

Crewe, Phil
Lexington, KY
Page 1 of 5

Phil Crewe
1817 Traveller Road
Lexington, Kentucky 40504
859/277-4512

January 24, 2002

Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Mr. Spears:

Here are my additional comments regarding the Kentucky Pioneer Integrated Gassification Combined Cycle Demonstration Project Draft Environmental Impact Statement, January 24, 2002. These comments are in addition to the ones I verbally submitted at the public hearing in Lexington.

The Draft Environmental Impact Statement gives a superficial treatment of several important issues raised by the facility's proposed siting at Trapp Kentucky. Perhaps the most important is that of the environmental fate of the heavy metals found in the enormous quantity of municipal waste that will be imported from the northeast U.S. Clearly, the draft leaves open the possibility that the "vitrified frit" will be hazardous waste: "The vitrified frit would be analyzed to determine if it is hazardous...If the hazardous constituents cannot be removed or the frit is not 100% marketable, it would be disposed of at an appropriate hazardous or solid waste disposal facility." While in the summary it is stated that hazardous wastes would be disposed at an "approved hazardous waste landfill outside of Kentucky", there is probably nothing legally binding in this statement and there can be no assurance that the operators wouldn't attempt to create such a facility in Kentucky. Our region should not be forced to assume permanent custodianship of toxics from northeastern garbage.

If the frit is not "toxic" in a legal sense, (that is, it passes the applicable leach test) but is not completely marketable, it presumably will end up in a Kentucky or regional landfill. Kentucky has made a great effort to deal with its own landfill issue. Our landfill capacity should not be consumed to enable the northeast to avoid dealing with its own solid waste problem. Market forces in that region should be allowed to encourage waste reduction, reuse, recycling, and composting.

Even if the frit "passes" the statutorily mandated leach test on a regular basis and is sold as fill material or road aggregate, can we really be assured that leaching of heavy metals into the natural environment will not occur? I doubt it. MSW is an inconsistent and heterogeneous material. Its variability as a feedstock might very reasonably be expected to result in temporal or spatial spikes of leachability that could go undetected. In any case, there is nothing in the Draft EIS concerning the testing methods, (which tests, how large a sample, how representative of the total and how often it will be done) and who will do it. There is certainly not enough information to assume our soil and watersheds will be protected from the long-term leaching of Cadmium, Mercury, Nickel and other toxics.

There is no assurance that toxics won't be "cocktailed" into the RDF in a criminal way.

The claim is made in the summary (s-7) that this facility "does not actually combust any MSW" even though it is permitted by the U.S. EPA as a municipal waste combustor. under 40CFR60. To make this entirely misleading statement requires invoking one or two distortions: The first is that making fuel pellets out of the MSW means that it is no longer MSW. Removing "white goods" and aluminum does not

Comment No. 1

Issue Code: 22

Because of DOE's limited role in 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. DOE finds that the EIS presents the full scope of environmental impacts from the proposed project.

Comment No. 2

Issue Code: 12

Vitrified frit produced from the gasification process is a commercial product, not a waste. The constituents of the frit are immobilized in a glass matrix making them resistant to corrosion (nonleachable) in the environment. The vitrified frit consists primarily of ash (99.2 percent by weight) composed of oxides of the following elements: silicon (SiO₂), aluminum (Al₂O₃), titanium (TiO₂), iron (Fe₂O₃), calcium (CaO), magnesium (MgO), potassium (K₂O) and sodium (Na₂O). The frit also consists chloride, fluoride, antimony, arsenic, beryllium, boron, cadmium, chromium, cobalt, copper, lead, manganese, mercury, molybdenum, nickel, silver, thallium, vanadium and zinc. The frit from gasifiers operating on a 100 percent coal feed has consistently been shown to be nonhazardous under RCRA. Since this project will be using a different feed stream, the first batch of frit should be tested to ensure that it meets all TCLP criteria and is therefore nonhazardous. Vitrified frit is expected to pass the more stringent Universal Treatment Standard criteria of the EPA-TCLP analytical method. Chapter 3 of the EIS has been refined to include a more detailed description of the frit.

Since there are no hazardous waste treatment facilities in the State of Kentucky, any hazardous waste generated onsite would be managed in accordance with applicable state and RCRA's hazardous waste regulations (40 CFR Parts 260 to 270) and disposed of at an "out-of-state" licensed hazardous waste disposal facility.

Crewe, Phil
Lexington, KY
Page 2 of 5

Letter to Mr. Roy Spears
Page Two

transform garbage into something else. It is still garbage and will contain the vast amalgamation of pollutants found in garbage.

The other distortion is that combustion is not a part of the gassification process. This claim was also made by Mike Musulin, President of KPE, in a Lexington Herald-Leader op-ed piece dated 7/23/01. Combustion certainly is a part of the chemical process, even if the overall picture is one of pyrolysis in a (mostly) oxygen-starved environment. Combustion might be defined as the highly exothermic self-sustaining reaction of a flammable material in the presence of air or oxygen. In the vicinity of the oxygen ports, at 3200degrees F, the flammable material present is certainly undergoing combustion.

The process diagram on page s-1 shows an aqueous effluent exiting the "gas liquor separator". This appears not to be re-injected into the gassifier. What pollutants will it contain? Mercury? Tars, oils and aromatic hydrocarbons? What treatment will it receive before it enters the Kentucky River (above the water intakes of the cities of Central Kentucky)? The Draft EIS fails to discuss this effluent, its character, or its treatment.

The Draft EIS mentions the flare used to vent the gassifiers in the event of a malfunction or emergency. Since this is a direct venting into the atmosphere, any substances that were not destroyed by the flare would escape. What would be the nature of this release? Would it produce dioxins or furans? (The flare would not have the reducing conditions present in the gassifier.) How much Mercury would be released?

In general, the Draft EIS is very lacking. It is lacking in reference to previous experience with gassification of MSW under the conditions present in this plant, either at the pilot plant or full-scale level. If the proponents of this project credibly know what the character of the effluents and by-products of this plant will be, there is no experience-based justification offered for their confidence.

Sincerely,



Phil Crewe

Comment No. 2 (cont.)

Issue Code: 12

Creation of hazardous waste landfills and the disposal of northeast municipal waste in the State of Kentucky are beyond the scope of this EIS.

9/16
(cont.)

Comment No. 3

Issue Code: 12

Comment noted. At this time, no decisions have been made about disposing of the frit because KPE anticipates that the frit would be marketable. Chapter 3 of the EIS has been revised to show the importance to KPE of ensuring the frit is nonhazardous.

10/16

Comment No. 4

Issue Code: 22

Comment noted. The issue is beyond the scope of the EIS.

11/07

Comment No. 5

Issue Code: 16

Variability in the RDF content is dependent on the MSW supply. However, RDF production methods inherently yield fairly uniform and homogeneous pellets. 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.

12/06

1/22
(cont.)

13/16

Comment No. 6

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, O₂, and PM₁₀. 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 before commencing construction, will also have effluent limits and monitoring requirements established by state regulations. In addition to 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

Crewe, Phil
Lexington, KY
Page 3 of 5

Comment No. 6 (cont.)

Issue Code: 21

would be based on usage limits and flows associated with natural gas-fired plants.

Comment No. 7

Issue Code: 05

All raw materials and wastes would be stored and handled in enclosed areas that would not be in direct contact with local soil. Therefore, no impacts to local soil quality would be expected from operation of the plant.

Comment No. 8

Issue Code: 22

The Summary and Chapter 3, Section 3.2.2, of the EIS discuss RDF pellets. RDF is made from MSW, not hazardous waste, which has significantly higher levels of toxic materials. MSW is defined by EPA as durable and nondurable goods such as appliances, tires, batteries, newspapers, clothing, packaging, paper wood pellets, and food waste. While some of these goods contain toxic materials, EPA has found that household hazardous waste is comprised of less than 1 percent of MSW. The possibility of “cocktailed” toxins in RDF is unlikely based on the constituents used to generate it.

