim.

Nevertheless, in order to fully comply with Complainants' understanding of the Commission's order, below Complainants respond to factually allegations in EKPC's Answer to the extent possible.

1. TOTAL ENERGY REQUIREMENT FORECAST

EKPC claims its current total energy requirements forecast shows a need for Smith 1. This claim ignores the fact that EKPC is historically wrong in its predictions for load forecasts. *See e.g.* 2009 IRP at 5-5 (EKPC's forecast for 2020 energy requirements decreased by 2,273,498 mwh/yr between its 2004 and 2008 predictions.) Further strengthening the notion that EKPC failed to adequately forecast energy requirements is the fact that EKPC experienced a 1.3% decrease in energy requirements between 2005 and 2009. *See* EKPC 2009 IRP, page 7-2; Case No. 2009-00106, EKPC Responses to Public Interest Groups' First Data Request, Request 13 (Ky. PSC, July 24, 2009); *Id.*, EKPC Responses to Commission Staff's Supplemental Data Request, Request 11 (Ky. PSC, Aug. 21, 2009). EKPC's reference to the 1994 forecast and the 2008 actual energy requirement is irrelevant as the 1994 forecast is not relevant to the issue in this case.

Most importantly, EKPC's actual total energy requirement in 2009 was 9.4% less than what EKPC predicted for 2009 in its 2009 IRP, which it filed in April of 2009 and which is the most recent load forecast to which EKPC refers to in its answer. *See* EKPC 2009 IRP, page 7-6; Case No. 2009-00106, EKPC Responses to Public Interest

Groups' First Data Request, Request 13 (Ky. PSC, July 24, 2009); *Id.*, EKPC Responses to Commission Staff's Supplemental Data Request, Request 11 (Ky. PSC, Aug. 21, 2009). Presumably, EKPC had access to 1/4 of the 2009 actual data when it made the prediction for 2009 and the recession wasn't a secret in April of 2009 so it is hard to see why EKPC's prediction was so far off.

EKPC would need 13% growth in total energy requirements in 2010 to get back on track with their 2009 IRP predictions that EKPC relies on to justify Smith 1. *Id.* The gaps between EKPC's forecasted energy requirements and actual energy requirements will only get worse as time goes on because the load forecast is based on percentage increases off of 2009, so the cumulative impact of under-prediction of 2009 will be compounded. EKPC wants the Commission to forget past failures in adequately forecasting load requirements and accept on blind faith that their current forecast is correct even though we now know that the current forecast is not accurate. The Commission should not accept such a forecast so easily.

Furthermore, just last year, EKPC claimed that because it mainly serves residential users, the economy slow down would not affect them. *See* Case No. 2009-00106, Responses to Attorney General's Initial Requests for Information to East Kentucky Power Cooperative, Inc., page 1 (Ky. PSC, July 24, 2009). EKPC now offers the Commission a dramatically different justification, claiming that the bad economy *is*

impacting it. Answer at 5. However, to support this position EKPC cites to statistics for all of Kentucky rather than for its service territory. *Id.* EKPC's rapid change in position does not provide any confidence in its forecast. Furthermore, all of this sits on top of the lack of any indication the Kentucky economy will rebound any time soon and that climate change means that winters will be milder as time goes on, requiring less electricity for heating during the winter.

EKPC should not be able to hide the fact that their energy requirements are less than the levels it predicted to justify the Smith 1 plant. With or without the economic down turn, the need for additional EKCP generation is simply not there. A gap between predicted and actual total energy requirements means that if Smith 1 is built, capital will sit underutilized, yet the ratepayers will still be required to pay for the principle and interest payments, regardless of utilization of Smith 1.

Furthermore, recent initiatives resulting from the stimulus packages, such as dramatically increased funding for weatherization, have most likely not made much of an impact on energy requirements yet but will even before Smith 1 could come on line. As more homes in EKPC's service territory become weatherized, the energy requirements in that territory will decrease even more. The same is true with regard to new federal energy standards, which include an effective ban on incandescent light bulbs beginning in 2012, before EKPC could hope to get Smith online, and mandatory efficiency improvement in appliances

such as supermarket refrigeration, commercial HVAC systems and small electric motors. Thus, after discovery and a hearing, the evidence will show that an accurate total energy requirement will show, when considered with all the other factors discussed below, that Smith 1 is not in best interest of EKPC's customers.

