COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

APPLICATION OF SUNCOKE ENERGY SOUTH SHORE LLC FOR A CERTIFICATE TO CONSTRUCT AND OPERATE A MERCHANT ELECTRIC GENERATING FACILITY AND A 138KV NONREGULATED ELECTRIC TRANSMISSION LINE IN GREENUP COUNTY, KENTUCKY	)	CASE NO. 2014-00162

APPLICANT'S MOTION FOR DEVIATION FROM SETBACK REQUIREMENTS

Comes the Applicant, SunCoke Energy South Shore LLC ("SunCoke"), by counsel, and pursuant to KRS 278.704(4), moves the Kentucky State Board on Electric Generation and Transmission Siting (the "Board") to grant a deviation from the setback requirements of KRS 278.704(2). As grounds for its motion, SunCoke states as follows:

I. INTRODUCTION

On October 24, 2014, SunCoke filed its Application for a Certificate to Construct a Merchant Electric Generating Facility and Non-Regulated Electric Transmission Line in Greenup County, Kentucky (the "Application"). The setback requirements for the SunCoke facility are addressed in the Application. (*See* Application, Section 5.0, p.12). The setback requirements of KRS 278.704(2) are applicable to the SunCoke project. This statute provides in pertinent part:

> Except as provided in subsections (3), (4), and (5) of this section, no construction certificate shall be issued to construct a merchant electric generating facility unless the exhaust stack of the proposed facility and any wind turbine is at least one thousand (1,000) feet from the property

> boundary of any adjoining property owner and all proposed structures or facilities used for generation of electricity are two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility.
>
> KRS 278.704(2).

A. The 2,000-Foot Setback Requirement

All proposed structures or facilities used for generation of electricity would be located more than 2,000 feet from any residential neighborhood, school, hospital, or nursing home facility. As defined by KRS 278.700(6), a "residential neighborhood" is "a populated area of five (5) or more acres containing at least one (1) residential structure per acre." As shown in the Application, there are five residential neighborhoods in Kentucky (located to the south, east, and west of the subject property) within two miles of the proposed facility's central steam turbine generator (STG). (*See* Application, at Fig. 5, entitled Two-Mile Site Vicinity Map). But none of these neighborhoods are within 2,000 feet of the proposed STG. (*See* Application, at Fig. 4, entitled Setbacks Requirement Map). The one residential structure within 1,700 feet of the proposed STG is not a "residential neighborhood" as defined by KRS 278.700(6), and therefore, the proposal is in compliance with the 2,000-foot setback requirement.

B. The 1,000-Foot Setback Requirement

As noted in the Application, the project's main stack would be for the heat recovery coke plant to vent coke oven flue gas after treatment by the flue gas desulfurization system. Consequently, there would be no exhaust stack for the proposed merchant electric generating facility. (*See* Application, Exhibit K, entitled Simplified Process Diagram). Unlike a typical merchant power plant which has an exhaust stack for venting combustion products from direct-fired fuels solely for the purpose of power production, no fuel would be direct fired at the SunCoke merchant generating facility. Instead, the merchant generating facility would be

converting steam (generated from waste heat at the coke plant) to power. And steam would be the *only* source of feed provided to the merchant generating facility to produce a nominal 40-80 megawatts (MW) of electricity. (*See* Application, Section 2.1, p.3). However, for purposes of this motion and the Application, SunCoke is nevertheless applying the criteria of KRS 278.704(2) to the main stack for the coke plant, as if it were an exhaust stack.

The proposed exhaust stack would be less than 1,000 feet from one adjacent property owned by DGGG Realty LLC and populated by Graf Brothers Flooring and Lumber (hereafter "Graf Brothers"). (*See* Application, Section 5.0, p.13). The Graf Brothers property within the 1,000 foot radius is depicted in the Application. (*See* Application, at Fig. 4, entitled Setback Requirements Map). This property is operating as a commercial and industrial facility where hard-wood flooring and lumber is manufactured and stored. (*See* Application, Section 2.6, p. 8).

Pursuant to KRS 278.704(4), the Board may grant a deviation from the 1,000-foot setback requirement in KRS 278.704(2) if "the proposed facility is designed to and, as located, would meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than those provided in subsection (2) of this section." For the reasons set forth below, and applying guidance from prior Board actions interpreting KRS 278.704(4), SunCoke believes the proposed facility would meet the goals of KRS 278.700 *et seq.*, and respectfully requests the Board to grant a deviation from the setback requirements of KRS 278.704(2).

II. ARGUMENT

A. Effects on Adjacent Landowners

In the Board action styled, *In the Matter of: Application of ecoPower Generation-Hazard, LLC for a Certificate to Construct and Operate a Merchant Electric Generating Facility*

and a 69kV Transmission Line in Perry County, Kentucky, Board Case No. 2009-00530 (hereinafter "*ecoPower*"), a copy of which is attached as Exhibit I, the Board enunciated the standards applicable to merchant generating facilities seeking a deviation from the setback requirements found in KRS 278.704(2). In *ecoPower*, the Board stated, "The setback provisions of KRS 278.704(2) were enacted to afford some level of protection for persons occupying a property adjacent to a property where a merchant generating plant is to be constructed and operated." *ecoPower* at 31. The Board concluded that it must consider the effects of the planned facility on the adjacent residents when determining whether to grant a deviation pursuant to KRS 278.704(4). *See id.* at 32.

In *ecoPower*, the Board granted the deviation largely because the facility was located at an existing industrial park where a number of industrial facilities were already located. *Id.* at 33. The Board stated:

> Persons entering an established industrial park must have a reasonable expectation of exposure to a certain amount of noise, visual obstruction of scenic views, and traffic that may result from the construction and operation of an industrial facility—including those that will result from the construction and operation of a merchant generation plant. The Siting Board has taken those factors into consideration in making its determination regarding ecoPower-Hazard's request for a deviation from the 1,000 foot setback requirement in this case.

Id.

Each of these factors are discussed in more detail below and in the Site Assessment Report included in the SunCoke Application. (*See* Application, Exhibit H, entitled Site Assessment Report).

1. Noise

The Application thoroughly evaluates the expected noise levels from the proposed plant and the surrounding properties. (*See* Application, Exhibit H, Section 1.9, p.7). To the adjacent

west of the proposed site is the MarkWest Hydrocarbon plant that produces natural gas, and to the adjacent south is the Graf Brothers site, which processes and stores hard-wood flooring and lumber. Each of the bordering sites produces a relatively high level of noise.

In addition to the noise produced by the adjacent facilities, the proposed heat recovery plant's closest operating unit (the quench tower) would be set back approximately 1,400 feet from Route 23, further providing a buffer between the proposed facility and the community. The highest potential noise emitting unit for the merchant generating facility (the steam turbine generator) would be approximately 1,800 feet from Route 23 and would be contained inside a building. (*See* Application, Exhibit H, Section 1.9, p.8). In addition, there is currently a high noise level in the area due to the traffic volume along Route 23 and the CSX railroad to the south.

The Site Assessment Report also includes a noise study from SunCoke's Middletown, Ohio heat recovery coke plant, which has similar topography to the proposed South Shore facility. (*See* Application, Exhibit H1, entitled Middletown Noise Study). Unlike South Shore, Middletown is situated closer to the neighboring community and is surrounded by public roadways. Nevertheless, the Middletown study concluded that "the background noise levels in relation to traffic and other area activities matched or were higher than those from the facility." (*See* Application, Exhibit H, Section 1.9, p.8).

For all of these reasons, the Site Assessment Report concludes that "the noise levels generated at the South Shore site will not pose a negative contributing effect upon the noise levels within the surrounding properties." (*See* Application, Exhibit H, Section 1.9, p.8).

2. Visual Obstruction of Scenic Views

The Application provides an in-depth analysis of the compatibility of the facility with the scenic surroundings (*See* Application, Exhibit H, Section 2.0, p.9) by including line of site profiles and conceptual viewsheds of the proposed facility. (*See* Application, Exhibit H2 and H3). SunCoke would also install a "green belt" surrounding the exterior view of the plant. (*See* Application, Exhibit H4, entitled SunCoke Plant Greenbelt examples). Based on these analyses and the proposed "green belt," the Application concludes, "Due to the existing surrounding property use and electrical transmission lines, the view of the Project is likely to be no more intrusive than the existing industrial structures surrounding the Project." (*See* Application, Exhibit H, Section 2.0, p.9-10).

3. Traffic

The Application analyzes the traffic impact during both the construction and operation phases of the proposed facility. (*See* Application, Exhibit H, Section 5.2, p.13). During the construction phase, 500 or more workers would be involved with the project. SunCoke is actively planning for the construction period and has considered several actions that would be required to accommodate the construction traffic. For example, SunCoke would work with the Kentucky Department of Transportation and the Greenup County road engineer on temporary signaling and other traffic controls installed on U.S. 23. Construction traffic and work hours would also be staged to the extent possible. While the number of construction workers would be significant, the number of construction vehicles would still be relatively small in comparison to the average daily traffic on U.S. 23. According to the Kentucky Transportation Cabinet Division of Planning, the average daily traffic volume along Route 23 near the proposed site is approximately 11,800 vehicles. (*See* Application, Exhibit H, Section 5.2, p.13).

During the operation phase, the site would employ approximately one hundred workers, which would also have a negligible increase to the current traffic volume on U.S. 23. (*See* Application, Exhibit H, Section 5.2, p.14). To prepare for this phase, SunCoke is currently working with the Kentucky Department of Transportation on a bridge overpass from U.S. 23 over the CSX railroad into the plant. This overpass would allow for unimpeded access to the plant avoiding any blockages caused by the railroad.

4. Surrounding Properties

Similar to the facts of *ecoPower*, the SunCoke site is bordered by properties that have a history of being used for industrial purposes. The only property within 1,000 feet of the proposed stack is the Graf Brothers' commercial and industrial facility (*See* Application, at Fig. 4, entitled Setback Requirements Map), and the Graf Brothers have been aware of the proposed project for roughly four years. (*See* Application, Exhibit D, entitled Land Option Agreement with DGGG Realty Company, LLC). To the west is the MarkWest Energy Appalachian, LLC Hydrocarbon plant that produces natural gas and liquids from fractionation, and to the east of the Reid Property is the former Hooker Chemical site. (*See* Application, Section 2.6, p.8).

There are no residential structures or neighborhoods adjacent to the facility or within 1,000 feet of the proposed stack. (*See* Application, at Fig. 4, entitled Setback Requirements Map).

5. SunCoke's Mitigation Efforts

In the Board action styled, *In the Matter of: The Application of Kentucky Mountain Power, LLC/EnviroPower, LLC For A Merchant Power Plant Construction Certificate in Knott County, Kentucky Near Talcum*, Board Case No. 2002-00149 (hereinafter "*KMP*), the adjoining property was comprised of thousands of acres which were to be leased by KMP for many

decades—possibly 195 years. *KMP* at 15. As such, the Board granted KMP a deviation from the 1,000-foot setback requirement because the Board "had been assured that the applicant had made every effort to protect property owners from all adverse impacts that might result from the construction and operation of its facility." *ecoPower* at 33.

Likewise, SunCoke has made every effort to protect adjacent property owners from any adverse impacts that might result from the facility and the Board should grant SunCoke a deviation from the setback requirement. As discussed below, the heat recovery plant and merchant generating facility have been designed in accordance with the strictest of emissions compliance requirements and the property within the 1,000 foot radius of the project site is an industrialized zone. Notably, the power generating plant would not emit any air emissions because it is only utilizing the excess steam from the coke plant to generate electricity. The exhaust stack at the proposed site would be for the heat recovery coke plant to vent coke oven flue gas after treatment by the flue gas desulfurization system. (*See* Application, Exhibit K, entitled Heat Recovery Coke Plant Description). The power generated by recovery of heat from the waste gas is a byproduct. Consequently, the merchant power plant would have no stack and would produce no emissions.

The Board should grant this motion for deviation because SunCoke has made every effort to protect property owners from all adverse impacts that might result from the construction and operation of the facility. The proposed merchant generating plant would not produce any emissions, the plant has been designed to meet the strictest of emissions compliance requirements, and the only property within 1,000 feet of the proposed stack is an industrialized zone in which the property owners have been aware of the proposal for roughly four years.

B. The Proposed Facility is Designed and Located to Meet the Goals of KRS 278.700 *et seq.*

KRS 278.704(4) provides that the deviation requested may be granted by the Board upon a finding that the proposed merchant generating facility is designed and located to meet the goals of the following statutes:

1. KRS 224.10-280 Cumulative environmental assessment and fee required before construction of facility for generating electricity; conditions imposed by cabinet; administrative regulations. KRS 224.10-280 provides that no person shall commence to construct a facility to be used for the generation of electricity unless that person has submitted a cumulative environmental assessment ("CEA") to the Energy and Environment Cabinet ("Cabinet") with its permit application, and remits a fee which has been set pursuant to KRS 224.10-100(20).

Upon researching the statute and accompanying regulations, SunCoke is unaware of any regulations that have been promulgated regarding CEAs. At the time of the *ecoPower* order, the Board concluded that there were no regulations involving CEAs (*See ecoPower* at 34) and SunCoke is unaware of any additional regulations since that order. Consequently, no fee has been established for SunCoke to pay "to defray the cost of processing the cumulative environmental assessment." KRS 224.10-280.

But to satisfy the goals of KRS 224.10-280, SunCoke submitted a CEA to the Cabinet which provides an in-depth analysis of the potential air pollutants, water pollutants, wastes, and water withdrawal associated with the proposed heat recovery coke plant and merchant generating facility. (*See* Application, Exhibit L).

AIR EVALUATION - KRS 224.10-280(3)(a)

As required by KRS 224.10-280(3)(a), the CEA evaluates the air pollutants to be emitted by the facility and the associated control measures. (*See* Application, Exhibit L, Section 2.0, p.6). The proposed SunCoke plant is expected to emit the following criteria pollutants: Particulate Matter (PM), Particulate Matter 10 microns diameter and smaller (PM_{10}), Particulate Matter 2.5 microns diameter and smaller ($PM_{2.5}$), Sulfur Dioxide (SO_2), Nitrogen Oxides (NO_X), Carbon Monoxide (CO), Volatile Organic Contaminants (VOCs), and sulfuric acid (H_2SO_4). The facility is also expected to emit Hazardous Air Pollutants (HAPs) including Hydrochloric Acid (HCl) and Mercury (Hg), as well as Greenhouse Gases comprised of mostly Carbon Dioxide (CO_2).

The CEA describes the estimated emissions of each air pollutant. (*See* Application, Exhibit L, Section 2.1, Table 1, p.6). These values represent the maximum potential emissions from the entire facility. As discussed below, more information about the emissions from individual operations is available in the permit application and in the Kentucky Division for Air Quality's (KDAQ) public record (Agency Interest No. 105793). (*See* Application, Exhibit I, entitled Air Permit).

The CEA also describes the methods to be used to control these air emissions. (*See* Application, Exhibit L, Section 2.2, p.7). The SunCoke plant would be the best-controlled of its type in the United States, if not the world, due to the coke plant design, the air pollution controls, and planned equipment redundancy. The CEA describes the air pollution controls for the primary emission units including the nature of the heat recovery coke ovens, and the controls in place for coal handling, coal charging, coke pushing, coke quenching, coke handling, and vehicle operations. (*See* Application, Exhibit L, Section 2.2, p.7-11).

SunCoke also satisfied the goals of KRS 224.10-280(3)(a) by having already received a final Title V air permit from the Kentucky Division for Air Quality. (*See* Application, Exhibit I, entitled Air Permit). This final permit was awarded on August 8, 2014 and the complete Kentucky Division for Air Quality public record is maintained by the agency under Agency Interest No. 105793. The air permit addresses all applicable federal and state air quality regulations that must be satisfied to construct and operate the proposed facility. In addition, the permit's dispersion modeling demonstrated acceptable environmental impacts for all regulated air pollutants.

WATER EVALUATION - KRS 224.10-280(3)(b)

As required by KRS 224.10-280(3)(b), the CEA evaluates the water pollutants to be emitted by the facility and the associated control measures. (*See* Application, Exhibit L, Section 3.0, p.16). SunCoke expects the project to result in the discharge of a non-process water stream and possibly the discharge of stormwater on an intermittent basis. As described in the CEA and the Kentucky Pollutant Discharge Elimination System (KPDES) permit application (a copy of which is attached as Exhibit II), the anticipated average discharge of the non-process water stream to the Ohio River is 120 gallons per minute based on the facility design water balance. (*See* Application, Exhibit L, Section 3.1, p.16). The non-process water stream is further described in KPDES Form SC. (*See* Exhibit II).

The CEA also describes the possible discharge of storm water into the Ohio River during extreme storm events. This stormwater discharge is described in KPDES Form F provided in the KPDES application. (*See* Exhibit II). Any sanitary wastes and wastewater would be discharged directly to the City of South Shore Wastewater Treatment Plant. (*See* Application, Exhibit L, Section 3.2, p.17).

