Preston, John
Lexington, KY
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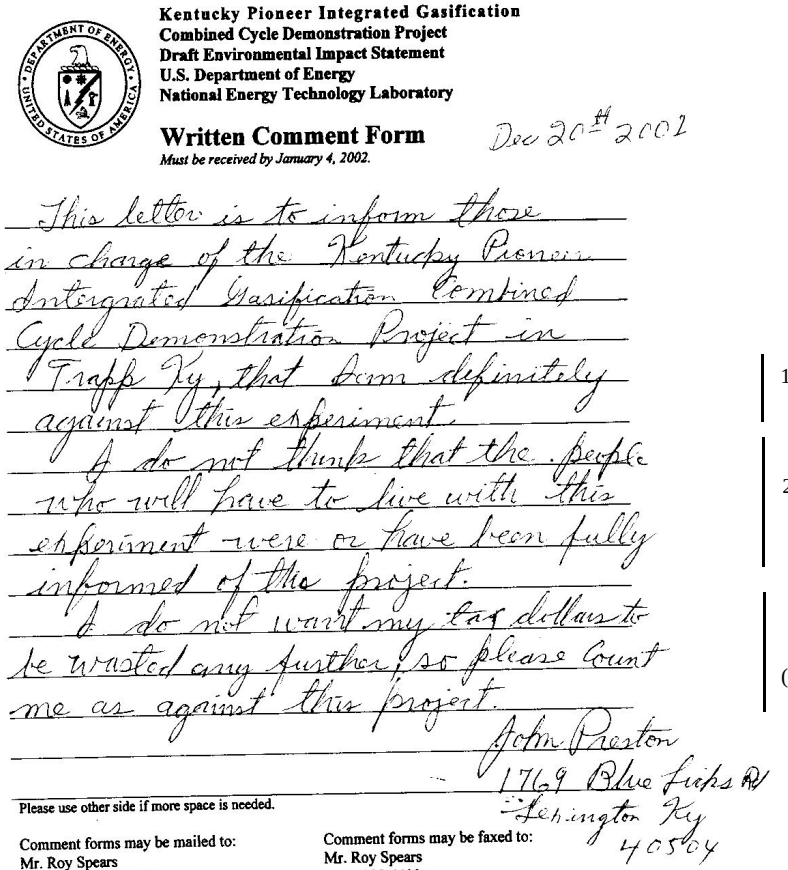

Kentucky Pioneer Integrated Gasification
Combined Cycle Demonstration Project
Draft Environmental Impact Statement
U.S. Department of Energy
National Energy Technology Laboratory

Written Comment Form Dec 20th 2002
Must be received by January 4, 2002.

This letter is to inform those in charge of the Kentucky Pioneer Integrated Gasification Combined Cycle Demonstration Project in Trapp Ky, that I am definitely against this experiment. 1/22

I do not think that the people who will have to live with this experiment were or have been fully informed of the project. 2/21

I do not want my tax dollars to be wasted any further, so please count me as against this project. 1/22 (cont.)

John Preston
1769 Blue Licks Rd
Lexington Ky
40504

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

Comment No. 1 **Issue Code: 22**
Comment noted. The issue of the Nation's funds are outside the scope of the EIS.

Comment No. 2 **Issue Code: 21**
The public hearing dates, times, and locations were announced in the *Federal Register*, in local newspapers *The Winchester Sun* and *The Lexington Herald-Leader* and in public service announcement information made available to local media outlets. All requirements in state and federal laws, rules, and regulations regarding announcements for public hearings were satisfied or surpassed.

Preston, Virginia
Lexington, KY
Page1 of 1

Kentucky Pioneer Integrated Gasification
Combined Cycle Demonstration Project
Draft Environmental Impact Statement
U.S. Department of Energy
National Energy Technology Laboratory

Written Comment Form
Must be received by January 4, 2002.

Dec. 20, 2001

I am writing to ~~strongly~~ oppose the Ky. Pioneer Integrated Gasification Combined Cycle Demonstration Project of Trapp Ky. Since this is experimental, let the powers that be try this "~~experiment~~" in New York or New Jersey, or where ever ~~ever~~ you will be bringing this trash from. There is no way for anyone will be able to determine whether this trash will be toxic or what it will be. As a taxpayer of Ky please count me as against this project.

Virginia Preston
1769 Blue Licks Rd
Lex. Ky. 40504

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

1/22

2/16

3/12

Comment No. 1 **Issue Code: 22**
Comment noted.

Comment No. 2 **Issue Code: 16**
Because of DOE's limited role of providing cost-shared funding for the proposed Kentucky Pioneer IGCC Demonstration Project, alternative sites were not considered. KPE selected the existing J.K. Smith Site because the costs would be much higher and the environmental impacts would likely be greater if an undisturbed area was chosen.

Comment No. 3 **Issue Code: 12**
The waste that would be generated at the proposed facility would be similar to waste generated at industrial facilities. Section 5.13, Waste Management, discusses waste that would be generated during construction and operation of the proposed facility. Solid waste generated during operation includes: office garbage (e.g., paper, boxes); liquid maintenance wastes; wastewater treatment sludge, process filters, treated salts from the wastewater treatment system and waste oil. Hazardous waste would include cleaning solvents. Vitrified frit and elemental sulfur produced in the gasification process are not waste streams, but rather marketable products. Solid and hazardous wastes generated at the facility would be managed and disposed of in accordance with applicable state and RCRA regulations.

U.S. DEPARTMENT OF ENERGY
Kentucky Pioneer
Integrated Gasification Combined Cycle
Demonstration Project
Draft Environmental Impact Statement
Public Scoping Meeting
Lexington, Kentucky
December 10, 2001

APPEARANCES:

FOR THE U.S. DEPARTMENT OF ENERGY:

Roy Spears, U.S. Department of Energy

John Preston, Corps of Engineers, Project Manager

Jim Watts, Project Manager

Gordon Lorenzi, Compliance Officer

The U.S. Department of Energy public meeting was held at 7:00 p.m., December 10, 2001 at the Lexington Public Library, downtown Lexington, Kentucky, before Michele G. Hankins, Court Reporter.

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P R O C E E D I N G S

MR. SPEARS: May I have your attention, please?

Everyone should take a seat, or find a comfortable spot to lean up against, we will begin this meeting.

Is the volume okay back there, Tim?

Good evening ladies and gentlemen.

Just a few housekeeping chores that we want to cover before we get too far into this public meeting.

If you find it necessary to go to the restroom, you can take the elevator, which is just outside and to your right. Go to the second floor and it is on either side of the elevator.

In the event of an emergency evacuation, fire, or some other emergency, we have this exit from this room and there are two exits both street sides here.

And if there is something back there that prevents us from getting out that way, there is an exit behind me here off the stage.

So I just want you to know that those are there, and hopefully we won't need them, at least

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we know where they are.

There are a few people that I would like to introduce tonight who have been very, very, helpful in putting together this draft environmental impact statement for the Kentucky Pioneer Energy, IGCC project.

One is from the Department of Energy, and project manager for this project, Jim Watts, who sits on the back row back there.

John Preston who is going to be doing some presenting tonight. John works for the U.S. Army Corps of Engineers out of the Huntington District. John is the project manager for the NEPA document here.

We have three gentlemen that are here from the Kentucky Pioneer Energy Project. We have Mike Muslin, Dwight Lockwood, who is the environmental regulatory affairs person.

We have Rich Bailey, who is vice president of Global Energy, but he is also with Kentucky Pioneer.

I would like to express my appreciation to these gentlemen for all the efforts that have been put forward. It has been a long rigorous process

getting to this point, and we think we have made significant progress and we look forward to continuing, going through this public hearing, public comments that we will receive from you. Putting that together in a final EIS and getting a Record of Decision, which is our ultimate goal, of course.

I think without further adieu I would like to turn the program over to John Preston, who will take us through the NEPA process and give us some insight on some of the things that we have done, and some of the things that we still need to do.

John?

MR. PRESTON: Thank you, Roy. I thought it important to talk a little bit about why we are here. It is National Environmental Policy Act is a planning tool. And any federal action requires that we go through the NEPA process.

It is important tonight because we are at that point where it provides another opportunity for the public to give us comments so that we can do a better job of planning.

We started back in April with what is called a Notice of Intent, just basically an announcement that the Department of Energy determined

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that the appropriate document for this project, or proposed project, was the Environmental Impact Statement.

In May, we had a scoping meeting in Trapp, Kentucky, and I recognize some of the faces, some of you were there. That is where we got your comments on what we should look at in the process.

Since then, we have been preparing this Draft Environmental Impact Statement. And it is draft because we are now at the public hearing stage, or public comment period where we want to get your comments on how well we did in addressing those issues that you told us were important to you, as well as the ones we may have already decided were important.

After this hearing tonight, we have another in Trapp tomorrow at the same time, and then on January 4, we close the public comment period.

So we are requesting your comments be either submitted orally tonight, or you can submit them in writing to Mr. Spears, and the address is in your handout, by January 4.

We will take those comments and each comment will be considered, and we will have a

comment document that will accompany the final EIS and you can see in there how we addressed your comments.

After that, within the agency, the Department of Energy will make a decision, and the decision will be whether to fund this demonstration project. That is indeed the federal action here is to decide whether or not to provide funding.

The EIS, we have the draft, considers three alternatives. Number one, is something required in all NEPA documents, this is the No Action. If the federal government does nothing, what will the environmental conditions be like, it pretty much remains the same, but there can be some adverse impacts, as well as beneficial impacts, to no federal action.

No Action, Number 2, is important in this document because should the DOE not fund the gasification demonstration and fuel cell demonstration of this project, Global Energy and Kentucky Pioneer, have indicated that they would go ahead and build what we term the power island portion of the project, which has determined to produce electricity, they would fuel that with natural gas.

So, therefore, there are impacts from that no federal action alternative, as well, and we decided to call them both No Actions, because, again, the federal action is demonstrating the technology by providing that which would allow the demonstration to take place.

So the proposed action is DOE provides funding to assist in the demonstration of the British Gas Lurgi, IGCC, power plant at a commercial scale, along with a two megawatt fuel cell -- and I am sure these gentlemen, if you got a chance to talk to them earlier, can describe that better than I, as far as technically, anyway.

The EIS, we consider a lot of environmental factors, this is where some of your comments came in at scoping, what we should look at.

This is essentially the outline of the main topic we considered.

There is too much detail to go in, but I do just want to say, that our analysis indicates that there is no significant impact from this project. Every one of them has an impact, but we don't feel any are significant on this scale of a project.

So, again, this is an important part of

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the NEPA process where we get the public's comments on how well we did addressing the impacts from this proposed action. Because it is important to the agency to make the decision on whether or not to go forward with the proposed alternatives, or not.

So I appreciate you all coming, and again the close of comment period is January 4.

You can speak orally here, we have a list of people registered to speak, we will open it to the floor, after those who have registered to speak.

Again, you can submit comments in writing, but also over the Internet. And I believe those addresses are in your pamphlet, there but again, you can submit comments in writing and also over the Internet. I believe those addresses are in your pamphlet. There are a couple of things in there that describe the project in more detail, as well as describe the NEPA process.

Thank you.

MR. SPEARS: John mentioned the handout that is available at the table at the back of the room. And this is what it looks like, I hope everyone got one, if you did not, this is what it

looks like and it has some material in the back.
It also has the comment sheet inside.
Be sure to pick one up if you don't have one yet.
One other gentleman that I waited to introduce, he sort of overlooks everything that we do on the NEPA side, at the National Energy and Technology Laboratory. He is our NEPA compliance officer, Lloyd Lorenzi, he is in the back.
We are very pleased that a number of you came out tonight. This is indicative of at least a concern of what is going on in your community, and a that is, in essence, why we have the public meeting.
We want to find out what you think about things, what comments you have, what concerns you have. So the purpose of this meeting tonight, as we have indicated a couple of times, is to receive your comments on this draft environmental impact statement for the Kentucky project.
I would like to now ask the first on our sign-up sheet to come forward. Actually, you will have a microphone delivered to you.
We would like for you to state your complete name slowly so that the court reporter can make sure that we get your name correct. And it

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probably wouldn't hurt if you spelled your name as well.

We would like to request somewhere in the neighborhood of a five-minute comment period. We do not have a whole lot of commenters tonight, so that is not real, real important, but we do not want to go into a 20- or 30-minute dissertation.

So, if you will hold them to about five minutes, and then later on, after all of your speaker, or speakers, have had an opportunity to comment, then perhaps you could come back up and make another comment if you wish.

Let's talk about the handout. One very important issue is the closing of the comment period, which is January 4, 2002. So if you keep that in mind as you comment, we surely would appreciate that.

We are now ready for Mr. Crewe, to begin his comment.

MR. CREWE: My name is Phil Crewe.

My name is spelled C-R-E-W-E, and I live here in Lexington. I am a member of the Sierra Club.

My concerns are several, one of them is firstly, why is this plant specifically the

1/14

Comment No. 1 **Issue Code: 14**

Because of DOE's limited role in providing cost-shared funding for the proposed Kentucky Pioneer IGCC Demonstration Project, alternative sites were not considered. Chapter 2 of the EIS discusses EKPC's 1998 Power Requirements Study which indicates that the electrical load for the region is expected to increase by 3.0 percent per year through 2017. Net winter peak demand is expected to increase by 3.3 percent per year and net summer peak demand is expected to increase by 3.0 percent per year. Peak demand is expected to increase from 2,031 MW in 1998 to 2,394 MW in 2003 and 3,478 MW in 2015. Based on this load growth, EKPC will need additional power supply resources of 625 MW in 2003. The need is further shown by EKPC's plans to construct four new CT electric generating units to provide peaking service alongside the three existing peaker CTs at the J.K. Smith Site. The power generated by the project will be used to support Kentucky's energy needs. The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant.

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gasification of municipal waste being built in Kentucky?

We understand that the municipal waste will come from New York and New Jersey. There is an abundance of municipal waste in New York and New Jersey and there is a shortage of power in the northeast.

We, on the other hand, don't have that degree of shortage of power. It would seem logical that the plant be built where there is the abundance of the waste to be processed, and where there is a market, where the price for power is much higher.

As a matter of environmental justice, I believe the plant should be built near where the most of the feed stock for the plant is generated.

And I am concerned, and have so far not gotten completely satisfactory answers about the environmental state of toxic heavy metals in the municipal waste.

We understand that most of them will end up in the vitrified frit component, and that is just the bottom of the gas fired.

What insurance do we have that this material will not leach toxic heavy metals, plus

Comment No. 2 **Issue Code: 13**

DOE does not believe that the proposed project poses environmental justice concerns. The environmental justice analysis is presented in Section 5.19 of the EIS, Environmental Justice.

1/14 (cont.)

For this project, KPE selected the J.K. Smith Site due to the initial grading and development that occurred during the construction on the previously discontinued J.K. Smith plant. KPE determined that the project costs would be much higher and the environmental impacts greater if an undisturbed area was chosen.

Comment No. 3 **Issue Code: 12**

With the exception of white goods (e.g., refrigerators), glass, and cans, the remaining components of MSW (e.g., paper, plastic, and food waste) are processed to make RDF. The process of manufacturing the RDF creates a relatively homogeneous end product; however, since MSW is variable, the exact components of RDF are not known. The vitrified frit consists primarily of ash (99.2 percent by weight) composed of oxides of the following elements: silicon (SiO_2), aluminum (Al_2O_3), titanium (TiO_2), iron (Fe_2O_3), calcium (CaO), magnesium (MgO), potassium (K_2O) and sodium (Na_2O). The frit also consists of chloride, fluoride, antimony, arsenic, beryllium, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, molybdenum, nickel, silver, thallium, vanadium and zinc. Since all constituents are immobilized in the frit, which is resistant to corrosion in the environment and has been proven nonleachable by EPA standards, they will not contaminate the environment.

2/13

3/12

14

lead, dioxin, cadmium and others over the long haul.

Even if it does pass, how does the claim that is made by Global Energy that the frit passes the so-called -- I believe it is the TTLT, leach test, if that is correct. How does that translate into the real world? If it just barely passes that test, it can be sold as road aggregate or construction material or fill material. How much leaching of toxic a day will occur? We don't have the answer to that question.

What is the basis of the claim that this will not leach toxins in the Kentucky environment that have come from another part of the country?

Another concern would be the amount of water usage. This plant will consume water from the Kentucky Rivers in the pool above Lexington. There is a continuing demand on the Kentucky River.

Last year, if you remember, we had a severe drought where the flow of the river almost stopped and the consumption by the community, was actually greater than the flow of the river.

So the component of gasifying coal and/or municipal waste, greatly increases the water consumption. So, we would be assured that this plant

3/12 (cont.)

4/07

Comment No. 3 (cont.) **Issue Code: 12**

Vitrified frit from this facility is expected to pass the more stringent Universal Treatment Systems criteria of the EPA-TCLP analytical method. Frit is considered a commercial product, not a waste; therefore, the vitrified frit from the gasification process can be used in areas such as road and building construction. Chapter 3 of the EIS has been modified to include a more detailed description of the frit.

Comment No. 4 **Issue Code: 07**

The cumulative effects of withdrawals from the Kentucky River by power plants have been discussed by the Kentucky Natural Resources and Environmental Protection Cabinet in their cumulative assessment report (KNREPC 2001), addressed in Section 5.14, Cumulative Impacts. The Cabinet acknowledges that because many of Kentucky's power plants are exempt from water withdrawal requirements, the Cabinet does not have an accurate inventory of the volume of water being removed each day by the existing power plants. However, the KDEP is able to limit withdrawals from permitted sources during periods of abnormally low flow. Although the proposed plant would not be a permitted withdrawal source, KPE has stated that they would cease water withdrawals if requested to by the state.

would not consume a large amount of water, when there were extremely low flows in the Kentucky River.

Another concern is the visual pollution. The stacks from the gasification aspect of this plant, would be visible from the top of Pilot Knob, that is supposedly where Daniel Boone first viewed the Bluegrass in 1769 on the first long hunt in Kentucky into the bluegrass.

And I have been up there many times and it is a beautiful site and it is largely a rural view. You are looking at what looks like a great sea stretching out into infinity. And this will be visual pollution, if you will, about eight miles away it will be visible.

I will probably have other comments later, or before the January 4th cut off period, but particularly my concern is, I will reiterate, the ultimate environmental phase of the heavy metals coming into Kentucky in municipal waste. Keeping toxic waste out of that, which I don't think there will be a way to do. And the question of environmental justice, why the plant is not being built near the source of the feed stock and the municipal waste?

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4/07 (cont.)

5/04

3/12 (cont.)

2/13 (cont.)

Comment No. 5 **Issue Code: 04**

Comment noted. Impacts to the aesthetic and scenic environment of the project area are presented in Section 5.5, Aesthetic and Scenic Resources, of the EIS. The tallest structures that would be built for this project are the facility stacks for the gasifiers. These structures would stand 65 meters (213 feet) in height and would likely be visible from the 222.5-meter (730-foot) high observation position on top of the Pilot Knob State Nature Preserve, 12.8 kilometers (80 miles) east of the project site. However, due to the distance from the facility, the aesthetic and scenic impact to the viewshed from Pilot Knob would be minor.

That is all I have to say right now. I appreciate the opportunity.

MR. SPEARS: Thank you very much, Mr. Crewe. I appreciate your comments.

Commenter number two, Ramesh Bhatt.

MR. BHATT: My name is Ramesh Bhatt. R-A-M-E-S-H, B-H-A-T-T.

I am a resident of Lexington, Kentucky, also.

I have many of the same concerns that Crewe voiced just recently. I want to reinforce some of them.

First, I was struck by the vagueness of the analysis of the draft EIS.

My judgment is that an EIS is useful and highly special, and I was surprised that there was no data on whether this frit, this left over product that comes from this process, whether it is hazardous or not.

The people don't even know at this point. I think the EIS document is unclear whether it is hazardous or not.

I don't know what kind of EIS can be done if you don't even know that. There are all

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6/14

7/12

6/14 (cont.)

Comment No. 6 **Issue Code: 14**

DOE believes that the Kentucky Pioneer IGCC Demonstration Project EIS adequately analyzes the full scope of environmental impacts from the proposed project. Chapter 3 has been modified to provide more details on the gasification process, including the production of the vitreous frit.

Comment No. 7 **Issue Code: 12**

RCRA, Subtitle C, has established special on-site accumulation requirements for generators of hazardous waste depending on the RCRA generator status of the facility. Assuming that the proposed plant would be a large quantity generator (generating more than 1,000 kilograms [2,200 pounds] or more of hazardous waste per month), under RCRA it is allowed to accumulate hazardous waste conversion onsite for no more than 90 days (§262.34a).

Vitrified frit is considered a commercial product, not a waste. The frit produced by the proposed project is expected to be marketable. The frit from gasifiers operating on a 100 percent coal feed has consistently proven to be nonhazardous and rarely fails the TCLP test. Since this project will be using a different feed stream, the first batch of frit should be tested to ensure that is meets all TCLP criteria and is therefore nonhazardous.

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kinds of environmental issues with the handling of the hazardous material, if it turns out to be hazardous.

So I was a little surprised by that. I think for the final EIS, we need to know more information, because this is obviously going to be a critical aspect of this project here.

That is one point.

The second point that I am concerned about that was clear to me from the EIS document, the draft anyway, was the nature of the monitoring.

This is an experimental facility. This is the first time that something like this is going to be tried in the U.S.

It is designated as an official municipal waste combustion. It is about a mile from a local school. Given all this, shouldn't there be some more information about who is going to be monitoring it, what is going to be monitored? This is supposed to be a one-year project, we want to know what happens at the end of it. Is there going to be a public meeting at the end of one year where we know what will come of this? Is it going to be a complete new permitting process at the end of the first year?

6/14 (cont.)

8/11

9/21

Comment No. 8 **Issue Code: 11**

The air quality permit issued by the Air Quality Division of the KDEP requires continuous emissions monitoring. Compliance with emission limits set by the Final PSD/Title V Permit would be verified by a detailed set of monitoring and reporting requirements as outlined in the permit. Continuous emissions monitoring equipment is required on the generator system stacks for NO_X, CO, O_2, SO_2, and opacity. Initial stack tests are required for NO_X, CO, SO_2, PM_{10}, volatile organic compounds, beryllium, cadmium, lead, mercury, hydrogen chloride, and dioxins/furans. Initial monitoring of hydrogen sulfide (H_2S) is required at the sulfur recovery facility, and periodic opacity observations are required at various material handling facilities. In addition, annual stack tests are required for PM_{10}, cadmium, lead, mercury, hydrogen chloride, and dioxins/furans.

Appropriate and required personnel monitoring would also be conducted. Health and safety procedures and health monitoring requirements would be addressed during the design and construction phase of the proposed project.

Comment No. 9 **Issue Code: 21**

KPE has a contract in place with EKPC to provide power continuously for a 20-year period. The facility would not shut down after the 1-year demonstration period, but would continue to operate to honor the commitment to EKPC. As discussed in Chapters 1 and 2 of the EIS, the performance, technical, and economic data would be used to determine the commercial viability of the BGL gasifier at other new and existing facilities. There would not be a new round of permitting following the end of the 1-year demonstration period. The PSD/Title V Air Permit issued by the Kentucky Division of Air Quality is final and does not require renewal following the demonstration. At the close

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I think all of this information needs to be in the EIS.

The third point that is of concern to me is that from what I could make up, the analysis was based on 50 percent of this refuse pellet and 50 percent coal waste. But my understanding is that in the future, more refuse may be used. All of this chemical analysis, what is going to be the outcome, et cetera, et cetera, based on 50 percent/50 percent, or is it going to be 80 percent, 90 percent?

That brings me to another critical aspect of the EIS that needs to be addressed. A fourth aspect is the nature of this refuse pellet, or the refuse derived fuel. It is unclear, it is a little vague, as to what the components of this would be, not a lot of hand waiving about things may be removed, some things ought to be removed, but if they get removed, we don't know.

It says that the intent is to buy this fuel from one particular supplier. If that is the intent, will we have more information about this? We should probably have a lot more information about the composition of these pellets, what happens, what are the pellets made for, are they being burned into the

10/14

11/16

11/16 (cont.)

Comment No. 9 (cont.) **Issue Code: 21**
of the demonstration period, the KPDES permit for water usage would also be final and not require renewal. Any required fuel feed component changes following the 1-year demonstration period would likely require modification of the air and water permits.

Comment No. 10 **Issue Code: 14**
The EIS provides analysis and impacts based on the fuel feed used for the 1-year demonstration. The impacts presented in the EIS are based on the full 20-year timeframe that the plant is expected to be operating. Varying the percentage composition of the feed stream after the demonstration period will not significantly alter the expected environmental impacts from the proposed project.

Comment No. 11 **Issue Code: 16**
Chapter 3, Section 3.2.2.2 of the EIS, discusses the production and composition of the RDF pellets using all available and relevant data.

atmosphere, are they being used elsewhere for whatever purpose?

So I would like to know about all of these things. My suggestion is that we have the information of this nature. It should be an integral part of the EIS.

The draft EIS also says that on these of tons of tons of sulfur dioxins, carbon monoxide, that it kind of dismisses this as not being significant. From what perspective? It may not be significant in terms of a traditional coal-fired plant, but we don't want to have chemicals anymore than we need.

So I don't understand how EIS can be so dismissive of a thing like this. You have a cumulative impact of all of these things on the environment of Kentucky. I think this is an important issue and it needs more discussion.

Another point I have was the visual pollution that someone made about the stacks being visible from this Pilot Knob and the City of Winchester. This is a critical issue and an important issue from this region, but at the same time they are talking about beautifying this region and bringing more people in for tourism and things of

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11/16 (cont.)

Comment No. 12 **Issue Code: 06**

The EIS characterizes the emissions from the proposed project as having a less than significant impact based on the fact that incremental ambient air quality impacts from these emissions would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent of the standards for gaseous pollutants and less than 4 percent of the PM_{10} standards). In addition, the project would comply with all applicable federal and state air quality regulations, including federal PSD regulations.

12/06

Section 5.7, Air Resources, of the EIS has been revised to further evaluate impacts related to acid deposition and heavy metal deposition downwind of the project site.

Comment No. 13 **Issue Code: 20**

Comment noted. Section 5.14, Cumulative Effects, has been revised to include an analysis of the cumulative health effects.

13/20

Comment No. 14 **Issue Code: 04**

Comment noted. Impacts to the visual setting of the project area are presented in Section 5.5, Aesthetic and Scenic Resources, of the EIS. The large size of the surrounding J.K. Smith Site and the hilly nature of the area would reduce the visual and aesthetic impacts to a large degree. The facility would be visible from high elevations including the 222.5-meter (730-foot) high observation position on top of Pilot Knob State Nature Preserve, 12.8 kilometers (8 miles) east of the project site. However, due to the distance from the facility, the aesthetic and scenic impact to the viewshed from Pilot Knob would be minor. No impacts to regional tourism have been identified as a result of this project.

14/04

that nature.

Another point, a final point, from the draft EIS, I could make out that up to 60 percent of the water is taken from the Kentucky River, it is used for thermal electric power production, that is a lot.

In other words, of all of the water that is taken from the river, most of it, the majority of it, 60 percent of it, goes for the production of energy. Now, what does it do to the river eventually?

The draft EIS statement dismisses the water taken out as not being a significant amount and a maximum of up to four percent of the flow when the water levels are low. But if you look at the cumulative aspects of all of this, ultimately I think we are going to be in trouble if we don't take better care of our water.

So, those are the comments that I have. I suspect that other speakers will have issues about water, too.

The bottom line for me has been that the EIS, I don't feel like it gives enough information, and relies a lot on data provided by the interested

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15/07

6/14
(cont.)

Comment No. 15 **Issue Code: 07**

The cumulative effects of withdrawals from the Kentucky River by power plants have been discussed by the Kentucky Natural Resources and Environmental Protection Cabinet in their cumulative assessment report (KNREPC 2001), addressed in Section 5.14, Cumulative Impacts of the EIS. The Cabinet acknowledges that because many of Kentucky's power plants are exempt from water withdrawal requirements, the Cabinet does not have an accurate inventory of the volume of water being removed each day by the existing power plants. However, the KDEP is able to limit withdrawals from permitted sources during periods of abnormally low flow. Although the proposed plant would not be a permitted withdrawal source, KPE has stated that they would cease water withdrawals if requested to by the state.

company, rather than presumably from objective observers on the outside.

The process of it, we don't know what the frit is going to be about, we don't know whether it is hazardous or not. If it is hazardous, how can we get rid of it in a nonhazard way? What is the concentration of the hazardous waste, they get up to 60 days or 90 days to move this hazardous waste in the same location.