Comment No. 9

Issue Code: 16

Chapter 3, Section 3.2.2.2 of the EIS, discusses the production and composition of the RDF pellets. 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. Chapter 3 of the EIS explains the BGL gasification process. The RDF pellet and coal cofeed is heated in a 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.

Crewe, Phil
Lexington, KY
Page 4 of 5

Comment No. 10

Issue Code: 16

Chapter 3, Section 3.2.2.2, of the EIS, discusses the production and composition of the RDF pellets. 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. Chapter 3 of the EIS explains the BGL gasification process. The RDF pellet and coal cofeed is heated in a 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. 11

Issue Code: 07

The process diagram in the Summary, Figure S-1, of the EIS, was not intended to be a detailed construction drawing, but was included to represent a general depiction of the overall process. KPE states that the specific details of the nature and degree of aqueous effluent cannot be identified until the plant design is in more advanced stages. Prior to treatment, this waste stream may include pollutants such as metals, tars, and oils. However, 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 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.

Crewe, Phil
Lexington, KY
Page 5 of 5

Comment No. 12

Issue Code: 06

Emissions from the flare system, when combusting syngas during malfunction periods, would be similar to those from any gaseous fuel combustion system. Emission rates would vary somewhat from those of the gas turbines but would include essentially all the same pollutants. NO_x emissions would be lower than those from the gas turbines due to a lower combustion temperature. Sulfur dioxide emissions would be higher than those from the gas turbines since the syngas flow to the flare would not have been processed for sulfur recovery. Dioxin/furan formation would be lower than for the gas turbines due to lower combustion temperature and shorter residence time in the combustion zone. Mercury emissions would be similar to those for the gas turbines since neither system has emission controls designed to remove mercury. The air quality permit allows emission limits to be exceeded during process malfunctions for no more than 2 hours. The proposed facility is designed to allow full shutdown in well under 2 hours in the event that there is a malfunction that is not readily correctable.

Comment No. 13

Issue Code: 16

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 issuance of the ROD. This project would be the first commercial-scale application of the co-fed BGL technology in the United States. The technology has also been used at the Schwarze Pumpe facility in Germany and the Westfield facility in the United Kingdom.

Gen. Apps, Inc.
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

JAN - 7 2002

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

I would like to raise my concerns
about the new power plant to be built in
Trapp, KY. This power plant will be powered
by compacted waste and/or coal (as I was
informed). First of all coal burning emits
sulfur by-products which have been proven
to create acid rain. Compacted waste will
release heavy metals (mostly from painted
materials) which are hazardous to human
health (especially kids). This power plant
will be located very close from small
communities (less than a mile) and about 5 to
10 miles from cities (Winchester, Irvine, Richmond).

I am strongly opposed to such projects.
Vincent Robert Scientist 4262 Colby Road
GenApps Inc. Winchester KY 40391

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: 06

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 syngas similar to natural gas. That syngas would be the fuel burned in the gas turbine generator system. More than 99 percent of the sulfur content of the raw fuel materials (coal and RDF pellets) would be removed and recovered as a marketable byproduct. The syngas would have a sulfur content similar to that of fuel oil, which is much lower than that of coal.

Chapter 5, Section 5.7 of the EIS, Air Resources, has been revised to discuss the sulfur content of syngas fuel and to clarify that acid deposition impacts would not be significant.

1/06

Comment No. 2

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

2/11

3/16

Comment No. 3

Issue Code: 16

Commented noted.

Gulick, Brandon
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 4, 2002.

I am against polluting the air.
I like nature and the beautiful skies
and trees and animals. I want my
children to be able to see this also.

Brandon Gulick

1/06

Comment No. 1

Issue Code: 06

Comment noted. Incremental ambient air quality impacts from the 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 standards for PM₁₀). 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.

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

Gulick, Michael
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 4, 2002.

I AM AGAINST BURNING WASTE AND
POLLUTING THE AIR.

Michael Gulick

| 1/16
| 2/06

Comment No. 1
Comment noted.

Issue Code: 16

Comment No. 2

Issue Code: 06

Comment noted. Incremental ambient air quality impacts from the 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 standards for PM₁₀). 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.

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

Gulick, Pam
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 4, 2002.

I oppose of the integrated gasification
cycle demonstration project. Burning waste
and polluting the air. And also the
big Semi-Trucks traveling on 89 is
unsafe and ~~is~~ ~~is~~ tears up
the highway & makes it dangerous. Because
there are huge pot holes. that you
have to go around, because they will hurt
your automobile.

Pam Gulick

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
Comment noted.

Issue Code: 16

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 similar to natural gas. That syngas fuel would be 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 nitrogen dioxide, sulfur dioxide, and carbon monoxide. Maximum impacts from the proposed project on particulate matter concentrations would be less than 4 percent of the federal 24-hour PM₁₀ standard and less than 1.5 percent of the federal annual average PM₁₀ 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.

1/16

2/06

3/10

Comment No.3

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, Traffic and Transportation, has been revised to address the concerns of damage to the local roads.

Herrick, Will
Campton, KY
Page 1 of 108



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.

SIR,
Please find enclosed
my written comments.
Will Herrick
4859 Flat Mary Rd
Campton, KY
41301

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

**Herrick, Will
Campton, KY
Page 2 of 108**

**Comments on the Kentucky Pioneer IGCC Draft
Environmental Impact Statement**

Will Herrick
4859 Flat Mary Rd
Campton, Ky 41301

January 22nd, 2002

Page 1

Herrick, Will
Campton, KY
Page 3 of 108

Table of Contents

DEIS Comments pp 1-20

Appendix A: Bibliography of Fritted Slag

Appendix B: Clean Coal Today, Issue No. 39, Spring 2000

Appendix C: Integrated Gasification Fuel Cell Demonstration Test

Appendix D: EKPC request for Spurlock Permit after KPE fails to acquire funding.

Appendix E: APPLICATION OF BGL GASIFICATION OF SOLID HYDROCARBONS FOR IGCC POWER GENERATION. Global Energy Inc.

Appendix F: KRS 224.010(20), 15% limit on RDF before being classed as A Waste-to-Energy facility

Appendix G: Section 1 of the Air Quality Permit issued June 7, 2001

Appendix H: Kentucky Resource Council: Letters to DOE & KY DWM wrt Trapp Facility

Appendix I: Increasing Electricity Availability From Coal-Fired Generation in the Near-Term. National Coal Council

Herrick, Will
Campton, KY
Page 4 of 108

Mr. Roy Spears
U.S. Department of Energy
National Energy Technology Laboratory
3610 Collins Ferry Road
Morgantown, WV 26507-0880

Sir,

I have the following comments on the Kentucky Pioneer (KP) Integrated Gasification Combined Cycle (IGCC) Draft Environmental Impact Statement (DEIS).

There are manifest virtues to the promotion of our national understanding of advanced power generation technologies. However, significant flaws and omissions in the DEIS negates both the DOE assessment that this plant meets DOE's stated needs and the conclusion that it should be funded. The DEIS lacks critical information about the plant design that makes it impossible to assess the environmental impact of the Trapp facility.

The DEIS needs repair and a new round of public review before any Federal dollars are released.

The Federal issues of concern in this DEIS are:

- Weak argument: 'Purpose and Need for Agency Action.'
- Compromised demonstration of 'Clean Coal'
- Flawed premises: 'No Action Alternatives'
- Failure to consider other sources of power.
- Likely failure to get local permits.
- Conflict with state law.
- Intent to disregard the outcome of the research.
- Unreliable partners, private funding delays, inadequate planning & past failures.
- Disregard for social justice and environmental issues.
- Inadequate design data.

Weak Argument: 'Purpose and Need for Agency Action.'

The need for agency action is not well supported by the DEIS. As well, goals described as the basis for the proposed actions may have already been met without investment of Federal dollars.

The need for a successful demonstration of a largely coal fired IGCC facility using Federal funds, as stated in the DEIS section 2.2, is already satisfied by available information. Global Energy is building an MSW fired IGCC plant identical to Trapp, but for the fuel cell, in Lima Ohio without Federal monies.¹ The National Coal Council has said 'The technology has been successfully demonstrated at commercial scale in the U.S. and worldwide.'² Existing facilities include Wabash River,

¹ RA Bailey, Sr VP Global Energy, Panel Discussion, Oct 9, 2001 www.gasification.org/98GTC/GTC01030.pdf
² Appendix I:

Comment No. 1

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 of the EIS has been revised to provide more detail on the gasification process, including the production of the vitreous frit. Detailed 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 issuance of the ROD.