SunCoke also satisfied the goals of KRS 224.10-280(3)(b) by already applying for a KPDES Individual Permit for the discharge of non-process water stream and "stormwater associated with industrial activity" to the waters of the Commonwealth. (*See* Exhibit II). SunCoke submitted the KPDES Individual Permit application to the Kentucky Department of Water on March 22, 2013. The final Socioeconomic Demonstration and Alternatives Analysis was amended per the Division of Water and resubmitted September 17, 2014. (*See* Application, Exhibit L, Section 3.3, p.16).

SunCoke also intends to comply with the Kentucky Division of Water's Construction Storm Water Discharge General Permit for those construction activities that disturb one acre or more. (*See* Application, Exhibit L, Section 3.3, p.18). SunCoke intends to submit a Notice of Intent prior to the commencement of construction and a notice of termination upon completion.

WASTE EVALUATION - KRS 224.10-280(3)(c)

As required by KRS 224.10-280(3)(c), the CEA evaluates the waste to be generated by the facility and the associated control measures. (*See* Application, Exhibit L, Section 4.0, p.19). A key advantage of SunCoke's heat recovery coke making technology is the minor amount of solid waste produced. As described in the CEA, the primary waste product is flue gas desulfurization ash. (*See* Application, Exhibit L, Section 4.0, p.19). This waste is not hazardous and is generally landfilled at a solid (non-hazardous) waste facility. The proposed SunCoke project is expected to generate 20,000 to 50,000 tons of flue gas desulfurization ash per year. Landfills in Walton and Ashland, Kentucky are known to accept similar quantities of non-hazardous ash and may be contracted to dispose of the project's ash.

The SunCoke project would also generate minor amounts of hazardous waste typical of industrial facilities. The project is expected to generate less than 220 pounds of hazardous waste

per month, and as such, would be considered a conditionally exempt small quantity generator (CESQG). CESQGs are generally not subject to hazardous waste labeling, but are required to identify hazardous wastes and ensure that they are sent to an authorized facility. SunCoke fully intends to comply with these requirements.

The SunCoke project would be a small quantity handler of universal waste containing lead, mercury, and PCBs. (*See* Application, Exhibit L, Section 4.0, p.19). SunCoke intends to adhere to specific regulations regarding labeling, storage containers accumulation, and shipping of universal waste. In addition, all plant trash and other solid wastes are planned to be disposed offsite at a permitted facility.

WATER WITHDRAWAL EVALUATION - KRS 224.10-280(3)(d)

As required by KRS 224.10-280(3)(d), the CEA identifies the source and volume of anticipated water withdrawal needed to support facility construction and operations, and the CEA describes the methods to be used for managing water usage and withdrawal. (*See* Application, Exhibit L, Section 5.0, p.20). As described in the CEA, the proposed facility would primarily utilize surface water from the Ohio River and stormwater for its process and non-process operations. If necessary, process and non-process water would be supplemented from City Water Supply on a temporary basis during drought conditions.

Section 316(b) of the Clean Water Act requires that the design, construction, and location of cooling water intake structures utilize the best available technology to minimize adverse environmental impact. The proposed facility design is believed to comply with this requirement. (*See* Application, Exhibit L, Section 5.0, p.20). Pursuant to 40 CFR 125.84(c)(2), the intake flow is significantly less than the regulatory requirement of five percent. (*See* Application, Exhibit L, Section 5.0, p.20). In addition, the CEA also describes the use and management of stormwater.

In summary, the SunCoke project is designed and located to meet the goals of KRS 224.10-280. (*See* Exhibit III). SunCoke has submitted a CEA to the Cabinet which contains a description and analysis of anticipated air pollutants, water pollutants, wastes, and water withdrawal needs. The CEA also references the substantial amount of planning, permitting, and assessments which have been completed for the facility and which are ongoing. The SunCoke project development team fully intends to continue permitting as required to comply with all applicable regulations.

2. **KRS 278.010. Definitions for KRS 278.010 to 278.450, 278.541 to 278.544, 278.546 to 278.5462, and 278.990.** KRS 278.010 provides a list of definitions to be used in conjunction with KRS 278.010 to 278.450, 278.541 to 278.544, 278.546 to 278.5462, and 278.990. The Board's authority begins with KRS 278.700 and extends through KRS 278.716 and any applicable provision of 278.990. In filing a complete Application pursuant to the applicable statutes in this proceeding, SunCoke believes it has satisfied the goal of providing the required information utilizing the definition of any applicable term defined in KRS 278.010. (*See* Exhibit IV).

3. **KRS 278.212. Filing of plans for electrical interconnection with merchant electric generating facility; costs of upgrading existing grid.** SunCoke believes it has met the goals of KRS 278.212 because it is the intent of SunCoke to ensure compliance with all applicable conditions relating to electrical interconnection with utilities by following the PJM Interconnection process. SunCoke also intends to tie into the electrical system in Ohio and not Kentucky. Additionally, SunCoke fully intends and would accept responsibility for appropriate costs which may result from its interconnecting with the electricity transmission grid. With

SunCoke's commitment to comply with KRS 278.212, SunCoke believes that the proposed facility has been designed and located to meet the goals of KRS 278.212. (*See* Exhibit V).

4. **KRS 278.214. Curtailment of service by utility or generation and transmission cooperative.** The goal of this statute is to establish the progression of entities whose service may be interrupted or curtailed pursuant to an emergency or other event. SunCoke intends to abide by the requirements of this provision to the extent that these requirements are applicable. SunCoke believes that by committing to comply with these requirements the company has met the goals anticipated by the statute. (*See* Exhibit VI).

5. **KRS 278.216. Site compatibility certificate; site assessment report; commission action on application**. KRS 278.216 requires a jurisdictional utility, as defined by KRS 278.010(3), which seeks to construct an electric generating facility to comply with many of many of the requirements that are included within KRS 278.700 to 278.716, including the submission of a site assessment report. However, KRS 278.216 specifically applies to jurisdictional utilities, as defined in KRS 278.010(3), and SunCoke is not such a defined utility. Therefore, by complying with the requirements of KRS 278.700 *et seq*., SunCoke believes it has met the requirements and goals of KRS 278.216. (*See* Exhibit VII).

6. **KRS 278.218. Approval of commission for change in ownership or control of assets owned by utility**. This statute specifically applies to utilities as those defined pursuant to KRS 278.010(3). The statute prohibits acquisition or transfer without prior approval of the Commission. SunCoke is not a utility as described in 278.010(3), and therefore this statute does not apply to SunCoke. However, to the extent commission approval may at some time be required for change of ownership or control of assets owned by SunCoke, SunCoke would abide by the applicable rules and regulations which govern its operation. (*See* Exhibit VIII).

7. **KRS 278.700 – 278.716. Electric Generation and Transmission Siting**. These provisions of the Kentucky Revised Statutes govern the application of a merchant electric generating facility such as the one proposed by SunCoke in its Application to the Board. According to the Board itself, the goals of these provisions include the following: to provide for the location of merchant electric generating facilities in a fashion which will not intrude upon or unnecessarily disrupt surrounding land uses including hospitals, nursing homes, residential areas, schools, parks or otherwise have adverse environmental impacts which are not otherwise regulated; to include an evaluation of the economic impact of the proposed facility (KRS 278.710(1)(c)); to determine whether the facility is to be located at a site where existing generating facilities are located (KRS 278.710(1)(d)); to determine whether the facility will meet all applicable local planning and zoning requirements (KRS 278.710(1)(e)); to determine whether the facility will adversely impact the reliability of electrical service for retail customers of utilities regulated by the Public Service Commission (KRS 278.710(1)(f)); to determine the efficacy of any proposed mitigation measures (KRS 278.710(1)(h)); and to provide the applicant's history of environmental compliance (KRS 278.710(1)(i)). *ecoPower* at 39.

SunCoke believes it has met the goals set forth in these provisions as evidenced by the Application in its entirety. SunCoke has provided a comprehensive Application with a detailed discussion of all of the criteria applicable to its proposed facility under KRS 278.700-278.716. SunCoke has engaged in public education and public notification, has held a public meeting to respond to inquiries concerning the project, and has specifically discussed and made itself available for questioning by adjoining landowners concerning the property.

In addition, SunCoke has made every effort to protect adjacent property owners from any adverse impacts that might result from the facility. As previously discussed, the plant has been

designed in accordance with the strictest of emissions compliance requirements. The proposed plant would be the best controlled of its type in the United States, if not the world, due to the coke plant design, the air pollution controls, and planned equipment redundancy. The only property within the 1,000-foot radius is a commercial and industrial facility, and the occupants of the property have been aware of the project for roughly four years. And most notably, the merchant power plant would have no stack and would emit no air emissions. The exhaust stack at the proposed site would be for the heat recovery coke plant to vent waste gases after treatment by the flue gas desulfurization system.

SunCoke has clearly met the goals of KRS 278.700 *et seq.* in locating its proposed facility in an environmentally compatible location, disclosing the facts surrounding its proposed operation, responding to inquiries, and obtaining the proper permits for the facility.

III. CONCLUSION

WHEREFORE, SunCoke Energy South Shore LLC requests a deviation from the setback requirements contained in KRS 278.704(2) as the proposed facility is designed and located to meet the goals of the statutory provisions set forth in KRS 278.704(4).

Respectfully submitted,

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CERTIFICATE OF SERVICE

This is to certify that the original and ten true and correct copies of the foregoing have been filed in the office of the Kentucky State Board on Electric Generation and Transmission Siting, 211 Sower Blvd., Frankfort, Kentucky 40601 and that the following have been served via Federal Express on this the 3rd day of November, 2014:

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COMMONWEALTH OF KENTUCKY

BEFORE THE KENTUCKY STATE BOARD ON
ELECTRIC GENERATION AND TRANSMISSION SITING

In the Matter of:

APPLICATION OF ECOPOWER GENERATION-HAZARD, LLC FOR A CERTIFICATE TO CONSTRUCT AND OPERATE A MERCHANT ELECTRIC GENERATING FACILITY AND A 69 KV TRANSMISSION LINE IN PERRY COUNTY, KENTUCKY	)	CASE NO. 2009-00530

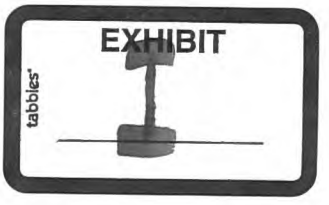
O R D E R

PROCEDURAL HISTORY

On February 12, 2010, the Applicant, ecoPower Generation-Hazard, LLC[1] ("ecoPower-Hazard") filed an application with the Kentucky State Board on Electric Generation and Transmission Siting ("Siting Board" or "Board") for a certificate to construct a merchant 50 megawatt ("MW") biomass-fired electric generating facility and a 69 kilovolt ("kV") non-regulated transmission line in Perry County, Kentucky.

On February 18, 2010, the Board issued a letter to ecoPower-Hazard notifying it of a deficiency with its February 12, 2010 filing due to failure to comply with 807 KAR 5:110, Section 1(3), which requires that a Siting Board applicant's attorney of record

[1] In its February 12, 2010 Application, the Applicant identified itself as "ecoPower Generation, LLC." However, as described *infra*, the Applicant filed a Motion to Amend its Application to Change Name of Applicant to "ecoPower Generation-Hazard, LLC" ("Motion to Change Name") on April 19, 2010. The Motion to Change Name was granted by the Siting Board in an Order issued on April 22, 2010. Except in reference to the Motion to Change Name, the Applicant is referred to throughout this Order as "ecoPower-Hazard."



must sign all pleadings and provide his address thereon. On February 18, 2010, ecoPower-Hazard filed an amendment to its application, curing the filing deficiency. On February 19, 2010, the Board issued a letter stating that ecoPower-Hazard had cured the deficiency and that the application was administratively complete.

On February 26, 2010, the Board issued a procedural schedule providing for an evidentiary hearing to begin on May 5, 2010. The procedural schedule also established March 22, 2010 as the deadline for any person to file a request for intervention and for any person to file a request for a local public hearing. No one filed a request for intervention in this matter, nor did anyone file a request for a local public hearing. Therefore, a local public hearing was not held in this matter.

The procedural schedule provided for data requests to be issued to ecoPower-Hazard by March 29, 2010. Board Staff's First Data Request was issued to ecoPower-Hazard on March 26, 2010, and Board Staff's Second Data Request was issued to ecoPower-Hazard on March 29, 2010. EcoPower-Hazard provided its responses to Staff's first and second data requests on April 5, 2010 in compliance with the February 26, 2010 procedural schedule. On March 22, 2010, the Board filed the report of its consultant, BBC Research and Consulting ("BBC"), which evaluated the Site Assessment Report ("SAR") that had been filed as part of the application.

In its response to Board Staff's Second Data Request, ecoPower-Hazard explained that, on February 24, 2010, it had filed an amendment to its Articles of Organization with the Kentucky Secretary of State to change its name from "ecoPower Generation, LLC" to "ecoPower Generation-Hazard, LLC." On April 15, 2010, the Board

issued an Order to ecoPower-Hazard to file a motion to amend its Application to change its name to "ecoPower Generation-Hazard, LLC."

On April 19, 2010, the Applicant filed a Motion to Amend its Application to Change Name of Applicant to ecoPower Generation-Hazard, LLC. Applicant, "ecoPower Generation-Hazard, LLC," explained in its motion that "(s)pecifically, ecoPower Generation, LLC was initially organized under the laws of the Commonwealth of Kentucky on May 18, 2009, and is identified as Organization No. 0730121 in the Office of the Kentucky Secretary of State. On February 24, 2010, it filed Articles of Amendment to its Articles of Organization changing its name to ecoPower Generation-Hazard, LLC. Simultaneously, a separate limited liability company filed its Articles of Organization for a limited liability company named ecoPower Generation, LLC with the Kentucky Secretary of State, Organization No. 0757345, on February 24, 2010." EcoPower Generation-Hazard, LLC remains the Applicant and entity that has applied for the Siting Board's approval to construct an electric generation facility and 69 kV transmission line in Perry County, Kentucky, which is the subject of the present case.

The limited liability company, "ecoPower Generation, LLC" with Organization No. 0757345, was organized to be a holding company and will be the sole member of ecoPower Generation-Hazard, LLC upon the completion of the transfer of all members' interest in that limited liability company to ecoPower Generation, LLC. Applicant, ecoPower Generation-Hazard, LLC, stated, "(t)his change, while somewhat confusing, became necessary because of continuing changes in the interpretation of the law relating to the financing of this proposed project." The new entity, ecoPower Generation, LLC, will initially have the same ownership as the original limited liability

company and, after the transfer of all membership interests, ecoPower Generation-Hazard, LLC will become a wholly owned subsidiary of ecoPower Generation, LLC. The Board granted Applicant's motion to amend its February 18, 2010 Application to change its name to "ecoPower Generation-Hazard, LLC" as identified by the Kentucky Secretary of State Organization Number 0730121 in an Order issued on April 22, 2010.

On April 8, 2010, pursuant to KRS 278.704(4), ecoPower-Hazard filed a motion for deviation from the 1,000-foot setback requirement in KRS 278.704(2) ("motion for deviation"). KRS 278.704(4) provides that the Siting Board may grant an applicant's request for a deviation from the 1,000-foot setback requirement in KRS 278.704(2) if "the proposed facility is designed and located to meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than those provided in subsection (2) of this section."

In its April 8, 2010 motion for deviation, ecoPower-Hazard argued that "the statutory language and legislative history suggest that the primary purpose of the setback requirement is to protect the expectations of property owners who had no reason to expect the construction of a merchant power plant near their property." In support of its motion for deviation, ecoPower-Hazard provided copies of letters from representatives of the owners of the two properties which would be closer than 1,000 feet to the exhaust stack of the proposed facility. In the letters, the representatives of the property owners state that they are aware of the 1,000-foot setback requirement and that the exhaust stack will be closer than 1,000 feet to their properties; and both property owners state their support for the proposed facility and exhaust stack despite the fact that it will not be in compliance with the 1,000-foot setback requirement.

In an Order issued on April 22, 2010, the Siting Board denied ecoPower-Hazard's April 8, 2010 motion for deviation from the setback requirements of KRS 278.704(2) on grounds that the motion for deviation did not provide sufficient support for the Siting Board to make a finding that the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 have been met by the design and location of the proposed facility.[2]

On April 27, 2010, ecoPower-Hazard filed a revised motion for deviation from the 1,000-foot setback requirements of KRS 278.704(2). In the revised motion, ecoPower-Hazard explains in detail how its facility is designed and located to meet the goals of the statutes listed in KRS 278.704(4).