There a lot of environmental issues involved with all of those things. It seems to me that a complete EIS would have to bring out these issues.

Thank you.

MR. SPEARS: Thank you, Mr. Bhatt.

Our next commenter is Patty Draus.

MS. DRAUS: Thank you. My name is Patty Draus and I am from Lexington.

My comments are very similar in nature to the previously mentioned ones.

I do have some concerns about the water usage and the fact that large quantities -- the quantity that will returned to the water, presumably to the river, would be at a higher temperature than

21

6/14 (cont.)

7/12 (cont.)

16/07

Comment No. 16 **Issue Code: 07**

Section 5.9 of the EIS, Ecological Resources, discusses potential impacts from the water returned to the river at high temperatures. As stated in Section 5.8, Water Resources and Water Quality, treated wastewater is expected to contain conventional pollutants such as nitrogen, phosphorus, total dissolved solids, and biological and chemical oxygen demand. Pollutant discharge limitations, including thermal limits, would be set by the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water's Water Resources Branch and would be identified in the KPDES permit. These limitations would be established based on site-specific computer modeling of the expected effect on water quality of the Kentucky River at the proposed discharge point and in the mixing zone immediately downgradient. The limits specified in the permit would protect existing water quality.

The Water Resources Branch pays particular attention to the proximity of wastewater discharges to drinking water intakes. New sources of wastewater are prohibited within 8 kilometers (5 miles) of a water treatment plant intake. This 8-kilometer (5-mile) limit was established to provide an additional layer of protection for the water quality found at drinking water intakes over treatment alone and is referred to as Zone 1. Zone 2 extends from 8 to 16 kilometers (5 to 10 miles), while Zone 3 is the area from 16 to 40 kilometers (10 to 25 miles) from a water treatment plant intake. The proposed outfall is located in Zone 3 for the Winchester Water Treatment Plant. Water collected at the treatment plant is tested and treated to meet all federal and state requirements concerning drinking water quality. Therefore, no impacts to drinking water are expected.

22

what was taken out, what will be the environmental impacts of that? As well as what chemicals will be returned to the river?

As previously mentioned, during low flow times -- we have had some concerns here in Lexington, where will we get our drinking water and now we will have drinking water with additional chemicals in it that I am particularly not interested in drinking.

My second concern has to do with the trash that is being brought from out of state. I hate to see the State of Kentucky become the trash reciprocal for other states, now we can start getting this from all over the nation. How do you control the content of the trash and when you burn this and when you produce this frit, how do you control what comes out and what effect it will have on our environment?

So, I just really would rather see that we not be using trash as the fuel source for this power plant.

And my third concern, which probably, or is definitely not within the scope of your environmental impact, but I do have concern about whether we need this power. Where is the demand for

Comment No. 17 **Issue Code: 12**

The RDF pellet and coal cofeed that is processed during gasification results in the formation of molten slag, which becomes vitrified frit when quenched with water. The vitrified frit from gasifiers utilizing other feed stocks is resistant to corrosion in the environment and considered nonleachable by EPA standards. The frit produced by this facility is expected to meet all TCLP criteria. It will be a marketable product, not a waste.

16/07 (cont.)

Comment No. 18 **Issue Code: 16**

DOE selected the Kentucky Pioneer IGCC Demonstration Project for further consideration under DOE's fifth solicitation (CCT-V) of the CCT Program and concludes that the project falls under CCT Program requirements due to the use of the co-fed BGL technology.

17/12

Comment No. 19 **Issue Code: 14**

Chapter 2 of the EIS discusses EKPC's 1998 Power Requirements Study which indicates that the electrical load for the region is expected to increase by 3.0 percent per year through 2017. Net winter peak demand is expected to increase by 3.3 percent per year and net summer peak demand is expected to increase by 3.0 percent per year. Peak demand is expected to increase from 2,031 MW in 1998 to 2,394 MW in 2003 and 3,478 MW in 2015. Based on this load growth, EKPC will need additional power supply resources of 625 MW in 2003. The need is further shown by the EKPC's plans to construct four new CT electric generating units to provide peaking service alongside the three existing peaker CTs at the J.K. Smith Site. The Kentucky Pioneer IGCC Demonstration Project will not be used to phase out existing coal-burning plants. The power generated by the IGCC will be used to support Kentucky's energy needs.

18/16

19/14

23

this plant or will it be phasing out another old coal-burning plant that is not as efficient and not as clean?

And those are the three things that I am concerned with.

Thank you.

MR. SPEARS: Thank you very much, Ms. Draus.

Our next commenter, Naomi Shultz.

MS. SHULTZ: My name is Naomi Shultz. And I am speaking tonight on behalf of my colleagues at the Kentucky Environment Foundation, which is located in Greenup, Kentucky.

For the past six weeks, Kentucky Environment Foundation has focused almost exclusively on the issue of chemical weapons disposal and have fought hard to protect all central Kentucky citizens from the effects of a proposed chemical weapons incineration.

At Kentucky Environment Foundation, we steadily support non-incineration technology which do not release toxic chemicals in Kentucky's air, water and food.

We continue to maintain focus on the

19/14 (cont.)

20/22

Comment No. 20 **Issue Code: 22**

Comment noted.

24

chemical weapons incinerator, yet are compelled to comment tonight, and later in the form of written comment, on the ludicrous idea of a waste burning power plant in Clark County.

Here briefly are our primary concerns. The first concern is using municipal waste to fuel a power plant -- I am having trouble with using this word -- municipal waste to fuel a power plant. We think it is extremely dangerous to public health.

Municipal waste have heavy metal, corrosive plastics and other materials, which when burned, come out the other end in the form of toxic compounds (inaudible).

One such family of chemicals known as dioxins, are considered by the U.S. EPA, various health organizations, and the United Nations Environmental Program are among the most dangerous chemicals ever made.

In 1994, the U.S. EPA stated that the average U.S. citizen there has already found unsafe levels of dioxins. That is, we have already been exposed to a level of dioxins as which health effects can occur.

What are the health effects, cancer,

Comment No. 21 **Issue Code: 11**

20/22 (cont.)

No significant impacts to the general public's health and safety would be expected from gasification of RDF. The proposed project is not an incinerator or conventional power plant burning coal or RDF. The gasifier operates as a completely enclosed pressurized system. Gasification occurs at high temperatures which ensures complete destruction of toxic organic compounds and incorporation of heavy metals in molten slag, recovered by quenching as a nonleachable glassy frit. Since gasification occurs at high pressures, the process produces no air emissions. Furthermore, the high temperatures achieved during gasification from the use of oxygen instead of air prevent the formation of dioxins/furans. The resulting product of the gasification process is syngas, consisting mainly of CO and H_2. Only minor amounts of wastewater are produced from the gasification process. The wastewater would be treated and discharged to the Kentucky River in accordance with the KPDES permit. Sludge from the wastewater treatment process is expected to be nonhazardous.

21/11

No emissions or waste products are produced from the gasification process. Refer to Chapter 3 of the EIS, Section 3.1.2.2, for an additional description of the gasification process. Use of RDF reduces the burden associated with disposal of large quantities of MSW and the need for additional landfill space.

Dioxin discharges are presented in Chapter 5, Table 5.7-4 of the EIS. The value given in this table overstates the actual emissions that will occur because it is the maximum limit established by the PSD/Title V Air Permit. No data is available for plant design to allow for modeling of actual dioxin emission rates, so the permit limit was used for the analysis.

birth defects, immune system defects, diabetes and much more.

We know the effects are linked to low levels of mercury, lead and a host of other heavy metals.

Our second concern, is a release of toxic chemicals into the environment, a new international treaty aimed at protecting health and the environment.

Last summer, the United States agreed to ratify the international treaty of the preexisting organic pollutants, or POPS.

POPS are a category of chemicals, including dioxins, PTBs, pesticides and some other metals, which are already found around the world and include a body of people all over the globe and which can cause the health effects explained above.

The POPS treaty calls for the ultimate elimination of the chemicals. Central and eastern Kentuckians are being asked to deny satisfying public health and safety and accept this facility, which will pollute our families for generations to come.

Our third concern that even use of the state-of-the-art plant, contributes significantly to

Comment No. 22 **Issue Code: 22**

Comment noted. The EIS is intended to analyze environmental impacts from the proposed project. DOE does not believe international treaties are being violated.

Comment No. 23 **Issue Code: 06**

The project area does not experience poor air quality. Both the state and EPA consider the project region to be in compliance with all applicable ambient air quality standards. Incremental ambient air quality impacts from the proposed project would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent of the standards for gaseous pollutants and less than 4 percent of the PM_{10} standards). Table 5.7-4 of the EIS identifies estimated maximum downwind concentrations of hazardous pollutants expected to be emitted by the proposed facility and the associated maximum lifetime cancer risks. The air quality permit for the project requires continuous emission monitoring for major criteria pollutants and annual emissions testing for cadmium, lead, mercury, hydrogen chloride, and dioxins/furans.

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bad air quality.

It may be true that central Kentucky has suffered poor air quality that has affected so many urban and rural communities.

Let's set our goals to provide the highest possible standards for clean air, not the highest number of children requiring asthma treatment.

The fourth concern is that waste should be reduced and recycled, not shipped across state lines to be burned, period.

And the fifth and final concern for tonight, solution to demands for power in Kentucky and elsewhere, will not be found in shortsighted, waste to energy facility but in more sustainable methods.

The Kentucky Environmental Foundation will provide more detailed comments in writing by the January deadline.

For now, we emphatically state our opposition to this facility in Clark County, central Kentucky, or anywhere.

Thank you very much.

MR. SPEARS: Thank you very much,

23/06 (cont.)

24/22

25/22

26/16

Comment No. 24 **Issue Code: 22**
Comment noted.

Comment No. 25 **Issue Code: 22**
Comment noted.

Comment No. 26 **Issue Code: 16**
Comment noted.

Ms. Shultz.

Our next commenter, Bernard McCarthy.

MR. McCARTHY: My name is Bernard McCarthy. I live here in Lexington.

I just want to say, first of all, I think burning garbage as a fuel is a lot more sensible than burying the garbage in landfills and then having to use other fuels.

I think that while coal is not as good of a fuel source as the garbage, in that coal has to be mined, I still would rather see coal-fired power plants than have natural gas used up generating electricity, because natural gas can be used so easily for so many other things from home heating and cooking, to even as an alternative to gasoline in powering vehicles is used.

You press it into the right kind of tanks and get the right kind of vehicles.

Now, having said that, if a plant were to primarily burn coal, it would make the most sense to put it as close to the coal mine as you can, instead of the electricity by live wire to wherever it is going to be used. That way, we would not wear out and clog up our highways near as bad.

27

27/16

28/10

Comment No. 27 **Issue Code: 16**
Comment noted.

Comment No. 28 **Issue Code: 10**
Comment noted. For this project, KPE selected the J.K. Smith Site due to the initial grading and development that occurred during the construction on the previously discontinued J.K. Smith plant. KPE determined that the project costs would be much higher and the environmental impacts greater if an undisturbed area was chosen.

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If on the other hand, you are going to burn a higher percentage of garbage, then it makes sense to put the plant wherever the garbage is coming from. Although, I am pretty sure the garbage is being produced everywhere and the thing to do might be to go ahead and build the plant here, but instead of hauling in garbage from another state, burn the garbage generated right here in Kentucky that is currently going into landfills and then somebody else build another plant in those other states to burn their garbage.

And if you are planning on burning a 50/50 mixture of garbage and coal so that one or the other has to be transported long distances, which is going to burn up various other fuels to power the trucks or the trains.

And probably the best thing to do is put the plant wherever you have the most number of unemployed persons to meet the work, which I think about east of here should readily qualify.

I would also like to point out that if the environmentalist, various firms object to it, it tells me that it is probably the right thing to do, by all means build this thing.

28

29/16

28/10 (cont.)

30/02

Comment No. 29 **Issue Code: 16**

Comment noted. Because of DOE's limited role of providing cost-shared funding for the proposed Kentucky Pioneer IGCC Demonstration Project, alternative sites were not considered. KPE selected the existing J.K. Smith Site because the costs would be much higher and the environmental impacts would likely be greater if an undisturbed area was chosen. Also, the relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant.

Comment No. 30 **Issue Code: 02**

Comment noted. The unemployment rates for the counties within the socioeconomic ROI are presented in Chapter 4 of the EIS, Table 4.3-2. The rates have risen since 2000, with recent figures presented by the Kentucky Department for Employment Services showing unemployment rates of 5.3 percent for Clark County, 3.0 percent for Fayette County, and 4.5 percent for Madison County as of December 2001. The ROI rate has risen to 3.5 percent and the State of Kentucky's rate is 5.2 percent. This increase in the unemployment rate indicates that the jobs are needed in the area.

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MR. SPEARS: Thank you very much, Mr. McCarthy.

The next commenter is Chris Huestis. And I hope that I pronounce your last name correctly.

MR. HUESTIS: You got it.

My name is Chris Huestis. I am from Lexington.

I wrote down a few notes, I don't know if I can read my own notes, but I will try.

There is an interesting history in terms of the environmental protection in Kentucky. Basically, it does not happen.

We have had environmental disasters from Paducah and the radiation from the nuclear power plants. We have had all the way to eastern Kentucky with the coal slurries spilling out into the river and streams and having incredible disasters all over this state that EPA has already failed the people in Kentucky to protect the environment.

Our local and state government is also a part of that. We have failed everyone. Even our local people often are dumping their waste in various places in rivers and streams. Go to Red River Gorge, you will find tires in the Red River in the place

31/22

31/22 (cont.)

Comment No. 31 **Issue Code: 22**

Comment noted.

that is supposed to be preserved for natural beauty.

We are under a toxic siege. Our leadership has really failed us. There is really a real lack of leadership in protecting the environment.

One of my main questions is, how can we expect any protection or of any promises in the future from the federal government, from the local government, from the state government, where we have had one disaster after another?

It seems that Kentucky is wanting to be a toxic dump. And the leadership creates a chain reaction. It can go toxic or it can provide a habitat for change. A habitat for life. There is a biologist, his name is Edward O. Wilson, he is a naturalist. He has taught had Harvard for about, I don't know, 45 years. He has won a couple of Pulitzer Prizes. One of his books, Diversity of Life, is worth checking out.

But in that he states, that we are under a massive extinction on the planet, it has gone through it several times, about five or six times at the level of what he is talking about.

Wherein, incredible numbers of species,

30

32/11

Comment No. 32 **Issue Code: 11**

The primary purpose of federal, state, and local environmental regulations is to protect the public health and safety, the environment, and to reduce the likelihood and impacts of accidents. The past performance of federal, state, and local governments on disasters is beyond the scope of this EIS.

31

80 percent, 90 percent of the species of life, are wiped out.

The current one that he says we are in through his research is essentially caused by the humans, by people, by the way we live. If we can take $78 million for research for a power plant, why not take $78 million for some environmental protection in Kentucky?

I think that is my main comment is that we have lost our leadership for the environment and there is no credibility within the corporate world when they say they can produce clean safe energy in the environment in Kentucky.

So I think that is what is essentially is missing. Another comment I would like to make is when you have these public hearings there needs to be more attention drawn to the public hearing itself. More notice in the newspapers, or television, or the media to get the word out.

I found out about this through a friend, personal word of mouth, which is fine for me, but what I want to know is how many other people in the community know about this, or if they have even heard about this meeting. I think it is important for

33/14

31/22 (cont.)

34/21

Comment No. 33 **Issue Code: 14**

The Kentucky Pioneer IGCC Demonstration Project is a CCT selected by DOE to demonstrate the efficiency and environmental performance of new technologies. The issues of alternative uses of the Nation's funds are beyond the scope of the EIS.

Comment No. 34 **Issue Code: 21**

The public hearing dates, times, and locations were announced in the *Federal Register*, in local newspapers the *Winchester Sun* and *Lexington Herald-Leader*, and in public service announcements. All requirements in state and federal laws, rules, and regulations regarding announcements for public hearings were satisfied or surpassed.

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people to know so that they can come down and make a comment.

Thank you.

MR. SPEARS: Thank you very much.

I appreciates everybody's comments.

We have our last signed up commenter, at least.

I am not sure about the name here, Chetan Talwalker.

MR. TALWALKER: Hi. My name is Chetan Talwalker. I am a member of the Kentucky Environmental Foundation and a member of the board of the Kentucky Resources Council.

I want to express my concern about the proposal that has been offered. I found out about this from a group of folks who are interested in the issues of the Daniel Boone National Forest. I am a frequent user of the forest. I spend a lot of time in that area. I am very concerned about the impact that this kind of combustion facility is going to have, both of the aesthetic and public health aspect of the forests.

And as someone who for the last 10 years has been promoting alternative to building a

35/04

36/08

Comment No. 35 **Issue Code: 04**

Comment noted. Impacts to the visual setting of the project area are presented in Section 5.5, Aesthetic and Scenic Resources, of the EIS. Due to the hilly nature of the terrain and the reduced visibility associated with forests, the project would have negligible aesthetic and scenic impacts to the forests of the region.

Comment No. 36 **Issue Code: 08**

Potential impacts to local forest health would result primarily through the air emissions pathway. Air Quality Permit Number V-00-049 terms and conditions address operational limitations and conditions including monitoring and testing requirements. The air permit was issued based on a high level of sulfur removal and recovery from the syngas stream prior to its use. Additionally, a component of the air quality permit includes a Phase II Acid Rain Permit. Adherence with permit conditions would limit air pollutant emissions in the local area and reduce the likelihood of adverse impacts to forest health.

33

pipeline, I am certainly very much in support of efficient use of natural resources and energy. I think efficiency is an energy option that is vastly under utilized in Kentucky, and is something that would be a much better alternative, a much better use, a much better way of getting the electricity that might otherwise be supplied in keeping the electricity that might otherwise be supplied by this facility.

In other words, what I am saying is, spend your $78 million, or however much it is going to end up costing on measures that reduce the need for the electricity, instead of spending money in a supply site option that may or may not work, and is going to have significantly greater health consequences.

I will also be submitting written comments. And I thank you for your time.

MR. SPEARS: Okay. Thank you very much.

Our next speaker is Erin McKenzie.

MS. McKENZIE: My name is Erin McKenzie. I am a student at the University of Kentucky.

37/22

Comment No. 37 **Issue Code: 22**

Comment noted. The issue of alternative power sources is outside the scope of the Kentucky Pioneer IGCC Demonstration Project EIS.

34

I would just like to say that I am outraged at the fact that I didn't have any idea that this was being planned or discussed in a public forum, until this afternoon when I checked my e-mail.

It is only because I am on a list of a particular citizens' group that I found out about this.

I think it is very wrong that there is not more mention of this in the media, that citizens don't know that this is going in their own community.

And furthermore, on behalf of my fellow students, I would like to say that it is also an outrage that this takes place without the consideration of the students, without the consideration of the young population of Lexington.

Because contrary to popular belief, we do care about social issues and we are concerned about what happens to our environment.

We do plan on having children and I, for one, don't like the idea of garbage being burned in my backyard that my children my have to breathe several years down the road.

And I look at the flowchart over here

38/21

38/21 (cont.)

39/11

Comment No. 38 **Issue Code: 21**

The public hearing dates, times, and locations were announced in the *Federal Register*, in local newspapers the *Winchester Sun* and *Lexington Herald-Leader,* and in public service announcement information made available to local media outlets. All requirements in state and federal laws, rules, and regulations regarding announcements for public hearings were satisfied or surpassed.

Comment No. 39 **Issue Code: 11**

No significant impacts to the general public's health and safety would be expected from the gasification of RDF. The proposed project is not an incinerator or conventional power plant burning coal or RDF. The gasifier operates as a completely enclosed pressurized system. Gasification occurs at high temperatures which ensures complete destruction of toxic organic compounds and incorporation of heavy metals in molten slag, recovered by quenching as a nonleachable glassy frit. Since gasification occurs in a carefully controlled environment, the process produces no air emissions. Furthermore, the high temperatures achieved during gasification from the use of oxygen instead of air prevent the formation of dioxins/furans. The resulting product of the gasification process is syngas, consisting mainly of CO and H_2. Minor amounts of wastewater consisting primarily of salts are generated by the process. The wastewater would be treated and discharched to the Kentucky River in accordance with the KPDES permit. Sludge generated from the treatment process is expected to be nonhazardous.

35

and I don't understand all the chemistry behind it, but sounds to me like burning garbage cannot be the cleanest possible alternative.

Furthermore, I would like to see maybe some more evidence that this power plant is really needed. Do we really have a demand for the electricity and if so, certainly can we please explore other options that take into account our fragile environment in Kentucky?

I think it is often taken for granted that the State of Kentucky is a very backwards place. That is something that we, as citizens of the Commonwealth have to share and have to change.

Building power plants near schools, power plants that threaten our fragile natural resources, does not tell the rest of the country that we are anything but backward, and only invites corporations and other states to come in and take advantage of us.

MR. SPEARS: Thank you very much, Ms. McKenzie.

That is all I have down on my list here for commenters. Does anyone else wish to make another comment?

40/16

41/14

42/22

Comment No. 40 **Issue Code: 16**

Chapter 3 of the EIS explains the BGL gasification process. The RDF pellet and coal cofeed is heated in a carefully controlled, low oxygen environment, which causes a chemical conversion process that results in the formation of the syngas. The syngas product is combusted in the combined cycle turbines to produce electricity.

Comment No. 41 **Issue Code: 14**

Chapter 2 of the EIS discusses EKPC's 1998 Power Requirements Study which indicates that the electrical load for the region is expected to increase by 3.0 percent per year through 2017. Net winter peak demand is expected to increase by 3.3 percent per year and net summer peak demand is expected to increase by 3.0 percent per year. Peak demand is expected to increase from 2,031 MW in 1998 to 2,394 MW in 2003 and 3,478 MW in 2015. Based on this load growth, EKPC will need additional power supply resources of 625 MW in 2003. The need is further shown by EKPC's plans to construct four new CT electric generating units to provide peaking service alongside their three existing peaker CTs at the J.K. Smith Site. The issue of alternative energy options is outside the scope of the EIS. The purpose of the CCT Program is to demonstrate technologies with the potential to provide cleaner and more efficient energy from coal resources.

Comment No. 42 **Issue Code: 22**

Comment noted.

36

Mr. Crewe?

MR. CREWE: If you can bear with me, if I can make a few additional comments, I would appreciate it.

Global Energy and Kentucky Pioneer and the authors of this Draft Environmental Impact Statement makes the claims that this process, or gasification of coal and natural waste, does not involve combustion. From my knowledge, that is a misleading statement.

The temperature at the bottom of the combuster is 3,000 degrees fahrenheit, at the top it is 900 degrees fahrenheit. Fed in from the top are combustible material, coal and refuse-derived fuel pellets.

Fed in at two places, at least, according to the flow chart on the opposite page of seven, is oxygen. By any reasonable definition, inductothermic reaction that occurs from 3,000 to 900 degrees in the presence of oxygen combustible material is combustion.

Which you know some combustion occurs in the presence of this drained and injected oxygen. And I believe it is a matter of public relations and

43/16

43/16 (cont.)

Comment No. 43 **Issue Code: 16**

Chapter 3 of the EIS has been revised to expand the discussion of the BGL gasification process. RDF pellets and coal are heated in a carefully controlled, low oxygen environment, which causes a chemical conversion process and the chemical element for formation of the syngas.

not precision, to claim that this does not involve combustion. I think this is more about public relations. This does involve some combustion and it involves burning garbage in Kentucky.

Also I am concerned about the production, as the representative from the Kentucky Environmental Foundation talked about, dioxins can be produced under certain conditions.

There has been no specific information furnished to us to dissuade our concerns, only maybe general comments.

What assurance do we have that this process will not produce dioxins? I am curious about what the power plant will produce. What facility is this scale, without having been done somewhere, so that we know what the outcome is?

And what outcome shows that dioxins and uraniums will not be produced? Will not, say, exit in the slip stream from the gasification process and there is an obvious influence.

And at some point in this statement, I don't know the page right now, it says that they do not know what the characteristics of the operation of the plant will be. So that seems rather vague.

43/16 (cont.)

44/06

44/06 (cont.)

45/16

44/06 (cont.)

46/16

Comment No. 44 **Issue Code: 06**

The Final PSD/Title V Permit for the Kentucky Pioneer IGCC Demonstration Project sets a very low limit on allowable dioxin emissions (0.01 nanograms per dry standard cubic meter of stack exhaust gas). Compliance with this limit must be demonstrated by an initial source test at project startup and by annual source tests thereafter. Because the potential uranium content of fuel materials is so low, neither EPA nor the state require any specific monitoring for uranium.

Dioxin discharges are presented in Chapter 5 of the EIS, Table 5.7-4. The value given in this table overstates the actual emissions that will occur because it is the maximum limit established by the PSD/Title V Air Permit. No data is available for plant design to allow for modeling of actual dioxin emission rates, so the permit limit was used for the analysis.

Comment No. 45 **Issue Code: 16**

An important consideration during site selection was to meet DOE's purpose for the proposed project to generate technical, environmental, and financial data from the design, construction, and operation of facilities at a sufficiently large enough scale to allow the power industry. Emissions and pollutants are discussed in Section 5.7, Air Resources, and 5.8, Water Resources and Water Quality, of the EIS.

Comment No. 46 **Issue Code: 16**

KPE engineering and plant design are subject to international contractual secrecy agreements, and are therefore business confidential and not available. This project would be the first commercial-scale application of the cofeed BGL technology in the United States. Similar technology has also been used at the Schwarze Pumpe facility in Germany and the Westfield facility in the United Kingdom.

38

What are the characteristics of a power plant stage, what has been done, I think it will be helpful to know how this plant will work. It does not appear in what I have been able to read about it so far.

Also, and this may be a complaint about the process and environmental law in general about other projects, I would have been very interested in knowing about the scoping meeting that occurred in May of 2000. I didn't know that. It was apparently published in an obscure section of the paper where things like this get publicized, but most people don't read that and don't know about that.

The process doesn't seem to be tailored to inform the broadest possible group of the public that would be concerned. I certainly would have been at a scoping meeting had I known that it was occurring.

There have been several fairly critical articles in the local newspaper here, The Herald Leader, but nothing that informed me that there was a scoping meeting held in May of 2000, I believe that is when it was. Because I certainly would have gone to that at that time had I known about it.

46/16 (cont.)

47/21

Comment No. 47 **Issue Code: 21**

The date, time, and location of the May 2000 scoping meeting was announced in the *Federal Register*, in local newspapers the *Winchester Sun* and *Lexington Herald-Leader,* and in flyers distributed to the local community. Community groups and local elected officials are included on the project mailing list.

39

And I believe that is all I have to say. I will have some other things before the 4th.

MR. SPEARS: Thanks again, Mr. Crewe.

Do I have anyone else?

Yes, the gentleman in the back.

MR. HERRICK: Thank you. My name is Will Herrick and I live on the north fork of the Kentucky River.

MR. SPEARS: Can you repeat your name, so that our reporter --

MR. HERRICK: Will Herrick. H-E-R-R-I-C-K.

MR. SPEARS: Thank you.

I live in Lee County, which puts me upstream and upwind.

And having observed the other comments, I think that one of the questions that I was left with was a specific question about the Ph of the water being returned to the Kentucky River.

There was discussion about particulate matter as it being used to scrub gases and to cool gases, manifestly is going to have some contamination. I would be very interested in

48/07

49/06

48/07 (cont.)

Comment No. 48 **Issue Code: 07**

The pH of the wastewater would be specified in the KDPES permit. Wastewater would be treated to adjust the pH so that it would fall within limits allowed in the KDPES permit.

Comment No. 49 **Issue Code: 06**

The suspended particulate matter contained in the gas stream from the gasification units would contain most of the metals and low volatility compounds emitted during the gasification process. The cooling of the gas stream produced by the gasification unit would cause condensation of low volatility compounds onto the particles already present, and would also cause much of the water vapor in the gas stream to condense on the suspended particulate matter. Gravitational settling would remove the condensed droplets and associated particulate matter, thus cleaning the gas before it is processed by the sulfur recovery facility.

characterizing that water.

Kentucky River is in the State of Kentucky, there is three tiers of water quality, and it is pretty much a burden on the public to improve the quality of the water in this state.

It basically goes all the way to the bottom of that tier before the state will become involved. So it is up to the public, and perhaps the federal government, to help improve the quality of that water.

I am also particularly interested in the permitting events, and again, it is getting the feds to support the notion that this is a demonstration facility, and that the federal government has expressly said our interest here is in the demonstration of this, and it is clear from the documents and the air quality permit and other documents, that East Kentucky Power would very much like to keep rolling at the moment that demonstration part is done, under the same body of permits.