2. CAPITAL COSTS OF SMITH 1

Subsequent to the filing of the complaint in this case, EKPC has applied for $921 million of private funding, yet they claim the estimate to build Smith 1 is $819 million. The increase of the capital cost of Smith 1 from the original price to $819 million, is, by itself, solid evidence for why the CPCN should be revoked.

Moreover, approximately one hundred million dollars, the difference between their request and their estimate is a lot of money at any time, but especially in light of the economic hardship EKPC and its ratepayers are currently facing. This $100 million-uncertainty is powerful evidence of why this CPCN needs to be revoked.

EKPC blames the construction delay, which increases costs, on permitting. However, as the Commission is aware, EKPC does not currently have financing for the plant. EKPC fails to explain how, even if it had all its permits, it could have built the plant without financing.

EKPC also claims Smith 1 remains the least cost option. The Complainants disagree. Complainants do know that EKPC used absurd capital cost figures for base load natural gas generation in its 2009 IRP.

They also know that EKPC pays up to *three* times the national average for natural gas during certain months, though why they do is unclear. Using realistic capital costs and realistic natural gas costs will demonstrate that Smith 1 is in fact not the low cost option.

3. OFF SYSTEM SALES

EKPC claims that Spurlock 3 and 4 are its least cost units. Complainants would like to see evidence of this. Regardless, Smith 1 is different than Spurlock 3 and 4. Its draft permit has more stringent pollution limits and it also has a scrubber using fresh lime, which Spurlock 3 and 4 do not have. Additionally, it most likely has a much larger SNCR to control NOx. This leads to the conclusion that Smith 1 will be more expensive to dispatch, especially because it is difficult to predict what it will look like if its air permit is actually approved.

EKPC also claims that wholesale markets load the least cost options first. However, this is a simplistic view as there are constraints, such as those involving transmission. Additionally, wind will almost always be dispatched before coal due to its extremely low incremental cost, which is so low because its fuel, the wind, is free. This dispatch of wind is important because in 2007, Indiana, a potential market for energy from Smith 1, had no installed wind capacity, but it now has over a gigawatt. Illinois has also seen rapid increases. Furthermore, Kentucky Mountain Power and Kentucky Utilities / Louisville Gas and Electric are requesting approval for wind power purchase agreements.

Another fuel, natural gas, is now often cheaper than coal on the wholesale market. Plus, utilities in Ohio or any of the 26 other states with renewable portfolio standards (RPS) , cannot always go to the wholesale market and buy the cheapest energy. They must first make sure they are complying with their RPS. Thus, EKPC's response to the issues the Complaint raises about off system sales does not completely reflect current realities.

4. ENVIRONMENTAL REGULATIONS

Complainants are pleased that EKPC agrees that environmental regulations impact costs. However, EKPC statement that environmental regulations make all coal fired generation more expensive is a simplistic response that ignores that fact that environmental regulations impact different coal fired power plants differently depending on a particular plants pollution emission levels and location. For example, E.oN's Ghent coal fired power plant, for example, has nitrogen oxides (NOx) emissions that are less than half of Smith 1's levels in Smith 1's draft permit. Thus, in a market based NOx regulatory system, like the one that currently exists in Kentucky, Ghent would be economically impacted at about half the rate as Smith 1.

As to coal ash, Complainants disagree with EKPC that the ash regulations will allow dry bottom boilers off the hook by treating coal

combustion waste as special waste. It may be just as likely that dry ash will be re-classified as hazardous waste.

It should also be noted that pulverized coal boilers, an option with less pollution than EKPC's proposed CFBs, can also burn coal waste. In Kentucky, TVA Paradise is permitted to do so. Regardless, in almost all regards, waste coal is dirtier than virgin coal.

EKPC's modeling shows thousands of violations of the current NOx National Ambient Air Quality Standard (NAAQS). EKPC's statement in its Answer that Smith 1 meets or exceeds NAAQS for NOx is based on the 1971 NOx NAAQS, which was recently redone. 75 Fed. Reg. 6473 (February 9, 2010) (Final Rule).