On April 8, 2010, ecoPower-Hazard filed a motion to dispense with the formal evidentiary hearing, which was initially scheduled for May 5, 2010, pursuant to the scheduling Order issued on February 26, 2010. However, as the Siting Board had denied ecoPower-Hazard's motion for deviation from the 1,000-foot setback requirement of KRS 278.704(2), the Board determined not to cancel the evidentiary hearing but, rather, to reschedule the hearing to May 19, 2010 in order to provide ecoPower-Hazard additional time to file an amended application or to file an amended motion for deviation from the setback requirements. As explained above, an amended

[2] In its Order, the Board noted that KRS 224.10-280, which is one of the statutes referenced in KRS 278.704(4), requires that any person wishing to construct a facility for the generation of electric power must submit a cumulative environmental assessment to the Energy and Environment Cabinet, along with a fee for processing the assessment. The Board found that ecoPower-Hazard's April 8, 2010 motion for deviation did not adequately explain how its facility is designed and located to meet the goals of KRS 224.10-280 despite being closer than 1,000 feet to the adjacent properties.

motion for deviation was filed on April 27, 2010 and, on May 4, 2010, the Board issued an Order canceling the May 19, 2010 evidentiary hearing and submitting the application for a decision on the existing administrative record.

EcoPower-Hazard provided public notice of the Application by publication in the Hazard Herald on December 16, 2009 and on January 13, 2010.[3] The public notice provided the location of the proposed merchant generating facility and the proposed 69 kV transmission line, stated that the facilities are subject to Board approval, and provided the Kentucky Public Service Commission's ("PSC") address and telephone number.[4] EcoPower-Hazard filed an affidavit from the newspapers attesting to the publication. EcoPower-Hazard also filed proof of service for the Application. The Applicant mailed notification letters to landowners whose properties border the proposed site and transmission line by registered mail, return receipt requested, beginning on December 15, 2009.[5] Copies of the letters and the certified mail return receipts for all property owners of record except one were included in the Application.[6] EcoPower-Hazard discovered the missing certified mail receipt and filed it into the record of this matter on April 16, 2010.[7]

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[3] See Application, Exhibit B2.

[4] The Board is attached to the PSC for administrative purposes. See KRS 278.702(3).

[5] Id., Exhibit B1.

[6] Id.

[7] Applicant's Notice of Filing Return Receipt.

In response to the letters and public notices, the Board received no protests, requests for public hearings, or motions to intervene. Following the expiration of the time for formal intervention in the case and for any request for a local public hearing, the Siting Board determined that a formal evidentiary hearing in this matter was not necessary. Therefore, no local public hearing or formal evidentiary hearing was held in this matter and, pursuant to KRS 278.710(1), the Siting Board has issued this Order granting ecoPower-Hazard's application within 90 days of the February 18, 2010 filing date.

BACKGROUND

In its Application, EcoPower-Hazard states that it plans to build and operate an approximate 50 MW renewable fuel electric generating facility on a 125-acre tract of reclaimed coal mine land situated within the Coal Fields Regional Industrial Park ("industrial park"), approximately 10 miles north/northwest of the city of Hazard in Perry County, Kentucky. The plant will be fueled with wood biomass or byproducts (sawdust, bark, wood chips, tip wood, low quality logs, etc.).[8]

EcoPower-Hazard also proposes to construct a 69 kV transmission line sufficient to transmit the electric power generated to the existing Kentucky Power Engle substation. EcoPower-Hazard indicates that the substation is located at the entrance to the industrial park, a distance of approximately one mile from the proposed project property boundary, and a distance of approximately 1.54 miles overall.[9]

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[8] Application, pp. 2-4.

[9] Id.

SITE CONDITIONS, VICINITY, AND INFRASTRUCTURE

In its Application, EcoPower-Hazard provided detailed information about the industrial park where it proposes to locate its facility. The industrial park contains both developed and undeveloped industrial tracts and is located in a rural area with commercial, industrial, and institutional (i.e., public airport) land uses generally located along major transportation routes. EcoPower-Hazard states that reclaimed coal mining land is located adjacent to the property, with active mining operations in the nearby area. The property has previously been surface-mined and reclaimed for industrial uses. EcoPower-Hazard notes that the nearest incorporated community is Hazard, Kentucky, approximately 10 miles to the south. It further identified nearby unincorporated communities and their approximate distance from the industrial park, including Lamont, approximately 2.75 miles southwest; Rowdy, approximately 1.75 miles northeast; and Chavies, approximately five miles southwest.[10] EcoPower-Hazard states that the industrial park is serviced by the city of Hazard for its water and sewer service and Kentucky Power Company for its electrical power service.

WATER

EcoPower-Hazard indicates that the design of the project calls for air cooling, which reduces potential water needs from those of a water-cooled system. As a result of this design decision, ecoPower-Hazard states that it plans to obtain all process and other water from the city of Hazard pursuant to a Water Supply Agreement. EcoPower-Hazard further states that, in the event of an interruption in service from the city of Hazard's water supply, it has designed water holding tanks as part of the project that

[10] Id. at 9.

will immediately supply the approximate 35 gallons-per-minute demand of the process.[11]

EcoPower-Hazard has likewise identified two secondary sources of water for use in the event the water supply from the city of Hazard becomes unavailable. The first option for secondary water supply identified by EcoPower-Hazard is the Hollybush impoundment, located approximately 4,000 feet northeast of the Project. EcoPower-Hazard states that this impoundment was constructed in the 1980s and has been maintained to service Pine Branch Coal Company in the immediate area. EcoPower-Hazard states that the impoundment no longer supplies water to the coal company.[12]

A second option for secondary water supply identified by EcoPower-Hazard is groundwater present beneath the site within the overburden emplacement. EcoPower-Hazard states that preliminary calculations indicate that these resources will be adequate to supply the low volume required by the process and that a more comprehensive study with several test wells is being designed to confirm the preliminary data.[13]

WASTEWATER DISCHARGE

EcoPower-Hazard indicates that wastewater discharge is low-volume and that it plans to discharge to the city of Hazard subject to a pre-treatment agreement which will be entered into as the potential wastewater constituents are determined during final design tasks. EcoPower-Hazard states that the city of Hazard has confirmed that the

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[11] Id. at 8.

[12] Id. at 8-9.

[13] Id. at 9.

sewage treatment system has adequate capacity to handle the approximate 20 to 25 gallons-per-minute flow likely from the facility.[14]

ELECTRIC SERVICE

EcoPower-Hazard states that electric service to the project will be accomplished through the proposed transmission line, using a transformer to allow the project to access service.[15]

THE PROPOSED ELECTRIC GENERATING PLANT

According to EcoPower-Hazard, the proposed electric generating facility will include several buildings and the following equipment:

- One fluidized bed boiler ("FBB") with a maximum heat input of 672 mmBtu/hr (fired exclusively on biomass with propane available as the startup fuel), and a steam turbine generator with a nominal gross output of 50 MW;
- One propane-fired auxiliary boiler;
- An air-cooled condenser;
- Material handling systems that include, but are not limited to, two truck dumps, receiving hopper, conveyors, roads, storage piles, silos, screens, wood chipper, and wood hog;[16]

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[14] Id.

[15] Id.

[16] According to ecoPower-Hazard's Air Permit Application Technical Support Document, "[i]n the Wood Hog Building the mixed fuel [wood, sawdust, wood chips, bark, etc.] is screened and sized (or hogged) as needed for use in the boilers." Id., Exhibit K, Attachment 3 at page 2-10.

- Ancillary equipment (i.e., emergency generator, fire water pump, and fuel tanks); and
- Several buildings, including: a boiler building; a turbine building; a wood hog building; a chipper building; a warehouse/shop building; and a service building.[17]

EcoPower-Hazard further states that the boiler and steam turbine generator will produce a nominal 50 MW gross electrical output. The FBB will be designed to generate 450,000 lbs./hr. of steam, operate at 950 degrees Fahrenheit and 1,800 psig, and have an air-cooled condenser to reduce water use. The boiler will be fired by blended biomass that includes bark, wood chips, chipwood, and sawdust. A propane-fired auxiliary boiler will be utilized to provide steam during startup of the main boiler.[18]

EcoPower-Hazard states that a planned 1,600 kW, diesel-fired emergency generator and a 450 hp, diesel-fired emergency fire water pump will be used in emergency situations (i.e., interrupted electrical supply, wood fires) at the facility. Diesel storage tanks for these two units, as well as a tank to supply diesel fuel for facility heavy equipment, will be located on-site.[19]

STATUTORY REQUIREMENTS

Introduction

Pursuant to KRS 278.704(1), no person shall commence to construct a merchant electrical generating facility until that person has applied for and obtained a construction certificate for the proposed facility from the Siting Board. KRS 278.710(1) directs the

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[17] Id. at 3.

[18] Id.

[19] Id.

Board to consider the following criteria in rendering its decision: impact on scenic surroundings; property values; adjacent property; surrounding roads; anticipated noise levels; economic impact on the affected region and state; existence of other generation facilities; local planning and zoning requirements; potential impact on the electricity transmission system; compliance with statutory setback requirements; efficacy of proposed mitigation measures; and history of environmental compliance. In addition, the Board may consider the policy of the General Assembly to encourage the use of coal as a principal fuel for electricity generation.[20] Moreover, KRS 278.708(6) authorizes the Board to condition a construction certificate upon the implementation of any mitigation measures that the Board finds appropriate. This Order will consider separately each of these statutory requirements and related mitigation measures.

KRS 278.710(1)(a) directs the Board to consider the impact of a proposed merchant plant on scenic surroundings, property values, adjacent property, and surrounding roads before deciding whether to grant or deny a construction certificate.

Impact on Scenic Surroundings

By choosing to locate its proposed generation facility and transmission line in an existing industrial park, EcoPower-Hazard has largely mitigated the effects the proposed facilities may have on the scenic surroundings of the site. As BBC notes in its report on ecoPower-Hazard's SAR, "[t]he site topography, coupled with the baseline setting of the industrial park and former and active surface mining, renders the proposed [ecoPower-Hazard] facility, including the stack, compatible with its scenic

[20] KRS 278.710(2).

surroundings in large part."[21] During the Board's April 14, 2010 site visit, the Board members were able to see the existing land uses at the industrial park, including industrial manufacturing facilities, a commercial call center, and the nearby surface mining areas.

In its report, BBC notes that there are five residences in or adjacent to the industrial park.[22] The proposed generation facility will be visible to four of these five residences, and the one which does not have a view of the generation facility will have a view of the proposed transmission line and support structures.[23] However, as BBC notes, "the current view sheds of all the residences include several other major industrial structures within the industrial park."[24]

The report also notes that a residential neighborhood is located approximately one mile northeast of the ecoPower-Hazard site across Kentucky Highway 15 and adjacent to the southeastern portion of the Wendell H. Ford Airport.[25] Neighborhood residents will be able to see the proposed generation facility; but, as with the residential homes in and adjacent to the industrial park, their current view of the industrial park includes a number of existing industrial, commercial, and mining facilities.[26] EcoPower-Hazard has also committed to minimize the installation and use of lighting at the

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[21] BBC Report at 23.

[22] Id. at 17.

[23] Id.

[24] Id.

[25] Id.

[26] Id.

proposed facility in order to reduce any additional adverse visual concerns that nighttime lighting might cause to the occupants of the residences in the industrial park and the residences in the neighborhood.[27]

Adverse visual impacts from the expected increase in traffic during construction and operation of the facility are expected to be minimal, if any. Therefore, BBC recommends no mitigation measures regarding visual impact from cars and trucks going to and from the proposed facility.[28]

In order to mitigate any visual effects the proposed facility might have on the residential occupants, BBC agrees with ecoPower-Hazard's proposal to paint its facility, including the exhaust stack, with a "neutral" (non-contrasting) color, with the exception of any markings that may be required by state or federal aviation safety standards or otherwise necessary for the protection of its workers (e.g., warning signs).[29] BBC also recommends that ecoPower-Hazard be required to "ensure that the final design of nighttime lighting of the facility minimizes potential visual concerns, subject to safety and security requirements."[30]

The Siting Board agrees with the mitigation measures recommended by BBC to reduce visual impacts of the proposed facility. Therefore, the Siting Board will require ecoPower-Hazard to implement those visual mitigation measures as a condition of its approval of ecoPower-Hazard's application. With implementation of the proposed visual

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[27] Id. at 22.

[28] Id.

[29] Id. at 23.

[30] Id.

mitigation measures, the Siting Board finds that ecoPower-Hazard's proposed generation facility and transmission line will have minimal impact on the scenic surroundings of the proposed location.

Impact on Property Values

With regard to the impact the proposed generation facility and transmission line may have on the values of the surrounding properties, the Siting Board finds that any impact on property values will be negligible. As described above, the existing property uses at the industrial park make it very unlikely that there will be any adverse impact on property values as a result of the construction and operation of the proposed ecoPower-Hazard facility.

From its review and investigation, BBC concludes that there may, in fact, be positive effects from the additional employment opportunities that will accompany the construction and operation of the facility. BBC notes that ecoPower-Hazard has stated its intent to maximize local hiring where possible and states that "beneficial impacts are most likely if much of the construction and operations workforce is drawn from the local area."

The Siting Board agrees with BBC's conclusion. However, the Board will not assign any specific goals for the number of local workers that ecoPower-Hazard must employ during the construction and operation of its facility as a condition of the grant of a certificate in this case. The Siting Board notes that the positive atmosphere engendered by ecoPower-Hazard's efforts to proactively engage the public, local, and state officials to develop support for its proposed project depends, to a substantial degree, on any commitments or promises it has made to provide a number of new jobs

for the local population in constructing and operating the proposed facility. The Board encourages ecoPower-Hazard to honor the welcome extended to it by the local community by living up to those non-binding commitments and honoring promises to the greatest degree possible and practicable.

Impact on Surrounding Roads

According to BBC's report, the industrial park is well-located with regard to the regional transportation system:

> In general, and relative to previous siting evaluations conducted by the study team for the Board, the proposed ecoPower site is well situated from a transportation standpoint. Close proximity to KY 15, one of the three State Primary System highways in Perry County (along with KY 80 and the Hal Rodgers Parkway) provides considerable volume and load capacity to the site.[31]

Access to the ecoPower-Hazard site is provided via Coalfields Industrial Drive, which is a paved, two-lane road accessible by Ky. 15, approximately 10 miles north of Hazard.[32] According to BBC, Ky. 28 will also provide a limited amount of access to the site, but it is expected that traffic volume on Ky. 28 will increase by less than 4 percent above current figures.[33] Most of that increased traffic is expected to be workers driving their personal vehicles to and from the site, as opposed to construction vehicles and wood-hauling trucks which will most likely use Ky. 15.[34] Therefore, BBC did not recommend any mitigation measures to reduce traffic impacts to Ky. 28.

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[31] Id. at 40.

[32] Id. at 36.

[33] Id. at 37.

[34] Id. at 38.

According to data BBC obtained from the local Kentucky Transportation Cabinet ("KTC") office in Jackson, Kentucky, traffic volume on Ky. 15 is currently at 37 to 47 percent of its maximum capacity.[35] Pursuant to the information provided in the SAR and further information gathered by BBC from ecoPower-Hazard during its review of the SAR, BBC concludes that traffic to and from the ecoPower-Hazard property on Ky. 15 during the construction phase will be moderately elevated—to between 41 and 54 percent of its maximum capacity.[36] Once the facility is constructed, traffic volume on Ky. 15 during normal operations is expected to be between 38 and 49 percent of maximum capacity.[37]

BBC also states that, during construction, there may be several "heavy hauls" of oversized loads along Ky. 15, including equipment for the turbine, generator, and main and auxiliary transformers. While ecoPower-Hazard will have to apply for special permits and coordinate such hauls with KTC, BBC concludes that "KY 15 is well designed to accommodate these types of oversize loads," as it is a part of the Coal Haul Extended Weight System, which is designed to accommodate trucks carrying 40-ton loads. As such, BBC states that "construction and operations of the proposed [ecoPower-Hazard] facility should have little impact on road maintenance requirements or costs for these roads."

There will likely be some increase in noise and dust from the increased traffic levels. BBC recommends that ecoPower-Hazard be required to mitigate fugitive dust

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[35] Id.

[36] Id. at 39.

[37] Id. at 38.

emissions from traffic by paving all roads and parking lots on its property in the industrial park and by requiring all trucks to comply with applicable load cover rules to prevent fugitive dust emissions and reduce the amount of materials spilled onto the surrounding roads.[38] EcoPower-Hazard offered to undertake such mitigation measures in its SAR.[39]

BBC also recommends that deliveries of fuel wood to the ecoPower-Hazard generating facility be scheduled primarily during daytime hours in order to reduce nighttime traffic on the surrounding roads and to reduce truck noise at times when area residents would likely be sleeping.[40] This recommended mitigation measure was also suggested by ecoPower-Hazard in its SAR.[41]

The Siting Board finds that truck and car traffic to and from the proposed generation facility will impact the surrounding roadways both during the anticipated two-year construction phase and during normal operations. However, the overall traffic impact will be relatively minor and will not overburden the capacity of the surrounding roads. In order to mitigate the effects that traffic noise and dust may have on the surrounding properties, the Siting Board will require ecoPower-Hazard to implement the mitigation measures recommended by BBC and described above as a condition of its grant of a certificate in this matter.