And it is something that I think everybody should stand up and know, this is a demonstration. It is there to demonstrate the technology, and at the end of the demonstration, we

40 48/07 (cont.)

50/21

50/21 (cont.)

Comment No. 50 **Issue Code: 21**

KPE has a contract in place with EKPC to provide power continuously for a 20-year period. The facility would not shut down after the 1-year demonstration period, but would continue to operate to honor the commitment to EKPC. There would not be a new round of permitting following the end of the 1-year demonstration period. The PSD/Title V Air Permit issued by the Kentucky Division of Air Quality is final and does not require renewal following the demonstration. At the close of the demonstration period, the KPDES permit for water usage would also be final and not require renewal. Any required fuel feed component changes following the 1-year demonstration period would likely require modification of the air and water permits.

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have a chance to review this, and it is a new round of permits and I would very much like the feds to stand up and join in that.

I guess I would just like to say that also there are bad economics for the public of Kentucky. It is irrefutable that no matter how you deal with the body of waste, whether it is atmospheric, put in the water, put in the ground, the majority of the waste product from this facility will be landfilled. And driving up the cost of landfills in Kentucky does not serve the public in Kentucky well.

So, again, there are considerations that I don't see being addressed to the virtue of the residents of Kentucky.

Manifestly, there are scarcities of air quality and there are comparative issues about what other industries may or may not be eliminated from siting in Kentucky because they are denied access to the quality air or the introduction to the quantity of pollutants. And that is a burden to the economic environment of Kentucky.

And particularly also the discovery of what is the toxicity of the frit resemble. Much of

50/21 (cont.)

51/12

49/06 (cont.)

52/02

53/12

Comment No. 51 **Issue Code: 12**

The project produces primarily vitrified frit which is considered a commercial product, not a waste stream. The waste generated at the proposed facility that would be landfilled in the State of Kentucky would be solid waste. It is difficult to determine whether waste from this project would drive up the cost of landfilling. Landfill cost increases are dependent on a number of factors, not just the waste generated from this proposed facility.

Comment No. 52 **Issue Code: 02**

All waste streams (air, water, and solid) generated by the project would be in compliance with federal, state, and local guidelines and ordinances. The presence of the facility should have no impact on future siting decisions for other businesses or industries in Clark County or Kentucky. No burdens to the economic health of the region as a result of this project have been identified. According to the *Cumulative Assessment of the Environmental Impacts Caused by Kentucky Electric Generating Units* prepared by the Kentucky Natural Resources and Environmental Protection Cabinet, further electric generation capacity often facilitates the development of the area economy.

Comment No. 53 **Issue Code: 12**

The constituents of the frit are immobilized in a glassy matrix making them nonleachable and resistant to corrosion in the environment. Analyses of the gasification process utilizing other feed stocks have found that the frit is nonhazardous and rarely fails the TCLP for metals. The frit from this facility is expected to not only pass the TCLP criteria but also the more rigorous TCLP Universal Treatment Standards criteria.

that burden may, in fact, fall on the average Kentuckian.

There are no guarantees from the federal government, or from anybody else, that should this prove to be -- that there, in fact, are definitive quantities of metals and leaching materials, that is anybody's burden but the county that signs the host agreement that accepts the waste from the landfill.

I would like to see that investigated much more thoroughly by the federal government as to what the true nature and outcome of long-term storage of frit under landfill-type conditions.

53/12 (cont.)

Thank you.

MR. SPEARS: Thank you very much for your comment.

Do we have anyone else that would like to make any additional comments.

I left this slide up intentionally so that perhaps this January 4, 2002, would jump out at you and you would be assured that the January 4 date of turning in your comments.

We really appreciate everyone being here tonight. I appreciate your interest in your local community and the technology that we hope to have in

this community at some point in time.

With no one else desiring to comment, I am going to -- I am sorry, I thought we had one more commenter back there.

With no other comment, I would like to for the record show that this public meeting ended at approximately 7:55 p.m., on the 10th day of December.

We will be around after the meeting here if you would like to address any of those that I introduced a while ago, for points of clarification or whatever.

So we would welcome your interaction with those folks that are here.

Thank you very much.

(Meeting adjourned.)

STATE OF WEST VIRGINIA, To-wit:

I, Michele G. Hankins, a Notary Public and Court Reporter within and for the State aforesaid, do hereby certify that the proceeding was taken by me and before me at the time and place specified in the caption hereof.

I do further certify that said proceeding was correctly taken by me in stenotype notes, that the same was accurately transcribed out in full and reduced to typewriting, and that said transcript is a true record of the testimony.

I further certify that I am neither attorney or counsel for, nor related to or employed by, any of the parties to the action in which these proceedings were had, and further I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in the action.

My commission expires the 29th day of December 2003.

Given under my hand and seal this 7th day of January 2002.

Michele G. Hankins
Notary Public
Court Reporter

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U.S. DEPARTMENT OF ENERGY

Kentucky Pioneer
Integrated Gasification Combined Cycle
Demonstration Project
Draft Environmental Impact Statement
Public Scoping Meeting

Trapp, Kentucky
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APPEARANCES:

FOR THE U.S. DEPARTMENT OF ENERGY:

Roy Spears, U.S. Department of Energy
John Preston, Corps of Engineers, Project Manager
Jim Watts, Project Manager
Gordon Lorenzi, Compliance Officer

The U.S. Department of Energy public meeting was held at 7:00 p.m., December 11, 2001, at Trapp Elementary School in Trapp, Kentucky, before Michele G. Hankins, Court Reporter.

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P R O C E E D I N G S

MR. SPEARS: Before we get into the program, I have a couple of housekeeping chores, if you will.

If anybody needs to take a restroom break, please feel free to do so. It is at the far end of the hall towards the Christmas tree and to the right.

In the event of an emergency evacuation of any kind -- we don't know what that might be, and we certainly hope nothing happens -- but in the event, we have some exits just out this door and to the right and to the left. Just in the event that anything would happen.

I am Roy Spears with the Department of Energy out of our Morgantown Office of the National Energy Technology Laboratory.

And we were responsible for seeing that the Environmental Impact Statement, or the Draft Environmental Impact Statement was prepared for this project.

About a year and a half ago -- and I recognize some faces here tonight -- about a year and a half ago we had the scoping, the original scoping

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meeting, in May of 2000. In the meantime, we have been preparing the Draft Environmental Impact Statement.

Some folks that have assisted greatly in the preparation of this document, I would like to recognize, Mr. Rich Bailey. He is with Kentucky Pioneer Energy.

Dwight Lockwood, Kentucky Pioneer Energy and Mike Muslin, President of Kentucky Pioneer.

Lloyd Lorenzi, who is our NEPA compliance officer of our national lab.

John Preston is here. John is with the Corps of Engineers, and he is the project manager for the Environmental Impact Statement.

He is the one that actually saw that this thing was completed. And of course, Jim Watts, who is the overall project manager for this project.

We do have some folks here from Techni Tech, as well, Maher, Andrew and Jackie. And they, of course, are the ones who actually got things on paper. And that is very important that occurs, we truly appreciate everyone's effort in getting to this point.

We recognize that it has taken a long

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time, a lot of agencies that we have to deal with and it just a time-consuming process, but we feel that we have made some progress.

Two other folks that I would like to recognize this evening, and appreciate your attendance, County Judge Executive, Drew Graham. And state representative from this district Tom Pavney.

Thank you very much for showing an interest and coming out. We really appreciate it.

Are there any other officials that we are unaware of that might like to be recognized?

If not, we will march forward.

John Preston will now give us somewhat of an overview of what has happened in this NEPA process and he will bring us up to date on where we are at this point in time.

MR. PRESTON: Thank you.

Roy mentioned NEPA. It is a National Environmental Policy Act, put in action by Congress in 1969. Which basically required anytime there was a federal action, which there would be an expenditure of federal funds, or some decision made by the government, to consider the environment in project planning and that is what we are here for tonight.

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It is an important part of the NEPA process.

It began about April of 2000, when we issued a notice of intent that the Department of Energy felt we needed to prepare an Environmental Impact Statement, in order to adequately address the impact of a project of this magnitude.

We were here, as Roy mentioned, in May of 2000, to have our public scoping meeting. And the purpose for that for those who did not attend, we wanted your input on what we could look at, what we should evaluate.

Since then, we have been preparing this document that Roy mentioned, the Draft Environmental Impact Statement, and it is a draft. And it is a draft because we are now in the public comment period, which began on November 16th, we published it. This thing was ready for the public's review for the other federal agencies to review, other state agencies.

And tonight, the important part of the NEPA process is because we are here to get your oral comments on how we did in preparing that, did we consider everything fully?

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There are several ways to comment besides orally tonight. You have a form in your packet that you can write your comments and submit them here tonight. You can also e-mail them.

AUDIENCE MEMBER: Can we get a copy of that?

MR. PRESTON: Yeah, I will get to that.

You can e-mail your comments or you can write them down. These are available, if you want to request one, we will get one to you. They are also in the library, they are in the Lexington Public Library, they are in the Winchester Public Library, and we will send you one if you do not have access to those in the library.

The public comment period ends on January 4, 2002. And we would appreciate your comments by that date so that it gives us time to adequately consider them.

The purpose of the meeting tonight again is to receive your comments. We came early to answer questions, but this part of the meeting is just to get your comments, or statements and concern.

We will take each and every comment. A recorder will record them verbatim, and we will

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address them and in our final document, which will be the document that the Department of Energy makes their decision on whether or not to partially fund this project, we will have addressed each and every comment. So you will have a chance to see it again.

AUDIENCE MEMBER: May I ask a question?

I don't understand how we can comment on this if we have not read it?

MR. PRESTON: I am going to explain a little bit to you all. I appreciate that. And that is often the problem, but we did try to make this available by putting it in the library.

AUDIENCE MEMBER: There is no copy of it at the Clark County Public Library.

AUDIENCE MEMBER: We are from the library, and there is no copy in the library.

AUDIENCE MEMBER: We do not have a copy of this in the Clark County Public Library.

Sorry.

MR. PRESTON: Well, one was sent.

Let me just tell you briefly about the content of what is in the document then.

We considered three plans, or alternatives. There is one that NEPA requires you to

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consider which is no action, which means there is no -- the federal government does nothing.

In this case, the decision on the federal government is due, they partially fund this project to demonstrate the technology.

The No Action I, Alternative was the Department of Energy decides not to fund the project.

Well, Kentucky Pioneer Energy says that without DOE funding, they will go ahead and build a plant and fire it with natural gas, that is No Action II, that would occur whether the federal government takes any action or not so that we dubbed that No Action II, that is the name that we gave it.

The proposed action is what we are here to discuss, as well as the No Action, the proposed action is DOE would provide $78 million funding to demonstrate the technology.

The technology is gasification, using combined materials of coal and refuse derived fuel and that gasification process makes what is called a synthetic gas. It is that synthetic gas that is combusted to produce the power.

The gasification takes the raw materials

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and creates a synthetic gas.

And we have analyzed this and I want to show you the categories of environmental areas that we considered. A lot of you all are probably thinking, environmental areas, well, that is the streams, and the air, and those are indeed very important. But we also look at socioeconomics, cultural resources, occupational health and safety, traffic and transportation. This is a broad category and each one is discussed in detail in the document.

There is obviously not enough time to go through that, there was about a year and a half of analysis and you will have to get the document. Hopefully, this overview will give you some idea about what we are anticipating. I will say that in summary we do not believe any of the impacts from this project are significant impacts.

There are impacts, no doubt, some positive, some negative. Traffic, transportation, you will see a cooling tower out there, that is a visual impact. Noise, there may be some noise during construction. We have tried to recognize all of these, but we do believe they are minor, and that is our summary.

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I am going to turn it back over to Roy, but again, we would like to hear your feedback on this and your comments.

And if you have not had a chance to read the document, we will make it available to you.

So, please, if you want, just leave your name, we will get you one. We have a few that we can possibly pass out, but they are limited here on what we could carry on the plan, so we will make sure that you get the document and have it available.

Thank you.

MR. SPEARS: Thank you, John.

I would like to reiterate just a little bit, before you leave, we do have a few here, but we may not have enough for everybody, but if you will just --

AUDIENCE MEMBER: Whatever number we have, subtract three to five for the library.

MR. SPEARS: Okay.

MR. PRESTON: We will take them over there tomorrow and make sure the library has some.

Are you all with the library?

AUDIENCE MEMBER: Yes.

MR. PRESTON: Okay, great.

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MR. SPEARS: That will be taken care of tonight then.

But anyway, in your packet, there are addresses, and phone numbers, and so forth, and just jot them down and we will make sure that you get one.

Because we want everybody to have an opportunity to read this and comment and we do not want this to be an impediment to your looking at things.

Thank you, again, John.

In a moment, I have sign-up sheets for those of you who signed up to make a comment.

But first, I would like to -- it is a little bit of a different room configuration than we normally have here in the school, this is in the library.

When you comment, if you would come up to right here and state so that everybody would be able to hear you, and that puts you a little bit closer to our court reporter, who then would be able to make sure that she gets everything down.

We have several speakers here. Our original request is to limit your comments to about five minutes, five or six minutes. And if after all

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of the commenters have completed and get done, then if you have other comments, then we can come back up.

We want to give everyone ample time to speak and speak your mind here tonight.

The handout, I think, if anybody did not get a handout, it looks like this, we have plenty of handouts and I want to make sure that we get those.

One of the very important things, as John mentioned, the public comment period ends January 4.

And we would like to have those comments in by the 4th, or certainly that Monday or Tuesday after the 4th, if you have them on that Thursday or Friday. We encourage you to mail them as soon as you can.

That way, it gives us a little bit more time to evaluate those comments and make sure that they get incorporated into the final document.

I am going to leave this up here and maybe this January 4th will jump out at you a little bit more as we go through this presentation.

After I put my glasses on, I will read the first name.

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I hope everybody is comfortable in our over-sized chairs in here. We appreciate your patience with us here tonight.

Bobby Bailey.

MR. BAILEY: Yes, sir.

MR. SPEARS: If you would come up and introduce yourself.

MR. BAILEY: My name is Bobby Bailey. I live along Iron Works Road.

I have several questions I would like to ask.

I just found out about this tonight. I noticed that you refer to it in here as solid waste as a fuel? Am I correct that that is garbage? And if it is garbage, where is this garbage coming from?

And I understand gas from a pipeline, coal can be hauled by big trucks, but this garbage -- and I have had quite a bit of dealings with garbage -- some of these state officials, and some of the county officials -- and I don't mind telling you, some of them has lied to me.

I don't know what you people are going to do, who owns Global Energy? Who is Global Energy? Is it owned by the federal government, or is it

1/16

Comment No. 1 **Issue Code: 16**

Global Energy, Inc., is a privately-owned energy company. As discussed in Chapter 3, RDF is manufactured in a process that includes controlled steps for the processing of MSW or common household waste. White goods (e.g., refrigerators) are removed, cans and glass are also removed for recycling, and plastics are retained for their energy content. The remaining material, including the plastic, is then processed in a type of pressure cooker in which temperature and moisture of the RDF product is controlled. The result is a sterile "mulch type material" that is then formed into dense pellets by being forced through a mold at high pressures. RDF pellets would be shipped from a single manufacturer located on the east coast of the United States.

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private enterprise?

Can nobody tell me?

MR. SPEARS: What we are attempting here to do, is to receive all the comments and then when we get all the comments received, and the court reporter will close that part of the meeting, then you will be able to ask the appropriate people here and we have the individuals here to be able to answer those.

MR. BAILEY: Like I say, the garbage just has to be stockpiled, so I have a lot of problem with stockpiling waste, hazardous waste. It don't even need to be there. That is what I am concerned about.

I would like to hear from some of these state people that try to convince me that everything is stored underground, won't show up anyplace else, it stays right where it is at.

Most of us Kentucky people, we just don't believe this. There are underground streams. If you stockpile something out here, your waste, whatever it is that comes out of this plant, it has got to go someplace.

And what I am up here doing is that it

16

2/12

2/12 (cont.)

3/07

Comment No. 2 **Issue Code: 12**

Any hazardous waste stored onsite would be stored in accordance with state and RCRA regulations. Once a waste has been tested or is determined to be hazardous it would be stored in proper containers (e.g., 55 gallon drums) and labeled as "hazardous waste" with applicable hazardous waste codes and the date the accumulation period began. Based on generator status, the facility would have a maximum of 90 or 180 days for on-site storage of hazardous waste prior to disposal. During that time, the facility would be required to keep containers with hazardous waste in good condition and closed, inspect containers on a weekly basis, and keep a log of inspection. Regulations also require that facilities generating hazardous waste to have spill contingency and emergency response plans, which include procedures to notify the state regulators and the public in the event of a spill. KPE waste management activities would be in accordance with applicable state and RCRA regulations. Compliance with state and RCRA regulations significantly reduces the risk of leakage of hazardous waste.

Comment No. 3 **Issue Code: 07**

All raw materials and waste would be stored and handled in enclosed areas that would be isolated from local soil, water, and rainfall. Therefore, no impacts to local water quality would be expected from operation of the plant.

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is going into the water, I already have problems with water. There is a lot of questions I would like to ask somebody. 3/07 (cont.)

Where is this garbage coming from? Winchester doesn't have that much garbage. 1/16

MR. SPEARS: Those folks that I introduced earlier with Global and so forth, and we have a couple of folks from --

MR. BAILEY: January 4th don't give us a whole lot of time.

I don't use e-mail, folks. If I didn't voice my comments tonight, you won't hear from me.

MR. SPEARS: You can do it by regular mail.

I appreciate your comments.

I understand that you would like some other dialogue and I am sure there are lots of questions.

MR. BAILEY: Yes.

MR. SPEARS: And you will have the opportunity, after a little while, to do that.

We will be here after we close the formal meeting. You can feel free to ask, and I will make sure that we know who the folks are that you can

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talk with.

Thank you, again, Bob for your comments.

Tommy Rector.

MR. RECTOR: It may be redundant from the questions that gentleman has, but I think in general, we are all coming in on the backside of trying to get the information here before we get to draw any conclusions.

I live fairly close to the power plant and immediately I was concerned about off gases from anything that may be burning and/or stored, like the gentleman mentioned. 4/06

As well as specifically what kind of garbage, in detail, what DOE has to -- they will be laying it on trucks, or if it is railroad, or whatever. 5/16 6/10

So upfront, we as a community, should have access to that information. And, if it is going to be stockpiled, in what mode of transportation is it going to be brought in here on? 6/10 (cont.)

If this is a cut and done deal by the Department of Energy, or our federal government, I think it has not taken the feel of the community and their -- I don't want to say approval, but it is 7/21

Comment No. 4 **Issue Code: 06**
The handling and storage of coal, RDF pellets, limestone, petroleum coke, and vitrified frit would not produce any significant quantity of off-gases. The storage and handling of sulfur from the sulfur recovery facility would produce a small quantity of hydrogen sulfide emissions, as indicated in Chapter 5, Table 5.7-2 of the EIS. The Final PSD/Title V Permit for the facility includes emission limits for the sulfur recovery facility and sulfur storage and handling operations.

Comment No. 5 **Issue Code: 16**
As discussed in Chapter 3, RDF is manufactured in a process that includes controlled steps for the processing of MSW or common household waste. White goods (e.g., refrigerators) are removed, cans and glass are also removed for recycling, and plastics are retained for their energy content. The remaining material, including the plastic, is then processed in a type of pressure cooker in which temperature and moisture of the RDF product is controlled. The result is a sterile "mulch type material" that is then formed into dense pellets by being forced through a mold at high pressures. RDF pellets would be shipped from a single manufacturer located on the east coast of the United States.

Comment No. 6 **Issue Code: 10**
Comment noted. An Emergency Response Plan, which documents procedures for providing emergency response and cleanup for any project related spills during materials transport, has not yet been developed by KPE. The plan will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations. Section 5.11, Traffic and Transportation, has been modified to discuss the Emergency Response Plan.

Comment No. 7 **Issue Code: 21**
The public can provide comments on the project at any time during the process. Two formal opportunities for the public to provide input have

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still America, and I think we are entitled to all the questions to be answered, as well as the interrogation of you all, and the motives of the company, and the whole big picture. Hopefully it is not forced upon us against the will of the people. That is my main concern.

When you say environment, like you say, it entails a whole lot. Specifically, what is going to be burning going up in the sky? Is it going down in the water? What is burning? As well, as what may fall off trucks, the railroad cars, or whatever means they are planning to bring it in here.

That is, in general, what I was wanting to say.

MR. SPEARS: Thank you very much.

There are legitimate concerns in the community here.

Tim Walters.

MR. WALTERS: Thank you. I think first of all, I would like to make sure that we understand the problem and the basic science that is involved here.

I am primarily concerned here with the make of the carbon dioxide, that results from the

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Comment No. 7 (cont.) **Issue Code: 21**

7/21 (cont.)

been provided during the scoping period from April 14 through May 21, 2000, and the public comment period from November 16, 2001, through January 25, 2002. All comments received during the public comment period have been considered during preparation of the Final EIS and addressed in this comment response document.

Comment No. 8 **Issue Code: 07**

4/06 (cont.)

8/07

6/10 (cont.)

All raw materials and wastes would be stored and handled in enclosed areas that would be isolated from local soil, water, and rainfall. Therefore, no impacts to local water quality would be expected from operation of the plant. Wastewater discharges would be required to meet all pollutant limitations specified in the KDPES permit.

Comment No. 9 **Issue Code: 06**

As noted in the EIS, the proposed project would produce about 1.45 million metric tons (1.6 million tons) of greenhouse gas emissions per year (mostly carbon dioxide). This would be about 25 percent less than the amount produced by a comparable natural gas fueled power plant. Greenhouse gas emissions from an equivalent coal fired power plant would be more than twice as high.

9/06

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burning of coal.

I think the answer to the gentleman that just spoke here, the garbage is going to get burned out here is going to come from New York and New Jersey. So Clark County is going take care of the garbage from New York and New Jersey, but that is another problem.

The problem that is presented here, and the way I see it, is that coal is almost pure carbon. And the problem is that when coal is attempted to convert to energy, it is not an efficient process.

You cannot convert 100 percent of a pound of coal to heat. Therefore, what you are going to have left over is a mixture of carbon and oxygen, which is carbon dioxide.

It is estimated that when you burn a pound of coal, you are only going to convert about one-third of that pound of coal to energy.

The two-thirds of that pound, is going to go up into the atmosphere in the form of carbon dioxide.

Now, to my knowledge, I don't think there is a any method, scientific method, that you

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9/06 (cont.)

10/16

9/06 (cont.)

9/06 (cont.)

Comment No. 10 **Issue Code: 16**

Comment noted. The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant.

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can use, to try to convert coal to energy without a substantial amount of carbon dioxide resulting in it.

So, what is the mischief here? The problem is that the carbon dioxide goes into the atmosphere, it is lighter than the rest of the gasses in the atmosphere, so the carbon dioxide then goes up into the stratosphere. There it traps heat.

Now the earth has a beautiful system of making it an equilibrium, with respect to the heat that has escaped from outerspace and then the heat that stays. But the problem is that the abundance of carbon dioxide that is produced by humans each year, which is seven billion -- seven billion, now -- tons of carbon dioxide is put up into the atmosphere as a result of human activity during the year.

Four billion tons of those are consumed by the oceans and forests. Three billion tons remain in the atmosphere.

So you can see easily what is happening here. The equilibrium between the heat that is escaping and the heat that is staying is out of kilter.

In the last century, the parts per million of carbon dioxide that has been added to the

9/06
(cont.)

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atmosphere is almost 100.

The United States, although we have four percent of the population, we put into the atmosphere 21 percent of the total carbon dioxide.

So what is going to happen here? The earth is going to keep heating up, and what does this have to do with us with Trapp? What does it have to do with anybody?

Eventually, what is going to happen is that we are going to have a greenhouse effect and you are going to start melting icebergs up in the North Pole, and you can forget about every city down the east coast and down the west coast, they are going to be inundated with water when you raise the temperature of the earth.

And I notice here, and I was flabbergasted when I read this to indicate that apparently the legislatures, or the government, had deleted the effect of carbon dioxide from consideration of this power plant out here. That is the way I read this. I hope that is not correct.

Because of all the three dangerous gasses here, sulfur dioxide, nitric oxide and carbon dioxide, carbon dioxide is much worse. The other two

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9/06 (cont.)

11/11

Comment No. 11 **Issue Code: 11**

Dispersion modeling conducted for the PSD/Title V Permit application covered an area of about 12 kilometers (7.5 miles) from the project site, including the area of maximum impact. The maximum air pollutant increments associated with emissions from the proposed project indicate that no significant short-term or long-term air quality impacts would occur. Locations 24 to 40 kilometers (15 to 25 miles) away would be exposed to lower pollutant increments than the area covered by the dispersion modeling analysis. The emissions of SO_2 and NO_x from the proposed facility would be less than 1 percent of the applicable federal and state ambient air quality standards. This negligible incremental increase in No_x and SO_2 emissions is not expected to contribute to respiratory illnesses.

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are bad because they contribute to respiratory illnesses in people.

But there has been a study that was conducted by the Oakridge National Laboratory down in Oakridge, that estimates that for every 500 watts of electricity that is produced by the power plant through the conversion of coal to energies, one pound of carbon dioxide is produced.

So when you convert that to the potential of this plant out here, which is 540 megawatts, which is 540 million tons per year that this power plant is going to produce. Simple math is going to tell you that this power plant is going to produce into the atmosphere 1,080,000 of carbon dioxide up into the atmosphere.

Somewhere around 3,400 pounds of nitric oxide is going to be produced and somewhere around 1,620 pounds of sulfur dioxide is going to be produced.

So, I guess I have problems with number one, taking care of New York and New Jersey's garbage down here. And then turning a blind eye to what this plant is going to do to our earth that we all have to live on and have to share, for the sake of some jobs

23

11/11 (cont.)

9/06 (cont.)

11/11 (cont.)

10/16 (cont.)

11/11 (cont.)

12/02

Comment No. 12 **Issue Code: 02**

Comment noted. The EIS is designed to present all of the possible environmental impacts of the various alternatives relating to the proposed federal action, both beneficial and detrimental. The economic benefits associated with the project are not intended as justification for the environmental costs of the project; however, they are presented as one of many resource areas impacted by the project.

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that they say is going to result permanently out here, I am not quite sure.

I know jobs are important, but I guess my point is this: When you counterbalance the grave potential for harm that can be done to the earth against the temporary benefits of some jobs, I think it is obvious as to what the conclusion should be.

Now, I know I am taking some time here, but I wanted to suggest -- I want to talk about something else before I sit down.

This is supposed to be an environmental impact. Probably about a third of you do not live in Trapp here, you drove out on Highway 89. Did you see that ridiculous mess that you drove on?

That is the worst road in Clark County. The worst road. What happened was, back when they first built this power plant out here, the first time they built it, whoever it was, called down at Frankfurt and got them to reclassify the road so that heavier trucks could travel the road and bring that heavy equipment out here, in heavier loads than the infrastructure of the road was capable of holding. So the road tore up.

Then they, what? Built it back. That

24

12/02 (cont.)

13/10

Comment No. 13 **Issue Code: 10**

Comment noted. The trucks would haul a maximum of 18 metric tons (20 tons) of cargo each, which would place the overall weight below the Kentucky-mandated maximum weight for Kentucky Highway 89 of 36,288 kilograms (80,000 pounds) for a five-axle vehicle. The Kentucky Transportation Cabinet indicated any vehicle below that weight traveling along that road would not be expected to cause damage to the roadway. Should damage occur from vehicles carrying more than the maximum weight allowance, the operator of the trucks, in this case KPE, would be responsible for any repairs to the road surface. Section 5.11 of the EIS, Traffic and Transportation, has been modified to address the concerns of damage to the local roads.

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is a loose term for reconstructing a road. The construction company that built it went bankrupt. But at any rate, you can see what kind of road they built.

Last winter, they started bringing some more things out here at the power plant, and they absolutely in front our own eyes, crumbled that road.

That road has a classification that cannot, under any circumstances, contain and maintain the heavy trucks that are bringing in the equipment and material over.

So, who is going to build the roads? I wish the government would contemplate what is going to happen to the road and who is going to build it?

Somewhere around $250 damage is done to the average car per year from roads, the average road in the country. This road here, you can multiply it. You could multiply it and you are going to get at least $500 damage to your car.

Plus, it doesn't make any difference to these people that get to leave after they build it, when they go back to Cincinnati, or wherever. But the people that live out here at Trapp and have to

13/10 (cont.)