Comment No. 2

Issue Code: 21

DOE believes that the EIS fully addresses all impacts of the Proposed Action and no action alternatives, 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.

Comment No. 3

Issue Code: 14

The stated goal of the CCT Program is to advance DOE's mission to foster a secure and reliable energy system that is environmentally and economically sustainable. As such, the CCT Program was established to demonstrate the commercial feasibility of CCTs to respond to a growing demand for a new generation of advanced coal-based technologies characterized by enhanced operational, economic, and environmental performance. Since coal is an abundant, secure and economical fuel, and is used to produce over 51 percent of the electricity in this country, it must continue in its role as a key component in the United States and world energy markets.

The Kentucky Pioneer IGCC Demonstration Project utilizes the BGL oxygen-blown, fixed-bed slagging gasifier. The gasifier fuel will be a high-sulfur bituminous coal and blended with RDF, which uses only MSW as its basic component and does not use any hazardous or industrial waste. The syngas generated in the gasifier will

1/14

2/21

3/14

4/14

5/18

6/14

7/21

8/21

9/21

10/22

11/13

12/16

3/14

(cont.)

Herrick, Will
Campton, KY
Page 5 of 108

Tampa Electric's Polk Plant, the Netherland's Buggenum, plants in Germany, Scotland, Singapore & South Africa and Spain's Puertollano plant. Global Energy already has several commercial IGCC projects under development based on using BGL Gasification Technology to gasify solid hydrocarbons for power production (Appendix B Introduction, paragraph 2). The National Coal Council reported in May 2001: 'Based on the success of the BGL process at the Schwarze Pumpe GmbH plant in Germany, Global Energy is building two plants in the U.S. The 400-MW Kentucky Pioneer Project and the 540-MW Lima Energy Project will both use BGL gasification of coal and municipal solid waste to produce electric power.'³

The fuel cell demonstration at Trapp is more about MSW than Clean Coal. When presenting their Trapp proposal at a national coal conference, the company providing the fuel cell technology to Kentucky Pioneer Energy (KPE) said: 'Fuel cell systems operating on coal have been studied extensively in past years.'⁴ (p.3) Later in the paper they go on to say of the Trapp facility: 'The project will feature Advanced Fuel Technology briquettes made of Kentucky coal and Municipal Solid Waste (MSW) as fuel in the gasification process...' (p.5). These facts indicate that the purpose of the demonstration is not the already well researched coal powered fuel cell but, in fact, the MSW powered fuel cell where coal is being removed from the feedstock to favor MSW. This fails to satisfy the expressed goal of DEIS section 2.2 for: '...technologies that will help alleviate pollution problems from coal utilization.' Alleviating coal pollution problems by not using coal is not what DOE & CCT are about.

The national interest in MSW as a non-competitive alternative to other fuels for energy production is at cross-purposes to the CCT effort at Trapp. The Office of Integrated Analysis and Forecasting of the Energy Information Administration reported in April of 1997: 'MSW-produced power is viewed [primarily] as a byproduct of a community's waste disposal activities and only secondarily as a competitive alternative to other fuels for energy production.'⁵ The waste at Trapp is not a byproduct of that community's waste disposal activities, and the MSW is competing with local coal.

www.nationalcoalcouncil.org/Documents/May2001report-revised.pdf P. 32

³ Appendix I:

www.nationalcoalcouncil.org/Documents/May2001report-revised.pdf P. 28

⁴ Appendix C. Steinfeld Ghezal-Ayagh, Sanderson, & Abens: IGFC Demonstration Test. FuelCell Energy Inc, 25th International Technical Conference on Coal Utilization and Fuel Systems, March 6th, Clearwater FL, 5 DOE/EIA-M069(97) Model Documentation Renewable Fuels Model of the National Energy Modeling System, URL: tonto.eia.doe.gov/FTP/ROOT/modeldoc/m06997.pdf

Page 4

Comment No. 3 (cont.)

Issue Code: 14

be used to fire a gas turbine. This project serves to further CCT Program objectives in the following ways:

1. RDF is an example of a fuel that has the potential to enhance the economics of coal utilization and lower the emissions output of a totally coal-based system. Coal-based systems that have sufficient flexibility to handle a range of fuels will have a competitive advantage over a nonfuel-flexible, coal-only system.
2. Gasification is a more environmentally efficient method to generate electricity from coal. While much was learned from the previous CCT gasification projects (Wabash River and Tampa Electric), the different technology techniques to produce syngas with flexible-fuel co-feeds have not been demonstrated and operating demonstrations are essential to accelerate the widespread use of gasification.

3/14
(cont.)

The fuel cell demonstration has been moved to the existing Wabash River IGCC Plant near West Terre Huate, Indiana.

Comment No. 4

Issue Code: 14

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 meets CCT Program requirements due to the first demonstration of a co-fed BGL gasifier and the facility size would be approximately 40 to 50 percent larger than other 100 percent coal-fed BGL facilities.

Because of DOE's limited role in providing cost-shared funding for the proposed Kentucky Pioneer IGCC Demonstration Project, and because of advantages associated with the proposed location, DOE did not

Herrick, Will
Campton, KY
Page 6 of 108

At what point does the presence of coal become token? Please make a specific answer to that question as it is the sole basis for DOE CCT's investing in the Trapp facility. KPE has said that they intend to use only 20% coal in the feedstock in the long run, 50% or less initially. Operation will commence on 100% coal with slowly increasing levels of RDF throughout the demonstration. This method will allow the development of a database of plant performance at various levels of RDF feed.⁶ Using Clean Coal monies for research on MSW/RDF diverts those dollars from their intended purpose.

The Wabash IGCC facility in Terre Haute, operating since 1996, has demonstrated most of the retrofit, repowering, coal, sulfur and NOx related features of Trapp with a similar gasifier from KPE's parent, Global Energy. BG/L facilities are in place in Europe, Singapore and elsewhere. They already offer a wealth of technical, environmental and financial data. A 1988/2000 NETL report, entitled 'British Gas/Lurgi Gasifier IGCC Base Cases', reports the Cost of Energy for IGCC BG/L facilities on pages 25-40⁷.

Kentucky already has the lowest energy prices in the nation. From a Federal point of view, siting this plant anywhere else makes more sense in terms of meeting needs. If, (as described in the DEIS page S-3, 'Purpose and Need for Agency Action' paragraph 2), the goal is to 'significantly reduce electric power costs...', it may be most effective to look at sites for this facility where electricity rates are higher.

While Kentucky has the lowest energy costs in the nation, there are many other providers seeking to offer base and peaking capacity in the EKPC market area, to wit: the EKPC Mason County Spurlock Plant proposal introduced above (and many others). Neglecting to consider these other energy sources and providers is a serious omission in the Section 2 of the DEIS, Purpose and Need for Agency Action.

EKPC has proven in the past to seriously miscalculate their power needs. That is how the Trapp site was originally prepared and then mothballed for 20 years. EKPC is adding base capacity outside of this initiative (the Spurlock facility in Mason County), as are others. EKPC's pursuit of the Mason County Spurlock facility (Appendix D) appears to, for the near run, address their '1998 Power Requirements Study', cited as the energy demand component of the 'Need for Agency Action.'

6 P.2 Advanced Electric Power Generation Program Update 2000. May 17th, 2001 URL: www.lanl.gov/projects/cctc/factsheets/updates/documents/dveleicgcc_2000_all.pdf
7 www.netl.doe.gov/coalpower/gasification/system/bg13x_20.pdf

Comment No. 4 (cont.)

Issue Code: 14

evaluate alternative sites for the proposed project. Site selection was governed primarily by benefits that Global Energy could realize. Global Energy preferred the proposed project site because the costs would be much higher and the environmental impacts likely much greater for an undisturbed area.