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[38] Id. at 37 and 40.

[39] Application, Exhibit J at 24.

[40] BBC Report at 37 and 40.

[41] Application, Exhibit J at 24.

Anticipated Noise Levels

KRS 278.710(1)(b) requires the Board to consider the anticipated noise levels expected to result from the construction and operation of the proposed facility.

In its report, BBC concludes that noise from additional traffic during construction and operation of the proposed ecoPower-Hazard plant will not substantially increase baseline noise levels. BBC also concludes that noise impacts from the operation of the proposed facility will be minimal.[42] The primary sources of noise from the facility will be the induction draft fan, transformer, air-cooled condenser, log building and wood hog building.[43]

As there are no current state, county, or local noise regulations governing noise emissions from the proposed facility, ecoPower-Hazard's SAR references the guidelines established by the U.S. Environmental Protection Agency ("EPA") to protect public health and welfare. The EPA guidelines recommend that constant sound thresholds of 55 decibels ("dBA") during daytime hours and 45 dBA during nighttime hours not be exceeded. EcoPower-Hazard's noise impact study indicates that EPA guidelines may be exceeded on the southwestern edge of the site, but also demonstrates that no sensitive noise receptors, such as residences or businesses, are located in that vicinity.[44]

BBC concludes that steam blows—which it states are a necessary part of the operation of all steam generating plants—will be the most significant noise impact from

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[42] BBC Report at 35.

[43] Application, Exhibit J2 at 11.

[44] BBC Report at 31.

the proposed facility.[45] BBC notes that, as designed, ecoPower-Hazard's facility will require only one steam blow prior to initial facility startup and, therefore, the peak noise impact of the facility will be "a short-duration, one-time event,"[46] although BBC indicates that other steam plants it has evaluated require steam blows at least once a year following routine outages for maintenance.[47] In an addendum to its noise impact study, EcoPower-Hazard states that the anticipated duration of a steam blow event would be approximately 18 seconds and that it would anticipate such steam blows to occur in the morning hours but not prior to 7:00 a.m. local time.[48]

BBC recommends that the ecoPower-Hazard plant be required to enclose its wood processing equipment to mitigate both dust emissions and noise migration. BBC further recommends that, if ecoPower-Hazard determines that steam blows are to occur more than once, it should be required to install silencers to dampen the resulting noise and should also be required to develop a system to notify residents in the vicinity of the plant prior to the occurrence of planned steam blows. BBC recommends that such a notification system include a telephone warning system in which interested residents would receive an automated telephone call alerting them to the pending noise event, newspaper advertisements regarding planned steam blows, or both.

The Siting Board finds the recommendations made by BBC to mitigate noise impacts from the proposed generation facility to be appropriate and reasonable.

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[45] Id. at 35.

[46] Id.

[47] Id.

[48] Response of ecoPower-Hazard to Board Staff's First Data Request, Tab B.

Therefore, the Board will require ecoPower-Hazard to implement those noise control measures as conditions of its grant of a certificate in this matter.

Economic Impact on the Affected Region

KRS 278.710(1)(c) requires the Board to consider the economic impact that the proposed facility will have upon the affected region and the Commonwealth.

EcoPower-Hazard asserts that the total capital expenditure for the proposed project will exceed $150 million with over 60 percent of that amount allocated to materials and 40 percent allocated to labor.[49] EcoPower-Hazard projects that the construction phase of the project will utilize an average of 200 skilled craft and contract workers on-site. The total economic impact on the region during the two-year construction phase is estimated to exceed $82.5 million.[50] Once construction is completed, ecoPower-Hazard expects to retain a workforce of approximately 40 full-time employees to operate and maintain the plant, which has an operating life of 30 years or more. The annual payroll for the plant will be in excess of $2.6 million.[51] Including payroll, the first-year operating budget for the plant is in excess of $16 million.[52]

In addition to the workforce to be utilized during construction and ongoing operations, ecoPower-Hazard asserts that it will purchase wood biomass, by-products, pulp wood, and forest product residuals for fuel. Supply of these fuel types will impact

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[49] Application at 22-27.

[50] Id.

[51] Id.

[52] Id.

various loggers and truck drivers within the affected area, adding an additional indirect economic impact to the region. The annual labor expense for fuel transportation is expected to be in excess of $1.5 million.[53] These fuel types will utilize the abundance of low-quality, under-utilized wood resources in the area. EcoPower-Hazard asserts that use of these wood products as fuel is not expected to impact any other existing or potential wood-use industries in the area.

While the Board is hopeful that the ecoPower-Hazard project will result in economic growth for the Perry County region, the Board believes that any positive economic impact resulting from this project greatly depends upon the extent to which ecoPower-Hazard employs local workers and utilizes local resources. In its report to the Board, BBC recommends that local hiring be maximized to the extent possible.[54] In approving this project, the Board relies upon ecoPower-Hazard's commitments to hire construction and operation workers from the local population and to utilize local materials and fuels whenever practical and possible.

Existence of Other Generation Facilities

KRS 278.710(1)(d) provides that the Board must consider whether a merchant plant is proposed for a site upon which facilities capable of generating 10 MW or more of electricity are already located. The site upon which the ecoPower-Hazard generating facility will be located does not contain any other generating facilities. Therefore, the proposed project is not entitled to the statutory *preference* afforded by KRS 278.710(1)(d). However, the Siting Board recognizes that the ecoPower-Hazard facility

[53] Id. at 23.

[54] BBC Report, Section D at 1.

will be located at an existing industrial park, and the impact of the facility on the surrounding land uses is likely to be minimal, as the surrounding land is already occupied by existing industrial, commercial and mining facilities. Any impacts that the ecoPower-Hazard facility will have on the surrounding properties are, therefore, consistent with what reasonable persons would expect a facility constructed at an existing industrial park may have.

Local Planning and Zoning Requirements

In deciding whether to grant or deny a construction permit, KRS 278.710(1)(e) directs the Board to consider whether the proposed facility will meet all the local planning and zoning requirements that existed on the date the application was filed. EcoPower-Hazard has demonstrated that the area in Perry County where the proposed project is to be located is not subject to local planning and zoning regulation. Therefore, the Board does not need to consider the issue of ecoPower-Hazard's compliance with local planning and zoning laws in rendering its decision in this matter.

TRANSMISSION LINE SITING

KRS 278.714(3) provides that the Board must consider whether the proposed route for a nonregulated transmission line, 69 kV or larger, will minimize significant adverse impact on the scenic assets of Kentucky and that the applicant will construct and maintain the line according to all applicable legal requirements.

EcoPower-Hazard requests the Siting Board's permission to construct a 69 kV nonregulated transmission line 1.54 miles in length and sufficient to transmit the electric power generated to the existing Kentucky Power Company Engle substation, which is located at the entrance to the Coal Fields Regional Industrial Park. The Application

explains that the transmission line route "will exit the [ecoPower-Hazard] property at its southeast corner and will traverse south-southeast over currently existing easements or easements to be acquired for this purpose."[55] The transmission line will be supported by 13 wood pole structures and two tubular steel poles.[56]

EcoPower-Hazard states that the transmission line will operate nominally at 69 kV, will be located along the center of a 100-foot right-of-way, and will have a current capacity of 650 amperes.[57] EcoPower-Hazard further states that "[t]he proposed transmission line and appurtenances will be constructed and maintained in accordance with accepted engineering practices and the National Electric Safety Code ['NESC']."[58] The Siting Board finds that ecoPower-Hazard's description of the transmission line facilities complies with the requirements of KRS 278.714(2)(c) and that ecoPower-Hazard's statement regarding its intent to construct and maintain the proposed transmission line in compliance with accepted engineering practices and the NESC complies with the requirements of KRS 278.714(2(d).

EcoPower-Hazard provides a detailed description of the proposed transmission line route, accompanied by two large topographic maps showing the transmission line route and its supporting structures and identifying the owners of the tracts of property that the proposed transmission line will cross.[59] The Siting Board finds that ecoPower-

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[55] Application at 4.

[56] Id. at 4-5.

[57] Id. at 4.

[58] Id.

[59] See Id., Figures 5 and 6.

Hazard's description of the proposed route and its accompanying maps are in compliance with the requirements of KRS 278.714(2)(b).

There are no schools or public or private parks within one mile of the proposed transmission line route.[60] A residential neighborhood is located approximately 2,200 feet from the proposed transmission line route at its closest point[61] and, according to the Siting Board's consultant, at least one residence located at the industrial park property will have a view of the proposed transmission line.[62] However, the Siting Board notes that the location of that residence is also approximately 800 feet from, and in view of, the existing Weyerhauser manufacturing facility.[63]

According to ecoPower-Hazard, "the route for the transmission line was selected to minimize impact to residences or sensitive land, minimize impact on property parcels, minimize overall route length, maximize use of existing linear corridors by following existing transmission lines or roads, minimize number of line angles, and minimize crossings of public roads."[64]

Prior to selecting the transmission line route, ecoPower-Hazard analyzed several alternative routes and initially chose two primary routes for analysis. The first was the selected route, which follows the eastern edge of the industrial park. The second was a

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[60] Id., Exhibit J at 11 and Figure 5.

[61] Id., Figure 5 (Residential Neighborhood #6).

[62] BBC Report at 17. BBC notes that the residence within sight of the proposed transmission line is visually obstructed from any view of the proposed generation facility.

[63] Application, Figure 5.

[64] Id., Exhibit J at 11.

route leading west from the substation to Coalfields Industrial Drive, where that road turns northward toward the proposed generation facility site. The second route would have then followed the road parallel from that point to the ecoPower-Hazard property.[65]

EcoPower-Hazard did not choose the second route for a number of reasons. According to ecoPower-Hazard, had it chosen the second route, it would have to widen the existing right-of-way in a number of areas; the alternative route and right-of-way could interfere with current uses of the property; and the transmission line would have to cross property where the ownership is in dispute, clouding the possibility of obtaining necessary easements. Had ecoPower-Hazard chosen the second route, the proposed transmission line would also be longer and more expensive—due, in part, to the larger number of easements that would be required to construct the line along that route. In addition, ecoPower-Hazard notes that, if the second route were utilized, it would probably have to construct the transmission line above some existing distribution lines, which would require coordination with the owner of the distribution lines and would increase the expense and risk of the construction project.[66]

In the course of preparing its Application, ecoPower-Hazard engaged the services of a consultant who surveyed the property in the vicinity of the proposed generation facility and transmission line for any archeological sites or cultural historic sites listed on (or eligible for listing on) the National Register of Historic Places. Neither

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[65] Id. at 7.

[66] Id.

survey identified any such structures or sites in the vicinity of the proposed generation or transmission line facilities.[67]

The Siting Board's consultant notes that the transmission line "will be visible from various locations in the industrial park" and cites ecoPower-Hazard's conclusion that the transmission line and support structures are "unlikely to alter the scenic view of any observer" given the current surrounding land use and views.[68] The consultant makes no recommendations for any mitigation measures to lessen any impact of the transmission line on the surrounding area.

The Siting Board finds that the proposed 69 kV transmission line has been designed and located to minimize any adverse impact on the scenic assets of Kentucky. In choosing to locate the generation facility and the accompanying transmission line at an existing industrial park, the risk that the transmission line could have any significant impact at all on the Commonwealth's scenic assets is inherently minimized. In addition, there are no sites of historical significance or archeological interest along the proposed transmission line route that might be disturbed by the construction of the transmission line. Therefore, the Siting Board approves ecoPower-Hazard's application to construct the 69 kV transmission line as designed and proposed along the route identified in its Application.

Potential Impact on the Electricity Transmission System

Before the Board may grant a merchant plant construction certificate, KRS 278.701(1)(f) requires the Board to consider whether the additional load imposed upon

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[67] See Id., Exhibit J3 (Cultural, Historic and Archeological Studies).

[68] BBC Report at 18 (quoting Application, Exhibit J at 14).

the electricity transmission system by the proposed facility will adversely affect the reliability of service for retail customers of electric utilities regulated by the Commission.

EcoPower-Hazard will interconnect, at the Engle substation, with the Kentucky Power transmission network through its proposed 69 kV transmission line. It has filed an interconnection request with PJM, Inc., the regional transmission operator of which Kentucky Power Company is a member.

PJM is in the process of conducting studies to evaluate any possible constraints on the transmission system that might result from the integration of the proposed 50 MW generation facility into the transmission system.[69] The System Impact Study is now in progress and is anticipated to be completed by June 30, 2010. Based on a mutually agreed scope of work, PJM has advised ecoPower-Hazard that an expedited Interconnection Services Agreement ("ISA") is possible by the end of July 2010.[70]

Based on this information, the Board finds that, upon receiving approval from PJM of its ISA, interconnection of the proposed generation facility will not adversely affect the reliability of service for Kentucky customers. The Board will require ecoPower-Hazard to file a copy of the final ISA within 30 days of execution of the ISA by all necessary parties as a condition of its approval of ecoPower-Hazard's Application in this matter.

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[69] See Application, Exhibit G1-G2, and EcoPower-Hazard's Response to Board Staff's First Data Request, Tab G.

[70] EcoPower-Hazard's Response to Board Staff's First Data Request, Item 31.

Compliance with Statutory Setback Requirements

KRS 278.710(l)(g) requires the Board to consider whether the proposed facility will comply with any applicable setback requirements. On April 27, 2010, in response to the Siting Board's April 22, 2010 Order denying its April 8, 2010 Motion for Deviation from Setback Requirements, ecoPower-Hazard filed a Renewed Motion for Deviation from Setback Requirements ("renewed motion"). The Siting Board finds that ecoPower-Hazard's renewed motion sets forth the necessary and appropriate factors for the Board to find that the proposed facility is designed and located to meet the goals of the applicable statutes listed in KRS 278.704(4).

KRS 278.704(2) provides that:

> Except as provided in subsections (3), (4), and (5) of this section, no person shall commence to construct a merchant electric generating facility unless the exhaust stack of the proposed facility is at least one thousand (1,000) feet from the property boundary of any adjoining property owner and two thousand (2,000) feet from any residential neighborhood, school, hospital, or nursing home facility.

Pursuant to KRS 278.704(4), the Siting Board may grant an applicant's request for a deviation from the 1,000-foot setback requirement in KRS 278.704(2) if "the proposed facility is designed and located to meet the goals of KRS 224.10-280, 278.010, 278.212, 278.214, 278.216, 278.218, and 278.700 to 278.716 at a distance closer than those provided in subsection (2) of this section."

In its original motion for deviation filed on April 8, 2010, ecoPower-Hazard asserted that "the statutory language and legislative history suggest that the primary purpose of the setback requirement is to protect the expectations of property owners who had no reason to expect the construction of a merchant power plant near their

property." In support of its motion, ecoPower-Hazard attached letters from the owners of the adjoining properties indicating their understanding that the facility would not be in compliance with the 1,000-foot setback requirement and their support for the facility nonetheless. In its renewed motion, ecoPower-Hazard notes that the above-quoted language regarding the "primary purpose" of KRS 278.704(2) is found in the Siting Board's September 5, 2002 Order granting Kentucky Mountain Power, LLC/ EnviroPower, LLC ("KMP") a certificate for construction of a merchant generating facility.

In the KMP case, the exhaust stack of the applicant's proposed facility was located less than 1,000 feet from the adjoining property. However, as the Siting Board noted in the September 5, 2002 Order, the applicant had a "significant ownership interest in the land adjacent to the proposed site." According to the Order, KMP had a 96-year lease with the property owner, which was renewable for an additional 99-year period. The Board noted that, under those facts, "a strong argument can be made that there is no 'adjoining property owner' within 1,000 feet within the meaning of KRS Chapter 278, and that the setback requirements do not apply because KMP essentially 'owns' the entire 4,000 acres."[71] The Siting Board also considered the language of the lease agreement and the property owner/lessor's testimony at the evidentiary hearing in the case that it was aware of the planned use for the land and did not have any objection. The Siting Board also considered other evidence which gave it assurance

[71] Case No. 2002-00149, The Application of Kentucky Mountain Power, LLC/EnviroPower, LLC for a Merchant Power Plant Construction Certificate in Knott, County, Kentucky Near Talcum (Siting Board, September 5, 2002 at 15).

that the applicant had "made every effort to protect property owners from any adverse impact that may result from the proposed project."[72]

The facts of the present case are quite different than the facts of the KMP case. In the present case, the exhaust stack of ecoPower-Hazard's proposed facility is located less than 1,000 feet from four adjoining properties in the Coalfields Regional Industrial Park, in which ecoPower-Hazard does not have any demonstrated ownership interest. The three adjoining properties to the south-southeast of the property upon which the ecoPower-Hazard facility will be constructed are undeveloped properties owned by the Perry, Harlan, Leslie, Breathitt, Knott Regional Industrial Authority ("regional industrial authority"). The property to the east of ecoPower-Hazard's proposed site is owned by a mining company, which has an active surface mining operation several thousand feet from the adjoining property line. A property immediately adjacent to the easternmost adjoining property owned by the industrial authority is currently occupied by a commercial call center, which employs several hundred people at that location.