13/10 (cont.)

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drive this road everyday, your car is going to suffer damage.

But at any rate, I think we all know the history of it, and I am not downing east Kentucky, they are good people out there. And I know them, and they are well-meaning people, and I don't mean this to be personal.

But honest to God, that first attempt of the power plant out here was an absolute disaster. Even up here when they borrowed $1 billion from the government for a project that was not even feasible, and they quit it.

So, I think you should make sure, number one, that the economy of this country requires this to be built.

Number two, we should rethink our priorities. When it comes to supplying energy and the permanent damage that we do to our country and our earth.

So having said that, thank you very much and I appreciate your patience.

MR. SPEARS: Thank you, Mr. Walters, for your comments.

I note on the sign-up sheet,

26

13/10 (cont.)

14/14

15/22

Comment No. 14 **Issue Code: 14**

The Kentucky Pioneer IGCC Demonstration Project is a CCT Program selected by DOE to demonstrate the efficiency and environmental performance of new technologies utilizing coal resources. The current state of the Nation's economy and alternative uses of the Nation's funds are beyond the scope of the Kentucky Pioneer IGCC Demonstration Project EIS.

Comment No. 15 **Issue Code: 22**

Comment noted.

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Mr. Walters, that you were down for personally and for an organization; is that correct?

MR. WALTERS: Excuse me? I probably put down self. I just represent myself.

MR. SPEARS: Okay.

MR. HERRICK: I am going to present on behalf of Kentucky Resource Council first.

This is actually from Tom Fitzgerald of the Kentucky Resources Council and I will hand this to you in writing.

I am going to read this verbatim, and then I will talk for a minute after that.

Before The Department of Energy National Energy Technology Laboratory.

Comments Concerning DEIS for Proposed Kentucky Pioneer Energy Integrated Gasification Combined Cycle Demonstration Project.

Dear Mr. Spears: These preliminary comments are submitted regarding the proposed Kentucky Pioneer Energy IGCC Project Draft Environmental Impact Statement and will be supplemented with extensive written comments concerning the project prior to the close of

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the comment period.

As a preliminary matter, however, the Council was asked to address the relationship of the proposed project and the utilization of a shredded, milled and palletized municipal solid waste fuel, to Kentucky's solid waste disposal statute and the requirement of maintaining consistency with local solid waste plans.

After a review of the position paper submitted by Global Energy to the state Division for Waste Management, and after review of the applicable statute and case law, I believe that the facility is subject to the solid waste regulations and is required to obtain a determination of consistency from the solid waste management governing body of Clark County before importing and disposing of the solid waste fuel.

By letter dated October 9, 2000, Global Energy Inc., Suite 2000, 312 Walnut Street, Cincinnati, Ohio 45202, through its manager of Regulatory Affairs, Dwight Lockwood, requested a determination from the Kentucky Division of

16/21

Comment No. 16 **Issue Code: 21**

KPE is not attempting to circumvent KRS 224, or any other state or local laws. KPE has appealed to the state for an interpretation of the language of applicable solid waste laws regarding RDF. The Kentucky Natural Resources and Environmental Protection Cabinet has determined that the RDF is a recovered material and not waste. The Kentucky Pioneer IGCC Demonstration Project facility will be considered a recovered material processing facility and the gasification process will not require a waste permit as long as the RDF conforms to the statuary definition. A discussion of this issue has been added to Chapters 1 and 6 of the EIS.

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Waste Management as to the applicability of KRS 224.40 to the proposed integrated gasification combined cycle (IGCC) power plant project in Clark County.

The request letter from Global Energy (Hereafter Global) asserted that the proposed project was exempt from waste regulations. The 2-paged letter contained an attached Analysis of the Non-Applicability of KRS 224.40 to the Kentucky Pioneer Project.

16/21 (cont.)

The determination of applicability of the waste regulations rests in the first instance with the Natural Resources and Environmental Protection Cabinet, subject to review by the courts.

KRS Chapter 224 is a statute that is remedial in nature and its protections are to be broadly construed consistent with the public and environmental protection goals of the statute. Exemptions from its reach are to be narrowly construed.

The question of whether the proposed coal and waste-fueled facility is subject to the requirements of KRS Chapter 224, as a

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waste management and waste disposal facility, is of significance to the residents of Trapp and of Clark County, since if exempted from the ambit of the term municipal solid waste facility, the planned importation of processed municipal solid waste from northeastern states representing the equivalent of roughly half of the residential waste generated in the entire Commonwealth of Kentucky, will not be subject to its scrutiny and a determination by the local governing body of Clark County, for the consistency with that county's approved solid waste plan. 16/21 (cont.)

When enacted in 1991, Senate Bill 2 substantially revised state and local solid waste management, requiring of local communities that they plan for the proper management of solid waste generated within their borders and promising, in return, that the local governing body responsible for solid waste planning would have the ability to control the manner and extent to which waste generated outside of the boundary of the planning unit would be managed and disposed of

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within the planning area.

The proposal to thermally treat and to combust the volatile fraction of one million tons or more per year of treated municipal solid waste falls squarely within the type of facility intended by the General Assembly to be scrutinized under the solid waste planning process.

KRS 224.40-315 mandates that:

No permit to construct or expand a municipal solid waste disposal facility shall be accepted for processing by the Cabinet unless the application contains a determination from the governing body of the solid waste management area in which the facility is or will be located concerning the consistency of the application within the area of the solid waste management plan.

The scope of this statute and the requirement for a determination of consistency with the approved solid waste plan, is defined by the term municipal solid waste disposal facility, which is defined in KRS 224.01-010 (15) to include:

16/21 (cont.)

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Any type of waste site or facility where the final deposition of any amount of municipal solid waste occurs, whether or not mixed with, or including, other waste allowed under subtitle D of the Federal Resource Conservation and Recovery Act of 1976, as amended, and includes, but is not limited to, incinerators and waste-to-energy facilities that burn municipal solid waste.

The term is broadly inclusive of all types of waste sites, or facilities, where the final deposition of any amount of municipal solid waste occurs.

16/21 (cont.)

There can be no serious argument that the feed material to be combined with the coal is a solid waste, which is to say, that the material is garbage, refuse, sludge and other discarded material.

The waste that is to be processed, according to the applicant, at the facility in a state other than Kentucky, where it will be manufactured from municipal solid waste by removing large objects and white goods, as well as glass and metal.

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The remaining material, including chlorinated plastics, will be milled and shredded. These pellets are municipal solid waste processed as an intermediate step to the thermal treatment of the waste to produce a gas for combustion.

The proposed facility is utilizing a fuel stream comprised of partially separated and shredded and shaped municipal solid waste used as a fuel source. Disposing of the waste through thermal treatment at high temperature to drive off the volatile fraction for combustion.

As such, it is engaged in disposal of a municipal solid waste stream and falls within the ambit of a municipal solid waste disposal facility the siting and operation of which should be reviewed from consistency with local solid waste plans.

The applicant claims exemption for the waste fuel from the waste programs as a recovered material, yet the clearly better reading of the statute, and the intent to carefully regulate the disposal of solid waste

16/21 (cont.)

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by thermal treatment, as well as other means, militates against the exemption of the material from regulation as a solid waste.

The material is not a refuse-derived fuel, notwithstanding the claim by the applicant to the contrary, since the applicant has indicated that it intends to retain the recoverable plastics in the waste (likely for the Btu value), and thus is outside of the ambit of recovered material, since that definition specifically excludes materials diverted or removed for purposes of energy recovery or combustion from being considered recovered material.

16/21 (cont.)

Assuming, for the sake of argument, that the waste were further processed over what is proposed, in order to meet the state definition of refuse derived fuel by removing all recoverable plastics and other recoverable material, such as mixed paper, corrugated paper and newsprint, the definition of recovered material still would not apply to exempt the entire waste stream from regulation since only 15 percent of the material

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processed by the facility creating the pellets could be credited as RDF.

While the acceptance by the applicant of regulation under EPA's Municipal Solid Waste Combustor standards makes it difficult to accept at face value the assertion of non-applicability of state waste designation, commenter concurs that the state law itself determines how this facility is to be characterized for purposes of state regulation.

16/21 (cont.)

Because the material is not a refuse derived fuel under KRS 224.01-010 (23) in that it has not been subject to extensive separation of municipal solid waste including the extraction of recoverable materials for recycling, the processing of the municipal solid waste stream to create the palletized fuel does not make the material a recovered material under KRS 224.01-010 (20).

The proposed gasification step in the process and the cleaning of the volatile fraction of the waste for combustion, does not make the facility a recovered material

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processing facility, so as to exempt it from the definition of a municipal solid waste disposal facility, or to avoid the obligation to be consistent with the local solid waste plan.

Beyond the specific failure of the application to meet the criteria for an exempt recovered material processing facility, because the waste feed will retain recoverable materials, including all plastics and paper, the context in which municipal solid waste disposal facilities are regulated under KRS Chapter 224 makes clear that the attempt to shoehorn this substantial waste-fueled energy facility into the category of a recovered materials processing facility is an ill-fit from a public policy standpoint.

16/21 (cont.)

KRS 224.01-010, which contains many of the definitions for this chapter, is prefaced with the caveat, a, used in this chapter unless the context clearly indicates otherwise.

The statutory provision requiring a determination of local consistency for

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disposal facilities was plainly intended to cover thermal treatment of municipal solid wastes with and without energy recovery, and to segment the facility into the component processes in order to exclude from the application of KRS 224.40-315, a facility which uses a sequential process of thermal treatment followed by combustion of volatile gases, and which presents many similar concerns in management of air, water and solid waste biproducts from a heterogeneous fuel source such as municipal solid waste (even if homogenous in shape), is contrary to the intent of the statute and the public policy behind it. 16/21 (cont.)

In sum, the palletized mixed municipal solid waste does not fall within the ambit of the state statutory definition of refuse derived fuel and is this not a recovered material. By definition, the facility is a municipal solid waste disposal facility under KRS 224.40-315(1), KRS 224.40-310 and KRS 224.01-010(15).

Commenter suggests that DOE undertake

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these actions in order to assure full compliance with applicable state laws prior to engaging in funding support for this project:

One, request and await final determination by the Natural Resources and Environmental Protection Cabinet as to the applicability of the waste statutes to the proposed facility;

Two, assuming the applicability of the statutes, defer the funding decision until the applicant demonstrates the viability of the project by obtaining a determination of consistency from the governing body of the solid waste management area covering Clark County of the proposed importation and utilization of the solid waste material for the facility; and

Three, extending to the Governing Body of that solid waste management area the opportunity to participate in the EIS review process as a cooperating agency.

That is the sum of Mr. Fitzgerald's comments.

Shall I move into my five minutes?

16/21 (cont.)

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MR. SPEARS: Sure.

MR. HERRICK: Thank you, sir.

Okay. I am Will Herrick. I live in Lee County. I am about 35 miles upwind from you.

I guess the first thing I would like to point out, you have presented, last night and tonight that you have three options for what EPA can do; nothing, slightly nothing, and passive.

And you said in your second issue that you believe that this facility would be built with or without EPA approval or the island production.

I am going to quote you from the DOE document, Notice of Intent Environmental Impact Statement for the Kentucky Pioneer Gasification Combined Cycle Demonstration Plant in Kentucky and Notice of Involvement, U.S. Department of Energy. Let me see, "In absence of DOE funding, the Kentucky Pioneer, IGCC Demonstration Plant, will probably not be constructed."

Okay. So that completely contradicts the second proposal that something would be constructed. In fact, the DOE should look at these two documents together.

DOE does not think the value of

17/18

18/14

Comment No. 17 **Issue Code: 18**
After the issuance of the NOI and during the scoping process, a third alternative, in addition to the No Action Alternative 1 and the Proposed Action, was identified. The alternative was determined to be a reasonably foreseeable future action.

Comment No. 18 **Issue Code: 14**
Because of DOE's limited role of providing cost-shared funding for the proposed Kentucky Pioneer IGCC Demonstration Project, alternative sites were not considered. KPE selected the existing J.K. Smith Site because the costs would be much higher and the environmental impacts would likely be greater if an undisturbed area was chosen.

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alternative sites for the proposed plan. Site selection was governed primarily by benefit that Eastern Kentucky Power Co-op could realize.

The Eastern Kentucky Power Co-op serviced the proposed site because the cost would be much higher and the environmental impacts would be great from an undisturbed area.

So, DOE has said that they haven't actually looked around for a better site.

Okay, I am holding in my hand the Clark County Solid Waste Ordinance.

This document is filed at the State of Kentucky at the Department of Natural Resources Environmental Protection.

Section 6 permit: No person shall engage in the business of collection and transportation or processing solid waste within the county, without a permit secured from the director. And I believe that probably means the solid waste director.

No such permit shall be issued until or unless the applicant -- therefore, unless the applicant -- therefore, in addition to all the requirements set forth, shall file and maintain with

18/14 (cont.)

19/21

Comment No. 19 **Issue Code: 21**
Comment noted.

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the director evidence of a satisfactory liability insurance policy, which goes on to talk about how much that is.

Section 6.1. Permit Issuance:

If the application shows that the applicant will collect, transport and process solid waste, without hazard to public health or damage to the environment, and in conformancy with the laws of the State of Kentucky and this ordinance, the director may issue a permit authorized by the ordinance.

19/21 (cont.)

The director shall have the authority to limit the number of permits issued to preserve the health, comfort, safety and welfare of the residents to promote energy conservation, and to provide information on good management practices.

That is what you guys have in Clark County as your local law. The dialogue I read you from Kentucky Resource Council basically speaks to you as to why this law is germane.

You have here, the obligation for your fiscal court and your magistrate to permit, or not permit, the 5,000 tons of New York garbage a day. That is a very difficult decision for the fiscal

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court, given the circumstances.

I would like to just tell you some stories about other counties.

In about 1988, Owsley County, sought to start a very large landfill. That was a struggle that nearly changed government, and it went away.

In 1990, the County of Wolfe, signed off for a facility very much like this one, a waste to energy site from a West Virginia company.

2,000 people met in the streets on that one, and the county backed away very quickly and it went away in about a month.

In Magoffin County, it took about four years, and a change in government, as I recall, to eliminate the Florida-based mega landfill.

Lee County recently had an issue with a gasoline dump, it went away.

Estill County has had political troubles over their landfill.

I believe that it is an accurate statement that no county government has survived importing large quantities of waste.

And I would ask Global Energy to stand behind their samaritan belief that they are here to

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20/22

Comment No. 20 **Issue Code: 22**

Comment noted. The EIS is intended to analyze public and environmental impacts. DOE will consider the impacts and all public comments before issuing the ROD.

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help, and invite them to walk away from the solid waste component of this plant, in the spirit of not causing the kind of conflict that will come about the local government there.

To the EPA, I would like to make the point that the vitrified frit is easily contaminated metal that changes its leeching characteristics.

You get very much copper in that, and you will find, according to the literature that I read, that it very much changes its ability to leech.

Manifestly, there is a significant solid waste stream that is going to have an exotic array of metals, many of which, you don't want to leech out; led, cadmium, linium.

And what I have found is that there is plenty of data on the quality of frit and its long-term behavior in a landfill or in a roadbed, or anywhere else.

So I would very much ask you to seriously review the heterogenous nature of this thing called solid waste, and the impact on this off product. I believe it may be qualified as hazardous waste.

In the event that it is a hazardous

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20/22 (cont.)

21/12

Comment No. 21 **Issue Code: 12**

Vitrified frit from gasifiers operating on other feedstocks rarely fails TCLP for metals and is found to be nonhazardous. The frit generated by this facility is also expected to meet all TCLP criteria. The constituents of the molten slag from the gasification process are immobilized in a glassy matrix which is nonleachable by EPA standards. The Proposed Action does not include construction of a landfill. Solid waste generated from the proposed project would be disposed of at a licensed disposal facility in state. Hazardous waste would be disposed of at an out-of-state permitted disposal facility since there are no hazardous waste disposal facilities in the State of Kentucky.

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waste, that brings to this reason the likelihood of a hazardous waste landfill.

These guys are looking at producing-- the air quality permits allows them 500 tons a day of frit.

Once you open a landfill, basically its -- all bets are off. Anybody who can get their name on the permit of that landfill can dump in that landfill.

So, there is a strong likelihood that by permitting this plant, you, or an adjacent county, in fact, will end up with becoming the victim of a landfill that they don't want. That can take pretty much anything ugly that people want to get rid of.

Hazardous landfills are a real burden to close. Many of those federally super-sized sites are hazardous landfills and they can be a real expensive proposition.

The air quality permit describes that the start up and shut down of this facility can only be out of compliance for a period of two hours.

That seems very difficult to reconcile with the physics as far as starting up and cooling down facilities like this. So, I have a very strong

21/12 (cont.)

22/06

Comment No. 22 **Issue Code: 06**

The Kentucky Division for Air Quality has primary regulatory jurisdiction over air quality issues during all aspects for facility operations. Existing regulations allow emissions to exceed the normal operating limits for no more than 2 hours during facility startup, shutdown, or equipment malfunction periods. Emissions of the major criteria pollutants will be tracked by continuous emission monitoring equipment.

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question about who is, in fact, going to be governing the emissions during those two hours, and particularly beyond the two hours that the State of Kentucky says that is all we are going to call start up and shut down.

I was told that Global Energy had spoken to the director of the Big Smokey National Park, I believe that is what I was told. And that begs the question why the federal parks in the State of Kentucky, for which the Daniel Boone and the Wild and Scenic Red, have not been equally considered in the impact of what is coming out of the atmosphere.

The Wild and Scenic Red, in particular, is a textbook protected zone that, I, for one, would very much like to see not be impacted by heavy metals or acid rain.

In regard to Mr. Walters comments about Co2, I have to say that I am equally concerned with the concentrations of metals.

The total tonnage of mercury and led and cadmium, being offered in the import of municipal solid waste over the many years that this looks like it may happen is an extraordinary burden.

Heavy metals affect our central nervous

22/06 (cont.)

23/06

24/11

Comment No. 23 **Issue Code: 06**

Dispersion modeling conducted for the PSD/Title V Permit application covered an area of about 12 kilometers (7.5 miles) from the project site, including the area of maximum impact. The maximum air pollutant increments associated with emissions from the proposed project indicated that no significant air quality impacts would occur on either a short-term or long-term basis. Locations existing 24 to 40 kilometers (15 to 25 miles) away (Wild and Scenic Red River area) would be exposed to lower pollutant increments than the area covered by the dispersion modeling analysis. Total heavy metal deposition in areas downwind of the project would be much less than 1.1 kilogram per hectare (1 pound per acre) accumulated over 20 years. Acid deposition impacts downwind of the project would be too small to produce any measurable change in existing acid deposition conditions. Additional discussion of metal deposition and acid deposition issues has been added to Section 5.7.4 for the Final EIS.

Comment No. 24 **Issue Code: 11**

The gasification process would produce a small amount of wastewater containing primarily dissolved salts. Heavy metals and mercury would be emitted only from the power island component (CTs) of the Kentucky Pioneer IGCC Demonstration Project. Total heavy metal deposition in areas downwind of the project would be much less than 1.1 kilogram per hectare (1 pound per acre) accumulated over 20 years and present little risk to human health and the environment. Incremental ambient air quality impacts would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent for gaseous pollutants such as nitrogen dioxide, sulfur dioxide, and carbon monoxide and less than 4 percent of the federal 24-hour PM_{10} standards). Therefore, the overall increase in air emissions due to operation of the plant would be very low and present little risk to human health and the environment.

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system, mad hatter disease, mercury is bad news.

They typically bioaccumulate, plants take them up and concentrate them. They do not degrade over time.

My family and I own about a square mile and a half of land, 35 miles upwind from here. I am confident over the course of the proposed 20 years that East Kentucky Power Plant is talking about running this plant, or longer, that my burden from heavy metal from you, from this site, is measured in pounds.

If somebody came to my property and poured a pound of mercury on it, we would have the police in there right now, and it would be a crime.

You need to persuade me somehow that it is not a crime if you do it in a timespan over the course of 20 years.

That is the extent of my comments and I thank you for your time.

MR. SPEARS: Thank you.

Julie Maruskin.

MS. MARUSKIN: I do not have much to say except that I work at the Clark County Public Library and this came as a surprise to those of us who work

24/11 (cont.)

25/06

Comment No. 24 (cont.) **Issue Code: 11**

Furthermore, the air quality permit for the project requires continuous emission monitoring for major criteria pollutants and annual emissions testing for cadmium, lead, mercury, hydrogen chloride, and dioxins/furans. Noncompliance with permitted emission levels would result in a plant shutdown.

Comment No. 25 **Issue Code: 06**

No direct modeling of particulate matter deposition was conducted for the air quality permit application. However, Table 5.7-2 in the EIS indicates that annual emissions of heavy metals would be only 0.53 kilograms per hour (1.18 pounds per hour) (4.68 metric tons [5.16 tons] per year). There are 325,370 hectares (804,000 acres) within 32 kilometers (20 miles) of the project site, and 1.0 million hectares (2.5 million acres) within 56 kilometers (35 miles) of the site. Even if the wind blew toward a single compass sector continuously for 20 years and all of the emitted particulate matter was deposited within 56 kilometers (35 miles) of the plant, heavy metal deposition would average a total of 0.75 kilograms per hectare (0.67 pounds per acre), or 756.6 grams per hectare (10.7 ounces per acre) over the 20-year period. Using this conservative high-end bounding estimate, the total amount of heavy metal disposition for the 3.9-square kilometer (1.5-square mile) tract of land would be 291.4 kilograms (643.2 pounds) over the 20-year operation period. The actual quantity would be far lower; however, because the winds would vary, thus dispersing the heavy metals over a greater area than one compass sector, and the tract of land is upwind from the facility. All emissions from the facility would be within established federal and state statutory limits.

Additional discussion of metal deposition issues has been added to Section 5.7.4 for the Final EIS.

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at the library.

And since we are in the business of disseminating information, we wanted to come here and get as much information as we possibly could.

We thought that we would have a lot of concerned citizens who wanted more, especially, hopefully, if we will get the document.

That would be nice.

And hopefully by tomorrow everyone will be able to check out the documents that we take back, take them home, have a look at them, read them in the library.

This is of a special concern to me because I am a Kentuckian. Tonight, I was driving back from Lexington, I heard Kentucky referred to as a third-world country.

One of the things that happens in a third-world country, is that other countries who have more power, more money, send their garbage to third-world countries that they are not living in.

I don't think Kentucky is a third-world country, but I think other people have that concept of us.

I would rather not have other people's

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Comment No. 26 **Issue Code: 21**

One copy each of the Draft EIS was sent to Trapp Elementary School, Clark County Public Library (the designated project reading rooms) and Lexington Public Library while the general distribution was made on November 7, 2001. Additional copies were sent to the Clark County Public Library following public comments at the Trapp public hearing. The comment period was extended through January 25, 2002. All requirements in state and federal laws, rules, and regulations regarding distribution were satisfied.

26/21

Comment No. 27 **Issue Code: 16**

Comment noted. The concrete-floored storage building for the RDF pellets will be located within the 4.8-hectare (12-acre) project site and would be capable of housing a 10-day supply of coal and RDF pellets. The 4.8-hectare (12-acre) project site is located within the larger 1,263-hectare (3,120-acre) J.K. Smith Site and is approximately 1.6 kilometers (1.0 mile) from the closest residence.

27/16

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garbage in my backyard.

So that is one thing that I hope comes of this tonight. I live on Iron Works Road. I am very proud of our community and I don't want any more problems than we have now environmentally.

I thank you for your time. And thank you for having the meeting. And I hope more people come into the library to get more information about this before January the 4th.

I appreciate your time.

Thank you.

MR. SPEARS: Thank you very much for your comments. Rest assured that we will have those copies for you shortly after the meeting here.

John Maruskin.

MR. MARUSKIN: I am John Maruskin and I am the adult services librarian at the Clark County Public Library.

When you listen tonight to the people from Global and Eastern Kentucky Power, stop and think if you hear the word combustion.

What is happening here is that we are sort of being deceived, and the state is being deceived, into believing that this is going to be a

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27/16 (cont.)

Comment No. 28 **Issue Code: 16**

Chapter 3 of the EIS explains the BGL gasification process. The RDF pellet and coal co-feed are heated in a carefully controlled, low oxygen environment, which causes a chemical conversion process that results in the chemical element for formation of the syngas.

28/16

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non-combustion plant.

But as Tim Walters was telling a little bit earlier here, there is no way that you can fire coal into a gas and not have combustion.

It if it is not a combustion plant, then the people who want to import the sewage from New York and New Jersey can do that without permit.

Once that becomes a solid waste that is going to be combusted, then they need the permit.

As Will Herrick pointed out, and I want to emphasize is that we can stop this plant from being built if we decide as a community that we do not want these permits issued to bring the solid waste in. And that can be done, as Will pointed out, through our local sanitization plan, our local solid waste plan.

One of the things that we can do in this room, or to make sure that that does not happen is to contact our local magistrate.

It is very easy to get the number for the local magistrate, it is 745-0200.

Call the office and ask them and they will send you a list, just like they sent me, with all their names, addresses and telephone numbers.

28/16 (cont.)

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And I think it really behooves us to start an action now to make sure that our local officials know that we do not want solid waste brought in here.

One of the things that always amazes me when I walk around here and people walk up and say to me, You are not from around here, are you? And I am not, I have only lived here for 25 years.

And one of the reasons that I moved here is because where I come from in western Pennsylvania, the landscape had already been destroyed by power plants, and by factories, and by chemical plants, and by the importation of waste. 29/22

And when he was talking about the environmental impact of a large smoke stack, it is dreadful. There is particulate matter going through the air all the time and you do not know what it is. 30/06

I grew up in an area where we had carbon dioxide, coal products falling on us continuously. I mean, the houses were always gray with dirt and with the kind of particulate matter that used to fall. 29/22 (cont.)

Of course, the plant that they are going to be building, they would tell you that it is going

Comment No. 29 **Issue Code: 22**
Comment noted.

Comment No. 30 **Issue Code: 06**
Although a full chemical characterization of PM_{10} associated with any fossil fuel combustion process is not possible, most of the hazardous air pollutants listed in Table 5.7-2 of the EIS would be found in the PM_{10} emissions from the proposed project. Maximum impacts from the proposed project on PM_{10} concentrations would be less than 4 percent of the federal 24-hour PM_{10} standard and less than 1.5 percent of the federal annual average PM_{10} standard. Table 5.7-4 of the EIS identifies estimated maximum downwind concentrations of hazardous pollutants expected to be emitted by the proposed facility and the associated maximum lifetime cancer risks. The air quality permit for the project requires continuous emission monitoring for major criteria pollutants and annual emissions testing for cadmium, lead, mercury, hydrogen chloride, and dioxins/furans.

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to be a lot cleaner. Okay? In fact, it is known as one of the most economical and one of the most efficient power plants that there are.

The studies by the RAN Corporation suggests that probabilistic studies have not been done enough on what will happen as far as building these plants are concerned.

What the cost overrides will be, and what the environmental effects will be. There has never been a plant in operation for people to know what the real long-term effects of this are.

It can always be feasible to do this if we have like a two-year plan, where we say, is this going to work or not, and then get rid of it.

But after listening to Tim, that seems to be unfeasible, too. If they are going to destroy the roads, and destroy the environment around our community, there is no sense in letting it get started in the first place to even test it.

So what I suggest doing is that if you feel strongly about this, is get in touch with our local magistrate, and tell them that we do not want permits given to people who are going to import the waste.

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31/16

32/10

33/11

Comment No. 31 **Issue Code: 16**
Comment noted. The Kentucky Pioneer IGCC Demonstration Project was selected for further consideration under DOE's fifth solicitation (CCT-V) of the CCT Program. DOE concludes that the project falls under CCT Program requirements due to use of the co-fed BGL technology. The purpose of the CCT Program is to demonstrate the efficiency and performance of new technologies. Plant design is not available or necessary at this point because the project is still in the planning stage. It will not be available until after the ROD is issued. This project would be the first commercial-scale application of the co-fed BGL technology in the United States. Similar technology has also been used at the Schwarze Pumpe facility in Germany and the Westfield facility in the United Kingdom.

Comment No. 32 **Issue Code: 10**
Comment noted. The trucks would haul a maximum of 18 metric tons (20 tons) of cargo each, which would place the overall weight below the Kentucky-mandated maximum weight for Kentucky Highway 89 of 36,288 kilograms (80,000 pounds) for a five-axle vehicle. The Kentucky Transportation Cabinet indicated any vehicle below that weight traveling along that road would not be expected to cause damage to the roadway. Should damage occur from vehicles carrying more than the maximum weight allowance, the operator of the trucks, in this case KPE, would be responsible for any repairs to the road surface. Section 5.11 of the EIS, Traffic and Transportation, has been expanded to address the concerns of damage to the local roads.