Comment No. 5

Issue Code: 18

After the issuance of the NOI and during the scoping process, a third alternative, in addition to No Action Alternative 1 and the Proposed Action, was identified. The alternative was determined to be a reasonably foreseeable future action. The construction of the proposed project cannot begin until DOE issues the ROD. Consideration of power generated by the Spurlock Power Station is outside the scope of the EIS.

Comment No. 6

Issue Code: 14

An analysis of the use of alternative sources of power is outside the scope of the EIS.

3/14
(cont.)

Comment No. 7

Issue Code: 21

The Kentucky Pioneer IGCC Demonstration Project is a federal action selected for the CCT Program. The EIS is used as a tool to decide whether or not DOE should provide funding to the project. If the project is approved, KPE would be required to abide by all local, state, and federal regulations.

The Kentucky Natural Resources and Environmental Protection Cabinet has advised KPE that the RDF is a recovered material, not a 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 statutory definition.

Herrick, Will
Campton, KY
Page 7 of 108

All the power plant interest in the Commonwealth bodes well for access to capacity in the long run. The base energy demand cited by DOE as justification for Trapp has not been well established, and would not compare well to most other sites where electricity rates were higher.

The case for spending Clean Coal dollars and the need for agency action has not been well made. The fact that the Lima facility is being built without Federal dollars undercuts the argument that the American power industry needs Federal funds to assess the potential of BG/L IGCC systems. There is an abundance of financial information already available. Little regarding coal powered IGCC systems will be learned at Trapp. Trapp is really about MSW, not CCT. Scarce tax dollars should not be spent, as the goals of the Clean Coal program described in the DEIS are already reasonably well met without Federal support, and are not well addressed by the Trapp proposal. Coal pollution abatement by not using coal defeats CCT goals.

Compromised Demonstration of 'Clean Coal'
Throughout the Introduction and Background section of the DEIS, the Federal goal is defined. The basis for funding, and the declared purpose stated there is demonstrating clean coal technology.

The summary page S-3's synopsis bundles the MSW derived fuel into the project goals. The inclusion of MSW & it's derivatives are not documented as a goal in the body of the DEIS, however. The entire background section details the chronology of the CCT program and DOE's interest in demonstration facilities. Nowhere is there mention of MSW or RDF fuels.

As presented in the DEIS, there is no Federal mandate for DOE's CCT program to demonstrate a waste-to-energy facility using clean coal monies. It seems disingenuous to label it a coal demonstration when so little coal is involved and in fact coal tonnage is being displaced by MSW. That is entirely contrary to the stated goals.

As designed, this facility is not going to demonstrate 'clean coal'; it is going to demonstrate a waste-to-energy technology. KPE has declared their long-term intention of using only 20% coal in the feedstock, with the rest being derived from distant sources of Munciple Solid Waste (MSW). DOE should justify how Clean Coal monies should be spent on MSW issues that remove coal from the feedstock.

I wrote the following to researchers at the University of Kentucky Center for Applied Energy Research: 'The questions that I have involve the phase states of the constituents as they transport through the gasifier, the gas cleaner, the sulfur recovery process and the turbine combustion. I am specifically trying to follow the transport and chemistry of metals and their oxides, the

3/14
(cont.)

Comment No. 7 (cont.)

Issue Code: 21

Chapter 3 of the EIS has been revised to include a more detailed and expansive description of the gasification process. The syngas is not a component of the RDF pellets, but rather a fuel generated from the coal and RDF pellets by a series of chemical reactions within the carefully controlled environment of the gasifiers.

4/14
(cont.)

Comment No. 8

Issue Code: 21

KPE is not attempting to circumvent KRS 224 or any other state or local laws. The Kentucky Natural Resources and Environmental Protection Cabinet has advised KPE that the RDF is a recovered material, not a 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 statutory definition.

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 this EIS, the performance, technical, and economic data would be used to determine the commercial viability of the co-fed 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 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.

Herrick, Will
Campton, KY
Page 8 of 108

fate of chlorinated compounds in the feedstock, and the technology applied to clean the synthesized hydrocarbons.' Dr Burt Davis <davis@noah.caer.uky.edu> replied on Tue Jan 8 17:02:18 2002: 'I assume that you are referring to the facility that has been proposed by Global. If that is the case I have a general understanding of what is proposed. Many of the issue[s] that you raise are very complex and would in many cases be specific to the specific facility.' The results of the research cannot be directly applied other BG/L IGCC facilities that do not use MSW. The constituency of the feedstock, the combustion chemistry, the gas cleaning processes, and the resultant exhaust gases and slag will all vary significantly from facilities that just use coal. The value of Trapp as a research facility for Clean Coal is questionable.

DOE has acknowledged that it is normally responsible for a comprehensive review of alternative sites, and that by choosing to partner with Global Energy, the parent company of KPE, they feel relieved of that responsibility. There are several points to be addressed, however. In addition to the comments below, please consider the *Unreliable Partners* section.

Global Energy has other sites in various stages of construction using BGL based IGCC technology⁸. They are a CCT partner in a nearly identical IGCC plant burning coal since December 1995 in Indiana. They are putting an IGCC plant identical to Trapp in Lima Ohio.

To not consider these sites is improper-it is the same partner. The alternate sites appear to satisfy all stated goals of DOE & the CCT projects. Some may use 100% coal which makes them more valuable as CCT demonstrations sites than one that only uses 20% coal. There may well be other sites as well: DOE & the CCT program have IGCC partners as far away as Kazakhstan.

The fuel cell component of the Trapp demonstration is a fraction of 1% of the total energy production. It has already been demonstrated using sulfur-cleaned coal-based syngas. It is a modular technology that could be added to practically any current IGCC facility, and certainly to the Lima plant.

If MSW derived materials are to comprise 80% of the feedstock, sites closer to the source of the MSW need

⁸ Appendix E. APPLICATION OF BGL GASIFICATION OF SOLID HYDROCARBONS FOR IGCC POWER GENERATION
2000 Gasification Technologies Conference
San Francisco, California
October 8-11, 2000
Presented by:
GLOBAL ENERGY INC.
Richard A. Olliver

4/14
(cont.)

Comment No. 10

Issue Code: 22

Before any federal funds are obligated, KPE will have to provide proof of finances for construction and operation of the project.

Comment No. 11

Issue Code: 13

The relatively small amounts and generally 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. 12

Issue Code: 16

Detailed 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 issuance of the ROD. All assumptions made in conducting the analyses are detailed in the EIS.

Herrick, Will
Campton, KY
Page 9 of 108

consideration. Energy prices are higher anywhere else in America, offering a better reward for siting elsewhere.

Without a thorough site review, it is impossible to establish whether the advantages offered by EKPC at Trapp are the best deal for the DOE & the public, or if Federal money is even needed to accomplish the goals presented by the DOE & EPA.

DOE and their current partners may better achieve their mandated goal of demonstrating CCTs at a different BG/L IGCC facility. They should be compelled to make that review. More importantly, DOE may be able to avoid spending taxpayers' dollars altogether while still managing to demonstrate coal based CCTs. It is a serious omission of this DEIS to neglect that opportunity.

Flawed Premises: 'No Action Alternatives'

There is good evidence provided by testimony before the PSC that the DEIS' Alternative 2 needs repair. EKPC's commitments, both present and future, are not accurately established. In the event that they are not as represented in the DEIS, the DEIS needs revision & subsequent public review.

Page S-8 describes the three alternatives analysed under this DEIS. The action described as Alternative 2 has been challenged by at least two documents. As well, personal communication with residents of the community of Trapp suggest that Alternative 2 may already be under construction, changing it's status from 'option' to fact.

On July 11, 2001, East Kentucky Power Co-Op (EKPC) amended its permit application before the Kentucky Public Service Commission (PSC) because KPE had not met its financial closing deadline of June 30, 2001. Due to the delay in KPE's financing, East Kentucky 'decided that it cannot reasonably rely on that project to satisfy its future power supply needs.' Therefore, EKPC has concluded that it should proceed to construct a 250 MW coal-fired generating unit at the Hugh L. Spurlock power station in Mason County, Kentucky'. This facility should be included as part of the DEIS Alternative 2.