While the call center is outside the 1,000-foot setback boundary pursuant to KRS 278.704(2), its presence indicates that development at the industrial park is not strictly limited to industrial facilities. Its presence also indicates that the properties located adjacent to the ecoPower-Hazard facility could, in the future, be occupied by several hundred persons.

The setback provisions of KRS 278.704(2) were enacted to afford some level of protection for persons occupying a property adjacent to a property where a merchant generating plant is to be constructed and operated. The Siting Board notes that the

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[72] Id. at 16.

occupants of nursing homes and schools are not normally the owners of the properties upon which those facilities are located. However, the language of the statute is clearly concerned with ensuring that the impacts of the proposed facility on nearby students and nursing home occupants are considered by the Siting Board when it makes its decision to either grant or deny an application for a merchant generating facility construction certificate.

While the owner of a nursing home or a school might endorse the construction of a merchant generating facility upon a neighboring property, it is the effects of the planned facility on the students or the nursing home residents that the Siting Board must consider when determining whether to grant a deviation pursuant to KRS 278.704(4). In that regard, the Siting Board notes that while the regional industrial authority is the current owner of the adjoining property, it is unlikely that it will be an *occupant* of the property. Therefore, the Siting Board gives appropriate weight to the opinions expressed in its January 6, 2010 letter regarding the proposed use of the adjoining property.[73] If the adjoining properties were occupied, the Siting Board would necessarily consider the effects of the planned facility on those persons. However, as the adjoining properties are currently vacant, any future occupants will have prior notice of the use of the ecoPower-Hazard property.

In the KMP case, the adjoining property was comprised of thousands of acres which were to be leased by KMP for many decades—possibly 195 years. As such, the Siting Board's determination in the KMP case to allow a deviation from the 1,000-foot

[73] EcoPower-Hazard's Renewed Motion for Deviation from Setback Requirements, Exhibit II.

setback requirement was reasonable, especially as the Siting Board had been assured that the applicant had made every effort to protect property owners from all adverse impacts that might result from the construction and operation of its facility.

In the present case, the ecoPower-Hazard facility is to be sited at an existing industrial park where a number of industrial facilities are already located. Persons entering an established industrial park must have a reasonable expectation of exposure to a certain amount of noise, visual obstruction of scenic views, and traffic that may result from the construction and operation of an industrial facility—including those that will result from the construction and operation of a merchant generation plant. The Siting Board has taken those factors into consideration in making its determination regarding ecoPower-Hazard's request for a deviation from the 1,000-foot setback requirement in this case.

The fact that the ecoPower-Hazard facility is to be located in an industrial park does not, by itself, eliminate the need for the applicant to provide a discussion of the "goals" of the statutes listed in KRS 278.704(4) and the ways in which its facility is designed and located to meet those goals in sufficient detail to allow the Siting Board to make a reasoned decision. EcoPower-Hazard has provided that information to the Board in its renewed motion for deviation.

Compliance with the Goals of KRS 224.10-280

As ecoPower-Hazard notes in its renewed motion, KRS 224.10-280 provides that no person shall commence to construct a facility to be used for the generation of electricity unless that person has submitted a cumulative environmental assessment to the Energy and Environment Cabinet ("Cabinet") with its permit application and remits a

fee which has been set pursuant to KRS 224.10-100(20). EcoPower-Hazard states that it discussed the requirements of KRS 224.10-280 with the Department of Environmental Protection ("DEP") and was advised that "the Cabinet's practice is to request applicants to file the environmental assessment at the time of the filing of the last environmental permit which will be required for the facility." EcoPower-Hazard notes that it must apply for a Kentucky Pollution Discharge Elimination System ("KPDES") permit to regulate industrial stormwater from its proposed facility but that it has not yet filed that application. EcoPower-Hazard was also advised by DEP that no regulations have been promulgated regarding cumulative environmental assessments and, thus, no fee has been established for an applicant to pay.

EcoPower-Hazard states in its renewed motion that its goal is to provide the cumulative environmental assessment as set forth in KRS 224.10-280 "in accordance with the instructions of the Department for Environmental Protection," and that "it is the intent and commitment of [ecoPower-Hazard] not to begin construction of the facility described in this Board proceeding unless and until such cumulative environmental assessment has been properly filed with the Department for Environmental Protection." EcoPower-Hazard notes that it has already applied for and received a permit from the Division for Air Quality to control the air pollution emissions from its proposed facility and argues that "[a]ny earlier submission of a cumulative environmental assessment would be premature as it could not take into account all environmental impacts envisioned by KRS 224.10-280."

With regard to water withdrawal needs, which is a factor to be discussed in a cumulative environmental assessment pursuant to KRS 224.10-280(3)(d), ecoPower-

Hazard has contracted with the city of Hazard to provide water for its facility and is exploring two additional water sources that it could use if the city of Hazard is unable to supply its needed water.[74] As to the disposal of waste from the facility, which is a consideration under KRS 224.10-280(3)(c), ecoPower-Hazard intends to mix the waste fly ash from its facility with sand to form a soil amendment that can be used for surface mining reclamation at nearby mining sites, which is a beneficial reuse pursuant to KRS 224.[75] EcoPower-Hazard is also consulting with cement and concrete block manufacturers to determine if some of its fly ash byproduct can be sold to those facilities for their manufacturing processes.[76]

The Siting Board agrees with ecoPower-Hazard's assessment that "[t]he goal of this statute clearly is to provide the Cabinet a central location for a cumulative overview of environmental impacts which may result from the construction of an electric generating facility." It is also apparent that the filing of a cumulative environmental assessment with the Cabinet affords DEP the opportunity to determine if any additional environmental permits not already identified by the applicant are necessary before the facility can be constructed and operated. Therefore, the Siting Board concludes that the ecoPower-Hazard facility is designed and located to meet the goals of KRS 224.10-280, based on our findings that the applicant: has already received its air emissions permit

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[74] Review and Evaluation of [ecoPower-Hazard] Site Assessment Report, BBC Research and Consulting at 6.

[75] Application, Exhibit K, Air Quality Permit at 6; Response of ecoPower-Hazard to BBC Informal Information Request of February 24, 2010 at 8.

[76] Response of ecoPower-Hazard to BBC Informal Information Request of February 24, 2010 at 8-9.

from the Division for Air Quality; has committed to file its cumulative environmental assessment with DEP at the time it files its KPDES industrial stormwater permit application; has contracted for water to be supplied by the city of Hazard and is exploring two other options for water supply, if necessary; and intends to beneficially reuse the waste fly ash from its facility.

Compliance with the Goals of KRS 278.010

KRS 278.010 is the definitions section of KRS Chapter 278. EcoPower-Hazard argues that "in filing a complete Application pursuant to the applicable statutes in this proceeding it has satisfied the goal of providing the required information utilizing the definition of any applicable term defined in KRS 278.010." The Siting Board agrees with ecoPower-Hazard's assessment of the goals of KRS 278.010. Therefore, the Board finds that the ecoPower-Hazard facility is designed and located to meet the goals of KRS 278.010.

Compliance with the Goals of KRS 278.212

EcoPower-Hazard argues in its renewed motion that KRS 278.212 is a "mandate to 'utilities,'" which, it observes, ecoPower-Hazard is not. However, it is clear from the language of KRS 278.212(2) that the statute does apply to merchant generating facilities:

> Notwithstanding any other provision of law, any costs or expenses associated with upgrading the existing electricity transmission grid, as a result of the additional load caused by a merchant electric generating facility, shall be borne solely by the person constructing the merchant electric generating facility and shall in no way be borne by the retail electric customers of the Commonwealth. [Emphasis added.]

Nonetheless, ecoPower-Hazard has committed to "ensure compliance with all applicable conditions relating to electrical interconnection with utilities" and states that it "fully intends and will accept responsibility for appropriate costs which may result from its interconnecting with the electricity transmission grid." The Siting Board finds that, with ecoPower-Hazard's commitment to comply with KRS 278.212, its proposed facility has been designed and located to meet the goals of KRS 278.212.

Compliance with the Goals of KRS 278.214

KRS 278.214 provides that:

> When a utility or generation and transmission cooperative engaged in the transmission of electricity experiences on its transmission facilities an emergency or other event that necessitates a curtailment or interruption of service, the utility or generation and transmission cooperative shall not curtail or interrupt retail electric service within its certified territory, or curtail or interrupt wholesale electric energy furnished to a member distribution cooperative for retail electric service within the cooperative's certified territory, except for customers who have agreed to receive interruptable [sic] service, until after service has been interrupted to all other customers whose interruption may relieve the emergency or other event.

EcoPower-Hazard argues in its renewed motion for deviation that "[t]he goals of this statute are to establish the progression of entities whose service may be interrupted or curtailed pursuant to an emergency or other event." EcoPower-Hazard states that it "intends to abide by the requirements of this provision to the extent that these requirements are applicable to a wholesale generator of electric power." The Siting Board finds that ecoPower-Hazard's commitment to abide by the requirements of KRS 278.714 is sufficient, under the facts of this case, to establish that its facility is designed and located to meet the goals of KRS 278.714.

Compliance with the Goals of KRS 278.216

KRS 278.216 requires a jurisdictional utility, as defined by KRS 278.010(3), which seeks to construct an electric generating facility to comply with many of the same requirements applicable to merchant generating facilities under KRS 278.700-278.716, including the submission of a site assessment report as prescribed in KRS 278.708(3) and (4). The Siting Board agrees with ecoPower-Hazard's argument that, as an applicant for a merchant generating facility, by complying with the requirements of 278.700-278.716, ecoPower-Hazard has met the requirements and goals of KRS 278.216. Therefore, the Siting Board finds that the ecoPower-Hazard facility is designed and located to meet the goals of KRS 278.216.

Compliance with the Goals of KRS 278.218

KRS 278.218 requires jurisdictional utilities to acquire the approval of the Public Service Commission prior to a change in ownership or control of assets owned by a utility as defined by KRS 278.010(3)(a). As ecoPower-Hazard correctly notes, it is not a utility as defined by KRS 278.010(3)(a); and, therefore, it does not appear that KRS 278.218 is applicable to ecoPower-Hazard. The Siting Board notes that pursuant to KRS 278.710(3), the owner of a merchant plant who has received a Siting Board certificate must obtain the Board's approval prior to transferring its rights and obligations under the certificate.

However, ecoPower-Hazard states in its renewed motion that "to the extent commission approval may at some time be required for change of ownership or control of assets owned by [ecoPower-Hazard], [ecoPower-Hazard] will abide by the applicable rules and regulations which govern its operation." The Siting Board finds that

ecoPower-Hazard's commitment to abide by the requirements of KRS 278.218, if required, is sufficient, under the facts of this case, to establish that its facility is designed and located to meet the goals of KRS 278.218.

Compliance with the Goals of KRS 278.700-278.716

The statutes governing the Siting Board's authority are encompassed by KRS 278.700-278.716. EcoPower-Hazard argues in its renewed motion that:

> The goals of those provisions are to provide for the location of merchant electric generating facilities in a fashion which will not intrude upon or unnecessarily disrupt other surrounding land uses, including hospitals, nursing homes, residential areas, schools, parks or otherwise have adverse environmental impacts which are not otherwise regulated.

The Siting Board does not disagree with this abbreviated summary of its statutory obligations. However, the statutory criteria also specifically include an evaluation of the economic impact of the proposed facility (KRS 278.710(1)(c)); whether the facility is to be located at a site where existing generating facilities are located (KRS 278.710(1)(d)); whether the facility will meet all applicable local planning and zoning requirements (KRS 278.710(1)(e)); whether the facility will adversely impact the reliability of electrical service for retail customers of utilities regulated by the Public Service Commission (KRS 278.710(1)(f)); the efficacy of any proposed mitigation measures (KRS 278.710(1)(h)); and the applicant's history of environmental compliance (KRS 278.710(1)(i)).

EcoPower-Hazard argues that it has demonstrated that its facility is designed and located to meet the goals of KRS 278.700-278.716 through "its Application in its entirety." EcoPower-Hazard further notes that its facility will be located in an existing industrial park and that the adjoining properties will likely be used for future industrial facilities.

The Siting Board agrees that ecoPower-Hazard has provided a comprehensive Application with a detailed discussion of all of the criteria applicable to its proposed facility under KRS 278.700-278.716. Therefore, the Siting Board finds that, for the purpose of granting ecoPower-Hazard's motion for a deviation from the setback requirement under KRS 278.704(2), the proposed facility has been designed and located to meet the goals of KRS 278.700-278.716.

History of Environmental Compliance

KRS 278.710(1)(i) directs the Board to consider whether the applicant has a good environmental compliance history. EcoPower-Hazard states in its Application that:

> Neither [ecoPower-Hazard], nor any person with an ownership interest in the Project, have violated any federal or state environmental laws, rules or administrative regulations. There are no pending judicial or administrative actions for violating any environmental requirement that have been filed against [ecoPower-Hazard] or any person with an ownership interest.

The Board is unaware of any evidence to the contrary and, therefore, finds that ecoPower-Hazard has a good environmental compliance history pursuant to KRS 278.710(1)(i).

Efficacy of Proposed Mitigation Measures

KRS 278.710(l)(h) requires the Board to consider the efficacy of measures proposed to mitigate any adverse impact that the proposed facility may have on the affected region. Pursuant to this statute, the Board has reviewed and considered the measures BBC has proposed to mitigate the negative impact that the ecoPower-Hazard project may have on the Perry County region.

With regard to access control issues, adequate security is essential to protecting residents from the dangers that may result from security breaches. The Board believes that the implementation of standard industry practices for security and access control will successfully mitigate the risk of security breach.

In assessing the scenic compatibility of the proposed facility with surrounding land, BBC concludes that minimal visual impairment to the scenic surroundings may occur for residents living in the industrial park and in the residential neighborhood to the east of the proposed facility location. In response to this potential impairment, ecoPower-Hazard has proposed and BBC recommends that ecoPower-Hazard select colors for the facility structures that do not contrast with the surroundings, except where markings or signs may be required for purposes of compliance with aviation regulations or to maintain worker safety. The Board concludes that implementation of these mitigation strategies will render the ecoPower-Hazard project compatible with the scenic surroundings of the industrial park.

Mitigation strategies related to impact on surrounding roads are discussed on pages 16 through 18 of this Order. Mitigation strategies related to anticipated noise levels are discussed on pages 19 and 20 of this Order.

Finally, the Board is sensitive to the fact that some of ecoPower-Hazard's proposed plans, permits, and agreements have not been finalized. If ecoPower-Hazard failed to honor the commitments it has made to the Board in its Application, it would substantially affect the projected impact the proposed plant will have on the region. For these reasons, the Board has a responsibility to make every effort to ensure that the project is constructed as ecoPower-Hazard has represented throughout this proceeding.

To that end, the Board finds that the submission of an annual project impact report would help to successfully mitigate any additional adverse impacts caused by the project which were not anticipated by ecoPower-Hazard, the Siting Board, or its consultant and which are not specifically addressed by the conditions imposed in this Order and the attached Appendix.

OTHER FACTORS

Although no local public hearing was held by the Siting Board, the Board notes that ecoPower-Hazard held an "Informational Open House" in Chavies, Kentucky on January 5, 2010, which was attended by approximately 35 persons from the local area.[77] In its Application, ecoPower-Hazard also provides several examples of its efforts to interact with the public prior to filing its application. These efforts include meetings with representatives of the Sierra Club in November 2009 and January 2010 and a meeting with representatives of the Kentucky Resources Council in November 2009 "to describe the Project and encourage questions from this community."[78] The Applicant describes the meetings with the environmental organizations as "cordial and encouraging."[79]

EcoPower-Hazard's Application also describes its efforts—both through personal contacts and through letters—to meet with and inform the owners of the adjacent properties about the project and its potential impacts on the surrounding area.[80]

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[77] Application, Exhibits E8-E12.

[78] Id. at 16.

[79] Id.

[80] Id.

EcoPower-Hazard has established a website located at: http://www.ecopg.com, to provide public information about the project.[81] The company has also established a local office in Hazard, Kentucky, which will be staffed by its Vice President for Fuel Procurement, who is a professional forester with over 20 years' experience in wood procurement and sustainable forest management.[82]

The Siting Board believes that it would be beneficial to the public to require ecoPower-Hazard to maintain its existing website and to update it regularly to provide the public with ongoing information about the progress of the project until the facility has been constructed and placed into operation. The website might also be supplemented to provide a place for interested persons to request electronic notification when major noise events, like steam blows, are planned.