Comment No. 33 **Issue Code: 11**
The syngas from the gasification process would be the fuel combusted in the gas turbine generator system. As illustrated in Chapter 5, Table 5.7-3, maximum air quality impacts from the proposed project would be less than 1 percent of the relevant federal air quality standards for gaseous pollutants such as NO_x, SO_2, and CO. Maximum impacts from the proposed project on PM_{10} concentrations would be less than 4

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And, please, don't fall for this idea that somehow this plant is going to be clean and nothing is going to happen. This is what we have heard all of our lives, and it does not work.

And I think as Tim Walters also said, it is time to start thinking of some more really creative ways of generating electricity, and ways that we can improve our environment by conserving, or finding new sources of energy, instead of always going for incredibly expensive, and not really practical solution to energy problems that we don't even have at the moment.

We are ready to be importing solid waste from New York and New Jersey, what is going to happen to this power? Anybody experiencing any power outages when they plug in their Christmas lights? I don't think so.

If you need any information, again, as Julie said, please come to the library and see us and we will be glad to give you all the information that you need. We also take phone calls.

MR. SPEARS: Thank you for your comments there.

Lisa Collins.

Comment No. 33 (cont.) **Issue Code: 11**
percent of the federal 24-hour PM_{10} standard and less than 1.5 percent of the federal annual average PM_{10} standard. Therefore, the proposed project is expected to have minimal impact on public health and safety and the environment.

Comment No. 34 **Issue Code: 22**
Comment noted. The issue of alternate power sources is beyond the scope of the EIS.

34/22

Comment No. 35 **Issue Code: 14**
Chapter 2 of the EIS discusses EKPC's 1998 Power Requirements Study which indicates that the electrical load for the region is expected to increase by 3.0 percent per year through 2017. Net winter peak demand is expected to increase by 3.3 percent per year and net summer peak demand is expected to increase by 3.0 percent per year. Peak demand is expected to increase from 2,031 MW in 1998 to 2,394 MW in 2003 and 3,478 MW in 2015. Based on this load growth, EKPC will need additional power supply resources of 625 MW in 2003. The need is further shown by EKPC's plans to construct four new CT electric generating units to provide peaking service alongside their three existing peaker CTs at the J.K. Smith Site. Power generated by the project will be used to support Kentucky's energy needs.

35/14

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MS. COLLINS. I wasn't sure if I wanted to speak tonight or not because I am a newcomer to your community and I wanted to hear what you as a community had to say about what was happening in Trapp.

But since I have heard you speak, I did want to go ahead and say that I, too, was broadsided by this.

The first I heard about it was Sunday, and I thought surely that the people here had heard about this. But now I am hearing that even your local library did not have this document for you all to read.

I have had an advantage over you, I have had it for 24 hours. And it truly something you need to get and read.

I went back into the Herald Leader archives today because I still could not imagine how that this had just escaped my attention, even though this has been in the works since 1998.

And I found a sum total of five articles in the Herald Leader archives about this project, two of which were commentaries and the other three articles of which they gave very little information

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36/21

36/21
(cont.)

Comment No. 36 **Issue Code: 21**

Copies of the Draft EIS were sent to Trapp Elementary School, Clark County Public Library (the designated project reading rooms) and Lexington Public Library while the general distribution was made on November 7, 2001. All requirements in state and federal laws, rules, and regulations regarding distribution were satisfied.

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about this project.

When I look at this document that has been prepared -- and I have lost my page.

There are a few things in here that I want to bring to your attention and you will be able to read these in more detail when you get this document.

First of all, this plant is an experiment. There is no other plant like this in the United States and this experiment will be happening here in your community.

Second of all, this document indicates that there is a potential for an increase in traffic associated with construction of 500 to 830 vehicle trips per work shift.

If they have two shifts at the plant, you can multiply that by two. If they have three shifts, multiply that by three.

There will be 40 to 60 heavy-duty truck trips per day to the site.

Now, driving out here tonight we came out 89 from Winchester. There was an accident or a breakdown heading in -- down towards Winchester, with four or five vehicles. We were almost in an accident

54

36/21 (cont.)

37/16

38/10

Comment No. 37 **Issue Code: 16**

The EIS is intended to be used as a planning tool that analyzes the environmental impacts from a proposed project. DOE will consider the document and public comments while making the decision of whether or not to proceed with the project in the ROD.

Comment No. 38 **Issue Code: 10**

Comment noted. Impacts to traffic levels along Kentucky Highway 89 are addressed in Section 5.11 of the EIS, Traffic and Transportation. As stated, during construction, 500 to 1,000 vehicle trips would occur along Kentucky Highway 89 at the beginning and end of the construction workday. The exact number would depend on the staffing levels required onsite. Construction schedules typically call for workers to be onsite relatively early in the morning to avoid morning schoolbus traffic, until early afternoon. The Transportation Division of the Clark County School Board indicates that schoolbuses utilize Kentucky Highway 89 during the period when construction workers would be leaving the site. Section 5.11, Traffic and Transportation, has been modified to reflect the impacts of added vehicles on schoolbus usage.

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right there at that site tonight on that road. A lot of the area has bad shoulders or no shoulders.

This road out here is not designed to carry this kind of traffic. And you all have your children getting on and off of school buses along this artery.

Approximately 160 additional vehicle trips per day will be made utilizing Kentucky Highway 89.

Another comment -- and in my 24 hours that I have had this, I have not had time to read all of it, so if I am getting my facts wrong, please forgive me.

But I believe it says in one place that the towers, the cooling towers would stack -- and I am not sure if it is one stack or multiple stacks, I haven't been able to figure that out yet, will be visible either from eight miles away or from 12 miles away, all the way to Winchester you will see these stacks.

One of the things in my brief time period in the community, as land owners near here, and the plant would be, I think, one and a half miles from my door, is the beauty of your area. That is

38/10 (cont.)

39/04

Comment No. 39 **Issue Code: 04**

Comment noted. Impacts to the visual setting of the project area are presented in Section 5.5, Aesthetic and Scenic Resources, of the EIS.

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the thing when we came here that impressed us about this place. You all have a wonderful, wonderful, unspoiled area here.

We bring guests here from all around Kentucky and from out of the state and they are always impressed with the beauty that is here. We can Estill County, we can see Madison County, we can see Clark County from near where we live, and the one thing that everybody says is, Look at this beautiful, unspoiled place you have here.

And when that stack, or stacks, or cooling tower goes in, that is there forever, and that is going to absolutely ruin this area here.

Another thing from this document, Typical industry measures would be implemented to minimize waste generation. Hazardous waste would be disposed of in approved hazardous waste landfills outside of Kentucky.

So not only will this material come here via -- assumeably railroad, according to this -- then it will also leave here again with a double jeopardy, bringing the bad stuff in and taking the bad stuff back out. Not that we want the bad stuff to stay here, but there are dangers associated with

39/04 (cont.)

39/04 (cont.)

40/10

Comment No. 40 **Issue Code: 10**

Comment noted. An Emergency Response Plan, which documents procedures for providing emergency response and cleanup for any project related spills during materials transport, has not yet been developed by KPE. The plan will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations. Section 5.11, Traffic and Transportation, has been modified to present a discussion of the Emergency Response Plan.

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transporting these materials back out.

"Should the vitrified frit be shown to be hazardous -- " should it be shown to be hazardous? In other words, they are not sure.

"It would also be disposed in approved hazardous waste landfill." They don't know all the answers to this project. It is truly an experiment.

The power line that would be generated, according to this document, to Montgomery County from the plant, the 17-mile power line, according to this, the location for that power line has not been determined.

So, after this thing is constructed, three years or three shifts of 1,000 workers on 89, and the construction noise, and the dirt, and when the plant becomes operational, and we are dealing with all these things that all these folks have talked about, Mr. Walters and others, the leeching, and the waste, and we do not know what will be in the air, and we don't know what will be in the water, we don't know what will be in our systems, then they are going to build this line. And I don't know how many of you are in the pathway of that line, as well, because that yet has not been determined.

40/10 (cont.)

41/12

42/16

38/10 (cont.)

43/09

41/12 (cont.)

44/06

45/07

46/11

42/16 (cont.)

Comment No. 41 **Issue Code: 12**
Vitrified frit from gasifiers operating on other feedstocks rarely fails the TCLP for metals and is nonhazardous, exhibiting none of the characteristics of hazardous waste. The frit from this project is expected to meet the TCLP criteria. The constituents of the vitrified frit are immobilized in a glassy matrix resistant to corrosion in the environment. The frit is nonleachable by EPA standards.

Comment No. 42 **Issue Code: 16**
Pursuant to RUS NEPA regulations, a NEPA document would be prepared that would address the impacts from the transmission line. Information in the NEPA document will be used to assure impacts are avoided and solutions integrated to refrain from adverse public and environmental impacts.

Comment No. 43 **Issue Code: 09**
Comment noted. As discussed in Section 5.10.4 of the EIS, construction activities would not have any significant impact on noise levels beyond the boundaries of the J. K. Smith Site.

Comment No. 44 **Issue Code: 06**
The major criteria pollutant emissions and hazardous air pollutant emissions associated with the proposed project are identified in Tables 5.7-1 and 5.7-2 of the EIS. Table 5.7-4 of the EIS identifies estimated maximum downwind concentrations of hazardous pollutants expected to be emitted by the proposed facility and the associated maximum lifetime cancer risks. The air quality permit for the project requires continuous emission monitoring for major criteria pollutants and annual emissions testing for cadmium, lead, mercury, hydrogen chloride, and dioxins/furans.

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So, the unknown extends much further out than the three-year construction phase. As some of you have said, this has long-term ramifications and people said at last night's hearing that I also went to, this has generational impacts for your children and your grandchildren.

Thank you.

MR. SPEARS: Thank you very much, Ms. Collins.

Are there others in attendance that would like to speak?

Yes, ma'am?

MS. BACK: Good evening.

My name is Neelie Back, and I am also from Lee County.

And like John and others, I want to tell you why I don't sound like I am a home girl. I live and a mile and a half from where my dad grew up out the Big Andy in Lee County and he left during the World War II and went off and became a fighter pilot and I was raised everywhere. But I am a home girl.

And I wanted to come down and talk to you all.

My discipline is solid waste, that is

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46/11 (cont.)

Comment No. 45 **Issue Code: 07**

As stated in Section 5.8, Water Resources and Water Quality, of the EIS, treated wastewater is expected to contain conventional pollutants such as nitrogen, phosphorus, total dissolved solids, and biological and chemical oxygen demand.

Comment No. 46 **Issue Code: 11**

The gasification process would produce a small amount of wastewater containing primarily dissolved salts. The CT engines and cooling towers (see Table 5.7.3 of the EIS) produce criteria and hazardous air pollutant emissions. Dispersion modeling conducted for the PSD/Title V Permit application covered an area about 12 kilometers (7.5 miles) from the project site, including the area of maximum air quality impact. Incremental ambient air quality impacts from the proposed project would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent for gaseous pollutants such as nitrogen dioxide, sulfur dioxide, and carbon monoxide and less than 4 percent of the federal 24-hour PM_{10} standard). Total heavy metal deposition in areas downwind of the project would be much less than 1.1 kilogram per hectare (1 pound per acre) accumulated over 20 years. The maximum air pollutant increase associated with emissions from the proposed project would have no significant short- or long-term air quality impacts and the health risks are expected to be minor.

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what I do in Lee County, I am the person who is responsible for the permitting of and the evaluation of and the participation in by my community of developments such as this.

And just like your community, we are really concerned about jobs. And we are concerned having a good way of life and a good quality of life I know that East Kentucky Power has been a very good corporate partner in your community in some areas.

They have done a lot of good things for you, and I applaud them for that.

I believe that I am correct when I say that both Southeast Kentucky Power and myself were recipients at the Governor's Environmental Award for excellence in the field.

So, I at least share that company with them. And I want to tell you this, in Lee County, we have what is called a siting ordinance and that ordinance is very explicit about what we do and what local folks have a chance to say about solid waste.

Earlier, Mr. Herrick alluded to a gasoline farm, they wanted to put a storage place for contaminated soil that came out of all of these gas stations where they have put in new tanks -- you all

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have all seen them -- well, the company that was doing them wanted a place to store this and they wanted to put it in Lee County. And that was my first experience with really being able to exercise local control.

I am telling you, it is important for you all to have that option, and that option is guaranteed to you in Senate Bill 2, it has already been discussed. And I, for one, am a bit alarmed that the State of Kentucky, did not alert the people who were doing this to the fact that solid waste was going to be an issue.

When you have a siting agreement, what it does -- and I will give it to you in a very general sense and you may have a copy of this, I brought it with me, I will leave it with the librarian, you can make a copy of it -- if you don't actually want to suggest that we adopt this ordinance in your area, you might get some good ideas about how to organize how you approached it.

I would like to say for the record that I do have objections the way this meeting was held. I for one, would have listened to the questions, particularly the first gentleman who spoke, who

60

47/21

Comment No. 47 **Issue Code: 21**

NEPA requires that the public have the opportunity to comment on Draft EISs. The formal hearing was designed to obtain input from the public. Each of the public hearings was preceded by an informal open house during which members of the project staff were available to answer questions. All requirements in state and federal laws, rules, and regulations regarding public meetings were satisfied.

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wanted some answers from the people who are going to build this plant, and we are being denied listening to this as a collective whole.

And for me, it is very important when I go to a conference, I want the speaker to talk to me, and I want to be able to turn my next door neighbor, or the person sitting next to me and saying, Did you hear what I heard? And I think we have been denied that by this format.

I am not saying that it was intended, but I think it was done just the same and I would like to register my protest. I would like for them to answer to all of us, so that we have that advantage.

The next thing is that I would very much like for you to supply for us an opportunity to have the names and addresses and e-mails of the people who are here.

We can leave a pad out there and if you want to, you can sign up -- and you folks with the library, you are welcome to take that with you if you want and I will put my name on that.

I want to say one small thing about economic development. I am very interested in

47/21 (cont.)

48/21

Comment No. 48 **Issue Code: 21**

The names and affiliations of individuals and organizations providing comments during the public comment period will be included in the Final EIS, along with the names of all individuals and organizations that have requested a copy of the Final EIS.

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economic development.

I am from Lee County and the difference between the really secure way of life that you all have here in Clark County, we look to you in so many ways as being very innovative and very capable and a head of the game and you are sort of a role model in that way.

And we are struggling to come out of economic devastation that was brought on by the fact that we are, in a large extent, still want us to be an extraction economy, and there are problems with people who come from extraction economies, which has been alluded earlier here, also.

But I think that it is really, really, really important that you all understand Hal Rogers, who is the representative, he does not represent Clark County, but he does represent fifth congressional district. He is chair of ways and means, okay? He is also chair of transportation. Those are two extremely powerful committee positions.

He is pumping in hundreds of millions of dollars into the southeast Kentucky economy to clean it up. And he has just announced from his summerset place his latest initiative called Companies Coming

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in which we intend to entice the tourists of the northeastern corridor, up there in New York, and all up and down that corridor there, to come and visit us in southeast Kentucky and leave their money.

I am telling you, folks, there is more than one way to skin a cat. And one more important thing, when you are a community that has a facility like a landfill, guess what? One of the things that you get to do, usually, is write a host agreement. And in that agreement, you tell the company what you want to make sure that your infrastructure stays in good shape. To make sure that you have monitoring capabilities.

When we were looking at the gasoline farm, we said to the people who were putting it in, we want you to do this kind of testing, and we want you to report that testing to us. We want to have a chance to evaluate our water. So those tools are available to you and I will leave a copy.

I want you to know that you have friends, upwind.

Thank you very much.

MR. SPEARS: I think I saw another hand back here.

49/21

Comment No. 49 **Issue Code: 21**
Comment noted.

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MR. WILLIAMS: My name is Sam Williams. I sound like I am from Clark County and I am.

But during the course of my life, I have traveled as an officer of the Navy, as a mining engineer, as a fuel procurement official for a utility company, and I see a lot fallacies in what is in this draft plan that we have here.

First, I would like to discuss -- they talk about the RDF, they say it is going to come out of New York and New Jersey.

When I was a civil engineer corps officer, stationed at Philadelphia Naval Shipyard in 1981, there was a problem then. Garbage trucks left Philadelphia, going over the bridges into New Jersey, massive landfills.

I mean, landfills probably a tenth the size of Clark County, just stacks and stacks of garbage. They have to get rid of that stuff.

If you recall some of the news back at that time there were garbage barges that they were taking out to sea trying to get rid of it. So that is a problem, but that is their problem, that shouldn't be our problem.

Number two, the coal that is coming into

50/16

50/16 (cont.)

Comment No. 50 **Issue Code: 16**

Comment noted. The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant.

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this plant. From what I read, and from what I understand about the lerky system, it requires high sulfur coal. That high sulfur coal will come from Indiana or Illinois, or west Kentucky. It will not come from our region in eastern Kentucky.

The third thing that came as a surprise to me, they have to have petroleum coke to start this plant up. I don't know if you know what petroleum coke is, but that is a biproduct of the refining process of crude oil.

And petroleum coke is a very strange component of a waste component. It is very dusty, it is very high in sulfur, it is a very hard material to handle.

And the petroleum coke generators have been trying to pawn that off on the utility industry for 20 years that I know of. It is a waste biproduct and we don't need it here in Clark County. It is very dusty and it is very hard to handle.

So the point that I want to make here, this is a transportation nightmare. You are going to have to bring this material from New York, New Jersey, up over the Appalachia mountains or either down the coast and up the Mississippi River. It is

51/16

52/16

52/16 (cont.)

53/10

Comment No. 51 **Issue Code: 16**
KPE intends to use high-sulfur coal as the coal fuel co-feed. Western Kentucky coal is generally considered the high-sulfur coal region; however, Eastern Kentucky may also provide high-sulfur coal supplies. KPE intends to use Kentucky coal to supply the 2,268 metric tons (2,500 tons) per day required for gasifier operation.

Comment No. 52 **Issue Code: 16**
Comment noted.

Comment No. 53 **Issue Code: 10**
Comment noted. As discussed in Section 5.11 of the EIS, Traffic and Transportation, KPE intends to ship all required fuels to the site via rail transport. KPE feels that this is more economically beneficial and that truck transportation of all fuel feeds is not a viable alternative. KPE intends to adhere to the community desire to avoid use of significant truck transport.

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going to be very expensive to get here.
And it is going to have to be transloaded to bring in by railroad car. What are you going to do? What is going to happen? They are going to end up on trucks because you cannot work out -- if you recall, I hope you remember this, a company I was affiliated with, had a power plant down near Danville and they could not negotiate reasonable rates with the railroad, so they ended up bringing all the coal into this power plant for a period of two years by truck.
We were talking about 5- to 700 trucks a day coming in and out to basically generate the same amount of electricity that we are talking about here.
So you are looking at a tremendous amount of impact if that comes to pass.
Let's talk about the coal. It will have to be transloaded, probably originate by barge, transloaded to railcar to bring it in. What is going to happen? It is going to be on trucks. And the petroleum coke, it is originated in barges and it will come in probably by trucks, also.
That is just some observations there.
The one lady mentioned about the frit, and the other

53/10 (cont.)

53/10 (cont.)

54/12

Comment No. 54 **Issue Code: 12**

The vitrified frit produced from the quenching of molten slag from the gasification process utilizing other feedstocks rarely fails the TCLP for metals and is nonhazardous. The frit produced by this facility would result from a coal and RDF co-feed and is expected to meet all TCLP criteria. The frit consists primarily of ash (99.2 percent by weight) composed of oxides of the following elements silicon (SiO_2), aluminum (Al_20_3), titanium (TiO_2), iron (Fe_20_3), calcium (CaO), magnesium (MgO), potassium (K_2O) and sodium (Na_2O). It also consists of chloride, fluoride, antimony, arsenic, beryllium, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, molybdenum, nickel, silver, thallium, vanadium and zinc. All constituents of the frit are immobilized in a glassy matrix which is non-leachable in the environment. Vitrified frit would pass the more stringent Universal Treatment Standards criteria of the EPA-TCLP analytical method. Chapter 3 of the EIS has been revised to include a more detailed description of the frit. The frit is considered a commercial product, not a waste, and is expected to be marketable. Since there are no hazardous waste landfills in Kentucky, any hazardous waste generated onsite would be disposed of at a licensed out-of-state hazardous waste disposal facility.

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biproducts, talks about them being potentially hazardous.

What is going to happen? If it is hazardous, what are they going to do with it? There are no hazardous landfills in the State of Kentucky, we have already heard that. So it is going to have to be stored somewhere. If it is going to be stored, it is going to be a hazardous landfill, it is going to have be generated somewhere in this region.

Also, it talks about ethereal effluent, what is that? They talk about an ethereal effluent, it hasn't been addressed at all, how to treat that, what it is?

So, I think there are too many questions here that remain unanswered. If the tests goes on, it will probably make it work so they can get their $78 million or whatever from the federal government, then us folks in Clark County are going to be sitting here with a gray elephant, or a blue elephant, or whatever color it is painted, and there is somebody going to come in here and try to make it work and they will cut corners, they won't be bringing it in on the railroad, they won't be disposing of the material, they will have to haul the material out and

54/12 (cont.)

55/22

Comment No. 55 **Issue Code: 22**

The EIS is intended to be used as a planning tool. The DOE will use the document and public comments to address concerns and answer questions. DOE will consider all public comments before the ROD is issued. The ROD will be issued no sooner than 30 days after the Final EIS is distributed and a notice of its availability is issued.

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55/22 (cont.)

it just won't work.

That is my thoughts. By the way, I appreciate -- I have one of my former science teachers here and hopefully I haven't bundled up any of the science.

But, as a citizen of Clark County, and like I say, I am 49 years old, moved here when I was five. And Clark County is a great place. And I am tickled to death to see our county judge here and our newly elected state representative. And it is good to see that our leaders are interested in what is going on.

With that, I will let you go.

By the way, I got my book about two weeks ago, so I got a chance to read it.

MR. STICKLING: My name is Jack Stickling. I live in Estill County, about four or five miles downwind of this area. Upstream, I guess you call it, but downwind.

I live on a farm about 130 acres, me and my wife and our two-year-old child.

And when I heard about this -- I have been kind of following this plant for several years, three or four years I have been reading it in the

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paper and certain journals and stuff.

But I realized that it was coming down the line, but my first concern -- well, first, I am in kind of in a quandary.

Because I feel here in this part of the state, obviously, we need the jobs, and plus my environmental background, I applaud the DOE to a certain extent, for looking at alternative energy project like this, and for taking care of some of our solid waste issues and the fact that we need more electricity, and I appreciate that.

The quandary, the other flip side causes are more negative than it is positive. We are concerned about the air quality of being so close downwind.

I haven't had a chance to read the document yet, and I certainly will as soon as I do get a chance, but any time you have incinerators, there are going to be off gas, there are going to be problems. Things don't run the way you want them to run all the time. So there is going to be problems with off gases, that is my first concern.

My second concern is, I think, here in this part of the state, we are also close to the

56/02

57/22

58/06

58/06 (cont.)

59/20

Comment No. 56 **Issue Code: 02**
Comment noted. The unemployment rates for the counties within the socioeconomic ROI are presented in Chapter 4 of the EIS, Table 4.3-2. The rates have risen since 2000, with recent figures presented by the Kentucky Department for Employment Services showing unemployment rates of 5.3 percent for Clark County, 3.0 percent for Fayette County, and 4.5 percent for Madison County as of December 2001. The ROI rate has risen to 3.5 percent and the State of Kentucky's rate is 5.2 percent. This increase in unemployment indicates that jobs are needed in the area.

Comment No. 57 **Issue Code: 22**
Comment noted.

Comment No. 58 **Issue Code: 06**
The air quality permit for the project requires that conditions which upset the process be reported to the Kentucky Division for Air Quality. If the problem cannot be remedied within 2 hours, the affected facilities would have to be shut down to avoid being found in violation of the requirements of the air quality permit. Conditions in the air quality permit are enforceable under both state and federal laws.

Comment No. 59 **Issue Code: 20**
Comment noted. A review of the Kentucky Division for Air Quality website did not identify any Title V operating permit or state-issued air quality permit for facilities at either the Bluegrass Army Depot in Richmond, Kentucky or the now closed Lexington Bluegrass Army Depot. A review of the EPA Region 4 Waste Management Division website identified some clean-up programs at the Lexington Bluegrass Army Depot facility which the Army has closed and which was subsequently leased to the Kentucky Division of Military Affairs. None of the information from these website searches identifies any activities or facilities which would have meaningful cumulative air quality impacts when considered in conjunction with the proposed project.

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Bluegrass Army Depot, I think that it is inevitable that we are going to have some type of incinerator, or some type of a disposal system there that is also going to cause negative impact to the air quality.

And I have not read the document, but I think it ought to address any effect of those two airstreams of contaminations. What do you call it where you have the cumulative effect? And I think those ought to be looked at closely what the cumulative effect of people downwind, which will just a small part of Clark County, but a large part of Powell County and a large part of Estill County and further to the east.

And my guess is that it does not look at the cumulative effect of contamination that we are going to have to see down in the next few years.

Another thing that I learned tonight, I didn't realize the waste stream was going to be coming from areas outside of Kentucky.

As a Kentuckian, one of the reasons I was not so negatively concerned about this plant, I figure we would be taking local solid waste.

I think we need to take care of our own environment, take care of our own problems. Hearing

59/20 (cont.)

60/16

Comment No. 60 **Issue Code: 16**

Comment noted. The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant. The RDF pellets will be stored within a concrete-floored storage facility on the 4.8-hectare (12-acre) project site that would be capable of housing a 10-day supply of coal and RDF pellets. The 4.8-hectare (12-acre) project site is located within the larger 1,263-hectare (3,120-acre) J.K. Smith Site and is approximately 1.6 kilometers (1.0 mile) from the closest residence.

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that it is coming from out of state also concerns me. And I don't think we need to be the dumping grounds of the United States here in Kentucky. I think we have paid our dues a lot, especially in eastern Kentucky in supplying in our coal resources and in our timber resources.

And I don't think we need to be the dumping grounds of waste.

The third point that I am a little concerned about, and I also learned tonight, was this term called the frit, glass frit. And it kind of came together when I was listening to this. I know DOE, pretty much one of their main endeavors is dealing with hazardous and radioactive materials in the state, radioactive waste. And I know that DOE has been looking into the technology of gasification of radioactive waste, mixed waste.

And I am afraid that this incinerator may be just kind of a learning ground in the technology for rad and mixed waste disposal in the future.

And I think this environmental impact statement ought to address that and confirm to us that there is no chance of that. Again, that is a

71

60/16 (cont.)

61/22

62/12

Comment No. 61 **Issue Code: 22**
Comment noted.

Comment No. 62 **Issue Code: 12**
The purpose of the Proposed Action is to demonstrate and determine the reliability, availability, and maintainability of a utility-scale IGCC system using high-sulfur bituminous coal and an RDF blend as a co-feed to produce the syngas that will run the CTs. Neither DOE nor KPE has plans to incinerate radioactive and mixed waste at the proposed facility.

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concern that I have that this could be used for a dumping ground of radioactive materials in the future. And definitely the hazardous waste issue in dealing with the frit. I would like to know where the proposed disposed of those. I certainly don't want them disposed here in my community, here in Estill County. And I am sure you all in Clark County don't want it either. 62/12 (cont.)

That is about it for my comments.

Thank you.

MR. SPEARS: Do we have anyone else that would be interested in making a comment?

MR. FISHER: Hi. My name is Robert Fisher and I was born here in Clark County in 1959. I am like a lot of you all, I was kind of broadsided by this, too.

I really learned a lot more tonight than I really probably thought I probably would. Me and my wife, we came down, and I told her, I said, Well, I don't know what to expect. If I am going to look up and see four or five people, or 200 people.

But the main thing I wanted to stand up too, that I wanted to commend everyone of you all for being here and representing your community and we

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have to push, to me, on this issue in this town bitterly. To make this a bigger issue than what it is, or what it seems to be.

There should be 200 people here. You are here representing your future. We are coming up on an election year. The legislation is going in Frankfurt, it is a heck of an opportunity for us all to get together in big numbers.

We can all sit around and whine and moan, and gripe, and stay out here at the store and drink an Ale-8 and talk amongst ourselves and nothing is going to happen.

But if we continue to get together and not just wait on these type of meetings, we keep our names together and get accountability from our local officials -- which we are blessed to have a couple here -- let's get them involved. At the beginning of an election year, let them know.