The original NOI from DOE for Trapp includes the following: 'Under the no-action alternative, DOE would not provide partial funding for the design, construction, and operation of the project. In the absence of DOE funding, the Kentucky Pioneer IGCC Demonstration Project probably would not be constructed.'¹⁰ Together, the two

9 Appendix D, Minutes of the Kentucky Public Service Commission, Case # 2001-053, September 26, 2001

10 DEPARTMENT OF ENERGY Notice of Intent To Prepare an Environmental Impact Statement for the Kentucky Pioneer Integrated Gasification Combined Cycle Demonstration Project, Trapp, KY and Notice of Floodplain Involvement. 10th day of April, 2000. David Michaels, Assistant

4/14
(cont.)

5/18
(cont.)

Herrick, Will
Campton, KY
Page 10 of 108

citations above suggest that all derived components of the DEIS that address Alternative 2 need to address the 250 Mw Mason County facility, and perhaps exclude the alternative as it is now written.

There may or may not be a natural gas fired power island at Trapp already under construction. This may be construction of some peaker units, however. If it is a fact that EKPC has already committed to building the power island, then it is not an 'alternative' but instead, an extant facility and should be dropped from the alternative section of the DEIS and added to the Cumulative Impacts. The residents of Trapp maintain that some construction is already underway.

The Proposed Action section may also need review. EKPC's commitment to the KPE IGCC facility is still contingent on future agreements, and that the DOE's Cooperative Agreement with KPE may be undone in the future by disagreements between KPE & EKPC & the PSC. In September, EKPC testified before the PSC that even 'In the event that KPE is able to secure project financing, East Kentucky stated that certain provisions in the existing purchase power agreement would have to be revised and any renegotiated contract will be resubmitted to the Commission for its prior approval.'

The alternatives offered to the public in the DEIS and scoping process do not represent the real alternatives before them. A revision of the DEIS & a new round of scoping and public comment after the DEIS is repaired is needed.

Likely Failure to get Local Permits

Over the last 15 years, Kentucky has bootstrapped itself into an enviable body of Solid Waste legislation. KRS 224 requires planning and management at both the state and county level for Munciple Solid Waste (MSW) production, reduction, and disposal. This statute provides the legal foundation for local permits. It also defines MSW and Refuse Derived Fuels (RDF).

The MSW being proposed as a feedstock does not qualify under KRS 224 as an RDF, as most of the recyclables (paper & plastics) have not been recovered. See the section *Conflict with State Law* below for more discussion of MSW vs RDF in Kentucky. Further, under KRS 224 there is a 15% limit on RDF in the feedstock before the facility is a waste-to-energy plant requiring local permits.

The language voiced inside the state of Kentucky that has been used to describe the facility differs from that used in the Federal dialog by DOE's corporate partners EKPC and KPE. One wonders if the goal of this contradiction

Secretary, Environment, Safety and Health. [FR Doc. 00-9301 Filed 4-13-00; 8:45 am]

15/18
(cont.)

7/21
(cont.)

Herrick, Will
Campton, KY
Page 11 of 108

is to avoid Kentucky law and the requisite permits from local Clark County government.

The DEIS supports the designation of Waste-to-Energy. On page 3-21, section 3.2.2.1, 'Pellet Manufacturers', it states 'Historically, the waste-to-energy industry has used RDF pellets as a means of assuring effective co-feeding at conventional power plants.' The implication is clear: using RDF is waste-to-energy.

KPE's staff are arguing that they are not burning or combusting the 2500-4000 tons/day MSW derived fuel¹¹ that comprises 50% to 80% of their plant's feedstock, and that the MSW they are using is no longer solid waste once they have removed only the glass and metals. They are leaving most recyclables in the waste stream for their BTU content, preferring to burn rather than recycle them¹².

It is clear to me that they are burning the fraction of MSW that vaporizes at 3200 degrees Fahrenheit, the syngas. DOE's documents frequently refer to the integrated combustion stage that drives the turbines in IGCC facilities: "... (3) combustion (emphasis mine) of the clean syngas in a turbine generator to produce electricity..." As well, it is clear that the facility is a waste-to-energy plant: "The briquettes would be made from high-sulfur coal (at least 50%) and refuse (municipal solid waste)"¹³

Outside of Kentucky, Global has no problem describing the process as combustion. For example, in a description of the industrial process they state: "... sulfur recovery units prior to combustion in the gas turbines, resulting in exceptionally low SO2 emissions."¹⁴ Please compare this with Mike Musulin's (President of KPE) published

11 As proposed, KPE will transport as much as 4000 tons of municipal solid waste (MSW) per day from the East Coast to fuel the waste-to-energy facility in Trapp, Kentucky. This is an amount equal to approximately one half of Kentucky's own MSW production.

12 The sample provided by KPE for public inspection at the EPA EIS hearing on 12/11/01 in Trapp was a 10x50 mm compressed bolus made almost entirely of white paper. A rough guess is that particular sample was at least ¼ recyclable content.

13 DOE's Notice of Intent to Prepare an Environmental Impact Statement for the Kentucky Pioneer IGCC Demonstration Project, Trapp KY

14 Page 5, Appendix E, APPLICATION OF BGL GASIFICATION OF SOLID HYDROCARBONS FOR IGCC POWER GENERATION

2000 Gasification Technologies Conference
San Francisco, California
October 8-11, 2000
Presented by:
GLOBAL ENERGY INC.
Richard A. Olliver

7/21
(cont.)

Herrick, Will
Campton, KY
Page 12 of 108

remarks where he says "It is not a combustion process."¹⁵ KPE also plans to use an 80% MSW briquette after the 50% demonstration phase.¹⁶

The most obvious explanation for the strained language is that KPE needs to make these arguments in order to avoid the application of Kentucky law. If they are a Waste-to-Energy facility, then they are required to conform to the solid waste plan of Clark County Kentucky.

As of today in Clark County, the majority of the governing body, the County Attorney and the state Representative are publicly pursuing their county's right to require and enforce the permit. If KPE resorts to the courts to avoid the local permitting regulations, a significant delay is certain, and outright failure likely.

KPE has not applied for a permit from Clark County for their proposed facility. Their long standing denial of the need to get such a permit has turned public sentiment in the county against them.

Please see Appendix G, Kentucky Air Quality Permit. Further, under KRS 224, failure to get the required local permit disqualifies the state's right to permit the facility.

Conflict With State Law

The following section is an excerpt from the Kentucky Resource Council's comments on the EPA's draft EIS for the Trapp site.

" 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 for the solid waste management area in which the facility is or will be located concerning the consistency of the application with the area 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)

¹⁵ Op-Ed page, 7/23/2001, Lexington Herald-Leader, Lexington, KY
¹⁶Pers Comm: Dwight Lockwood, 12/10/01 c. 7 pm, manager of Regulatory Affairs, Global Energy Inc, Suite 2000, 312 Walnut St, Cincinnati OH 45202

7/21
(cont)

8/21
(cont)

Herrick, Will
Campton, KY
Page 13 of 108

to include:

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, . . .

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 pelletized 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 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.

Even assuming that the partially processed waste fell within the ambit of refuse derived fuel and the 15%¹⁷ limitation on RDF didn't limit the applicability of recovered material even as to RDF, the proposed facility is not a recovered material processing facility since it proposes to combust the gases created by the thermal and pressure treatment of the waste and is not storing and processing for resale or reuse.

Reuse, as that term is used by the General Assembly does not include use of wastes as a fuel with or without heat recovery. The latter concept is resource recovery and is a term distinct from reuse of solid waste. See: KRS 224.43-010 (3) which sets reuse of solid waste as a priority below reduction, and above recycling, composting, and resource recovery through mixed waste composting or incineration."

The resolution of the conflicting interpretations of KRS 224 will likely require adjudication. The Federal Government should immediately temper it's affinity for the Trapp facility and recognize that it is bankrolling a project that, at best, violates the spirit of Kentucky voters, and at worst will be killed by failing to get a local siting permit after an ugly court fight. Given the visible statutory issues, this project deserves a time-out, not Federal dollars. By funding the Trapp facility, DOE & EPA help undermine the basis for much of the recent

¹⁷ Under Kentucky law, only 15% of the material processed by the facility creating the pellets could be credited as RDF.