The Siting Board acknowledges ecoPower-Hazard's proactive approach to providing information to the public about its planned project. The Siting Board also acknowledges ecoPower-Hazard's efforts to interact with concerned organizations to answer their questions and address their concerns prior to filing its Application. The Siting Board's decision not to hold a local public hearing in this matter was influenced by ecoPower-Hazard's pre-application efforts to discuss its project with the public, local, and state officials and concerned organizations.

CONCLUSION

After carefully considering the criteria outlined in KRS Chapter 278, the Siting Board finds that ecoPower-Hazard has presented sufficient evidence to support the

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[81] Id. at 17.

[82] Id.

issuance of a deviation from the setback requirements of KRS 278.704(2) and a certificate to construct the proposed merchant power plant and a non-regulated electric transmission line. The Board conditions its approval upon the full implementation of all monitoring, reporting, and mitigation measures described herein and listed in Appendix A to this Order. A map showing the location of the proposed generating facility is attached hereto as Appendix B.[83]

IT IS THEREFORE ORDERED that:

1. EcoPower-Hazard's Renewed Motion for Deviation from Setback Requirements is granted.

2. EcoPower-Hazard's Application for a Certificate to Construct an approximately 50 MW merchant electric generating facility and a 69 kV nonregulated transmission line in Perry County, Kentucky is granted.

3. EcoPower-Hazard shall fully comply with all monitoring, reporting and mitigation measures and conditions prescribed in Appendix A attached hereto.

ATTEST:

Executive Director
Public Service Commission
on behalf of The Kentucky State Board on
Electric Generation and Transmission Siting

By the Kentucky State Board on
Electric Generation and
Transmission Siting

ENTERED
MAY 18 2010
KENTUCKY PUBLIC
SERVICE COMMISSION

[83] The map at Appendix B was created by a member of the Siting Board Staff professionally trained and experienced in the use of Geographic Information Systems ("GIS"). The map was created from images excerpted from ecoPower-Hazard's Response to Board Staff's First Data Request at Tab F. The original map image is too large to append to this Order, and reducing the original image renders many features of the original map illegible. Coalfields Industrial Drive is also mislabeled "Gambill Drive" in the original map image, and the Appendix B map has been corrected to eliminate that error. The location of the 69 kV transmission line is not shown on the Appendix B map due to restrictions on the disclosure of information regarding critical infrastructure.

URS

March 22, 2013

Mr. Jory Becker, Manager
Kentucky Department for Environmental Protection
Division of Water – Surface Water Permits Branch
200 Fair Oaks Lane, 4th Floor
Frankfort, KY 40601

Re: Kentucky Pollutant Discharge Elimination System (KPDES) Permit Application Proposed SunCoke Energy South Shore LLC Facility
Greenup County, Kentucky

Dear Mr. Becker,

On behalf of SunCoke Energy South Shore LLC (SESS), this letter transmits the attached KPDES permit application and the associated application fee for the proposed SESS Facility to be located in South Shore, Greenup County, Kentucky. SESS is owned by Sun Coal and Coke LLC, which is owned by SunCoke Energy, Inc. (SunCoke). The proposed facility will be situated on an approximately 250-acre parcel located on the Ohio River.

Facility Description

The proposed SESS facility will consist of 120 heat-recovery coke ovens. Operations at the facility will include coal handling, which begins at the barge unloading facility along the Ohio River, coal storage, charging, heat recovery coking, pushing, quenching, coke handling and coke storage. Heat recovery steam generators (HRSGs) will recover waste heat from the ovens to produce steam and electricity. At full capacity, the facility could carbonize 1,226,400 tons/year of coal and produce up to 831,100 tons/year of coke product. A nominal 40-75 megawatts (MW) of electricity will be produced from the waste heat.

Proposed Discharges

Operation of the SESS facility will result in the discharge of a non-process water stream (e.g., HRSG blowdown and cooling tower blowdown) and may also result in the discharge of stormwater on an intermittent and infrequent basis. These wastewater streams are further described below:

- The non-process water stream is associated with the operation of the HRSG and cooling tower systems. The cooling water will be supplied directly from the Ohio River (under a water withdrawal permit) and may also be supplemented from the local potable water system. This non-process water stream will be discharged directly to the Ohio River at proposed Outfall 001. The non-process water stream is further described in KPDES Form SC (provided in Attachment 1).

- Under normal operating conditions, stormwater from the facility will be used for quenching and other operations-related needs. The facility design includes a stormwater retention basin which is used to supply water to the quenching system. The quench system is a closed-loop system and no wastewater is discharged from this process. On an emergency basis and during extreme storm events, stormwater collected in the retention basin may overflow from the basin and be discharged directly to the Ohio River at proposed Outfall 002. The stormwater discharge is described in KPDES Form F provided in Attachment 1. Due to the nature of the facility, this discharge would be considered "stormwater associated with industrial activity."

URS Corporation
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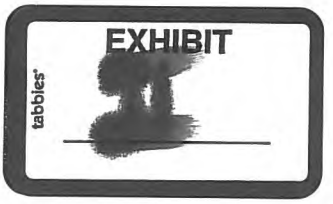


URS

We appreciate your timely review of this information, and we are available to answer any further questions you may have regarding the proposed facility. If you have any questions or require additional information, please feel free to contact the undersigned or Dave Schwake at (630)824-1948.

Sincerely,

URS

Rob Boeing, P.E.
Project Engineer

John D. Priebe, P.E.
Principal

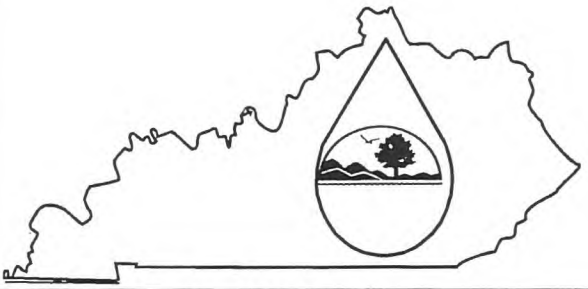
25368724

Attachment 1 – KPDES Form 1, SC, and F
Attachment 2 – Cooling Water Intake Structure Design for 316(b)

URS

ATTACHMENT 1
KPDES FORMS 1, SC, AND F

KPDES FORM 1



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

This is an application to: (check one)

X Apply for a new permit.
☐ Apply for reissuance of expiring permit.
☐ Apply for a construction permit.
☐ Modify an existing permit.
Give reason for modification under Item II.A.

A complete application consists of this form and one of the following:
Form A, Form B, Form C, Form F, or Form SC

For additional information contact:
Surface Water Permits Branch (502) 564-3410

I. FACILITY LOCATION AND CONTACT INFORMATION	AGENCY USE
A. Name of Business, Municipality, Company, Etc. Requesting Permit **SunCoke Energy South Shore, LLC, a subsidiary of SunCoke Energy, Inc.**	
B. Facility Name and Location	C. Primary Mailing Address (all facility correspondence will be sent to this address). **Include owner's mailing address (if different) in D.**
Facility Location Name: **SunCoke Energy South Shore Facility**	Facility Contact Name and Title: Mr. ☒ Ms. ☐ **David Schwake – Director, Business Development North Americas**
Facility Location Address (i.e. street, road, etc., **not P.O. Box**): **1/3 mile west of intersection of US Route 23 and Johnson's Ln.**	Mailing Address: **1011 Warrenville Road, Suite 600**
Facility Location City, State, Zip Code: **South Shore, Kentucky 41175**	Mailing City, State, Zip Code: **Lisle, IL, 60532**
D. Owner's name (if not the same as in part A and C):	Facility Contact Telephone Number: **(630) 824-1948**
Owner's Mailing Address:	Owner's Telephone Number (if different):

II. FACILITY DESCRIPTION

A. Provide a brief description of activities, products, etc:

The SunCoke Energy South Shore Facility (Figure 1) will be a heat-recovery coke plant that will consist of 120 coke ovens. Operations at the facility will include coal handling, coal storage, charging, heat recovery coking, pushing, quenching, coke handling, and coke storage. Heat recovery steam generators (HRSGs) will recover waste heat from the ovens to produce steam and electricity. The Project will also include the following ancillary equipment/units: coal handling and processing area, coke handling area, material storage piles, pollution control equipment, condensers, barge unloading facility, conveyors, rail spurs, administration buildings, roadways, and a parking area.

A retention pond at the facility has been designed to contain stormwater from the facility. This retention pond is used to supply water to the coal storage pile water sprays, the stationary ram cooling water feed, the washdown service water feed, the PCM cooling water feed and the quench settling basin, as needed. Under normal operating conditions, stormwater collecting in this pond will be utilized within the process.

The proposed facility will involve the intermittent discharge of a non-process water stream (eg., HRSG blowdown and cooling tower blowdown) to the Ohio River. In addition, the facility may also discharge stormwater associated with industrial activities through an emergency stormwater overflow from the facility stormwater retention ponds. The facility design also includes a water intake structure which will be designed to comply with the Clean Water Act, 33 U.S.C. 1251 Title III Section 316(b). A water withdrawal permit will also be submitted for this intake structure.

B. Standard Industrial Classification (SIC) Code and Description

Principal SIC Code & Description:	**5052 Coke Merchant Wholesalers**		
Other SIC Codes:			

III. FACILITY LOCATION	
A. Attach a U.S. Geological Survey 7 ½ minute quadrangle map for the site. (See instructions)	
B. County where facility is located: **Greenup**	City where facility is located (if applicable): **Unincorporated, near South Shore**
C. Body of water receiving discharge: **Ohio River**	
D. Facility Site Latitude (degrees, minutes, seconds): **38 Degrees, 44 Minutes, and 11 Seconds**	Facility Site Longitude (degrees, minutes, seconds): **-82 Degrees, 55 Minutes, and 25 Seconds**
E. Method used to obtain latitude & longitude (see instructions):	**Topographic Map Coordinates**

IV. OWNER/OPERATOR INFORMATION	
A. Type of Ownership: ☐ Publicly Owned ☒ Privately Owned ☐ State Owned ☐ Both Public and Private Owned ☐ Federally owned	
B. Operator Contact Information (See instructions)	
Name of Treatment Plant Operator: **N/A**	Telephone Number: **N/A**
Operator Mailing Address (Street): **N/A**	
Operator Mailing Address (City, State, Zip Code): **N/A**	
Is the operator also the owner? Yes ☐ No ☐	Is the operator certified? If yes, list certification class and number below. Yes ☐ No ☐
Certification Class: **N/A**	Certification Number: **N/A**

V. EXISTING ENVIRONMENTAL PERMITS		
Current NPDES Number: **New Facility, N/A**	Issue Date of Current Permit:	Expiration Date of Current Permit:
Other DOW Operational Permit #:	Kentucky DMR Permit Number(s):	Sludge Disposal Permit Number:
Other Existing Environmental Permit #:	Other Existing Environmental Permit #:	Other Existing Environmental Permit #:

Which of the following additional environmental permit/registration categories will also apply to this facility?

CATEGORY	EXISTING PERMIT WITH NO.	PERMIT NEEDED WITH PLANNED APPLICATION DATE
Air Emission Source	**Currently Under Review**	**Application Submitted on December 7th, 2012**
Solid or Special Waste	**N/A**	
Hazardous Waste - Registration or Permit	**N/A**	**Registration to be Submitted prior to Facility Operation**

VI. DISCHARGE MONITORING REPORTS (DMRs)

KPDES permit holders are required to submit DMRs to the Division of Water on a regular schedule (as defined by the KPDES permit). Information in this section serves to specifically identify the name and telephone number of the DMR official and the DMR mailing address (if different from the primary mailing address in Section I.C).

A. DMR Official (i.e., the department, office or individual designated as responsible for submitting DMR forms to the Division of Water):	**To be identified, proposed facility**
DMR Official Telephone Number:	**To be identified**

B. DMR Mailing Address:
- Address the Division of Water will use to mail DMR forms (if different from mailing address in Section I.C), or
- Contact address if another individual, company, laboratory, etc. completes DMRs for you; e.g., contract laboratory address.

DMR Mailing Name:	
DMR Mailing Address:	
DMR Mailing City, State, Zip Code:	

VII. APPLICATION FILING FEE

KPDES regulations require that a permit applicant pay an application filing fee equal to twenty percent of the permit base fee. Please examine the base and filing fees listed in "Form 1 Instructions" and enclose a check payable to "Kentucky State Treasurer" for the appropriate amount. For permit renewals, please include the KPDES permit number on the check to ensure proper crediting. Please see the separate document "General Instructions" for an expanded description of the base fee amounts.

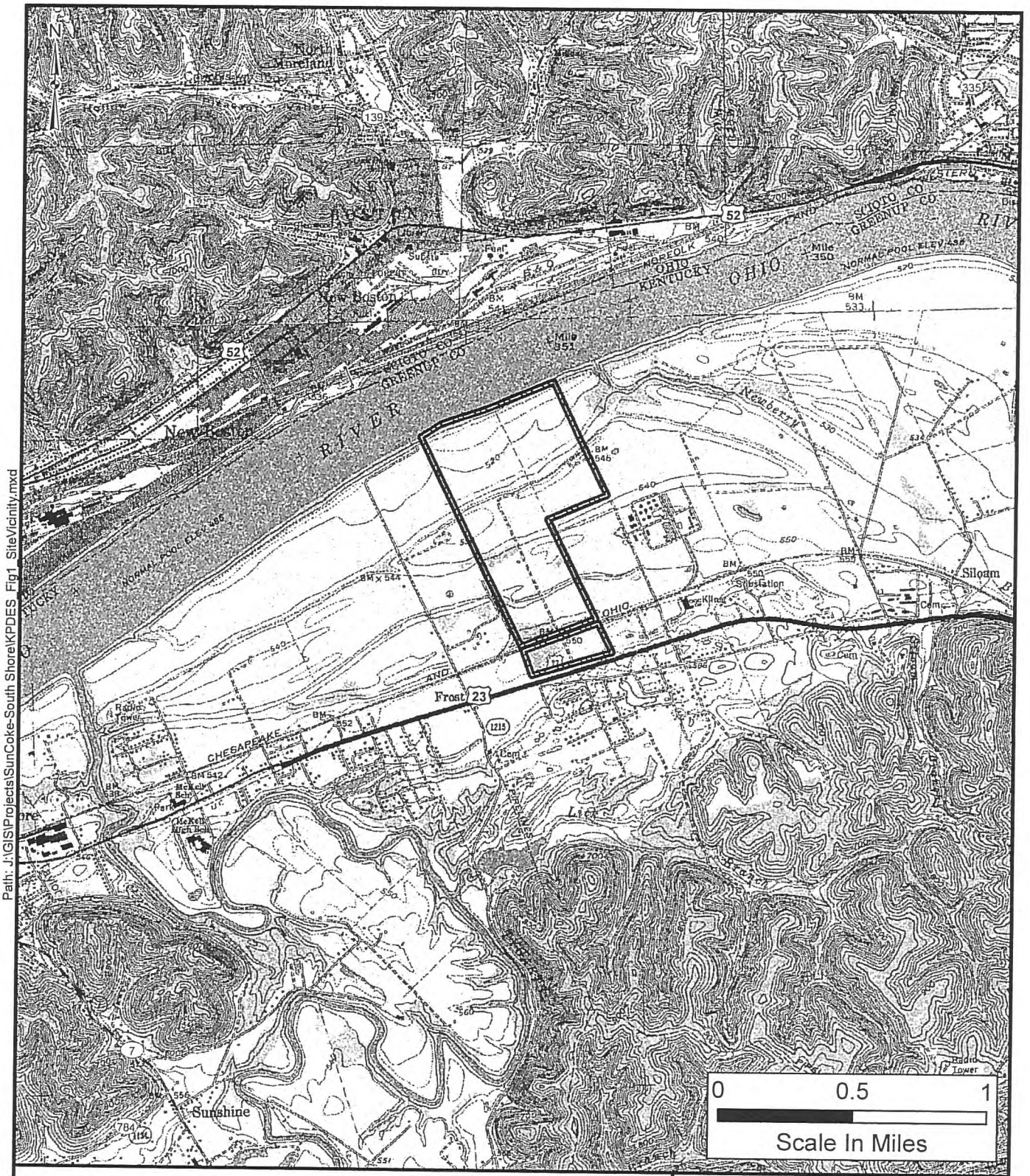
Facility Fee Category:	Filing Fee Enclosed:
Non-Process Industry	**$2,200**
~~Construction Fee Category:~~ ~~Large Facility~~	~~$1,800.~~
~~Total:~~	~~$4,000~~

VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print): Mr. ☒ Ms. ☐ **Nelson Garcez – VP of Business Development**	PHONE NUMBER: **(630) 824-1914** EMAIL: **ngarcez@suncoke.com**
SIGNATURE	DATE: 3/21/2013

Return completed application form and attachments to: **Surface Water Permits Branch, Division of Water, 200 Fair Oaks Lane, Frankfort, KY 40601. Direct questions to: Surface Water Permits Branch at (502) 564-3410.**



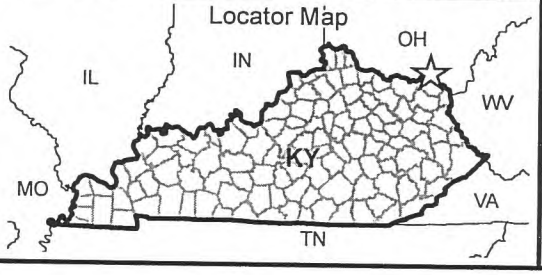
Path: J:\GIS\Projects\SunCoke-South Shore\KPDES_Fig1_SiteVicinity.mxd

LEGEND:

Site Boundary

BASE MAP SOURCE:
USGS 7.5' Topographic Quadrangle
Portsmouth, KY-OH (1977)
New Boston, OH-KY (1976)

Locator Map



SunCoke Energy
South Shore Facility

FIGURE 1
SITE VICINITY MAP

JOB NO. 25368724

URS

KPDES FORM SC

KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

A complete application consists of this form and Form 1.
For additional information, contact: Surface Water Permits Branch, (502) 564-3410.