And up to the state officials. That is the only way -- it seems to me that we can stop it, if that is what we want. That is not going to be on a 101 or 202 basis, we have got to do it in large numbers and let's not let it be just a one and a half year meetings like I understand of them happening.

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Let's kind of stay together on this thing, that is all I have to say.

Thank you.

MR. SPEARS: Thank you very much for those comments. They were very good.

Anyone else?

MR. HERRICK: The EIS said that trains are typically going to be the mode of transport for the million tons of garbage a day. The State of Kentucky, of course, regulates garbage trucks to the extent that they cannot leave a drop.

I would like for the EIS to address the velocity of the average train car and the long-term effect -- these train lines run along the rivers of Kentucky mostly. And years and years of leeching of untreated solid waste in an area is going to be kind of an issue.

And I guess the discussion of gasification reminded me of the normally reoccurring radioactive materials issue comment in the oil fields and are not uncommon in coal.

And in the event that there is a capsule of metals that the normally required radioactive materials will not be concentrated to some degree in

63/10

64/12

65/11

Comment No. 63 **Issue Code: 10**
Comment noted. An Emergency Response Plan, which documents procedures for providing emergency response and cleanup for any project related spills during materials transport, has not yet been developed by KPE. The plan will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations. Section 5.11 of the EIS, Traffic and Transportation, has been revised to include a discussion of the Emergency Response Plan.

Comment No. 64 **Issue Code: 12**
Chapter 3 of the EIS, Section 3.1.2.1, describes the handling and storage of raw materials. Primary and secondary measures (e.g., unloading in a closed area) would be taken to prevent PM_{10} from becoming airborne.

Comment No. 65 **Issue Code: 11**
The combustion of coal releases naturally occurring radioactive material such as uranium. Since the coal would be converted to syngas and frit in the carefully controlled environment of the closed-loop high pressure and temperature gasifier, much of the radioactive material would be returned in the frit. Radioactive emissions from the proposed project were not evaluated in the permit. These emissions would be very small and below regulatory thresholds, and would not be expected to result in any health effects.

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that process and I would like the EIS address that. 65/11 (cont.)

MR. SPEARS: Okay. We have that so noted.

Thank you very much for those comments.

AUDIENCE MEMBER: Is there an East Kentucky Power representative here?

Hello?

AUDIENCE MEMBER: I work at East Kentucky Power and I am here to learn right along with everybody else.

And I am not here to be tarred and feathered.

MR. SPEARS: Two or three things that I would like to mention here before we close this part of this forum.

My apologies go out to the library for not having received your Draft Environmental Impact Statement.

In the back of those, you will note that the mailing lists are there of those -- they were mailed from Washington, D.C., from our headquarters and I don't know what happened from there to you, but something did and I will assure you that we will get you a copy.

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I also apologize for some of you perhaps not becoming aware of the meeting. We published in the Louisville, Lexington and Winchester papers for three consecutives weeks. Which is more than our regulations say we need to, but we wanted to publish it, we wanted to get the word out in other parts of the media.

Perhaps this type of situation tells us that maybe next time we have to do a better job, maybe we have to call every radio station. I don't know. We will have to analyze that and see how we can better do that.

I can truly appreciate everybody being here. This is the purpose for this kind of meeting is to receive your comments.

And I just want to say one other thing to the young lady that said she didn't know why we don't answer questions.

We have this in about three different schedules, if you will. From 4 to 7 we had the informal, which allows you to come in and ask questions and look and see things and get a little bit prepared, if you will, for the comment period.

The comment period then is the legal

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part where we have the court reporter, take everything is verbatim, it is all on record.

As soon as I close here in a moment, please feel free to ask questions of those folks that I introduced while ago.

And that is one of the reasons that we introduce folks is to let you know that they are here and that it is an open meeting. We can have some dialogue, we just don't do that in this formal session because of the court reporter and that sort of thing. It can drag on for a long time.

So we separate that out, that is how our headquarters folks recommend that we conduct these meetings.

So in a moment, I am going to close this formal portion. Please feel free to talk to the representatives of Kentucky Pioneer Energy.

We are going to be here for a while. So please feel free to do so. There are three of us here from the Department of Energy and one is from the Corps of Engineers and three from Kentucky Pioneer.

So please feel free to do that and stay as you wish.

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AUDIENCE MEMBER: I am looking at the agenda and it says, open house, welcome, introductions, overview and formal comment period, and I assume that the formal comment period is what we just completed?

MR. SPEARS: We have.

AUDIENCE MEMBER: And I would like for Mr. Bailey, the first speaker, to be able to ask his questions so that these folks to come and answer the questions now.

MR. SPEARS: That is fine. I am going to close this part of it and then we can continue that dialogue.

I want to let the record show that at 8:34 p.m., the formal session has ended.

(Public hearing adjourned.)

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STATE OF WEST VIRGINIA, To-wit:

I, Michele G. Hankins, a Notary Public and Court Reporter within and for the State aforesaid, do hereby certify that the public meeting was taken by me and before me at the time and place specified in the caption hereof.

I do further certify that said testimony was correctly taken by me in stenotype notes, that the same was accurately transcribed out in full and reduced to typewriting, and that said transcript is a true record of the testimony.

I further certify that I am neither attorney or counsel for, nor related to or employed by, any of the parties to the action in which these proceedings were had, and further I am not a relative or employee of any attorney or counsel employed by the parties hereto or financially interested in the action.

My commission expires the 29th day of December 2003.

Given under my hand and seal this 7th day of January 2002.

Michele G. Hankins
Notary Public
Court Reporter

Shoebrooks, Jeff and Robin
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National Energy Technology Laboratory

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Written Comment Form
Must be received by January 4, 2002.

Date 1/3/02

Dear Mr Spears,

I am writing this letter to state my opinion against the planned Combined Cycle Project slated for Trapp, KY. I am a registered nurse and work for the Veterans Hospital in Lexington, KY. I have a wife, daughter 11 yrs, son 8 years, and infant 4 months. We have lived in Winchester KY for six years after moving from Lexington, KY. We moved to get away from the city and the traffic. We both longed to live in a smaller town, closer to the Country, as I grew up.

Recently, we found the property we have longed dreamed for. We sold our house in downtown Winchester and bought a home in the Country with five acres. After moving I heard

Please use other side if more space is needed.

1/16

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

Comment No. 1 **Issue Code: 16**
Comment noted.

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about this planned electricity plant but was
unable to attend the public discussion due to
work. We now live at 366 Old Ruckerville Rd.
Winchester. The serenity and peace of this property
is hard to find in this area. It was a
dream come true for us to raise our children
in this setting and experience life to the fullest
as our parents did. The wildlife is wonderful
and the previous owner was a wildlife photographer.
He catalogued all the wildlife species and I
have attached this list for your viewing.
Now, as I learn more about this proposed
project I am saddened to think of how our
lives will be affected. My son will attend
Tipp Elementary School which is about eight

Please use other side if more space is needed.

2/08

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Comment No. 2 **Issue Code: 08**

DOE appreciates the provided list of wildlife species in the project area. Section 4.9, Ecological Resources, of the EIS provides information regarding species that are typically found in the region as well as special interest species. Section 5.9, Ecological Resources, provides an assessment of impacts to species common to the region and special interest species. The submitted list of wildlife species will be retained for reference in the project administrative record.

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miles from our house. The roads leading to this area consist of 2 lane curves, not guard rails, steep hillsides with creeks running along side. It is a dangerous road (Highway 89) leading from downtown Winchester to Trapp. Just last week an ice storm hit the area hard with no warning. As I was coming to work that morning I witnessed numerous accidents on this road. One such accident was a fire engine in the ditch at the bottom of the hill. It couldn't stop due to the steep decline leading out of Winchester. The planned alternate route leading from I-64 to Trapp would travel over railroads, bridges, through 2 school zones with crossings, and a roughly 35 mile/hr area with numerous houses setting practically on the road.

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(304) 285-4403

4/03

3/10

3/10 (cont.)

Comment No. 3 **Issue Code: 10**

Comment noted. Solid waste would be transported to landfills via trucks. An Emergency Response Plan, which documents procedures for providing emergency response and cleanup for any project related spills during materials transport, has not yet been developed by KPE. The plan will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations. Section 5.11, Traffic and Transportation, has been revised to discuss the Emergency Response Plan.

Comment No. 4 **Issue Code: 03**

The commentor's concern regarding the potential for impacts to any cultural resources in the vicinity of downtown Winchester has been addressed as part of the consultation with the Kentucky Heritage Council. The Section 106 Review process has been completed and the Kentucky SHPO has issued a finding of no effect on historic properties from this project.

Chapter 4 has been revised to clarify that impacts to the entire Area of Potential Effect have been addressed as part of the Section 106 process.

Comment No. 5 **Issue Code: 06**

Comment noted. As detailed in Table 5.7-3 of the EIS, maximum air quality impacts from the proposed project would be less than 1 percent of the relevant federal air quality standards for gaseous pollutants such as NO_x, SO_2, and CO. Maximum impacts of the proposed project on PM_{10} concentrations would be less than 4 percent of the federal 24-hour PM_{10} standard and less than 1.5 percent of the federal annual average PM_{10} standard. As noted in the EIS, the carbon content of the syngas is expected to be less than that of natural gas. Consequently, greenhouse gas emissions from the proposed project would be less than from a comparable facility using natural gas.

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There are also 2 truck entrances (a large Soybean plant). The semi tractor trailor trucks would have to travel through downtown historic Winchester, across main street. This is all within a 4.5 mile distance from the interstate just to my house. These dirty, dangerous trucks would destroy many peoples lives and pose a hazard to everyone who travels these roads.

Secondly, as I read your government web pages to try to understand what the plant would entail, I have become alarmed at the pollutants and possible carcinogens that would be released from the smoke stacks into the air. As the government site states "with the Presidents Clean coal power initiative a means now exists for

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3/10 (cont.)

3/10 (cont.)

5/06

Comment No. 5 (cont.) **Issue Code: 06**

Table 5.7-4 of the EIS identifies estimated maximum downwind concentrations of hazardous pollutants expected to be emitted by the proposed facility and the associated maximum lifetime cancer risks. Most of these compounds (all except benzene, carbon disulfide, carbonyl sulfide, formaldehyde, and hydrogen sulfide) would be associated with PM_{10} emissions. Dispersion modeling conducted for the PSD/Title V Permit application indicates that the location of maximum 24-hour average and maximum annual average PM_{10} concentrations would be within 0.8 kilometers (0.5 miles) of the facility, within the boundaries of the J. K. Smith Site property. PM_{10} concentrations (and consequently most hazardous air pollutant concentrations) beyond the boundaries of the J. K. Smith Site property would be less than the maximum values. The area of maximum annual average concentration for gaseous emissions would be about 9.1 kilometers (5.7 miles) downwind of the facility.

Section 5.7 of the EIS, Air Resources, has been revised to discuss the general downwind distances to areas of maximum pollutant impact.

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High potential, but still high risks technologies to move out of the lab and pilot scale development and into major engineering tests as a precursor to commercial use." Also stated" Each project is intended as a first of its kind test of different gasifiers, cleanup systems and applications". Can it be releasing Co2, methane, nitrous oxide, and mercury not have local environmental as well as global impacts? This all seems a bit scary to me and my family living in close proximity to such "high risk, tests". Can we assume no adverse effects will effect the people and wildlife surrounding this area?

Does everyone, including governor Patton think that by "relocating" this plant from Illinois this is really a good move for the people of Kentucky?

Please use other side if more space is needed.

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Comment No. 6 **Issue Code: 11**

No impacts to health and safety of the general public would be expected from the operation of the proposed facility. Wastes generated at the plant would be managed in accordance with applicable state and federal regulations. Air and wastewater permits would limit these emissions to protect the public health and safety as well as the environment.

The gasification process would produce a small amount of wastewater containing primarily dissolved salts. Emissions would be primarily from the CT engines and cooling towers (see Table 5.7.3 of the EIS). Dispersion modeling conducted for the PSD/Title V Permit application covered an area about 12 kilometers (7.5 miles) from the project site, including the area of maximum air quality impact. Incremental ambient air quality impacts from the proposed project would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent for gaseous pollutants such as nitrogen dioxide, sulfur dioxide, and carbon monoxide and less than 4 percent of the federal 24-hour PM_{10} standard). Total heavy metal deposition in areas downwind of the project would be much less than 1.1 kilogram per hectare (1 pound per acre) accumulated over 20 years.

Therefore, the overall increase in air emissions due to operation of the plant would be very low and present little risk to human health and the environment. Possible public health effects that could occur as a result of fire or a natural gas explosion would be minimized through basic facility design considerations.

5/06 (cont.)
6/11
7/08
8/22

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I think not! Not only are you planning to contaminate our area with pollutants but the electricity is planned for use outside of Kentucky. No local benefit will be derived from this endeavor. Is the bottom line money for the state? Surely there are alternatives for relocating to a less populated area. As a registered Republican who helped vote Mr. Bush into office, I am behind the president in finding new fuel technologies but I cannot back this project as it is planned. Why bring in out of state trash to Kentucky? Don't we have our own to get rid of?

Since I am playing catch up to these developments I will be pursuing every possible action with my fellow citizens, friends, neighbors, and family to

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9/16

8/22 (cont.)

10/16

Comment No. 7 **Issue Code: 08**

Based on the impacts analysis in the Draft EIS, Sections 5.7 through 5.9, and 5.12 and 5.13, potentially adverse impacts to wildlife would be minimized or avoided through the project design, implementation of various management plans, and compliance with permit conditions. By design, there would be no discharges into the groundwater and surface water discharges would be regulated by KPDES permit. Prior to surface discharge, pollutant loads on the river would be examined and discharge limits established to protect water quality. An SPCC plan would be in place prior to operation. This plan would set forth a series of response activities that would reduce or avoid potential impacts to groundwater and surface water during a spill event. The terms and conditions set forth in Air Quality Permit Number V-00-049 specify operational limitations and conditions, including monitoring and testing requirements that regulate the emission of air contaminants. The air permit is based on a high level of sulfur removal and recovery from the syngas stream prior to its use. The air permit application included an assessment of air toxics and a screening evaluation of risk from possible stack emission constituents. The Kentucky Department of Air Quality determined that this risk was insignificant and that no further evaluation was required. While this evaluation is specific to human health concerns, it is an additional indicator for a low probability of adverse impacts to wildlife. Additionally, a component of the air quality permit includes a Phase II Acid Rain Permit. Adherence with permit conditions would limit air pollutant emissions in the local area and reduce the likelihood of adverse impacts to both plants and animals. Prior to plant operation, the effluent temperature of discharges into the Kentucky River would also be established and regulated to minimize impacts to the aquatic organisms.

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Oppose this development.
I appreciate your time and willingness to listen to our concerns. Hopefully you and your constituents will see the human side to this and the people whose lives will be affected. I'm sure you would not want this in your backyard. Also, I don't think Brandt Ave would like this located within miles of his Texas ranch.
From me and my family, please reconsider before proceeding.

Sincerely,
Jeff Shoebrooks

JEFF ROBIN SHOEBROOKS
765 Old Buckhorn Rd.
Winchester, KY 40391

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

8/22 (cont.)

1/16 (cont.)

Comment No. 8 **Issue Code: 22**
Comment noted. The benefits associated with the proposed project are increased tax revenues for the State of Kentucky and additional jobs.

Comment No. 9 **Issue Code: 16**
The purpose of this EIS is to evaluate public and environmental impacts caused by the proposed project. DOE will consider the information provided in the EIS and public comments in this decision process. Chapter 2 discusses EKPC's 1998 Power Requirements Study which indicates that the electrical load for the region is expected to increase by 3.0 percent per year through 2017. Net winter peak demand is expected to increase by 3.3 percent per year and net summer peak demand is expected to increase by 3.0 percent per year. Peak demand is expected to increase from 2,031 MW in 1998 to 2,394 MW in 2003 and 3,478 MW in 2015. Based on this load growth, EKPC will need additional power supply resources of 625 MW in 2003. The need is further shown by EKPC's plans to construct four new CT electric generating units to provide peaking service alongside their three existing peaker CTs at the J.K. Smith Site. The power generated by the project will be used to support Kentucky's energy needs. Because of DOE's limited role of providing cost-shared funding for the proposed Kentucky Pioneer IGCC Demonstration Project, alternative sites were not considered.

Comment No. 10 **Issue Code: 16**
The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant.

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Wildlife of 366 Old Ruckerville Road Page 8 of 10

BIRDS (* = at feeders) 92 species

Great Blue Heron
Green Heron (4-22) (4-17)
Turkey Vulture
Black Vulture (5-21)
Canada Goose
Wood Duck
Osprey (5-21)
Sharp-shinned Hawk
Red-tailed Hawk
American Kestrel
Wild Turkey
Northern Bobwhite
Killdeer
Solitary Sandpiper (4-23)
American Woodcock (2-25)
[redacted]
Great Horned Owl
Eastern Screech-Owl
Yellow-billed Cuckoo (5-29)(5-6)
Black-billed Cuckoo (5-20)
Common Nighthawk (5-5)
Chimney Swift (4-30) (4-27)
Ruby-throated Hummingbird (4-27) (nest)
Belted Kingfisher
[redacted]
Red-headed Woodpecker
[redacted]
Hairy Woodpecker
Northern Flicker
Pileated Woodpecker
Eastern Wood-Pewee (5-17)
Eastern Phoebe (3-27)(3-4-00)
Eastern Kingbird (4-30) (5-2)
Great Crested Flycatcher (5-22)
Tree Swallow (4-5)(4-6)
Northern Rough-winged Swallow (4-23)
Barn Swallow (4-25)
Blue Jay (nest,00)
American Crow
Carolina Chickadee
Tufted Titmouse
White-breasted Nuthatch
Carolina Wren (nest 99,00)
House Wren (4-25)
Golden-crowned Kinglet
Ruby-crowned Kinglet
Blue-gray Gnatcatcher (4-27) (4-23) (nest)
Eastern Bluebird
American Robin (nest)
Gray Catbird
Northern Mockingbird
Brown Thrasher
European Starling (nest)
Cedar Waxwing
Red-eyed Vireo (5-10)
White-eyed Vireo (4-25
Tennessee Warbler
[redacted]
Black-throated Green Warbler
Magnolia Warbler
Black-and-white Warbler (4-27)
Palm Warbler (4-29) (5-3)
Prairie Warbler (4-25) (5-3)
Yellow Warbler (5-10) (5-3)
Blackpoll Warbler (5-10)
Morning Warbler (10-4)
Common Yellowthroat (4-27) (4-23)
Yellow-breasted Chat (5-7) (5-1)
[redacted]
Field Sparrow (4-2-00)
Savannah Sparrow
[redacted]
Swamp Sparrow (4-23-00)
[redacted]
Baltimore Oriole (5-2) (nest) (5-3)
Orchard Oriole (5-9)
Eastern Meadowlark
Common Grackle
Brown-headed Cowbird
House Finch
American Goldfinch
Blue Grosbeak
Indigo Bunting (5-2)
Rose-breasted Grosbeak
House Sparrow

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(cont.)

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MAMMALS 18 species
Virginia Opossum
Bat sp.
Man
Woodchuck
Eastern Chipmunk
Eastern Gray Squirrel
Eastern Fox Squirrel
White-footed Mouse
Deer Mouse
Domestic Dog
Coyote
Common Gray Fox
Common Raccoon
Mink
Striped Skunk
Domestic Cat
White-tailed Deer
Eastern Cottontail

REPTILES 4 species
Common Snapping Turtle
Eastern Box Turtle
Common Garter Snake
Northern Water Snake
Eastern Rat Snake
Milk Snake

AMPHIBIANS 8 species
Streamside Salamander
Southern Two-lined Salamander
Ravine Salamander
American Toad (4-19)(4-2-00)
Cope's Gray Treefrog (5-17)
Spring Peeper (warm nights all winter)
Bull Frog (first call: 5-10)
Green Frog (first call: 5-23)

FISHES 6 species
Emerald Shiner
Creek Chub
Fathead Minnow
White Sucker
Green Sunfish
Orangethroat Darter

BUTTERFLIES 21 species
Eastern Tiger Swallowtail
Zebra Swallowtail
Black Swallowtail
Falcate Orangetip
Cabbage White
Orange Sulfur
Spring Azure
Meadow Fritillary
Great Spangled Fritillary
Silvery Checkerspot (5-18)
Question Mark
Mourning Cloak
Red Admiral
Red-spotted Admiral
Hackberry Emperor
Tawny Emperor
Monarch
Little Wood Satyr
Silver-spotted Skipper
Least Skipper
American Snout

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(cont.)

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	# of Species
Mammals	18
Birds	92
Reptiles	6
Amphibians	8
Fishes	6
Total Vertebrates	129

Butterflies	21

Total Species	151

Trees of 366 Old Ruckerville Road

Slippery Elm	13 species (incomplete)
Black Walnut	
Eastern Sycamore	
Shellbark Hickory	
Chinquapin Oak	
Hackberry	
Eastern Redcedar	
Black Cherry	
Silver Maple	
Box Elder	
Flowering Dogwood	
Black Locust	
Green Ash	

2/08
(cont.)

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Sierra Club Cumberland Chapter

Ramesh Bhatt, Ph.D.
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Phone: (859) 245-6254

January 20, 2002

DOE-National Energy Technology Laboratory
Attn.: Roy Spears
Kentucky Pioneer IGCC Demonstration Project EIS Document Manager
P.O. Box 880
Morgantown, WV 26507-0880

Re: Kentucky Pioneer IGCC Demonstration Project draft Environmental Impact Statement

Dear Mr. Spears:

I am writing on behalf of the 4500 members of the Cumberland (Kentucky) Chapter of the Sierra Club. Approximately a third of our members live within 30 miles from the proposed power plant in Trapp, Kentucky. We are extremely concerned about this experimental facility. We feel that the draft Environmental Impact Statement (DEIS) generated by the Department of Energy (DOE) is seriously lacking in specifics and underestimates or ignores potentially significant negative impacts of the proposed facility. The DOE has not ensured that a complete identification and analysis of direct, indirect, and cumulative impacts from the demonstration and full commercial operation of this plant has been evaluated in the DEIS. Also, not enough attention has been paid to the monitoring of this facility and the evaluation of this demonstration/experiment. In the following paragraphs, we discuss our concerns in detail.

1/16

Vitrified Frit
Vitrified frit will be the major solid byproduct of the British Gas Lurgi gasification process that will be used in this plant[1]. Concerning this waste product, the DEIS states the following:

> The vitrified frit would undergo leach testing to determine if it is considered hazardous material. Should the leach testing indicate that the frit is not hazardous, KPE (Kentucky Pioneer Energy) would market the product for use in road paving and construction. If the frit is determined to be hazardous, KPE would have 90 days to manage the material (page 3-17)[2].

[1] *Kentucky Pioneer integrated gasification combined cycle demonstration project draft environmental impact statement.* U. S. Department of Energy (DOE/EIS-0318). Page 3-17.
[2] Ibid. Page 3-17.

1

Comment No. 1 **Issue Code: 16**

DOE believes that the Kentucky Pioneer IGCC Demonstration Project EIS adequately analyzes the full scope of environmental impacts from the proposed project. Chapter 3 has been revised to provide more detail on the gasification process, including the production of the vitreous frit. KPE plant designs and engineering work are subject to international contractual secrecy agreements and are therefore confidential and not available.

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In other words, it is unclear as to whether this frit will be inert or hazardous. We feel that the absence of specific information about the nature of this waste makes the DEIS incomplete; it is impossible to judge the environmental impact of this project without this information. Given the fact that there are no proposed waste acceptance criteria for the refuse that is converted to the fuel used in this facility (see below), we are concerned that there may be residual contaminants in the frit that may exceed RCRA Toxicity Characteristic regulatory levels.

The DEIS further states that if the frit is found to be hazardous, KPE, the owner of this plant, will have 90 days to manage this material[3]. However, no information is provided about the environmental impacts of managing this material (storage for a number of months, transportation of this hazardous material across the countryside to a waste facility, and the disposal of this material). Once again, we feel that the lack of specific and complete information about the management of the frit makes the DEIS incomplete.

Further gaps in the DEIS concern the mechanics of the testing of the frit. When will the frit be tested and, given the potential for significant variability in the quality and composition of the fuel pellets, how will DOE and Pioneer ensure that sampling is representative? Who will conduct the tests? How often should these tests be conducted and under what conditions? Answers to questions of this nature are missing from the DEIS.

Refuse Derived Fuel

KPE proposes to gasify fuel pellets derived from municipal waste (RDF) in this facility. RDF will be obtained from one or more manufacturers from out of state. The DEIS does not specify the nature of this RDF. There are *no* proposed waste acceptance criteria or visual and/or chemical analytical analysis to ensure that hazardous waste, including household hazardous waste, nonhazardous industrial waste, and polychlorinated biphenyl waste is not accepted. The DEIS does not specify whether there is any kind of quality control involved in the manufacture of these pellets. It appears to rely solely upon KPE's assertion that these pellets are suitable for gasification.[4]

Moreover, the DEIS assumes that variability in the composition of the RDF will not have an impact on the resulting syngas and byproducts, even though there is no independent evidence provided to support this assumption.[5] This lack of information about the nature of RDF is especially troubling because KPE has indicated that even waste from *industrial facilities* might be included in the manufacture of these pellets.[6]

Another major gap in the DEIS concerns the ratio of high-sulfur coal to RDF used as raw material. During the 1-year demonstration period of the project, it is assumed that the ratio of coal to RDF will be 1:1 and the draft EIS bases its analyses on this assumption. However, KPE has indicated that proportionally more RDF might be used in the future. Will this change the nature of the waste produced by this plant? If so, what are the environmental consequences?

[3] Ibid. Page 5-41.
[4] Ibid. Page 3-21.
[5] Ibid. Page 3-22.
[6] Kentucky Pioneer Energy's written responses to questions raised at the Subpart Eb Siting Analysis public meeting on June 28, 2001. Page 8.

2

2/12

3/16

4/16

Comment No. 2 **Issue Code: 12**

Chapter 3 of the EIS has been revised to include a more detailed description of the frit. As discussed in Chapter 3, vitrified frit, produced from the gasification process, is nonhazardous and would be sold as a marketable product for use as road aggregate. The vitrified frit consists primarily of ash (99.2 percent by weight) composed of oxides of the following elements silicon (SiO_2), aluminum (Al_20_3), titanium (TiO_2), iron (Fe_20_3), calcium (CaO), magnesium (MgO), potassium (K_2O) and sodium (Na_2O). The frit also contains chloride, fluoride, antimony, arsenic, beryllium, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, molybdenum, nickel, silver, thallium, vanadium and zinc. Analysis of the gasification process has shown that frit is nonhazardous and rarely fails the TCLP for metals. The vitrified frit is nonleachable by EPA standards and is expected to pass the more stringent Universal Treatment Standards criteria of the EPA-TCLP analytical method.

Variability in the RDF content is dependent on the MSW supply. However, RDF production methods inherently yield fairly uniform and homogeneous RDF. Due to the vitreous nature of the frit, there would be no particular variability when a leaching test is conducted regardless of the composition of the feed.

Any hazardous waste stored onsite would be stored in accordance with state and RCRA regulations. Once a waste has been tested or is determined to be hazardous, it would be stored in proper containers (e.g., 55 gallon drums) and labeled as "hazardous waste" with applicable hazardous waste codes and the date the accumulation period began. Based on generator status, the facility would have a maximum of 90 or 180 days for onsite storage of hazardous waste prior to disposal. During that time, the facility would be required to keep containers with hazardous waste in good condition and closed; inspect

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Transmission Line
A 27-kilometer transmission line, with a 40 to 45 meter wide right of way, will be built in conjunction with this plant. Therefore, this element of the project does not have utility independent of the power plant and must be included in the DOE's NEPA analysis. Otherwise, DOE is impermissibly segmenting its NEPA analysis. The draft EIS alludes to the possibility that this transmission line might impact a designated wild river in this area and therefore might be required to obtain a permit form the Kentucky Division of Water.[7] However, not enough information is provided to assess the exact nature of this impact.

Visual Pollution
The gasification facility stacks and plumes will be visible from the city of Winchester and from the Pilot Knob State Nature Preserve.[8] The view from Pilot Knob is of special significance not only in the present day context, but also because Daniel Boone is thought to have gazed at the bluegrass region for the first time ever from its heights. Thus, from both recreational and historical perspectives, the visual pollution by the gasification stacks will be of great significance. Yet, the draft EIS dismisses this impact as insignificant. The DOE is responsible under Section 106 of the National Historic Preservation Act (NHPA) to ensure that this project's impact on eligible and listed historic properties and sites are considered. At minimum, indirect impacts to potentially historic viewsheds are an adverse effect from this project that is subject to the NHPA process.