EKPC also claims that Smith 1 meets or exceeds the ozone NAAQS. Answer at 9. The methodology that EKPC used to support its claim that Smith 1 meets or exceeds the ozone NAAQS was recently rejected by the United States Environmental Protection Agency (US EPA) with regard to a power plant in Texas. *See* Ex. 1 at Enclosure, first and second page. EKPC offers no explanation for why it believes US EPA would reject an approach to determining impacts to ozone for a power plant and accept the same approach with respect to Smith 1. Complainants believe EKPC's optimism is misplaced.

Similarly, EKPC claims that KDAQ regulations allow for the use of PM10 as a surrogate for PM2.5 when permitting new major sources of air pollution like Smith 1. Answer at 10. US EPA rejected PM10 as a

surrogate for PM2.5 without proof of the value of the surrogate with regard to both E.oN's Trimble II facility in Kentucky and the White Stallion Plant in Texas. *See* In Re Trimble II, Petition IV-2008-3, Order at 42-46 available at http://www.epa.gov/region07/air/title5/petitiondb/petitions/lg_e_2nddecision2006.pdf; Ex. 1 at Enclosure, Third Page. EKPC and the Kentucky DAQ have offered no proof of value of this surrogate yet EKPC provides no explanation for why it thinks its air pollution permit will be spared the same fate as other permits that have the same defect.

In general, US EPA has objected to the air pollution permit for EKPC's Spurlock 4 several times, for Trimble II and for the Cash Creek coal to gas power plant. EKPC's statements that it thinks its draft permit will stand muster does not overcome KDAQ's track record of late.

5. BASELOAD NATURAL GAS

As mentioned above, Complainants do know that EKPC used absurd capital cost figures for base load natural gas generation in its 2009 IRP and that EKPC pays up to *three* times the national average for natural gas during certain months. Using realistic capital costs and realistic natural gas costs will demonstrate that a combined cycle natural gas plant would be the least cost option if EKPC actually needed base load capacity, which it does not.

The statements EKPC makes about base load natural gas in Kentucky are correct, and that is one major reason why rates in Kentucky are going up. Kentucky has no base load natural gas capacity and this lack of diversity has substantial adverse impacts on the cost of electricity in this state. The proposed Cash Creek may somewhat address this problem as it could be base load natural gas as well as synthetic natural gas.

As to the price of natural gas and the resulting dispatch, Complainants disagree. We will prove otherwise but it is important to note that AMP Ohio, Big Cajun Two and the national decrease in coal's share and increase in natural gas' share of our generation mix all disagree with EKPC that coal is currently the least cost option for new base load generation.

In response to paragraph 59, EKPC shows the absurdity of its position by pointing out that it has 1,000 megawatts of natural gas generating capacity but failing to mention that this is all natural gas fired simple cycle combustion turbines made for meeting peaking power needs. Combined cycle natural gas is much lower in capital costs than Smith 1 and will have a lower total cost.

Finally, EKPC references the IRP and that it was the proper place to address the planning data, assumptions and rules. What EKPC fails to mention is that at EKPC's request the Commission prohibited Sierra Club, KEP and KFTC from taking discovery or commenting on Smith 1 in

the IRP. EKPC's attempt to now claim that the IRP was the place to address the planning issues is disingenuous. .

6. EKPC CAN MEET ITS FUTURE ENERGY NEEDS THROUGH DEMAND SIDE MANAGEMENT AND RENEWABLE ENERGY

In response to the section of the Complaint on renewables and energy efficiency, the gist of EKPC's argument is that it understands that renewables and efficiency are important but it wants to build another coal-fired power plant. This just does not make sense.

Turning to the specifics, EKPC claims that E.oN, that is Louisville Gas and Electric and Kentucky Utilities, notes that wind is not the a least source cost of electricity. Answer at 14. What E.oN was saying is actually that wind is more expense than the current avoided cost, which is a fleet wide average that includes cheap, dirty old plants. However, this case is about the cost of a new coal fired power plant, that is Smith 1, versus other options.

Next, Complainants agree with EKPC that one source of energy can't 100% of the answer to replacing coal-derived energy. However, EKPC's 2009 IRP has EKPC at approximately 83% coal generation even out to 2023. *See* 2009 EKPC IRP; Corrected Table 8.(4)(b)-1 in Public Interest Groups First Data Request, Response 73 Attachment 1. As a point of reference, currently the national mix is coal generates around 44% of our electricity and that percentage will surely be substantially lower in 2023 based on nothing else but mandatory requirements in

existing renewable portfolio standards. A coal dependant utility such as EKPC does not get to a diverse resource mix by *adding* more coal generation. That is simply nonsensical.