8/21
(cont)

Herrick, Will
Campton, KY
Page 14 of 108

solid waste planning & management in the state of Kentucky.

Intent to Disregard the Research Results

The DEIS, on page 3-24, Section 3.4.2 'Proposed Actions' states at the end of the second paragraph, 'Data generated during the first-year demonstration would be used to determine if the coal and RDF pellet co-feed would continue after the first year of operation.'

KPE president Musulin has publicly rejected that premise and stated the KPE intends to operate the plant without a new round of permit reviews based on the outcome of the DOE funded research¹⁸.

In regards to the review, who will make the determination to continue the RDF/coal co-feed? The DEIS is sorely inadequate in this area. Absent of any details of the review, no estimation can be made of the quality of environmental protection afforded by the review. The details of the review need to be developed and presented to the public immediately. The state of Kentucky has already issued an Air Quality permit for five years. If the proposed action described in the DEIS to review the data is to occur, then DOE and EPA will have to be the ones to require it.

Given KPE's clear intent, it is reasonable to require DOE to contractually obligate the review, publish it's full details, seek a bond to secure the agreement, and require Occurance class insurance to assure the intended levels of safety. In the face of evidence to the contrary, the cooperation of KPE cannot be presumed, and must be contractually required. Trusting KPE to volunteer for review and abide by the results can no longer be an option. This contract should also be part of the DEIS, and deserves public comment and review.

DOE's notice of intent to prepare the EIS states clearly that the project is "designed for at least 20 years of commercial operation...", and that "Upon completion of the demonstration, the facility could (my emphasis) continue commercial operation."¹⁹ KPE has said "Kentucky Pioneer Energy will furnish Kentucky residents with low-cost power, high-quality jobs, and a cleaner environment for years to come."²⁰

¹⁸ pers comm, Mike Musulin, President KPE, 12/11/01 9 pm, just after the close of the formal EPA EIS hearing "If we did that, nothing would ever get built." This comment was made to me, the Lee County Solid Waste Co-ordinator Ms. Neely Back, to Clark County resident, John Maruskin, and others.

¹⁹ DOE's Notice of Intent to Prepare an Environmental Impact Statement for the Kentucky Pioneer IGCC Demonstration Project, Trapp KY

²⁰ Op-Ed page, 7/23/2001, Lexington Herald-Leader, Lexington, KY

8/21
(cont.)

9/21
(cont.)

Herrick, Will
Campton, KY
Page 15 of 108

One of two things can be drawn from these facts: either there should be a mandated public review and re-permit at the end of the demonstration because the outcome of the research and the safety of the waste product are uncertain, or that the outcome is certain and does not deserve Federal research monies.

9/21
(cont.)

In the event that DOE does fund the R&D facility, it should require, by contract and bond, a new round of public review and a new round of state permits predicated on the results of the test period. The absence of details about the how the data from the first year would be used to determine the continued use of coal/MSW/RDF is a significant omission in the DEIS.

Unreliable Partners, Private Funding Delays, Inadequate Planning and Uncertainties

KPE & EKPC are having trouble already (see Appendix D, the PSC September 11th hearing). The public pronouncement by KPE that they intend to run the facility without regard to the outcome of the first year flies in the face of the text of the DEIS and challenges the notion that they are a good partner for DOE, EPA, and the public. As well, the determined effort to avoid the local permitting requirements calls into question their commitment to public partnership.

10/22
(cont.)

Many of the features of the KP IGCC DEIS are founded on the DOE's partnership with Global Energy, KPE & EKPC. The failure to consider other sites, the inclusion of MSW derived fuels instead of coal, and the reliance on old studies from EKPC's prior EIS's are among those features. The appropriateness of DOE's relaxed efforts is predicated on the quality of their choice of partners. There is evidence that these partners have failed to measure up and casts doubt on their ability or willingness to deliver.

KPE missed it's financial closing deadline of June 30th, 2001. In testimony before the Kentucky Public Service Commission, KPE's partner EKP stated "However, due to the delay in KPE's financing, East Kentucky (EKP) decided that it cannot reasonably rely on that project (Trapp) to satisfy its future power needs."²¹

The Trapp facility had originally been planned as a Duke Energy subsidiary (Ameren) project in southern Illinois, but that encountered siting difficulties and was canceled.²²

²¹ Appendix D. Commonwealth of Kentucky Public Service Commission case 2001-053, report on the hearing of 8/18/01, "Application of East Kentucky Power cooperative, Inc for a certificate of public convenience..."
²² Robert W. Gee, Assistant Secretary for Fossil Energy,

Herrick, Will
Campton, KY
Page 16 of 108

EKPC failed to send representatives to either of the December 2001 DEIS public comment meetings in Kentucky. KPE has neglected to apply for a critical permit from Clark County. They failed to apply due diligence in the review of applicable law and instead maintain that they are not operating a waste-to-energy facility, preferring a court battle over accommodating the local public.

The Federal Government should not risk public dollars on a project that, by DOE's own admission, may be poorly located, has a track record for last minute siting problems, and is anticipated to fail by it's own corporate partners. The quality of the partnership itself has become suspect in light of facts presented in these comments and appendices.

Disregard for Social Justice and Environmental Issues

Unlike New York, Kentucky has addressed our solid waste disposal problems. 4000 tons a day is a lot of trash. It is nearly half of what Kentucky produces each day. If folks in Trapp Kentucky can afford proper garbage disposal, New Yorkers can too. We have 23 other power plants awaiting permits. None of them want to incinerate 4000 tons of trash a day.

KPE has not offered any incentives to Kentucky. From Kentucky's view it's a clear loss. KPE is an Ohio company. Most jobs and all the profits leave the state. KPE will act to the advantage of it's parent, Global Energy, not EKPC or the Commonwealth. Since no local permit has been sought, there has been no discussion in Clark County of a 'Host Agreement', the contract of mutual benefits imposed on permit holders. Hence, there are no local benefits to offset any undesirable impacts from the facility. The Commonwealth's air quality is more excessively burdened by the metals and other contaminants in the imported MSW/RDF than if KPE burned Kentucky coal. From the Commonwealth's point of view KPE should be demonstrating 100% Kentucky coal. Kentucky already has the lowest energy costs in the nation: there is little demonstrated need for the power generated at Trapp.²³ A facility would be better located nearer it's feedstocks and high rate energy markets than at the proposed Trapp site.

If the Federal Government choses to fund the Trapp facility, many public bads (as opposed to public goods) will occur: Kentucky will see an escalation of landfill costs; elimination of new business opportunities due to increased scarcity of clean air and water; significant, U.S. Department of Energy, before the Subcommittee on Interior and Related Agencies Committee on Appropriations, on March 14, 2000.
23 <http://www.kentuckyconnect.com/heraldleader/news/121601/statedocs/16electricity-plants.htm>

	Comment No. 13	Issue Code: 02
	Economic benefits from the project are presented in Section 5.3, Socioeconomics, of the EIS. The majority of the revenue and income generated by the project would remain within the three-county Region of Influence (ROI) of Clark, Fayette, and Madison Counties. All 120 jobs would be created onsite, with none in Cincinnati. The region would also benefit from the indirect jobs created in other sectors and increases in tax revenue from the project.	
9/22 (cont.)		
	Comment No. 14	Issue Code: 21
	Comment noted. KPE will pursue all required state and local permits after financial closure on the project has been completed. KPE would be required to abide by all state and local regulations, including alerting the public during the public review process throughout the permit acquisition process.	
11/13 (cont.)		
	Comment No. 15	Issue Code: 06
	Comment noted. The metals content of RDF pellets may be higher than that of coal for some heavy metals, but not necessarily for all metals. Some heavy metals (such as beryllium, cobalt, and selenium) may not be present in detectable levels in RDF pellets. EPA's AP-42 emission rate documents do not provide a convenient comparison of uncontrolled heavy metal emission rates for coal versus RDF pellet combustion. Tables 1.1-18 and 2.1-8 in the AP-42 document provide a comparison of emission rates for facilities equipped with similar particulate matter emission controls. The data in those tables are presented as emission rates per ton of fuel. Bituminous coal has a typical heating value slightly more than twice as high as the heating value of RDF pellets (roughly 12,000 British Thermal Units [BTU] per pound for bituminous coal versus 5,500 BTU per pound for RDF pellets). When converted into emission rates on a fuel heat content basis (emission rates per million BTU), using RDF pellets as fuel would appear to produce higher emission rates than coal	
13/02		
14/21		
15/06		
16/22		
17/14		
18/22		
19/12		
20/02		

Herrick, Will
Campton, KY
Page 17 of 108

yet avoidable, public health issues due to metals, carcinogens, CO, CO2, NOx, and other pollutants in the air, soil and water; abuse of the will of Kentuckians and our laws. All this for a tiny handful of jobs. All this just to demonstrate cheap energy in the state with the cheapest energy, and a solid waste disposal solution in a state that solved that problem 10 years ago.