Air Pollution
The draft EIS concludes that the increase in air pollution caused by the proposed plant is insignificant and well within "applicable standards."[9] However, the 1100 tons/year of Nox, 800 tons/year of CO, 500 tons/year of Sox and 9.07 tons/year of hazardous air pollutants generated by this plant will lead to increases in acid rain and adverse human health effects. Indeed, a recent report by the Kentucky Natural Resources and Environmental Protection Cabinet indicates that if this KPE facility and another power plant that has already been proposed to be built in close proximity go into operation, levels of Arsenic and Nickel will exceed risk-based screening values for human inhalation exposure.[10] Moreover, the pollution generated by this power plant will displace the ability of less polluting and more economically beneficial industries from locating in the region because of its use of pollution credits.

Water Use and Pollution
The proposed plant will withdraw 15.1 million liters/day from the Kentucky River.[11] In recent years, Kentucky has experienced recurring droughts. Consequently, water supply for the residents of this region, including those in Lexington, has been affected by the low flow in the Kentucky River. The withdrawal of additional water from the system will significantly intensify the problems when the flow is low in the river. Although the DEIS indicates that the water intake by this plant

[7] *Kentucky Pioneer integrated gasification combined cycle demonstration project draft environmental impact statement*. U. S. Department of Energy (DOE/EIS-0318). Page 6-4.
[8] Ibid. Page 3-27.
[9] Ibid. Page S-18.
[10] *A cumulative assessment of the environmental impacts caused by Kentucky electric generating units*. Report published by the Kentucky Natural Resources and Environmental Protection Cabinet in response to Executive Order 2001-771. December, 2001. Page 36.
[11] *Kentucky Pioneer integrated gasification combined cycle demonstration project draft environmental impact statement*. U. S. Department of Energy (DOE/EIS-0318). Page 5-24.

3

5/21
6/07
7/04
8/03
9/06
10/20
11/22
12/07

Comment No. 2 (cont.) **Issue Code: 12**
them on a weekly basis and keep a log of inspection. Regulations also require that facilities generating hazardous waste have spill contingency and Emergency Response Plans, which include procedures to notify state regulators and the public in the event of a spill. KPE waste management activities would be in accordance with applicable state and RCRA regulations. Compliance with regulations significantly reduces the risk of leakage of hazardous waste.

Comment No. 3 **Issue Code: 16**
Chapter 3, Section 3.2.2.2, discusses the production and composition of the RDF pellets using all available and relevant data. KPE intends to supply all RDF pellets for this project from the same manufacturer. Variation in RDF pellet composition due to different manufacturing processes should not be an issue for this project. The gasification technology used produces a very consistent syngas product, regardless of the variability of the feed.

Comment No. 4 **Issue Code: 16**
The Cooperative Agreement between DOE and KPE requires the fuel feed to contain a minimum of 50 percent coal. The EIS provides analysis and impacts based on the fuel feed used for the 1-year demonstration.

The impacts presented in this EIS are based on the full 20-year timeframe that the plant is expected to be operating. Changes in the ratio of RDF to coal in the fuel feed after the demonstration period would not significantly alter the impacts discussed in the EIS.

Comment No. 5 **Issue Code: 21**
Pursuant to RUS NEPA regulations, a NEPA document would be prepared that would address the impacts from the transmission line. Information in the NEPA document will be used to assure impacts are

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will amount to 4% of the water flow during the 7-day low flow *average* measure, it fails to address the impact of water withdrawal when the water flow is at its *lowest*.

Also, measures of average flow in this area of the river used by the draft EIS are based on a study from 20 years ago[12] and it is unclear as to whether there has been a significant change in the quantity of water in the river at this point.

Moreover, according to the draft EIS, withdrawal of water from the Kentucky River for thermoelectric production constitutes over 60% of all water withdrawn from the river (133 of the 203 million gallons withdrawn from the river/day).[13] The proposal to withdraw even more water from the river and to discharge treated warm water back into the river will have significant cumulative impacts, especially given that there are many mussel beds downstream of the proposed project.[14]

Monitoring

Most importantly, the draft EIS fails to address issues concerning the monitoring of the operations of the proposed plant. Ostensibly, this project will be a demonstration project for a year. What will be the nature of monitoring during this period? What are the criteria that will be used to judge whether this project is a success? What input will be public have on the evaluation of this project? How long will it take to evaluate the project? If the evaluation takes some time, will the plant be shut down during this period of evaluation? We understand that the DOE typically requires an Environmental Monitoring Plan (EMP) and Program for its recipients of innovative gasification funding, which includes all regulatorily-required monitoring and DOE-required monitoring. The EMP should be made a part of the DEIS and included for public comment, particularly given the tremendous variability possible in the feed to the gasification system, which could impact the quality of the effluent, air emissions, and frit composition.

Conclusion

According to a recent study, Kentucky leads the nation in per capita premature deaths due to air pollution.[15] This study indicates that the mortality rate is 44.1 per 100,000 adults in Kentucky, which is over 30 times the rate in California. In this context, we are extremely concerned about a new experimental facility that is classified as a Municipal Waste Combuster facility [16], which will be located within a mile from a school,[17] and which proposes to utilize municipal and possibly industrial waste as fuel.

As residents of this area, we will be the guinea pigs in this experiment. Too many questions remain to be answered before this project can go forward. We need more specific, complete, and unbiased

[12] *Kentucky Pioneer integrated gasification combined cycle demonstration project draft environmental impact statement*. U. S. Department of Energy (DOE/EIS-0318). Page 4-27.
[13] Ibid. Page 4-31.
[14] Letter from Lee Barkley, Field Supervisor, Fish and Wildlife Service, U.S. Department of the Interior, regarding the EIS. *Kentucky Pioneer integrated gasification combined cycle demonstration project draft environmental impact statement*. U. S. Department of Energy (DOE/EIS-0318). Page A-3.
[15] Clear the Air Organization. *Death, disease, and dirty power: Mortality and health damage due to air pollution from power plants*. November, 2000.
[16] *Kentucky Pioneer integrated gasification combined cycle demonstration project draft environmental impact statement*. U. S. Department of Energy (DOE/EIS-0318). Page 3-21.
[17] Ibid. Page S-10.

4

12/07 (cont.)
13/07

Comment No. 5 (cont.) **Issue Code: 21**

avoided and solutions integrated to avoid adverse public and environmental impacts. DOE believes that this is not a segmentation of the NEPA analysis as the transmission line is a related action and bounding estimates of impacts have been included in the relevant sections and chapters of the EIS.

14/20

Comment No. 6 **Issue Code: 07**

Impacts from the transmission line would be addressed in the NEPA document being prepared subject to RUS NEPA regulations. All impacts, including those to the Wild and Scenic Red River, would be addressed in this NEPA document. It is unlikely, however, that any impacts would occur since the transmission line would run northeast from the project site into Montgomery County, and the Red River lies to the south and east of the project site.

15/21
16/21
17/21

Comment No. 7 **Issue Code: 04**

Comment noted. Impacts to the visual setting of the project area are presented in Section 5.5, Aesthetic and Scenic Resources, of the EIS.

18/11

Comment No. 8 **Issue Code: 03**

1/16 (cont.)

As discussed in Section 5.5, Aesthetic and Visual Resources, the gasifier stacks may be visible from Pilot Knob. This has been addressed in consultations with the Kentucky Heritage Council. The criteria of adverse effect, as described in Section 5.4, Cultural Resources, has been applied to determine whether the undertaking would diminish the integrity of the resource. The Section 106 Review process has been completed and the Kentucky SHPO has issued a finding of no effect on historic properties from this project.

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information. We request that the DIES be reissued for public comment with a full identification and explanation of impacts, in accordance with NEPA. 19/21

Sincerely,

Ramesh Bhatt, Ph.D.
Sierra Club

cc: Heinz Mueller, Chief, Environmental Accountability Division, EPA, Region 4 (61 Forsyth St., S.W., Atlanta, GA 30303-8960.)

5

Comment No. 9 **Issue Code: 06**

As detailed in Table 5.7-3 of the EIS, maximum air quality impacts from the proposed project would be less than 1 percent of the relevant federal air quality standards for gaseous pollutants such as NO_x, SO_2 and CO. Maximum impacts of the proposed project on PM_{10} concentrations would be less than 4 percent of the federal 24-hour PM_{10} standard and less than 1.5 percent of the federal annual average PM_{10} standard.

A screening analysis of acid deposition issues has been made by using the following very conservative assumptions: that wind directions would blow continuously into a single 45 degree compass sector for the entire year, and that all sulfur compound emissions would be converted into sulfuric acid and deposited within 96 kilometers (60 miles) of the project site. Since the annual average wind speed for the Lexington region is 14.6 kilometers (9.1 miles per hour) (NCDC 2001), this represents less than 7 hours of transport time as an annual average. The resulting sulfur deposition rate would be an average of 1.9 kilograms per hectare (1.7 pounds per acre) of sulfuric acid per year. If this were dissolved in the annual average precipitation (113.16 centimeters [44.55 inches] per year), the resulting rainfall would have a pH increment of 5.47 attributable to the project's sulfur emissions. This is only slightly more acidic than the pH of precipitation through clean air in balance with existing atmospheric carbon dioxide concentrations. Even under unrealistically conservative assumptions, the proposed project would not have any significant impacts on acid deposition patterns in areas downwind from the facility.

The Kentucky Natural Resources and Environmental Protection Cabinet report on cumulative impacts from electric generating plants does not separate emissions from the KPE facility from those of the existing and proposed EKPC units at the J.K. Smith Site. Nevertheless, the analysis presented in the Kentucky Natural Resources and Environment Protection Cabinet report is consistent with the cancer

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Comment No. 9 (cont.) **Issue Code: 06**

risk evaluation presented in Table 5.7-4 of the EIS. However, the EIS presents a more conservative analysis based on 5 years of site data and the use of the official ISCST3 model as opposed to the 1 year of data and newer ISC model, which is not yet officially specified for permit applications, used for the Kentucky Natural Resources and Environmental Protection Cabinet report. The hazardous air pollutant risk evaluation in the Kentucky Natural Resources and Environmental Protection Cabinet report uses a lifetime cancer risk of 1 in a million as a conservative screening threshold. Table 5.7-4 of the EIS identifies five hazardous air pollutants that would exceed that screening threshold: arsenic, cadmium, chromium, nickel, and dioxins/furans.

The sulfur emission allowances that will have to be obtained by KPE for this facility apply only to electric generating plants. Since such emission allowances can be transferred on a national level, KPE's acquisition of these allowances will not significantly diminish the availability of such emission allowances. The PSD increment consumption by the proposed project also is small, and would not affect any proposed industrial facility that has emissions lower than the relevant major source thresholds. Thus, it is unlikely that the proposed project would affect the ability of "less polluting and more economically beneficial" industries to locate in the region.

Additional discussion of acid deposition and metal deposition issues has been added to Section 5.7.4 of the Final EIS.

Comment No. 10 **Issue Code: 20**

The *Cumulative Assessment of the Environmental Impacts Caused by Kentucky Electric Generating Units* report issued by the Kentucky Natural Resources and Environmental Protection Cabinet on December 17, 2001, has been reviewed and relevant sections of the EIS, including Section 5.14, Cumulative Impacts, have been updated to reflect issues presented by the report. The report raises concerns about arsenic and

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Comment No. 10 (cont.) **Issue Code: 20**
nickel levels exceeding risk-based screening values in the area should both the Kentucky Pioneer IGCC Demonstration Project and proposed peaker units operated by EKPC begin operation. These concerns have been added to Section 5.14, Cumulative Impacts; however, it should be noted that the Kentucky Natural Resources and Environmental Protection Cabinet report states that the majority of the arsenic and nickel emissions would be produced by EKPC's peaker units. The emission estimates determined in that report are based on continuous firing of a 90 percent natural gas and 10 percent fuel oil feed. These units would only operate during times of peak electrical demand, which translates to roughly 500 hours per year. EKPC intends to run the units using a 100 percent natural gas feed. They would only use fuel oil, the source of the hazardous air pollutants of concern, as a back-up fuel.

Comment No. 11 **Issue Code: 22**
All waste streams (air, water, and solid) generated by the project would be in compliance with federal, state, and local guidelines and ordinances. The presence of the facility should have no impact on future siting decisions for other businesses or industries in Clark County or Kentucky. No burdens to the economic health of the region as a result of this project have been identified. According to the *Cumulative Assessment of the Environmental Impacts Caused by Kentucky Electric Generating Units* prepared by the Kentucky Natural Resources and Environmental Protection Cabinet, further electric generation capacity often facilitates the development of the area economy.

Comment No. 12 **Issue Code: 07**
The cumulative effects of withdrawals from the Kentucky River by power plants have been discussed by the Kentucky Natural Resources and Environmental Protection Cabinet in their cumulative assessment report (KNREPC 2001), addressed in Section 5.14, Cumulative Impacts. The Cabinet acknowledges that because many of Kentucky's

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Comment No. 12 (cont.) **Issue Code: 07**
power plants are exempt from water withdrawal requirements, the Cabinet does not have an accurate inventory of the volume of water being removed each day by the existing power plants. However, the KDEP is able to limit withdrawals from permitted sources during periods of abnormally low flow. Although the proposed plant would not be a permitted withdrawal source, KPE has stated that they would cease water withdrawals if requested to by the state.

Comment No. 13 **Issue Code: 07**
Data provided in Section 4.8, Water Resources and Water Quality, on the mean flow of the Kentucky River at Lock 10 is from the U.S. Geological Survey from 1961 to 1999. This timeframe is inclusive of the timeframe used in the J.K. Smith EA (1961 to 1977). Therefore, the average annual flow estimated at the proposed site during that study is still assumed to be valid.

Comment No. 14 **Issue Code: 20**
In light of the projected population growth and associated industries in the affected area, the EIS acknowledges the cumulative effects of water withdrawal. It is a potential problem in all regions of the country, especially in those locations with declining water quality, including thermal pollution. The Kentucky River Authority website indicates that the annual average river flow at Lock and Dam 10 (Lexington) is 12.9 BLD (3.4 BGD). KPE's use, at 15.1 MLD (4 MGD), is about 0.1 percent of that flow. As discussed in Section 4.8, Water Resources and Water Quality, the 7-day low flow with a recurrence interval of 10 years is 371.5 MLD (98.2 MGD). Under these conditions, the plant withdrawals would be equivalent to about 4.0 percent of the low flow average. Thermal plumes have the potential to kill mobile aquatic and benthic organisms and shift aquatic populations. This effect can be cumulative and a statement to this effect has been added to Section 5.14, Cumulative Impacts, of the Final EIS.

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Comment No. 14 (cont.) **Issue Code: 20**

The Kentucky Natural Resources and Environmental Protection Cabinet has established regulatory limits relative to the Kentucky River, which explicitly provide them with a mechanism to establish thermal impact parameters. Kentucky regulations (401 KAR 5:031) contain specific seasonal (generally month to month) temperature limits, and on which permitted effluent limits are based. Project specific information will not be available until an application for a KPDES permit is submitted approximately 1 year (minimum time is 180 days) before plant operation. This will occur after the project is financed and the plant designed. However, effluent temperature will be limited, and will be established to avoid impacting the monthly Kentucky River receiving stream limits. Should low flow or drought conditions require the cessation of water withdrawal from the Kentucky River, an event that has not yet occurred, the plant would be shut down for that period of time.

Comment No. 15 **Issue Code: 21**

The Final PSD/Title V Air Permit, issued by the Kentucky Division for Air Quality on June 7, 2001, requires continuous emissions monitors for NO_x, SO_x, CO, O_2, and PM_{10}. Annual stack tests for all pollutants with emission limits established by the permit are also required. The KPDES permit, which will be obtained at least 180 days prior to commencing of construction, will also have effluent limits and monitoring requirements established by state regulations. Along with the required monitoring under the permit, KPE would monitor the levels of biological and chemical oxygen demand, pH, and temperature in any wastewater generated by the facility. Any monitoring and measurements would be based on usage limits and flows associated with natural gas-fired plants.

Sierra Club Cumberland Chapter
Lexington, KY
Page 10 of 12

Comment No. 16 **Issue Code: 21**

KPE has a contract in place with EKPC to provide power continuously for a 20-year period. The facility would not shut down after the 1-year demonstration period, but would continue to operate to honor the commitment to EKPC. As discussed in Chapters 1 and 2 of the EIS, the performance, technical, and economic data would be used to determine the commercial viability of the BGL gasifier at other new and existing facilities. Should the facility prove commercially viable, the demonstration would be considered a success. There would not be a new round of permitting following the end of the 1-year demonstration period. The PSD/Title V Air Permit issued by the Kentucky Division of Air Quality is final and does not require renewal following the demonstration. At the close of the demonstration period, the KPDES permit for water usage would also be final and not require renewal. Any required fuel feed component changes following the 1-year demonstration period would likely require modification of the air and water permits.

Comment No. 17 **Issue Code: 21**

An Environmental Management Plan will be required for the KPE project and must be approved by DOE before operation of the plant begins. Because the Plan would not be prepared until detailed design is complete, it was not available for inclusion in the Draft EIS. The Plan will be posted on DOE's Clean Coal Technology Compendium Website when complete (http://www.lanl.gov/projects/cctc/).

Comment No. 18 **Issue Code: 11**

There are distinct differences between gasification and incineration. Incineration occurs at atmospheric pressures and temperatures and mineral matter or ash in the waste is not completely fused. With incineration, there is increased production and emission of criteria pollutants. In contrast, gasification occurs at high temperatures and pressures which significantly reduces the formation of oxidative

Sierra Club Cumberland Chapter
Lexington, KY
Page 11 of 12

Comment No. 18 (cont) **Issue Code: 11**

species such as SO_x and NO_x. Incineration produces semi-volatile and volatile organic compounds and dioxin/furan compounds. Ash from hazardous waste incinerators is considered hazardous waste under RCRA. Analysis of vetrified frit produced from gasification processes has consistently been proven to be nonhazardous as defined by RCRA. In gasification, nonvolatile trace metals concentrate in the vitrified frit and are effectively immobilized eliminating or reducing their leachability.

The proposed project is not a conventional power plant burning coal or RDF. Instead of burning such fuels in a boiler system, the proposed project would use gasification technologies to chemically convert the coal and RDF mix into a syngas fuel consisting primarily of CO and H_2. The gasifier operates as a completely enclosed pressurized system. Gasification occurs at high temperatures which ensures complete destruction of toxic organic compounds and incorporation of heavy metals in molten slag. The molten slag is recovered by quenching as a nonleachable glassy frit. Gasification occurs in a carefully controlled environment. The process produces no air emissions. Furthermore, the high temperatures achieved during gasification prevent the formation of dioxins furans. A description of the gasification process can be found in Section 3.1.2.2 of the EIS.

The gasification of RFD and coal occurs at high temperatures and pressures and produces no air emissions. Incremental ambient air quality impacts from the proposed project (CTs and cooling towers) would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent for gaseous pollutants such as SO_2, NO_x, and CO and less than 4 percent of the federal 24-hour PM_{10} standard). The maximum air pollutant increments associated with emissions from the proposed project indicate that no significant short- or long-term air quality impacts would occur and health risks are expected to be minor.

Sierra Club Cumberland Chapter
Lexington, KY
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Comment No. 19 **Issue Code: 21**

DOE believes that the EIS fully addresses all impacts of the Proposed Action and No Action Alternative, as required by NEPA. The public comment period was extended through January 25, 2002. DOE will consider all public comments before issuing the ROD. The ROD will be issued no sooner than 30 days after the Final EIS is distributed and a notice of its availability is issued.

Smith, Bobbye W.
Winchester, KY
Page 1 of 1

Kentucky Pioneer Integrated Gasification Combined Cycle Demonstration Project
Draft Environmental Impact Statement
U.S. Department of Energy
National Energy Technology Laboratory

Written Comment Form
Must be received by January 4, 2002.

Bobbye W Smith
316 Snowden Dr
Winchester Ky 40391

As a resident of Winchester & Clark County I am not in favor of burning garbage or coal trucked here from another state. If we are going to spend the time & money we should use our own garbage or try other options such as wind power or solar power. I do not want my tax money going to fund Kentucky Pioneer Integrated Gasification. 1/16 2/22 1/16 (cont.)

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

Comment No. 1 **Issue Code: 16**
Comment noted. The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant. The issue of the Nation's funds are beyond the scope of the EIS.

Comment No. 2 **Issue Code: 22**
Comment noted. The issue of alternate power sources are outside the scope of the EIS.

Taulbee, Dan and Lisa
Lexington, KY
Page 1 of 1

Kentucky Pioneer Integrated Gasification
Combined Cycle Demonstration Project
Draft Environmental Impact Statement
U.S. Department of Energy
National Energy Technology Laboratory

Written Comment Form
Must be received by January 7, 2002.

Dear Sir,

I wanted to let you know I oppose the trash burning facility being considered near Winchester, Ky. I have friends who live near the proposed area and they are concerned about health issues such as air quality and long term effects on the environment. 1/16 2/11

Sincerely,

Dan Taulbee
1766 Blue Lick Rd
Lexington, Ky 40504

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

Comment No. 1 **Issue Code: 16**
Comment noted.

Comment No. 2 **Issue Code: 11**
No impacts to the general public's health and safety would be expected from the combustion of RDF. Incremental increases in air emissions from operation of the CTs and cooling tower would be a very small fraction of the relevant federal and state ambient air quality standards (less than 1 percent for gaseous pollutants such as nitrogen dioxide, sulfur dioxide, and carbon monoxide and less than 4 percent of the federal 24-hour PM_{10} standard). There would be no significant short- or long-term air quality impacts and health risks are expected to be minor.

U.S. Department of the Interior
Washington, DC
Page 1 of 1

Comment No. 1 **Issue Code: 21**
The comment period was extended through January 25, 2002.

United States Department of the Interior

OFFICE OF THE SECRETARY
Washington, D.C. 20240

ER 01/1096

DEC 20 2001

Mr. Roy Spears
NEPA Document Manager
National Energy Technology Laboratory
3610 Collins Ferry Road
P.O. Box 880
Morgantown, West Virginia 26507-0880

Dear Mr. Spears:

This is in regard to the request for the Department of the Interior's comments on the Draft Environmental Impact Statement for the Proposed Kentucky Pioneer Integrated Gasification Combined Cycle (IGCC) Demonstration Project in Clark County, Kentucky.

This is to inform you that the Department will have comments, but will be unable to reply within the allotted time. Please consider this letter as a request for an extension of time in which to comment. 1/21

Our comments should be available by January 25, 2002.

Sincerely,

Terence N. Martin, P.E.
Team Leader, Natural Resources
Management
Office of Environmental Policy
and Compliance

United States Department of the Interior
Atlanta, GA
Page 1 of 1

United States Department of the Interior

OFFICE OF THE SECRETARY
OFFICE OF ENVIRONMENTAL POLICY AND COMPLIANCE
Richard B. Russell Federal Building
75 Spring Street, S.W.
Atlanta, Georgia 30303

January 18, 2002

ER 01/1096

Mr. Roy Spears
NEPA Document Manager
National Energy Technology Laboratory
3610 Collins Ferry Road
P.O. Box 880
Morgantown, WV 26507

RE: Draft EIS for the Proposed Kentucky Pioneer Integrated Gasification Combined Cycle Demonstration Project, Clark County, KY

Dear Mr. Spears:

The Department of the Interior has reviewed the Draft EIS for referenced document. We have no comments at this time. Thank you for the opportunity to review this document. 1/16

Sincerely,

Gregory L. Hogue
Acting Regional Environmental Officer

cc:
FWS, Atlanta
OEPC, WASO

Comment No. 1 **Issue Code:16**
Comment noted.

United States Environmental Protection Agency, Region 4
Atlanta, GA
Page 1 of 3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JAN 23 2002

Mr. Roy Spears
NEPA Document Manager
U.S. Department of Energy
626 Cochrans Mill Road
Box 10940
Pittsburgh, PA 15236-0940

RE: EPA Review and Comments of
Draft Environmental Impact Statement
Kentucky Pioneer Integrated Gasification Combined Cycle Demonstration Project
CEQ No. 010426

Dear Mr. Spears:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject Draft Environmental Impact Statement (DEIS). The document provides information on the construction and operating of a 540 megawatt integrated gasification combine-cycle (IGCC) plant to be situated in Trapp, Kentucky, near the city of Lexington. The document evaluates environmental impacts of a Clean Coal Technology Program demonstration proposed to be partially funded by the Department of Energy (DOE). This technology uses fuel in the form of pelletized municipal solid waste heated with high sulfur coal and limestone forming a gas which is scrubbed of its sulfur prior to combustion in the IGCC turbines. The IGCC Demonstration Project is described as a waste minimization facility whereby inert ash from the gasification process would be converted into small amounts vitrified "frit", a glass-like waste material formed as slag in the bottom of the gasifying reactor vessels. Waste hydrogen sulfide discharge is converted into elemental sulfur of sufficiently purity as to be suitable for sale to commercial users. A two-megawatt molten carbonate fuel cell, a unit that generates electric power without using turbines and having negligible gaseous discharge to the environment, is also proposed as part of the project. The DEIS reports that there would be no significant waste stream associated with the molten carbonate fuel cell component of the Project.

EPA has the following comments about the IGCC project.

Wetlands - The DEIS states that there are no wetlands associated with the proposed site. The IGCC and gasification plant will be located on a previously-cleared and graded site that was to hold a conventional power plant which was never built because of lack of anticipated demand.

United States Environmental Protection Agency, Region 4
Atlanta, GA
Page 2 of 3

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While the plant site itself harbors no wetlands, attendant structures such as transmission lines may impact wetlands (see below). 1/07

Transmission Lines and Towers - The East Kentucky Power Cooperative (facility owners) would have to build approximately 17 miles of 138 kV transmission lines to support the IGCC Project. The environmental impacts of these lines may be excluded from NEPA review under the U. S. Department of Agriculture's Rural Utility Service (RUS) policies and procedures allowing transmission lines of less than 230 kV and less than 25 miles to be categorically excluded from the requirement to prepare an EIS. To address environmental issues, the RUS normally requires an Environmental Report (ER) that provides an environmental assessment for the application process for this size of transmission line.

EPA requests that the ER provides an examination of threatened and endangered (T & E) species that may be impacted by the 138 kV power transmission lines and associated towers associated with the proposed Project. Volant endangered species indigenous to Kentucky include the gray bay, the Indiana bat, the Virginia big-eared bat, American eastern peregrine falcon, arctic peregrine falcon, Bachman's warbler, Kirkland's warbler, and the ivory billed woodpecker. EPA encourages DOE's coordination with the U. S. Fish & Wildlife Service (FWS) on T & E issues as appropriate. There may also be wetland impacts associated with the construction of the transmission line towers as well; coordination with the Louisville Army Corps of Engineers would be advised to determine if Section 404 jurisdictional wetlands might be impacted. 2/08, 1/07 (cont.)

The following comments relate to specific items found in the DEIS.

Cooling Tower Discharge - The document did not clearly identify how much cooling tower discharge will be produced, and how the discharge blow-down will be disposed. The proposed IGCC plant will use1 million gallons per day (mgd) for condenser cooling and 3 mgd in process and cooling water makeup. To prevent mineral buildup within the system, cooling towers must regularly discharge mineralized water, and in conventional fossil fuel plants, blow-down is often discharged with the condenser cooling water. The final EIS would be improved if the means of disposal cooling tower blow-down were clarified. 3/07

Need to Reference Final Permit in the Final EIS - DOE references the "Draft PSD/Title V" permit issued for the project. The Kentucky Division for Air Quality (KDAQ) issued a final permit for prevention of significant deterioration (PSD) purposes on June 7, 2001. The final permit should be referenced in the final EIS. Any conclusions or recommendations in the DEIS based on the draft permit should be reviewed in comparison with the conditions of the final permit and revised as needed. 4/06

Restatement of Wind Direction Data - In Section 4.7.1 (page 4-20), DOE refers to six months of meteorological data collected in 1979 at a location near the Kentucky Pioneer site. Based on these data, winds at the site are described as "predominantly" from the south-southwest or northeast. Generally speaking, six months of meteorological data are not enough to establish 5/06

Comment No. 1 **Issue Code: 07**
The exact location of transmission line structures will be determined during the detailed design stage of the project. Typically, transmission lines can span sensitive areas such as floodplains and wetlands. If it were necessary to place structures in floodplains or wetlands, EKPC would apply for the necessary permits from the USACE.