NAME OF FACILITY: **SunCoke Energy South Shore Facility**

I. FACILITY DISCHARGE FREQUENCY	AGENCY USE							

A. Do discharge(s) occur all year? Yes X No ☐
(Complete Item IX for intermittent discharges.)

B. How many days per week?	**Up to 7 days per week**

II. A. Give the basis of design for sizing of the wastewater facility (see instructions): **N/A**

KPDES Form SC is being completed for the direct discharge of the non-process water stream (eg., HRSG blowdown and cooling tower blowdown) to the Ohio River. The source of the cooling water is the Ohio River, city water or a combination thereof. The non-process water stream will be discharged on an intermittent basis at Outfall 001. A facility water balance is provided on Figure SC-1.

Sanitary wastes from the facility will be discharged directly to the local Publicly Owned Treatment Works (POTW), and therefore, are not subject to or addressed as part of this permit application.

B. If new discharger, indicate anticipated discharge date:	**March 1, 2016**
C. Indicate the design capacity of the treatment system:	**N/A** MGD

III. Outfall Location (see instructions)

Outfall (list)	LATITUDE			LONGITUDE			RECEIVING WATER (name)
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds	
001	**38**	**44**	**45**	**-82**	**55**	**37**	**Ohio River**

Method used to obtain latitude/longitude (i.e. GPS unit, USGS topographic map coordinates, etc.)	**Topographic Map, KY83-NF Coordinate System**

IV. FLOWS, SOURCES OF POLLUTION, AND TREATMENT TECHNOLOGIES (see instructions)				
OUTFALL NO. (list)	OPERATION(S) CONTRIBUTING FLOW		TREATMENT	
	Operation (list)	Avg/Design Flow (include units)	List treatment components	List Codes from Table SC-1
001	**Non-Process Water Stream (eg., HRSG blowdown and cooling tower blowdown)**	**120 GPM**	**Direct Discharge to Surface Water**	**4-A**

V. Check the type(s) of wastewater discharged.

☐ Domestic (60% or more sanitary sewage) ☐ Oil field waste

X Non-Process Water Stream ☐ Other (list):

VI. Does all water used at facility (except for human consumption) flow to a treatment plant? ☐ **Yes** X **No**

VII. Discharge to other than surface waters. Check appropriate location: Sanitary Waste to be Discharged to Local POTW

☐ Publicly-owned lake or impoundment Name of lake:

X Publicly-owned treatment works (POTW). Name of POTW: South Shore Wastewater Treatment Plant

☐ Land application of Effluent

☐ Surface injection (Check term and identify on map) ☐ lateral field; ☐ sinkhole; ☐ sinking stream; ☐ deep well

☐ Closed Circuit (Check appropriate term) ☐ Holding tank; ☐ Mechanical evaporation; ☐ Waste impoundment

VIII. Check the metals present in the discharge if applicable and indicate the quantity discharged per year. (Indicate units).

N/A – New facility. Analytical data has not yet been collected.

☐	Antimony		☐	Copper		☐	Silver	
☐	Arsenic		☐	Lead		☐	Thallium	
☐	Beryllium		☐	Mercury		☐	Zinc	
☐	Cadmium		☐	Nickel		☐		
☐	Chromium		☐	Selenium		☐		

IX. INTERMITTENT DISCHARGES (Complete this section for intermittent discharges.)		
A. Number of bypass points:	**N/A, no bypass points**	(If bypass points are indicated, information below must be completed for each bypass.)

Check when bypass occurs:	☐ Wet Weather	☐ Dry Weather
Give the number of bypass incidents	per year	per year

Give average duration of bypass	hours	hours
Give average volume per incident	gallons	gallons
Give reason why bypass occurs:		

B. Number of Overflow Points: 0 (If discharge is from an overflow point, the information below must be completed.)		
Check when overflow occurs:	☐ Wet Weather	☐ Dry Weather
Give the number of overflow incidents:	**Unknown, New Facility**	per year
Give average duration of overflow:	**Unknown, New Facility**	hours
Give average volume per incident:	**Unknown, New Facility**	gallons

C. Number of seasonal discharge points	**N/A**
Give the number of times discharge occurs per year	
Give the average volume per discharge occurrence	(1,000 gallons)
Give the average duration of each discharge	(days)
List month(s) when the discharge occurs	

X. AREA SERVED (see instructions)

NAME	ACTUAL POPULATION SERVED
N/A	
TOTAL POPULATION SERVED	

XI. COOLING WATER ADDITIVES AND THEIR COMPOSITIONS

Additive	Composition	Concentration (mg/l)
ChemTreat CT775 (MSDS attached)	**Phosphoric acid**	**4.0 mg/l**
ChemTreat CL3857 (MSDS attached)	**2-Phosphono-1,2,4-butane tricarboxylic acid**	**1.0 mg/l**
Sulfuric Acid	**H2SO4**	**15.0 mg/l (Estimate)**
Sodium Hypochlorite (Bleach)	**NaClO**	**50.0 mg/l (Estimate)**

XII. EFFLUENT CHARACTERISTICS

A. Indicate results of analysis for pollutants listed below.

POLLUTANT/PARAMETER	MAX DAILY VALUE	AVG DAILY VALUE	NUMBER OF SAMPLES
BOD_5			
TOTAL SUSPENDED SOLIDS			
FECAL COLIFORM ☐ Or E.COLI ☐			
TOTAL RESIDUAL CHLORINE			
OIL AND GREASE			
CHEMICAL OXYGEN DEMAND			
TOTAL ORGANIC CARBON			
AMMONIA			
DISCHARGE FLOW			
pH			
TEMPERATURE (WINTER)			
TEMPERATURE (SUMMER)			

B. Frequency and duration of flow:	**A non-process water stream (eg., HRSG blowdown and cooling tower blowdown) will be discharged to the Ohio River. The anticipated average discharge of the non-process water stream to the Ohio River is 120 gallons per minute based on the facility design water balance (see Figure SC-1). For the purposes of this permit application, the frequency of discharge can be assumed continuous.**

XIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print):	TELEPHONE NUMBER (area code and number):
Mr. ☒ Ms. ☐ **Nelson Garcez – VP of Business Development**	**(630) 824-1914**
SIGNATURE	DATE 3/21/2013

RIVER WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
R1	RIVER WATER SUPPLY	1025–1400	300	325
R2	UNLOADING HOPPER SPRAY	15	300	325
R3	RETENTION POND WET WELL SUPPLY	395	300	325
R4	POWER ISLAND SUPPLY	615–990	300	325
R5	FAILED PUMP BYPASS	0	300	325

RIVER WATER NOTES:
1. RIVER TDS (TOTAL DISSOLVED SOLIDS) & TSS (TOTAL SATURATED SOLIDS) ARE BASED ON THE OHIO RIVER AT GREENUP COUNTY, KY.
2. SECOND VALUES FOR R1 AND R4 INCLUDE FIREWATER MAKE-UP

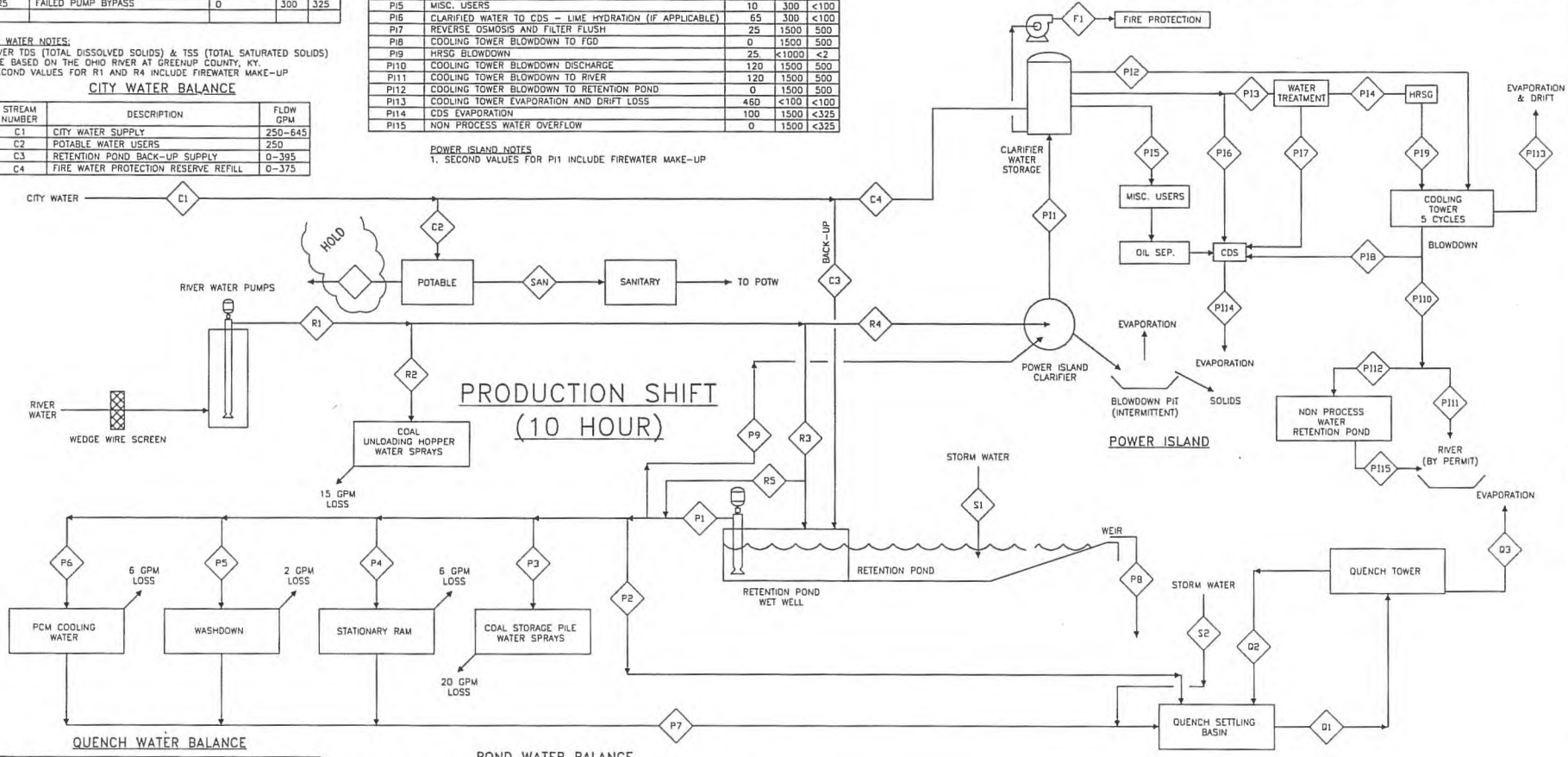
CITY WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM
C1	CITY WATER SUPPLY	250–645
C2	POTABLE WATER USERS	250
C3	RETENTION POND BACK-UP SUPPLY	0–395
C4	FIRE WATER PROTECTION RESERVE REFILL	0–375

POWER ISLAND WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
PI1	TO STORAGE TANK	615–990	300	<100
PI2	CLARIFIED WATER MAKE-UP WATER	555	300	<100
PI3	CLARIFIED WATER TO WATER TREATMENT	50	300	<100
PI4	HRSG MAKE-UP	25	<300	<1
PI5	MISC. USERS	10	300	<100
PI6	CLARIFIED WATER TO CDS – LIME HYDRATION (IF APPLICABLE)	65	300	<100
PI7	REVERSE OSMOSIS AND FILTER FLUSH	25	1500	500
PI8	COOLING TOWER BLOWDOWN TO FGD	0	1500	500
PI9	HRSG BLOWDOWN	25	<1000	<2
PI10	COOLING TOWER BLOWDOWN DISCHARGE	120	1500	500
PI11	COOLING TOWER BLOWDOWN TO RIVER	120	1500	500
PI12	COOLING TOWER BLOWDOWN TO RETENTION POND	0	1500	500
PI13	COOLING TOWER EVAPORATION AND DRIFT LOSS	460	<100	<100
PI14	CDS EVAPORATION	100	1500	<325
PI15	NON PROCESS WATER OVERFLOW	0	1500	<325

POWER ISLAND NOTES
1. SECOND VALUES FOR PI1 INCLUDE FIREWATER MAKE-UP



QUENCH WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
Q1	QUENCH TOWER SUPPLY	2220	300	<325
Q2	QUENCH WATER RETURN TO BASIN	1780	300	<325
Q3	EVAPORATION	440	–	–

QUENCH WATER NOTES:
1. Q1 TO Q2 NO CHANGE IN TDS (TOTAL DISSOLVED SOLIDS) PER EPA EMB REPORT 79-CKO-21, MAY 1979.

STORM WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM
S1	STORM WATER RUNOFF – AVERAGE	0–230	10
S2	STORM WATER RUNOFF – AVERAGE	0–130	10

STORM WATER NOTES:
1. STORM WATER RUNOFF (S1) IS BASED ON A TYPICAL MONTHLY RAINFALL OF 3 INCHES AVERAGE OVER 30 DAYS.
2. THIS FLOW DOES NOT REFLECT THE CASE OF SEVERE STORMS.
3. THE RETENTION POND WILL HAVE STAND BY CAPACITY TO RETAIN RUNOFF FROM STORMS.

POND WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
P1	POND WATER SUPPLY	474	300	<325
P2	QUENCH MAKE-UP	129	300	<325
P3	COAL PILE SPRAYS	20	300	<325
P4	STATIONARY RAM COOLING WATER FEED	35	300	<325
P5	WASHDOWN SERVICE WATER FEED	20	300	<325
P6	PCM COOLING WATER FEED	270	300	<325
P7	TOTAL RETURN TO QUENCH PIT	311	300	<325
P8	EMERGENCY POND OVERFLOW	0	300	<325
P9	RETENTION POND DRAWDOWN	0	300	<325

FIRE WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM
F1	FIRE WATER TO PUMP HOUSE	0–1500

REV	ECN	DESCRIPTION	DATE	DRAWN	APPR
A		INTERNAL REVIEW	4-17-12	RFS	
B		PRELIMINARY	4-20-12	RJS	
C		CLIENT REVIEW	05/11/12		
D		FEL 3A DELIVERABLE	6-6-12	RFS	CK
E		FOR NDPES PERMIT SUBMITTAL	1/23/13	RFS	

HATCH — Hatch Associates Consultants, Inc., Pittsburgh, PA 15219-1651

REVISION	SCALE: NTS	DATE
E FOR NDPES PERMIT	DESIGNED J.LARKIN	11-8-11
D FEL 3A DELIVERABLE	DRAWN R.SARACCO	4-13-12
C CLIENT REVIEW	CHECKED P.IVANCIC	6-5-12
B PRELIMINARY	APPROVED C.KOS	6-6-12
PROJECT NO. 341500		E

INFORMATION CONFIDENTIAL: ALL PLANS, DRAWINGS, SPECIFICATIONS AND/OR INFORMATION FURNISHED HEREWITH ARE AND SHALL REMAIN CONFIDENTIAL AND SHALL NOT BE USED FOR ANY PURPOSE NOT PROVIDED FOR IN AGREEMENTS WITH HATCH ASSOCIATES CONSULTANTS, INC.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES ON:
2 PL DECIMALS ± .03
3 PL DECIMALS ± .010
ANGLES ± 1/2°
FRACTIONS ± 1/16

THIS DRAWING CONTAINS PROPRIETARY INFORMATION WHICH IS TO BE HELD CONFIDENTIAL AND NOT DISCLOSED TO OTHERS WITHOUT THE PRIOR WRITTEN CONSENT OF THE SUN COKE COMPANY INC. OR ITS AUTHORIZED REPRESENTATIVE THEREOF.