The environmental virtues of IGCC are offset by the MSW costs: massive chronic train loads of trash, importing hazardous metals and organic compounds as garbage, failing to recycle paper and plastics from 4000 tons/day of MSW, using local landfill space for 500 tons/day of heavy metal laced waste, competition with one of Kentucky's largest cities for scarce water, and burdening the air with a wide array of degrading elements.

Inadequate Design Data

Critical plant design components are missing from the DEIS. The fate of Mercury is a good example-some will be captured as particulates just after the gasifier, and some in the de-sulfurization step, but without the design data, no-one can more than guess what the capture rates are. Congress has mandated the reduction of Mercury, yet there is no visible effort or data in the DEIS to that end. The same can be said for other toxic metals.

Water use is not well documented. A typo in Figure 3.1.1-1 on page 3-14 of the DEIS shows untreated steam being piped to the turbines. The technologies for cleaning the gasification products are ambiguous, and the fate of water used to clean and cool the gases is not clear. The nature and degree of contamination of the 'aqueous effluent' is not detailed. The margin of additional risk to water quality and quantity from the transportation and use of MSW/RDF vs coal cannot be reasonably measured by information in the DEIS. The Trapp site is immediately upstream from the primary water source for the second largest city in the state.

In the absence of information like that shown below, no analysis can be made about the fate of constituents. It is bordering on travesty that DOE published a DEIS absent of the essential design information needed to make any estimate of environmental impact.

The environmental impact of an IGCC plant is a function of the thermal and chemical character of the facility. Section 3.1.1.2 should address the temperature profile of the pyrolytic products. Examples of the types of information missing are offered below:²⁴

24 P. 51 www.nrel.gov/docs/fyost1/29952.pdf and British Gas/Lurgi Gasifier IGCC Base Cases PED-IGCC-98-004 Rev June 2000. pp3-4 URL: www.doe.gov/coalpower/gasification/system/bgl3x_20.pdf

Comment No. 15 (cont.)

Issue Code: 06

for metals such as cadmium, chromium, mercury, nickel, and lead. Coal would appear to produce higher emission rates than RDF pellets for arsenic, beryllium, cobalt, and selenium.

21/11

22/22

23/22

12/16 (cont.)

24/06

25/07

The hazardous air pollutant emission estimates presented in Table 5.7-2 of the EIS are taken from the permit application for the proposed facility. Except for the hydrogen sulfide emission estimate, these underlying emission rates are based on test results for a comparable gas turbine unit fueled with syngas produced from a 100 percent coal feedstock. Those emission rates were used in setting the emission limits in the air quality permit for the proposed project. Those emission limits must be met regardless of whether the fuel feed to the gasification units is coal, RDF pellets, or a mix of coal and RDF pellets. It should be noted that the air quality permit for the project requires annual emissions testing for cadmium, lead, mercury, hydrogen chloride, and dioxins/furans.

Comment No. 16

Issue Code: 22

Comment noted. The process to be demonstrated by the Kentucky Pioneer IGCC Demonstration Project and approved for further study under the CCT Program is a new technology that uses a 50-50 ratio co-feed of coal and RDF pellets. All coal for the project will be supplied from within Kentucky. The purpose of the CCT Program is to provide a cleaner and more efficient source of energy from coal resources.

12/16 (cont.)

Comment No. 17

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 projected to increase by 3.0 percent per year. Peak demand is projected to increase from 2,031 MW in 1998

Herrick, Will
Campton, KY
Page 18 of 108

Example process diagrams:

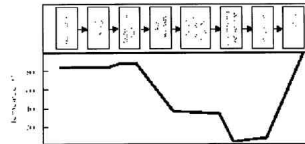
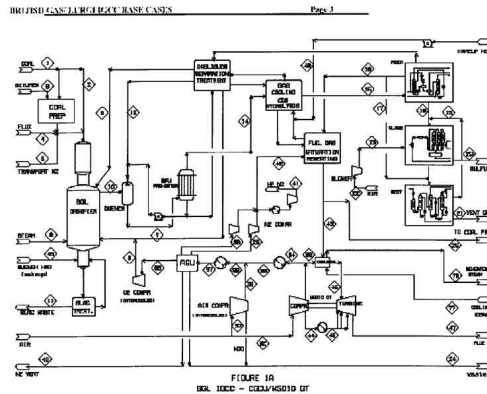


Figure 4.4 Temperature Profile of ARBRE Gasification System



Page 17

Comment No. 17 (cont.)

Issue Code: 14

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.

Comment No. 18

Issue Code: 22

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.

Comment No. 19

Issue Code: 12

The project produces primarily vitrified frit which is considered a commercial product, not a waste stream. The frit from gasifiers operating on a 100 percent coal feed has consistently proven to be nonhazardous under RCRA. Since this project will be using a different feed stream, the first batch of frit should be tested to ensure that it meets all TCLP criteria and would therefore be nonhazardous. 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. 20

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 business opportunities in Clark County or Kentucky. No burdens to the economic health of the region as a result of this project

Herrick, Will
Campton, KY
Page 20 of 108

frit. MSW/RDF has a highly variable metal and energy content compared to coal. It is possible that the metal concentrations in the vitreous waste will also be more variable, making the specific character and safety of the 500 ton/day of solid effluent harder to characterize. The DEIS should detail how & by whom the frit will be assessed.

The public cannot measure the risk created by the Trapp facility without additional review and research. In the face of such uncertainty, it is reasonable to require an Occurrence class insurance policy sufficient to remediate potential long term damages. Unless DOE and the EPA bind KPE & EKPC to a new round of permits to review the results of the one year demonstration, or a long term occurrence insurance policy that can cover any damages, the facility should not be funded.

In Conclusion

There are significant flaws and omissions in the Trapp facility DEIS. These demand repair and a new round of public review.

While it is not the Federal Government's job to enforce Kentucky law, the Feds should not facilitate the avoidance of Kentucky law nor reward the good environmental management efforts of Kentucky by dumping New York's trash on us.

The determination that there are no significant environmental or social justice issues is not supported by the facts. Many genuine environmental questions remain about the use of MSW/RDF. It is clear that Kentucky would be better off using 100% coal at Trapp.

It is patently unfair to reward a poor state that has afforded itself a safe means of disposal of its own MSW with almost a volume half again it's own, just to lower the cost in a far more affluent state. It is an injustice to unnecessarily risk the physical and economic health of that poorer state for the sake of experimentation when there are no local benefits.

Kentucky doesn't have a waste disposal problem, so we cannot benefit there. Our costs will inevitably rise to compensate for the demand on our landfill space for the frit and other waste from East Coast waste. Our costs for health care will inevitably rise to repair the damage from heavy metals that could be avoided. The quality and quantity of water available to the second largest city in the state is unnecessarily threatened, risking it's economic growth. Using MSW/RDF denies a long term market for Kentucky coal.

The decision to not consider other sites is not supported: partners already have IGCC facilities to demonstrate the fuel cell component. Failing to include the Lima, Ohio plant is a clear sign of the inadequacy of

26/12
(cont.)