EKPC also claims to be a leader in renewables. However, their "renewable" fuel, landfill gas, is not renewable. It only lasts for around 15 years before it goes away. In any event, Kentucky Power and E.oN have asked for approval for substantially more than 15 MW of renewable energy. *See e.g.* Case No. 2009-545 (Kentucky Power asking for approval for 100 MW of wind power).

7. THE SMITH 1 TECHNOLOGY IS OUTDATED

EKPC touts CFB technology and the advantages that Smith 1 will have based on EKPC's experience with Spurlock 3 and 4 (which are CFBs0, but as the Commission knows, EKPC complained about the technology when it asked the Commission to create a special regulatory asset. Case No. 2008-436.

CFB is an outdated technology in every regard. We are not aware of any investor owned utility, which are the most closely scrutinized by highly sophisticated financial analysis, in the country currently proposing a new coal-fired CFB. The reason for this is that it is a bad technology for the current situation.

Supercritical CFB is also an incremental advancement, not an immature technology, in the same way that the fresh lime dry scrubber proposed for Smith 1 but not on Spurlock 3 and 4 is an incremental

advancement. EKPC talks about replacing components, but nothing has been constructed because one cannot commence construction of a major source of air pollution such as Smith 1 without a final air pollution permit, or at least not legally so.

In the middle of this argument, EKPC changes its response to talk about supercritical pulverized coal boilers having a break even point of 650 MW. Answer at 15. This statement has nothing to do with a supercritical CFB as CFBs and pulverized coal, that is PC, boilers are different technology.

The supercritical CFB in Poland that EKPC mentions was built by Foster Wheeler, not the French Company, Alstom, who EKPC is planning on having build Smith 1. EKPC makes no indication that it has considered the cost effectiveness of a Foster Wheeler CFB.

III. CONCLUSION

Therefore, for the reasons stated above, the Commission should deny EKPC's motion to dismiss.

Respectfully submitted,

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Counsel for Dr. John Patterson, Fr. John Rausch, and Wendell Berry

Dated: March 1, 2010

CERTIFICATE OF SERVICE

I certify that I e-mailed a copy of the above on the following on March 1, 2010.

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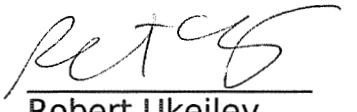

Robert Ukeiley

EXHIBIT 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TX 75202-2733

FEB 1 0 2010

Mr. Richard Hyde, P.E.
Deputy Director
Office of Permitting and Registration
Texas Commission on
Environmental Quality
P.O. Box 13087
Austin, TX 78711-3087

Re: White Stallion Energy Center, PSD Permit Nos. PSD-TX-1160, PAL 26, and HAP 28, Matagorda County, Texas

Dear Mr. Hyde:

Enclosed is the U.S. Environmental Protection Agency (EPA) analysis of the above-referenced permit actions. We performed this analysis in light of the recent issuance of the Texas Commission on Environmental Quality (TCEQ) Response to Comments (RTC) regarding this matter on October 2, 2009, and the upcoming "Hearing on the merits", scheduled to begin on February 10, 2010. Our comments focus on aspects of the permit actions that appear to be inconsistent with the requirements of the federal Clean Air Act and the implementing regulations, including the federally-approved Texas State Implementation Plan (SIP).

If the issues detailed in this letter are not appropriately responded to by TCEQ prior to final resolution of this permitting action, EPA may consider using Clean Air Act authorities to object to the subsequent Title V operating permit for this facility, or other remedies under the statute. Please contact me at (214) 665-7200, or Jeff Robinson of my staff at (214) 665-6435, if you should have any questions concerning this matter.