Comment No. 2 **Issue Code: 08**
A NEPA document will be prepared in accordance with RUS NEPA regulations that will assess the potential impacts to threatened and endangered species from the transmission line. This assessment should be coordinated with the U.S. Fish and Wildlife Service (USFWS). Prior to transmission line construction, the NEPA document will be submitted to the USFWS for comment and/or concurrence.

Comment No. 3 **Issue Code: 07**
KPE states that the specific details on the cooling tower and associated blowdown cannot be identified until the plant design is in more advanced stages. However, KPE states that the volume of cooling tower blowdown is accounted for in the estimated 1.5 MLD (0.4 MGD) of wastewater produced by the plant. Cooling tower blowdown typically contains elevated levels of trace metals and salts. This waste stream would be treated along with all wastewater prior to discharge into the Kentucky River. Impacts to river biota are unlikely, as discussed in Section 5.8, Ecological Resources, of the EIS. Pollutant discharge limitations would be set by the Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water's Water Resources Branch and would be identified in the KPDES permit. These limitations would be established based on site-specific computer modeling of the expected effect on water quality of the Kentucky River at the proposed discharge point and in the mixing zone immediately downgradient. The limits specified in the permit would protect existing water quality.

United States Environmental Protection Agency, Region 4
Atlanta, GA
Page 3 of 3

3

wind direction predominance. DOE could state simply that the most common wind directions during the period of measurement were south-southwest and northeast, consistent with the alignment of the valley where the meteorological tower was located.

Inappropriate Citation - In Section 6.1.2 (page 6-3), DOE cites the general Kentucky regulation governing construction and operating permits for air emission sources. The citation is 401 KAR 50:035. This regulation no longer exists. DOE should consult the current set of Kentucky regulations and cite the appropriate regulation.

Need to Reassess BACT - When EPA Region 4 reviewed the draft PSD/title V permit for the project, our main concern was KDAQ's proposal to allow operation without the use of selective catalytic reduction (SCR) as best available control technology (BACT) to control emissions of nitrogen oxides. In the final permit, KDAQ allowed the facility owner to operate initially without SCR. After sufficient operating data have been obtained, however, the owner will be required to re-assess BACT for nitrogen oxides emissions and re-propose BACT for continued operation. DOE may wish to acknowledge this requirement in the final EIS.

Summary - Based on this review, EPA rates the draft EIS "EC-2", that is, environmental concerns about the project have been identified, and more information is needed to fully assess project impacts. Coordination should be done with FWS on T & E species potentially impacted by the proposed Project transmission line. Additional details of disposal of mineralized cooling tower blow-down is requested. Conclusions or recommendations in the DEIS based on the draft PSD/title V permit should be reviewed in comparison with the conditions of the final permit and revised as needed. Section 4.7.1 might be edited to simply state that the most common wind directions during the period of measurement were south-southwest and northeast, consistent with the alignment of the valley where the meteorological tower was located. After sufficient operating data have been obtained for nitrogen oxides, the owner will be required to re-assess BACT for nitrogen oxides emissions and re-propose BACT for continued operation; DOE may wish to acknowledge this requirement in the final EIS.

Thank you got the opportunity to review this project. If you have any questions or require technical assistance you may contact John Hamilton of my staff (404) 562-9617, or Jim Little at (404) 562-8576 for questions on air quality.

Sincerely,

Heinz Mueller

Heinz Mueller, Chief
Office of Environmental Assessment

5/06 (cont.)

6/21

7/06

8/21
2/08 (cont.)
3/07 (cont.)
4/06 (cont.)
5/06 (cont.)
7/06 (cont)

Comment No. 4 **Issue Code: 06**
Appropriate revisions have been made in the Final EIS. Additional text has been added in Section 5.7.4 of the EIS to reflect changes made in the final permit.

Comment No. 5 **Issue Code: 06**
Appropriate revisions to Section 4.7 have been made in the Final EIS.

Comment No. 6 **Issue Code: 21**
Comment noted. Section 6.1 has been revised.

Comment No. 7 **Issue Code: 06**
The Best Available Control Technology (BACT) study condition added in the Final PSD/Title V Permit has been referenced in the Final EIS. In addition, monitoring requirements identified in the Final PSD/Title V Permit have also been summarized.

Comment No. 8 **Issue Code: 21**
Appropriate sections have been revised throughout the EIS.

Vickery, Jon P.
Winchester, KY
Page 1 of 6

Mr. Roy Spears
NEPA Document Manager
U.S. Department of Energy
Morgantown, WV 26507-0880
FAX: 304-285-4403

JAN 25 2002

Comments on Kentucky Pioneer
Environmental Impact Statement

Page S-4, ¶1 "If enough data is generated . . ."
The word data is plural and requires the plural verb are. See Page 5-29, Section 5.10.1, line 1 for an example of correct usage.

Page 2-2, ¶4 "If enough data is generated . . ."
The word data is plural and requires the plural verb are. See Page 5-29, Section 5.10.1, line 1 for an example of correct usage.

Page 3-17, ¶3 and ¶4 Discussion of the frit produced in the gasification process states the metals present in the feed material become metal in the frit. If the frit is found to be hazardous, one must conclude that the incoming feed materials, especially the RDF, must contain these hazardous metals. The on-site storage addresses the possibility of leaching from RDF, but what safeguards are in place during the transport of the that material to the site? In particular, regardless of the direction the material arrives by rail car, there are streams and rivers to cross, communities to pass through, etc., etc. How will leakage, spillage, derailments, etc. be handled? Will Kentucky Pioneer be responsible for cleanup or is the rail carrier CSX responsible? Are there firms/agencies knowledgeable and prepared for RDF cleanups?

Page 3-17, ¶5 "Steam is produced . . ., enters the cooling tower, and is cooled . . ."
Flow charts on pages S-6 and 3-14 do not show a cooling tower in the usual understanding of a tower producing volumes of hot water/water vapor, the latter being then carried away by the local atmospheric movements. Is this somehow combined with the stack carrying away the combustion products/exhaust gases?

Page 3-22, Section 3.2.2.3 "The facility would require about 2,500 TPD of RDF, which equates to approximately 25 rail cars per day." Figures from earlier discussions of the bulk properties of RDF, most recently Page 3-21, Section 3.2.2. predict 31 or 32 cars is required to carry that tonnage. This is assuming that CSX open hopper cars are indeed carrying their maximum of 100 tons of coal. I live along the CSX line just south of the proposed site and watching coal cars go by on an hourly basis, I can't see that these cars could carry an additional 20% by volume. If the RDF must be shipped in closed container cars, I feel that closed hopper cars have even less capacity. This results in three unit trains per week and 150 units trains for the one-year demonstration period.
This same argument must be applied to the figures quoted for the impact if the RDF must be trucked to the site. See page 5-32, Section 5.11.1, paragraph 4

1/23

2/10

3/12

4/16

5/10

5/10 (cont.)

Comment No. 1 **Issue Code: 23**
According to the Merriam Webster Dictionary, verb usage with the word "data" is acceptable in either the singular or plural form.

Comment No. 2 **Issue Code: 10**
Comment noted. An Emergency Response Plan, which documents procedures for providing emergency response and cleanup for any project related spills during materials transport, has not yet been developed by KPE. The plan will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations. Section 5.11, Traffic and Transportation, has been modified to discuss the Emergency Response Plan.

Comment No. 3 **Issue Code: 12**
Chapter 3, Section 3.1.2.1, describes the handling and storage of raw materials, including RDF. Emergency Response Plans would be developed by KPE to address accidental spills, leaks, and derailments. KPE would be responsible for cleanup of all leaks and spills.

Comment No. 4 **Issue Code: 16**
The exact physical location of the cooling tower and the decision of whether or not it would be combined with facility stacks will be made during final design for the project. Detailed design is not conducted at this stage of planning as the NEPA process has not been completed. The entire facility footprint is only 4.8 hectares (12 acres), so the area in which it can actually be located is small.

Comment No. 5 **Issue Code: 10**
Comment noted. Calculations have been refigured using volume as a limiting factor for transportation.

Vickery, Jon P.
Winchester, KY
Page 2 of 6

Page 4-3, ¶1 "The ROI is a **three-county area in Kentucky comprised of Clark, Fayette, and Madison counties** . . ." The site is much closer by road to Estill, Powell, and Montgomery counties than Madison and Fayette Watching and driving in work traffic along KY highway 89 suggests these other counties will be impacted more than Madison and Fayette. Factory workers from these counties must travel to Clark, Fayette. Madison, and Scott counties already to find employment. This site would be more desirable to them simply from a lessening of commute time if nothing else.

Changing the ROI to Clark, Estill, Powell, and Montgomery counties with minor influences in Madison and Fayette makes the presentations in Sections 4.3.1, 4.3.2, and 4.3.3 sadly misstated. 6/02

Page 4-30, Section 4.8.2, ¶3, line 5 "More recent **data** . . . area **is** not available.
¶8, line 4: "Water quality **data** . . . **is** available for . . . "
The word **data** is plural and requires the plural verb **are**. See Page 5-29, Section 5.10.1, line 1 for an example of correct usage. 1/23

Page 4-38, Section 4.11.1 ¶2 "All **data was** obtained from the Kentucky . . ."
"The actual count **data** presented . . . **is** the average . . ."
"**Data is** only presented to MP 9.7 for . . . "
"**Data** for Kentucky Highway 52 **is** presented . . . "
"Capacity **data** for Kentucky Highways **is** unavailable . . . "
The word **data** is plural and requires the plural verb **were**. See Page 5-29, Section 5.10.1, line 1 for an example of correct usage. (cont.)

Page 4-38, Section 4.11.2 "**The** line segment . . . has been operating in the region for an extended period of time." Of greater concern should be the bridges the this segment pass over. Both steel bridges were built in 1912 and local residents recall few if any structural repairs/improvements to the framework. True, CSX periodically replaces rails and timbers (cross ties), but is not seen working on the framework. Since both bridges cross tributaries of the Kentucky River, upstream of both Lexington and Winchester water intakes, concern over the increased traffic leading to derailment and carloads of RDF falling into the waterways is a concern. 7/10

Plans call for the RDF to be stored on concrete at the site to eliminate the possibility of leaching suggesting there is concern over RDF components. If hazardous materials can leach out from rain on stockpiled RDF, what will happen if the material is spilled into a creek or river? Are there government agencies or private contractors who can get to an accident site under these bridges and clean up the RDF materials before contamination of the watershed and/or waterway occur? Who's responsible for clean up - CSX or Kentucky Pioneer? 8/07 3/12 (cont.)

Page 4-41, Section 4.13 Although Estill and Montgomery Counties are not considered in the ROI, they have the closest landfills to accept wastes generated during construction and operation. Since they will be affected by the traffic to and from those landfills, aren't they part of the ROI of this project? 9/10

Page 5-5, Section 5.3.3.1 "support structures are assumed to be constructed at the site, which is approximately **3.2 kilometers (2 miles) west of Trapp**, Kentucky.
Where is the site really? Earlier in the EIS (page S-4), the site is located **1.6 kilometers (1 mile) west of the community of Trapp**, Kentucky. 10/16

Page 5-6, Section 5.3.4.1, ¶1, line 4 ". . . cost $432 million and would take 30 **month** to . . ."
Common usage would expect ". . .months to construct. . ." 11/23

(2)

Comment No. 6 **Issue Code: 02**

The three-county ROI was established based on population and employment patterns determined from the U.S. Census Bureau's County Business Patterns. Based on the large population of Fayette and, to a lesser degree, Madison Counties (with respect to other counties in the area) and the large number of individuals employed in these counties in the construction field, these counties were selected for the ROI. Other counties in the area (Estill, Powell, and Montgomery) were not included because the smaller populations and county employment figures indicated that few workers would come from these counties. It is likely that several workers from these counties may find employment at the project site, but that number is expected to be minimal in comparison to the number employed from within the ROI. Section 5.3 of the EIS, Socioeconomics, addresses impacts to the ROI from any employees coming from outside the ROI for employment at the site.

Comment No. 7 **Issue Code: 10**

Comment noted. An Emergency Response Plan, which documents procedures for providing emergency response and cleanup for any project related spills during materials transport, has not yet been developed by KPE. The plan will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations. Section 5.11, Traffic and Transportation, has been modified to discuss the Emergency Response Plan.

Comment No. 8 **Issue Code: 07**

All materials transported on land would be enclosed in vehicles and would not be released to the environment under normal circumstances. In the event of an accident, some materials could be released to the environment. KPE would develop an Emergency Response Plan and an SPCC Plan during the project engineering and construction phase.

Vickery, Jon P.
Winchester, KY
Page 3 of 6

Page 5-6, Section 5.3.4.1. Entire section relates to impacts on the ROI, but the ROI used is grossly inaccurate, especially during construction phases. The jobs will draw more workers from Estill, Powell, Bell, Montgomery moreso than from Fayette and Madison. Unemployment and underemployment for those counties needs to be addressed. Those workers would most likely commute daily and have little impact on housing, schools, hospitals, etc., but a great effect on traffic. 6/02 (cont.)

Page 5-7, Section 5.3.4.1, ¶7 "The project location, **3.2 kilometers (2 miles) west of Trapp**. . ." Same question as Page 5-5, Section 5.3.3.1 above. 10/16 (cont.)

Page 5-12, Section 5.5.4, ¶3. "There would be visible plumes associated with the **cooling towers**." Same question as earlier: Where are the cooling towers in the diagrams of Page S-6 and 3-14? What is the content of the plumes? Is it just condensed water vapor or is it mixed with the exhaust combustion products? 4/16 12/06

Page 5-17, Section 5.7.4, ¶6, last line: "A **cooling tower** unit would be associated with the heat exchanger facility." Same question as above: Where are these towers in the diagrams? 4/16 (cont.)

Page 5-18, Section 5.7.4, 3rd paragraph on page: Cooling tower function finally described and identified in text and Table 5.7-1 as the major source of particulate matter pollution. Still not located on diagrams.

Page 5-22, Table 5.7-4: Nickel is listed as being the largest hazardous component downwind of the facility. The table lists only cancer risks from the exposure, but nickel is also a known producer of skin allergies/rashes. Where is mention made of that risk and data on the expected severity? 13/11

Page 5-24, Section 5.8-4, ¶2 "The Kentucky Pioneer . . . withdraw a total of **15.1 (4MGD)** . ." The statement is missing the units **MLD**. 14/23

Page 5-25, Section 5.8-4, ¶6: "The storage and handling of . . . RDF could present potential new groundwater contamination sources . . ." If the RDF can contaminate water when stored on site, there then exists the possibility of contamination of water during **transportation** to the site. What precautions and procedures will be in place in case of spill due to accidents, derailments, etc.? See page 4-39, Section 4.11.2 above. 8/07 (cont.)

Page 5-29, Section 5.10.1 " . . . and the community of Trapp is **about 3.2 kilometers (2 miles)** from the main facility site." Which is it: 1 mile (page S-4) or 2 miles? 10/16 (cont.)

Page 5-30, Section 5.10.4, ¶7 "The facility would require . . . **25 rail cars per day each of RDF pellets** and coal." Earlier in the EIS, the densities of coal and RDF were compared and to get equal weight of RDF will require 56/44 greater volume or number of rail cars per day. See Page 3-22, Section 3.2.2.3 above. 5/10 (cont.)

Page 5-32, Section 5.11.1, ¶1 "The commuting periods are established as **7:30 a.m. to 9:30 a.m** for the morning commute, and **4:30 p.m. to 6:30 p.m.** for the evening commute. In reality, the morning commute period for Highway 89 between the Trapp site and Winchester is pretty much over by 7:30 a.m. as the majority of that traffic is factory workers coming up from Estill and Lee counties to work in factories in Georgetown, Lexington, and Winchester. Since most factory shifts begin in the 6 to 7 a.m. range, workers will be traveling much earlier than that. The same is true for evening commute; the majority of the factory traffic will be thru Trapp by 4:30 p.m.
What this means is that construction worker traffic will be added to the 15/10

(3)

Comment No. 8 (cont.) **Issue Code: 07**

These plans would detail KPE's planned response and clean-up methods for any spills or emergencies that occur on the J.K. Smith Site. In addition, the Kentucky Division of Water's Emergency Response Team should be called ([502] 564-2380 or 1-800-928-2380) in event of an "environmental emergency." The spill or unexpected discharge of a hazardous material that threatens the life, health, or safety of citizens or the environment is considered an environmental emergency. More information on the Emergency Response Team can be found on the Internet at http://water.nr.state.ky.us/dow/dwert.htm.

Comment No. 9 **Issue Code: 10**

The three-county ROI was established based on population and employment patterns determined from the U.S. Census Bureau's County Business Patterns. Based on the large population of Fayette and, to a lesser degree, Madison Counties (with respect to other counties in the area) and the large number of individuals employed in these counties in the construction field, these counties were selected for the ROI. The ROI is established for the analysis of social and economic impacts resulting from the project and is referenced in the traffic and transportation analysis. It is not meant as a limiting region for traffic impacts. Section 5.11, Traffic and Transportation, has been revised to include the method of waste transport offsite.

Comment No. 10 **Issue Code: 16**

The distance presented in the Summary of the EIS, on page S-4, refers to the distance from Trapp to the boundary line of the J.K. Smith site. The distance presented in Section 5.10.1, page 5-29, refers to the distance from Trapp to the main facility, which is a mile within the J.K. Smith Site boundary.

Comment No. 11 **Issue Code: 23**

Comment noted. The change has been made to the document.

Vickery, Jon P.
Winchester, KY
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existing traffic along Highway 89. In addition, Clark County school buses begin using that route before 7 a.m. and after 3 p.m. Granted, some of the construction traffic may be in the opposing lane both times, but this limits the speeder's ability to pass and will ultimately lead to increased accidents.

Page 5-32, Section 5.11.1, ¶3 "Based on established traffic data . . . it is assumed that each vehicle is occupied by **1.2 individuals.**" That number may be valid when all traffic during a week is counted, i.e., commuters, school buses, family trips to shop or attend church, etc. are included **but** if only commuter traffic is counted, that occupancy drops to just slightly over 1.0. My informal counts of recent construction worker traffic toward this site yielded about 1 vehicle in 20 having more than 1 individual or a 1.05 occupancy. Thus unless the contractor provides mass transport or an incentive to truck pool, this figure (1.05) should be used to calculate the traffic volume changes produced by construction at the site.

Page 5-32, Section 5.11.1, ¶4 "For delivery purposes, a truck is assumed to haul **18 metric tons (20 tons)** of cargo per load and a rail car is assumed to haul **91 metric tons (100 tons)** of cargo per load." Again, referring to the bulk density of RDF compared to coal, a container can hold only about 78% the weight of coal when filled with RDF. Since usage is measured in weight, not volume, additional truck and rail car loads of RDF will be required over those quoted in this paragraph. This leads to additional daily/hourly truck traffic in and out of the site. The arithmetic needs to be redone for both truck and rail traffic.

Page 5-33, Section 5.11.4, ¶1 "During periods of average construction worker staffing, an additional **1000 vehicle trips** . . . **500** at the beginning . . . and **500** at the end . . . . This number would increase to **1,666** vehicle trips per day . . .,**833** at the beginning of the shift and **833** at the end of the shift." These numbers were computed based on a 1.2 vehicle occupancy. As pointed out in Section 5.11.1, the correct number for commuter, construction worker traffic is probably closer to **1.05**. Recomputing with this occupancy rate raises the average construction time to **570** vehicle trips morning and afternoon and during peak construction to **950** vehicle trips morning and afternoon.

Page 5-33, Section 5.11.4, ¶2 "Another reason that traffic generated . . . should not impact existing traffic flows is that the typical construction shift . . . **around 7:00 a.m. and 3:00 p.m.**" This is true, but the existing traffic flow on Highway 89 peaks during those same time periods as the **commuters** are factory workers traveling to Winchester and beyond for shifts in that same time period. Thus both lanes, toward and away from Winchester, will be full. See similar discussion under Page 5-32, Section 5.11.1, ¶1 above.

Page 5-34, Section 5.11.4, ¶4 "The trucks disposing of construction wastes . . . located in Montgomery County. . . . New truck traffic . . . should have little or no impact on existing traffic." Earlier this paragraph states truck traffic will be **one every 7.5 minutes during the work day.**" Since Montgomery County is affected, shouldn't they be included in the ROI? Have they been made aware of their role in construction and operation? Were they even invited to the scoping sessions? Were they provided with copies of this EIS?

Page 5-34, Section 5.11.4, ¶7 "As stated earlier, the facility would require 51.4 rail cars of material supplies per day to operate, **25 cars of RDF pellets**, 25 cars of coal, and 1.4 cars of limestone." Previous sections pointed out the lower bulk density of RDF pellets compared to coal, 44/56 the fraction quoted. Thus identical rail rars, one carrying 100 tons of coal will only hold about **78 tons of RDF pellets**. Thus to achieve 2500 tons of RDF pellets will require about **32 carloads of RDF** per day increasing daily rail traffic to about 58.4 rail cars per day.

(4)

15/10 (cont.)

16/10

5/10 (cont.)

16/10 (cont.)

15/10 (cont.)

9/10 (cont.)
17/21

5/10 (cont.)

Comment No. 12 **Issue Code: 06**

The plume will be visible on occasion because of condensed water vapor. All of the emissions associated with operation of the gas turbines also will be present in the plume.

Comment No. 13 **Issue Code: 11**

No reference to noncancer endpoints for nickel were evaluated in the EIS. Some nickel compounds (e.g., nickel chloride) can penetrate skin, especially if the skin has been damaged. Skin exposures to the general public are predominantly to nickel metal found in jewelry, coins, buttons, zippers, and cooking utensils. Allergies and rashes due to nickel exposure are due to sensitization from frequent or prolonged contact with nickel-containing or nickel-plated consumer products. In persons not sensitive to nickel, normal, long-term oral, inhalation, and skin exposure to low levels of this element have not been associated with adverse health effects. Nickel metal does not readily penetrate the skin and, thus, the likelihood of developing skin allergies and rashes would be extremely low.

Comment No. 14 **Issue Code: 23**

Comment noted. The change has been made to the document.

Comment No. 15 **Issue Code: 10**

The construction commute times are based on estimates of shift times provided by KPE and those determined from other construction work performed throughout the region. Commuting patterns and times used in the analysis are statistically derived from standard traffic commute patterns throughout the region. As discussed in Section 5.11 of the EIS, Traffic and Transportation, the construction shift typically starts very early in the morning, approximately 7 a.m., and ends early in the afternoon, approximately 3 p.m. This would require workers to be onsite before this time, thus limiting interference with morning commutes, and leave the site early in the afternoon, which limits interference with evening commutes.

Vickery, Jon P.
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Page 5-35, Section 5.11.4, ¶8 "As stated earlier, the equivalent number of trucks required is . . .257." Again, as stated earlier, the **lesser bulk density of RDF** will permit the same size truck to carry **15.6 tons of RDF** compared to 20 tons of coal. Thus to provide 2500 tons per day of RDF will require **158** truck loads per day, raising the toal to **290** per day or one truck trip every **2 1/2 minutes** during a 24-hour period. | 5/10 (cont.)

Page 5-37, Section 5.12.3, ¶4 "Since EMF **attenuates** with distance . . ." Your own glossary, page viii, defines EMF as electric and magnetic **fields**, the plural form. Thus the statement above should be "Since EMF **attenuate** with distance . . ." | 18/23

Page 5-37, Section 5.12.3,¶4 "Because there is still **scientific uncertainty about EMF**, . . ." The uncertainty is not about EMF, but about their long term effects on plants and animals. I feel this could be stated: "**Because there is still scientific uncertainty about the long term effects of EMF on plants and animals, the human effects of EMF from the proposed facility cannot be fully evaluated at this time.**" | 19/23

Page 5-38, Section 5.12.4, ¶3 "Although there is some potential for **fire or ignitability from coal storage**, . . . " This suggests there is **no potential for fire from RDF storage**. Really? Aren't the pellets going into the same reactor as the coal? Don't paper and plastic (a major fraction of RDF) have lower kindling temperatures than coal? | 20/12

Page 5-49, Section 5.17, ¶3 "The gasifier requires feeds of 2,268(2.500 tons) per day . . . " The quantity mentioned has no primary units; the alternative quantity specified suggests the intent was 2,268 **metric tons** (2,500 tons) | 21/23

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Comment No. 15 (cont.) **Issue Code: 10**
The Transportation Division of the Clark County School Board indicates that schoolbuses utilize Kentucky Highway 89 when construction workers would be leaving the site. Section 5.11, Traffic and Transportation, has been modified to reflect the impacts of added vehicles on schoolbus usage.

Comment No. 16 **Issue Code: 10**
The vehicle occupancy rates utilized in the analysis were statistically derived from regional and national traffic and passenger count data. The section has been modified to reflect sampling error in the statistics used. The vehicle occupancy rate of 1.2 passengers per vehicle is now used as a low-end estimate for impacts. See Section 5.11 of the EIS, Traffic and Transportation, for a revised impact estimate.

Comment No. 17 **Issue Code: 21**
The public hearing dates, times, and locations were announced in the *Federal Register*, in local newspapers *The Winchester Sun* and *The Lexington Herald-Leader*, and in public service announcements. The Final EIS will be distributed to elected officials and any interested parties in neighboring counties.

Comment No. 18 **Issue Code: 23**
Comment noted. The change has been made to the document.

Comment No. 19 **Issue Code: 23**
Comment noted. The change has been made to the document.

Comment No. 20 **Issue Code: 12**
Comment noted. The probability of spontaneous combustion of RDF pellets in storage is low. Adequate fire safety prevention measures would be implemented to reduce the likelihood of spontaneous combustion of RDF pellets.

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Comment No. 21 **Issue Code: 23**
Comment noted. The change has been made to the document.

Wurtenberger, Patty Rae
Winchester, KY
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Kentucky Pioneer Integrated Gasification
Combined Cycle Demonstration Project
Draft Environmental Impact Statement
U.S. Department of Energy
National Energy Technology Laboratory

Written Comment Form
Must be received by January 4, 2002.

18 DECEMBER 2001

RE: BURNING OF GARBAGE & COAL AT JK SMITH PLANT IN CLARK COUNTY, KY

I FEEL THAT IT WOULD BE DETRIMENTAL TO MY AREA TO BRING IN GARBAGE FROM OTHER STATES AND OTHER COUNTIES IN MY STATE TO BURN IN MY COUNTY. I ALSO FEEL THAT BURNING COAL WOULD VERY MUCH CONTAMINATE THE ATMOSPHERE OF MY LOCAL AREA. THE THOUGHT OF BURNING BOTH OF THESE TOGETHER IS OBNOXIOUS TO ME. I DO NOT THINK IT IS OUR PROBLEM TO TAKE ON OTHER STATE'S GARBAGE. I IMAGINE WE HAVE ENOUGH OF OUR OWN.

I WOULD ALSO LIKE TO KNOW WHERE THE EPA STANDS ON THIS ISSUE. I STRONGLY OPPOSE THIS PLAN.

Patty Rae Wurtenberger
315 Graves St.
Winchester (Clark Co.) Ky 40391

Please use other side if more space is needed.

Comment forms may be mailed to:
Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Comment forms may be faxed to:
Mr. Roy Spears
(304) 285-4403

1/16

2/06

1/16 (cont.)

3/21

Comment No. 1 **Issue Code: 16**

The relatively small amounts and generally widely dispersed nature of MSW in Kentucky does not economically support exclusive utilization of Kentucky-generated MSW to produce RDF supplies. Importing RDF from a densely populated metropolitan area is more economically viable in order to supply the necessary amount of RDF required to operate the plant.

Comment No. 2 **Issue Code: 06**

Comment noted. The proposed project is not a conventional power plant burning coal or RDF. Instead of burning such fuels in a boiler system, the proposed project would use gasification technologies to convert the solid fuels into a syngas rather similar to natural gas. That syngas fuel would be the fuel burned in the gas turbine generator system. As illustrated in Table 5.7-3 of the EIS, maximum air quality impacts from the proposed project would be less than 1 percent of the relevant federal air quality standards for gaseous pollutants such as NO_x, SO_x, and CO. Maximum impacts from the proposed project on particulate matter concentrations would be less than 4 percent of the federal 24-hour PM_{10} standard and less than 1.5 percent of the federal annual average PM_{10} standard. Table 5.7-4 of the EIS identifies estimated maximum downwind concentrations of hazardous pollutants expected to be emitted by the proposed facility and the associated maximum lifetime cancer risks.

Comment No. 3 **Issue Code: 21**

Comments provided by EPA and DOE's responses to those comments are included in this appendix. EPA's comments are on page D-407.