9/21
(cont.)

2/21
(cont.)

8/21
(cont.)

11/13 (cont.)

27/16

16/22 (cont.)

28/13

29/12

30/11

25/07 (cont.)

31/02

33/21

Comment No. 21 (cont.)

Issue Code: 11

project would produce no significant short- or long-term air quality impacts. Air and water emissions from the proposed project would be regulated by the State of Kentucky. The air quality permit for the proposed project requires continuous emission monitoring for 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. 22

Issue Code: 22

Comment noted.

Comment No. 23

Issue Code: 22

The EIS is designed to present all of the potential environmental impacts of the various alternatives relating to the proposed federal action, both beneficial and detrimental. The benefits associated with the project are not intended to be used as justification for the environmental costs. The RDF will be used to generate the syngas fuel. The paper and plastics are retained in the RDF to add heat value to the feed material. The Kentucky Natural Resources and Environmental Protection Cabinet has advised KPE that the RDF is a recovered material, not a 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 statutory definition. An Emergency Response Plan and Spill Prevention, Control, and Countermeasure (SPCC) Plan, which document procedures for providing emergency response and cleanup for any project related spills, including those during materials transport, have not yet been developed by KPE. The plans will be developed during the engineering and construction phase of the project and would adhere to local, state, and federal regulations.

Herrick, Will
Campton, KY
Page 21 of 108

the DEIS site selection effort. Electricity demand and price are higher anywhere else in the country. Trapp may be one of the worst sites available. Given the long distances from the MSW source material, sites to the north and east deserve consideration.

EKPC should have attended the December DOE/EPA hearing at Trapp. KPE has proven unreliable at acquiring funding. EKPC has interjected a PSC decision into their commitment to DOE. EKPC & KPE relations are visibly suffering. The current partners are not working well with the public or each other. DOE should not use them as the basis to deviate from a full site review.

The Federal Government should not invest in a project at such risk of foundering in a permit fight.

The Federal Government should not invest in a project that cannot acquire timely and reliable private funding.

DOE & EPA need to justify the use of research dollars on a facility that intends to ignore the research outcome.

The DOE CCT program should not divert scarce Federal funds to research that is outside the realm of Clean Coal. Using CCT monies for research on MSW/RDF diverts those dollars from their intended purpose. DOE CCT's mandate is to make coal clean to use, not to remove coal from the energy production cycle.

The Lima, Ohio Global Energy facility undercuts the basis for Federal investment. The goals of DOE & CCT can be met without Federal funding.

The Mason County Spurlock plant now seeking permit from the Kentucky PSC by EKPE addresses the base electrical needs stated in the DEIS without Federal funding.

The lack of design information in the DEIS makes it a dysfunctional document-one cannot estimate the environmental impact of the proposal from what is included in the DEIS.

There is overwhelming evidence that the DEIS needs repair. The document does not detail the environmental impacts of the Trapp facility, nor defend the need for agency action. The DEIS, as presented, is more a dogmatic tract asking for the public's faith than a fact-filled document presenting the environmental impact of the proposed facility. Please mend the document and offer it again for public review.

Will Herrick
4859 Flat-Mary Rd
Campton, KY 41301

33/21
(cont.)

34/21

7/21 (cont.)

10/22 (cont.)

9/21 (cont.)

4/14
(cont.)

3/14
(cont.)

12/16
(cont.)

2/21
(cont.)

Comment No. 23 (cont.)

Issue Code: 22

The 454 to 635 metric tons (500 to 700 tons) per day of frit generated by the facility would be sold as road aggregate and would not be deposited in a landfill. KPE has indicated that they would be willing to work with Kentucky Department for Environmental Protection (KDEP), Division of Water, during low-flow conditions in the Kentucky River and would cease plant operations and water withdrawals if required. All air emissions from the facility would comply with the limits established by the PSD/Title V Air Permit.

Comment No. 24

Issue Code: 06

Comment noted. Readily available information does not allow a mass balance analysis for the partitioning of toxic metals among vitrified frit, air emissions, and wastewater; however, it is expected that almost all of the mercury and other heavy metals contained in the feed stocks would partition out into the frit. Nevertheless, the emission estimates presented in the EIS for heavy metals are based on data from a similar IGCC facility using coal as the feedstock for the gasification facilities. Those emission rates were considered in setting the emission limits specified in the air quality permit for the proposed project. It should be noted that the air quality permit for the project requires annual emissions testing for cadmium, lead, mercury, hydrogen chloride, and dioxins/furans.

Comment No. 25

Issue Code: 07

The process diagram included as Figure 3.1.1-1 in the EIS was not intended to be a detailed construction drawing, but to represent a general depiction of the overall process. KPE states that the specific details of the nature and degree of aqueous effluent cannot be identified until the plant design is in more advanced stages. Prior to treatment, this waste stream may include pollutants such as metals, tars, and oils. However, 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

Herrick, Will
Campton, KY
Page 22 of 108

Appendix A-IGCC Frit & MSW Title Search Results

The Dialog[®] search terms used here are : LURGI OR BG/L
OR IGCC OR INTEGRATED()GASIFICATION OR FRIT OR
SLAG) (S) (MSW OR GARBAGE OR RDF OR REFUSE)

As is evident from the titles below, nearly all the
available literature is on MSW and Incineration
technologies. The Trapp feedstock is a relatively
heterogeneous coal & MSW/RDF mix.

As DOE's partner, KPE, has repeatedly informed us, the
IGCC facility is not an incinerator, and RDF mixed with
coal is not MSW, hence little of the available literature
is necessarily applicable.

While a case by case review seems necessary to determine
whether the available publications are germane and their
impact on the goals of the DEIS, what is largely absent
is independent peer reviewed assessments of ICGG produced
fritted slag from mixed coal MSW/RDF feedstocks. There
is little in the literature to reassure the public that
BG/L IGCC frit is unfailingly environmentally benign and
that all the heavy metals in the feedstock are
effectively sequestered there.

The first citation below is not part of the Dialog
search.

Bibliography

5. "Destruction of Toxic Organic Substances in a Slagging Gasifier Including
Determination of Heavy Metals in the Slag" Distefano, R. P., Eberle, D.J. et al.,
Columbia University Account Number 3-26270, Final Report for U.S. EPA Office of
Research and Development July 15, 1983.

2/6/1 (Item 1 from file: 10)
Application of refuse slag in concrete for agriculture (Cinders). 18092
Onderzoek naar de toepassing van afvalverbrandingslakken-beton
1980
AGRICOLA 70-2001/dec (c) format only 2001 The Dialog Corporation

2/6/2 (Item 2 from file: 10)
472238 739228213
Einfluss steigender Gaben an Mullschlacke auf die Ertragsbildung und den
Gehalt an Spurenelementen im Weizen; influence of increasing amounts of
refuse slag on yield of wheat and its content of trace elements
1973
AGRICOLA 70-2001/dec (c) format only 2001 The Dialog Corporation

2/6/3 (Item 3 from file: 10)
429320 739188394
Die Verwertung von Mullschlacke fur landwirtschaftliche Zwecke; Use of
garbage slag for agricultural purposes [fertilizing]
1972
AGRICOLA 70-2001/dec (c) format only 2001 The Dialog Corporation

2/6/4 (Item 1 from file: 5)
09173740 BIOSIS NO.: 199497182110
PCDD/PCDF formation and destruction during co-firing of coal and RDF in a
slag forming combustor.
1994
Biosis Previews (R) 1969-2001/DEC W4 (c) 2001 BIOSIS

2/6/5 (Item 2 from file: 5)
08124468 BIOSIS NO.: 000042105091
FIXATION OF RESIDUES FROM SPECIAL HAZARDOUS WASTE INCINERATORS FOR SHALLOW
LAND DISPOSAL
1992
Biosis Previews (R) 1969-2001/DEC W4 (c) 2001 BIOSIS

2/6/7 (Item 2 from file: 50)

Page 21

Comment No. 25 (cont.)

Issue Code: 07

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.

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.

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.
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 the event of an "environmental emergency." The spill or