Sincerely yours,

Carl E. Edlund, P.E.
Director
Multimedia Planning
and Permitting Division

Enclosure

cc: TCEQ Commissioners
Mark Vickery, TCEQ Executive Director
Steve Hagle, TCEQ

ENCLOSURE

I. Air Quality Impacts Analysis

We commented on the draft permit for the proposed White Stallion facility on April 14, 2009. In the Executive Director's response to comments (RTC), the TCEQ disagreed with our comments that photochemical modeling for ozone was needed to demonstrate that the proposed source would cause or contribute to violation of the National Ambient Air Quality Standards (NAAQS). TCEQ also disagreed with our comment that the ozone analysis performed by the applicant was in direct conflict with NOx control strategies developed to reduce ozone in the nearby Houston, Galveston, Brazoria (HGB) non-attainment area. TCEQ indicated if an evaluation of ozone impacts on a non-attainment area is needed, that the non-attainment SIP process is best suited for such an evaluation. As you are aware, 40 CFR § 51.165 and 51.166 requires permitting authorities to demonstrate that the proposed source will not cause or contribute to violation of the ozone NAAQS per 40 CFR 52.21(k). However, since this facility is proposed immediately outside the HGB non-attainment area, we continue to believe that appropriate air quality modeling must be conducted to clearly demonstrate that the project will not negatively impact ozone concentratons at specific monitors in the HGB area.

The TCEQ also stated in its RTC that EPA has no preferred model to determine impacts from a single source; no requirement for photochemical modeling; and no requirement for applicant to conduct regional ozone analysis. Our PSD regulatons at 40 CFR § 51 Appendix W 5.2.1 recommend models for evaluating ozone impacts Specifically, control agencies with jurisdiction over areas with ozone problems are encouraged to use photochemical grid models such as Models-3/Community Multi-scale Air Quality (CMAQ) modeling system to evaluate the relationship between precursor species and ozone. In our April 14, 2009 comment letter to TCEQ on the draft permit we also discussed potentially using a CAMx based analysis, since TCEQ has multiple episode databases that evaluate ozone levels in the Houston area. Appendix W 5.2.1 also recommends that permitting authorities consult with EPA on estimating the impacts of individual sources to determine the most suitable approach for estimating ozone impacts on a case-by-case basis. In an effort to determine that the proposed source will not cause or contribute to an air pollution in violation of ozone NAAQS standard, we have offered to work on a modeling protocol with TCEQ for this facility. To date, neither TCEQ nor the applicant have elected to consult with us on use of a modeling protocol that would estimate potential ozone impacts from the proposed source despite EPA's direct comment to TCEQ on this matter.

In addition, the TCEQ RTC expressed concern that the scope of the modeling and associated review required for multiple episodes and monitors (and potential control scenarios for any monitors currently above the ozone standard) would be costly, take up to a year to complete, and still not provide information to definitively address EPA's concerns, since the EPA does not have an established significant impact level (SIL) for ozone. Other permit applicants and permitting authorities in Region 6 (including TCEQ) have worked with us to conduct photochemical modeling to demonstrate that a proposed source would not cause or contribute to a violation of the ozone NAAQS. These projects have typically only taken a few months to

conduct and the cost, when a contractor has been used, is minimal with most analyses costing less than the other criteria pollutant modeling.

TCEQ also stated that EPA does not have a requirement for photochemical modeling of SIP attainment demonstration modeling techniques for NSR permitting purposes for sources of VOC or NOx within 100 and 200 kilometers, respectively of these precursors outside a non-attainment area. However, the TCEQ has developed multiple ozone SIPs where sources of NOx, that were at least 100-200 km outside the non-attainment areas, have been controlled to yield ozone decreases in the non-attainment areas (DFW and HGB SIPs in 2000/2001, DFW SIP 2007). TCEQ also commented that winds would not transport the proposed source's emissions to the HGB nonattainment area, but considering the proximity of the source to the HGB area, we are concerned because previous modeling episodes have had multiple days with winds from the west that could transport emissions towards the HGB nonattainment area.

We remain extremely concerned about the TCEQ guidance referenced by the applicant in the Modeling Report that was submitted as an assessment of the ozone impacts from the proposed source in its PSD permit application. Based on the results of this guidance, TCEQ and the applicant determined that the project is "ozone neutral." In the past, TCEQ has relied upon large NOx reductions to decrease ozone levels in ozone SIPs for the HGB and DFW areas. The current TCEQ approach for this permit relies upon science that assumes that the source has to emit VOCs at a sufficient level to chemically react with the source's NOx emissions to generate ozone. We disagree that VOC emissions have to be co-emitted at the source to cause impacts on ozone levels. Although TCEQ indicated this analysis is not based on the Scheffe Point Source Screening Tables for determining ozone ambient impacts, the approach and interpretation does not clearly demonstrate that the source will not adversely impact control strategies developed to reduce ozone in the nearby HGB non-attainment area. TCEQ and the applicants should utilize a technically appropriate modeling technique and should work with us (in accordance with PSD regulations and Appendix W) to determine whether a potential impact from this facility would cause or contribute to a potential violation of the ozone NAAQS standards or impacts on nearby non-attainment areas. TCEQ has not provided us a demonstration that this facility will not negatively impact ozone levels in Matagorda County or the HGB non-attainment area. If such modeling has been prepared by the applicant or TCEQ, we request that it be made available to us and the public for review.

II. Plantwide Applicability Limit (PAL)

Since EPA has not approved TCEQ's PAL provisions into the SIP and proposed disapproval of such provisions on September 23, 2009, (74 FR 48474), any PAL permit issued by TCEQ to a new major stationary source may be considered a non-SIP-approved permit by EPA. We identified in our Federal Register notice that PAL permits can only be issued to *existing* major stationary sources, which precludes applicability of a PAL to a new major stationary source, as required under 40 CFR §§ 51.165(f)(1)(i) and 51.166(w)(1)(i). Without at least 2 years of operating history, a potential source like White Stallion Energy Center has not established actual emissions to facilitate development of a PAL.

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III. Particulate Matter (PM) 2.5

We reviewed the TCEQ's Response No. 4 in the RTC filed on October 2, 2009, regarding $PM_{2.5}$. However, we have concerns regarding TCEQ's reliance on the PM_{10} surrogate policy. It is now necessary to provide a demonstration to support the use of PM_{10} as a surrogate for $PM_{2.5}$. The applicant should submit a revised application or demonstration addressing $PM_{2.5}$ emissions. *See, In re Louisville Gas and Electric,* Petition No. IV-2008-3 (Order on Petition). The additional information should either address $PM_{2.5}$ emissions directly or show how compliance with the PSD requirements for PM_{10} will serve as an adequate surrogate for meeting the PSD requirements for $PM_{2.5}$ in this specific permit, after considering and identifying any remaining technical difficulties with conducting an analysis of $PM_{2.5}$ directly. The permit record must reflect a demonstration to support the use of PM_{10} as a surrogate for $PM_{2.5}$. We have worked with other permitting authorities and permit applicants to establish an appropriate $PM_{2.5}$ modeling protocol. If the applicant chooses to model for $PM_{2.5}$ impacts directly, please contact us to develop a methodology that will ensure that an appropriate analysis is performed.

IV. Integrated Gasification Combined Cycle (IGCC) Consideration

The TCEQ indicated in its RTC on page 29 of 61 in the Executive Director's Response to Comments that neither the applicant nor TCEQ evaluated any other electrical generation methods such as IGCC or pulverized coal (PC) boilers. TCEQ indicated that inclusion of IGCC in the Best Available Control Technology (BACT) evaluation would require substantial redesign of the applicant's proposed facility. Later in the same response, TCEQ indicates that it does not require a review of IGCC as part of the BACT review for electric generating units (EGUs).

In at least one federal permitting action, IGCC was considered an available control option in the BACT analysis for a facility proposed to generate electricity from coal. See Prairie State Generating Company (Illinois). Further, in a recent decision, the EPA Environmental Appeals Board (EAB) remanded the permit because it did not contain an adequate justification for excluding IGCC from the BACT analysis for a coal fired power EGU. See Desert Rock Energy Company, LLC, PSD Appeal Nos. 08-03 et.al. Slip. Op. at 76-77 (EAB Sept. 25, 2009). This EAB decision was followed in the Title V order for the petition on the American Electric Power Service Corporation, Southwestern Public Service Company John W. Turk order responding to a Title V petition (Petition Number VI-2008-1), where the EPA Administrator found that the Arkansas Department of Environmental Quality (ADEQ) failed to provide an adequate justification to support its conclusion in the PSD BACT analysis that IGCC technology should be eliminated from consideration on the grounds that it would "redefine" the proposed source. To meet the applicable legal criteria under the PSD program, a BACT analysis for each pollutant must consider "application of production processes or available methods, systems, and techniques ... for control of such pollutant." See 40 C.F.R. §§ 51.166(b)(12) and 40 C.F.R. § 52.21(b)(12). Therefore,

when a potential pollution control strategy is not considered in a BACT analysis, the record should provide a reasoned basis to show why that option is not available in a particular instance. We recognize that TCEQ has made a good faith effort to address this issue consistent with prior EPA determinations. However, in light of the EAB's recent conclusions, we strongly recommend that TCEQ and the permit applicant specifically address any IGCC technology considerations as a part of their BACT analysis and provide a reasoned explanation consistent with the EAB's position to support any decision to eliminate such an option or to exclude it altogether from a BACT analysis for this proposed source.

V. BACT Limits Based on Clean Fuels

It is unclear if the TCEQ or the applicant considered "clean fuels" in its BACT analysis. Comment 27 in the response to comments indicates that commenters stated that the applicant and TCEQ failed to consider alternative fuels to reduce emissions such as using only Powder River Basin (PRB) coals. TCEQ stated in its response that the "applicant proposes the facility to accomplish its objective based upon its business decisions. Those decisions include the applicant's choice of fuels. The applicant designed the plant using its choice of fuels and TCEQ reviewed the application as it was submitted. TCEQ does not specify the type of fuel to use in a fossil fuel electric generation plant because the cost of fuel is a primary business decision consideration that is up to the applicant to determine."

We believe the TCEQ should analyze the possibility of cleaner fuels as an alternative primary fuel source in the RTC. At this time, TCEQ does not include a federally approved definition of BACT in its State rules. The Clean Air Act includes the term "clean fuels" in the definition of BACT after the term "fuel cleaning." 42 U.S.C. § 7479(1) . Thus, when a potential pollution control strategy is not evaluated in detail in a BACT analysis, the record should provide a reasoned basis to show why that option is not "available" in a particular instance. EPA has recognized that "available" options for a particular facility do not necessarily have to include options that would fundamentally "redefine" the source proposed by the permit applicant. See, e.g., In re: Desert Rock Energy Company, LLC, PSD Appeal No. 08-03 et al, slip op. at 59-65 (EAB, September 24, 2009). However, EPA interprets the Act to require a reasoned justification, based on an analysis of the underlying administrative record for each permit, to support a conclusion that an option is not "available" in a given case on the grounds that it would fundamentally "redefine the source ." Desert Rock, slip op. at 63-72, 76. Based on the record here, it does not appear that TCEQ has provided a reasoned explanation demonstrating why the option of using PRB coals is not "available" for this facility.

We believe TCEQ must clearly provide a rationale for why utilizing fuels other than Illinois coal and/or petroleum coke, or blends from each of the proposed identified fuels constitutes "redefining the source". Further, the rationale should state if there are economic, environmental, or energy impacts from the use of PRB coals (or lower sulfur petroleum coke) that weigh against its selection as BACT,. We acknowledge that States with SIP-approved PSD programs have independent discretion and are not necessarily required to follow all EPA policies or interpretations. See, e.g., 57 Fed. Reg. 28093, 28095 (June 24, 1992) . However, states that issue PSD permits under SIP-approved regulations are required to conduct a BACT analysis that is

reasoned and faithful to the statutory framework. See Alaska Dept of Envt'l Conservation v. EPA, 540 U.S . 461, 484-91 (2004).

On the question of whether an option may be excluded because it redefines the proposed source, the EAB has developed an analytical framework that EPA uses to assess this issue in its own permitting decisions. See, e.g., Prairie State, slip op. at 26-37 ; Desert Rock, slip op. at 59-65. Since the EAB has articulated a foundation for its approach that has been upheld by one U.S. Court of Appeals, we strongly recommend that SIP-approved States follow the framework articulated by the EAB. We are not concluding that the present permit limits do not represent BACT - only that the present permit record does not appear to provide a sufficient rationale to demonstrate the adequacy of the BACT determinations for this facility. In addition, we are not expressing a policy preference for utilization of a particular coal type, or coal from a particular coal basin. EPA supports the development and use of a broad range of fuels and technologies across the energy sector including those that will enable the sustainable use of coal. Our primary concern is the adequacy of TCEQ's response and rationale for excluding PRB or the possibility of utilizing lower sulfur coal or lower sulfur petroleum coke as fuel options.