SIGNATURES		DATE
DRAWN	R.SARACCO	4-13-12
CHECKED	P.IVANCIC	6-5-12
APPROVED	C.KOS	6-6-12

USE CLIENT DWG NO: 341500-SSC-60-030-0001

SunCoke Energy South Shore Facility

OVERALL WATER BALANCE

FIGURE SC-1

SIZE D | CAGE CODE | DWG NO. SSC-060-1F-001 | REV E

SCALE NONE | PROJECT NO. 000 | SHEET 1 OF 1

CAD FILE/FRAME TIME DATE DRAFT

ATTACHMENT SC-1
COOLING WATER ADDITIVE INFORMATION

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CT775
Product Use:	Cooling Water Treatment Corrosion Inhibitor
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800) 424–9300 (Toll Free) (703) 527–3887
Address (Corporate Headquarters):	4461 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800) 648–4579
Date of MSDS:	February 15, 2011

Section 2. Hazard(s) Identification

Signal Word: **DANGER!**

Hazard Statement(s):

Causes severe skin burns and eye damage.
Causes serious eye damage.
Harmful in contact with skin.
Harmful if inhaled.
Harmful if swallowed.

Precautionary Statement(s):

Wear protective gloves/clothing and eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Use only outdoors or in a well–ventilated area.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt.%
Phosphoric acid	7664–38–2	60 – 100

Section 4. First Aid Measures

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.
Skin:	Immediately remove/take off all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before re–use. Immediately call a poison center or doctor/physician.
Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Notes to Physician:	N/A
Additional First Aid Remarks:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	Use water spray to keep containers cool.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive–pressure, NIOSH approved, self–contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	If RQ (Reportable Quantity) is exceeded, report to National Spill Response Office at 1–800–424–8802.

Section 7. Handling and Storage

Handling: Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.

Storage: Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
Phosphoric acid	ACGIH TLV	3 mg/m³ STEL
	OSHA PEL	1 mg/m³ TWA

Carcinogenicity Category

Component	Source	Code	Brief Description
Phosphoric acid			N/E

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full–face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick–drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Colorless, Clear
Specific Gravity:	1.579 @ 20°C
pH:	N/A
Freezing Point:	0°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Boiling Point:	N/D
Solubility in Water:	Miscible
Evaporation Rate:	<1
Vapor Density:	N/D
Molecular Weight:	N/D
Viscosity:	N/A
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	13.17 lb/ga
Vapor Pressure:	N/D
% VOC	N/D

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Strong oxidizers, Bases, Fluorine, Reducing agents, Sulfur trioxide, Phosphorus pentoxide

Hazardous Decomposition Products: Oxides of phosphorus

Possibility of Hazardous Reactions: None known.

Section 11. Toxicological Information

Chemical Name	Exposure	Type of Effect	Concentration	Species
Phosphoric acid	Dermal	LD50	2740 mg/kg	Rabbit
	Oral	LD50	1530 mg/kg	Rat

Comments: None.

Section 12. Ecological Information

Species	Duration	Type of Effect	Test Results
Ceriodaphnia dubia	48h	LC50	1649 mg/l
Fathead Minnow	96h	LC50	3536 mg/l
Mysid Shrimp	48h	LC50	884 mg/l
Inland Silverside	96h	LC50	3491 mg/l

Comments: None.

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
EPA corrosivity characteristic hazardous waste D002 when disposed of in the original product form.

Section 14. Transport Information

DOT Classification

DOT Name: PHOSPHORIC ACID SOLUTION
Technical Name: N/A
Hazard Class: Corrosive
UN/NA#: UN1805
Packing Group: PGIII

Section 15. Regulatory Information

Inventory Status

United States (TSCA): All ingredients listed.
Canada (DSL/NDSL): All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard: No
Reactive Hazard: No
Release of Pressure: No
Acute Health Hazard: Yes
Chronic Health Hazard: No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
Phosphoric acid	No	N/A	5000

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
Phosphoric acid	MA, MN, NY, WA

International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)
E (Corrosive Material)

Controlled Product Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 16. Other Information

HMIS Hazard Rating

Health: 3
Flammability: 0
Physical Hazard: 0
PPE: X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha–numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end–user must determine if the code is appropriate for their use.

NSF: Certified to NSF/ANSI Standard 60
Maximum use rate for potable water – 13 mg/L
This product ships as NSF from:
Ashland, VA

Eldridge, IA
Nederland, TX
Vernon, CA

FDA: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Regulatory Affairs Department

Disclaimer

MATERIAL SAFETY DATA SHEET

Section 1. Chemical Product and Company Identification

Product Name:	ChemTreat CL3857
Product Use:	Cooling Water Treatment
Supplier's Name:	ChemTreat, Inc.
Emergency Telephone Number:	(800) 424–9300 (Toll Free) (703) 527–3887
Address (Corporate Headquarters):	4461 Cox Road Glen Allen, VA 23060
Telephone Number for Information:	(800) 648–4579
Date of MSDS:	August 16, 2011

Section 2. Hazard(s) Identification

Signal Word: **WARNING!**

Hazard Statement(s): Causes serious eye irritation.
Harmful in contact with skin.
Harmful if inhaled.
Harmful if swallowed.

Precautionary Statement(s): Wear protective gloves/clothing and eye/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Use only outdoors or in a well–ventilated area.

Section 3. Composition/Hazardous Ingredients

Component	CAS Registry #	Wt.%
2–Phosphono–1,2,4–butane tricarboxylic acid	37971–36–1	10 – 30

Section 4. First Aid Measures

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

Skin: Wash with plenty of soap and water. Call a poison center or doctor/physician if you feel unwell.

Ingestion:	DO NOT INDUCE VOMITING. Rinse mouth. Call a POISON CENTER or doctor/physician.
Notes to Physician:	N/A
Additional First Aid Remarks:	N/A

Section 5. Fire Fighting Measures

Flammability of the Product:	Not flammable.
Suitable Extinguishing Media:	Use extinguishing media suitable to surrounding fire.
Specific Hazards Arising from the Chemical:	None known.
Protective Equipment:	If product is involved in a fire, wear full protective clothing including a positive–pressure, NIOSH approved, self–contained breathing apparatus.

Section 6. Accidental Release Measures

Personal Precautions:	Use appropriate Personal Protective Equipment (PPE).
Environmental Precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers.
Methods for Cleaning up:	Contain and recover liquid when possible. Flush spill area with water spray.
Other Statements:	None.

Section 7. Handling and Storage

Handling:	Wear appropriate Personal Protective Equipment (PPE) when handling this product. Do not get in eyes, or on skin and clothing. Wash thoroughly after handling. Do not ingest. Avoid breathing vapors, mist or dust.
Storage:	Store away from incompatible materials (see Section 10). Store at ambient temperatures. Keep container securely closed when not in use. Label precautions also apply to empty container. Recondition or dispose of empty containers in accordance with government regulations. For Industrial use only. Do not store or handle in aluminum, zinc, copper, or their alloys.

Section 8. Exposure Controls/Personal Protection

Exposure Limits

Component	Source	Exposure Limits
2–Phosphono–1,2,4–butane tricarboxylic acid		N/E

Carcinogenicity Category

Component	Source	Code	Brief Description
2–Phosphono–1,2,4–butane tricarboxylic acid			N/E

Engineering Controls: Use only with adequate ventilation. The use of local ventilation is recommended to control emission near the source.

Personal Protection

Eyes: Wear chemical splash goggles or safety glasses with full–face shield. Maintain eyewash fountain in work area.

Skin: Maintain quick–drench facilities in work area.
Wear butyl rubber or neoprene gloves. Wash them after each use and replace as necessary. If conditions warrant, wear protective clothing such as boots, aprons, and coveralls to prevent skin contact.

Respiratory: If misting occurs, use NIOSH approved organic vapor/acid gas dual cartridge respirator with a dust/mist prefilter in accordance with 29 CFR 1910.134.

Section 9. Physical and Chemical Properties

Physical State and Appearance:	Liquid, Dark Straw, Clear
Specific Gravity:	1.180 @ 20°C
pH:	1.9 @ 20°C, 100.0%
Freezing Point:	32°F
Flash Point:	N/D
Odor:	Mild
Melting Point:	N/A
Boiling Point:	212°F
Solubility in Water:	Complete
Evaporation Rate:	Similar to water
Vapor Density:	Similar to water
Molecular Weight:	N/D
Viscosity:	N/A
Flammable Limits:	N/A
Autoignition Temperature:	N/A
Density:	9.84 lb/ga
Vapor Pressure:	Similar to water
% VOC	0

Section 10. Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressures.

Incompatibility with Various Substances: Strong oxidizers, Strong bases

Hazardous Decomposition Products: Oxides of nitrogen, Oxides of phosphorus, Oxides of carbon

Possibility of Hazardous Reactions: None known.

Section 11. Toxicological Information

Chemical Name	Exposure	Type of Effect	Concentration	Species
2–Phosphono–1,2,4–butane tricarboxylic acid	Oral	LD50	>6500 mg/kg	Rat

Comments: None.

Section 12. Ecological Information

Species	Duration	Type of Effect	Test Results
Ceriodaphnia dubia	48h	LC50	>1000 mg/l
	7d	IC25	340 mg/l
	7d	NOEC	625 mg/l
	7d	LOEC	1250 mg/l
Fathead Minnow	96h	LC50	>1000 mg/l
	7d	IC25	1125 mg/l
	7d	NOEC	2500 mg/l
	7d	LOEC	5000 mg/l

Comments: NOEC effect = Survival

Section 13. Disposal Considerations

Dispose of in accordance with local, state and federal regulations.
EPA corrosivity characteristic hazardous waste D002 when disposed of in the original product form.

Section 14. Transport Information

DOT Classification

DOT Name:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Technical Name:	(2–PHOSPHONO–1,2,4–BUTANETRICARBOXYLIC ACID)
Hazard Class:	Corrosive
UN/NA#:	UN3265
Packing Group:	PGIII

Section 15. Regulatory Information

Inventory Status

United States (TSCA):	All ingredients listed.
Canada (DSL/NDSL):	All ingredients listed.

Federal Regulations

SARA Title III Rules

Sections 311/312 Hazard Classes

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	Yes
Chronic Health Hazard:	No

Other Sections

Component	Section 313 Toxic Chemical	Section 302 EHS TPQ	CERCLA RQ
2–Phosphono–1,2,4–butane tricarboxylic acid	N/A	N/A	N/A

Comments: None.

State Regulations

California Proposition 65: None known.

Special Regulations

Component	States
2–Phosphono–1,2,4–butane tricarboxylic acid	None

International Regulations

Canada

WHMIS Classification: D2B (Toxic Material)
E (Corrosive Material)

Controlled Product Regulations (CPR): This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

Section 16. Other Information

HMIS Hazard Rating

Health: 2
Flammability: 0
Physical Hazard: 0
PPE: X

Notes: The PPE rating depends on circumstances of use. See Section 8 for recommended PPE.
The Hazardous Material Information System (HMIS) is a voluntary, subjective alpha–numeric symbolic system for recommending hazard risk and personal protection equipment information. It is a subjective rating system based on the evaluator's understanding of the chemical associated risks. The end–user must determine if the code is appropriate for their use.

NSF: Certified to NSF/ANSI Standard 60
Maximum use rate for potable water – 10 mg/L
This product ships as NSF from:
Ashland, VA
Eldridge, IA
Nederland, TX
Vernon, CA

FDA: N/A

KOSHER: This product has not been evaluated for Kosher approval.

FIFRA: N/A

Other: None

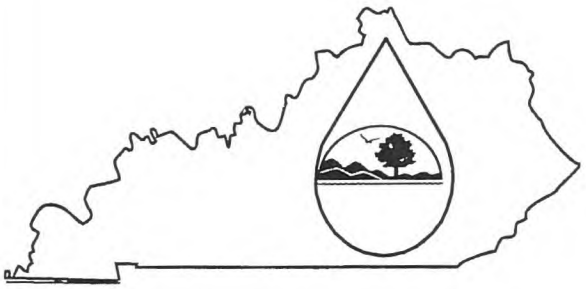
Abbreviations

Abbreviation	Definition
<	Less Than
>	Greater Than
ACGIH	American Conference of Governmental Industrial Hygienists
EHS	Environmental Health and Safety Dept
N/A	Not Applicable
N/D	Not Determined
N/E	Not Established
OSHA	Occupational Health and Safety Dept
PEL	Personal Exposure Limit
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weight Average
UNK	Unknown

Prepared by: Regulatory Affairs Department

Disclaimer

KPDES FORM F



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

A complete application consists of this form and Form 1.
For additional information, Contact Surface Water Permits Branch, (502) 564-3410.

I. OUTFALL LOCATION	AGENCY USE							

For each outfall list the latitude and longitude of its location to the nearest 15 seconds and name the receiving water.

A. Outfall Number	B. Latitude			C. Longitude			D. Receiving Water (name)
002	38	44	27	-82	55	30	Ohio River

II. IMPROVEMENTS

A. Are you now required by any federal, state, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls No.	Source of Discharge	3. Brief Description of Project	4. Final Compliance Date a. req.	b. proj.
N/A					

B. You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. SITE DRAINAGE MAP

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfall(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage or disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage of disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which receive storm water discharges from the facility.

IV. NARRATIVE DESCRIPTION OF POLLUTANT SOURCES

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
002	108 Ac	120 Ac			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas; and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

This is a new facility, with material access, loading, and storage areas that will be exposed to stormwater. These materials consist of coal and coke, which will be accessed and loaded at several points throughout the site, and will be stored in piles (see Site Drainage Map: Figure F-1 and Figure F-2 for locations). Stormwater will flow to the stormwater retention pond from where it will be typically be utilized in the process with "no discharge" to surface waters. The only anticipated stormwater discharge will be infrequent discharge via the stormwater retention pond emergency overflow.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table F-1
002	**Sedimentation (Settling)**	**1-U**

V. NON-STORM WATER DISCHARGES

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of non-storm water discharges, and that all non-storm water discharges from these outfall(s) are identified in either an accompanying Form C or Form SC application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
Nelson Garcez – VP of Business Development		3/21/21

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

The discharge through Outfall 002 will be limited to that from the stormwater retention pond emergency overflow. The facility has been designed such that only stormwater will be collected within the retention pond. During extreme storm conditions, stormwater may be discharged from retention pond. Sanitary wastewaters will be discharged directly to the POTW. Process-related wastewaters are contained within the quenching system and will not be discharged to surface waters.

VI. SIGNIFICANT LEAKS OR SPILLS

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

N/A, New Facility

VII. DISCHARGE INFORMATION

A,B,C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided. Parts A, B, C, & D are included on separate pages 4 and 5.

E: Potential discharges not covered by analysis - are any toxic pollutants listed in Table F-2, F-3, or F-4 substances which you currently use or manufacture as an intermediate or final product or by product?

☐ Yes (list all such pollutants below) ☒ No (go to Section IX)

VIII. BIOLOGICAL TOXICITY TESTING DATA

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (list all such results below) ☒ – New Facility No (go to Section IX)

IX. CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported in item VII performed by a contract laboratory or consulting firm?

☐ Yes (list the name, address and telephone number of, and pollutants analyzed by each such laboratory or firm below; use additional sheets if necessary).

☒ – New Facility, Future Analytical to be Completed by Licensed Laboratory No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed

X. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

NAME & OFFICIAL TITLE (type or print)	AREA CODE AND PHONE NO.
Mr. ☒ Ms. ☐ Nelson Garcez – VP of Business Development	(630) 824-1914
SIGNATURE	DATE SIGNED 3/21/2013

VII. DISCHARGE INFORMATION	OUTFALL NO: 002 (Proposed Emergency Outfall – No Available Data)

Part A - **You must provide the results of at least one analysis for every pollutant in this table.** Complete one table for each outfall. See instructions for additional details.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During 1st 30 Minutes	Flow-weighted Composite	Grab Sample Taken During 1st 30 Minutes	Flow-weighted Composite		
Oil and Grease	**Unknown, New Facility, No Analytical Data Available**	N/A				
Biological Oxygen Demand BOD_5						
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)						
Total Kjeldahl Nitrogen						
Nitrate plus Nitrite Nitrogen						
Total Phosphorus						
pH	Minimum	Maximum	Minimum	Maximum		

Part B - List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's KPDES permit for its process wastewater (if the facility is operating under an existing KPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During 1st 30 Minutes	Flow-weighted Composite	Grab Sample Taken During 1st 30 Minutes	Flow-weighted Composite		

Part C - List each pollutant shown in Tables F-2, F-3, and F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During 1st 30 Minutes	Flow-weighted Composite	Grab Sample Taken During 1st 30 Minutes	Flow-weighted Composite		

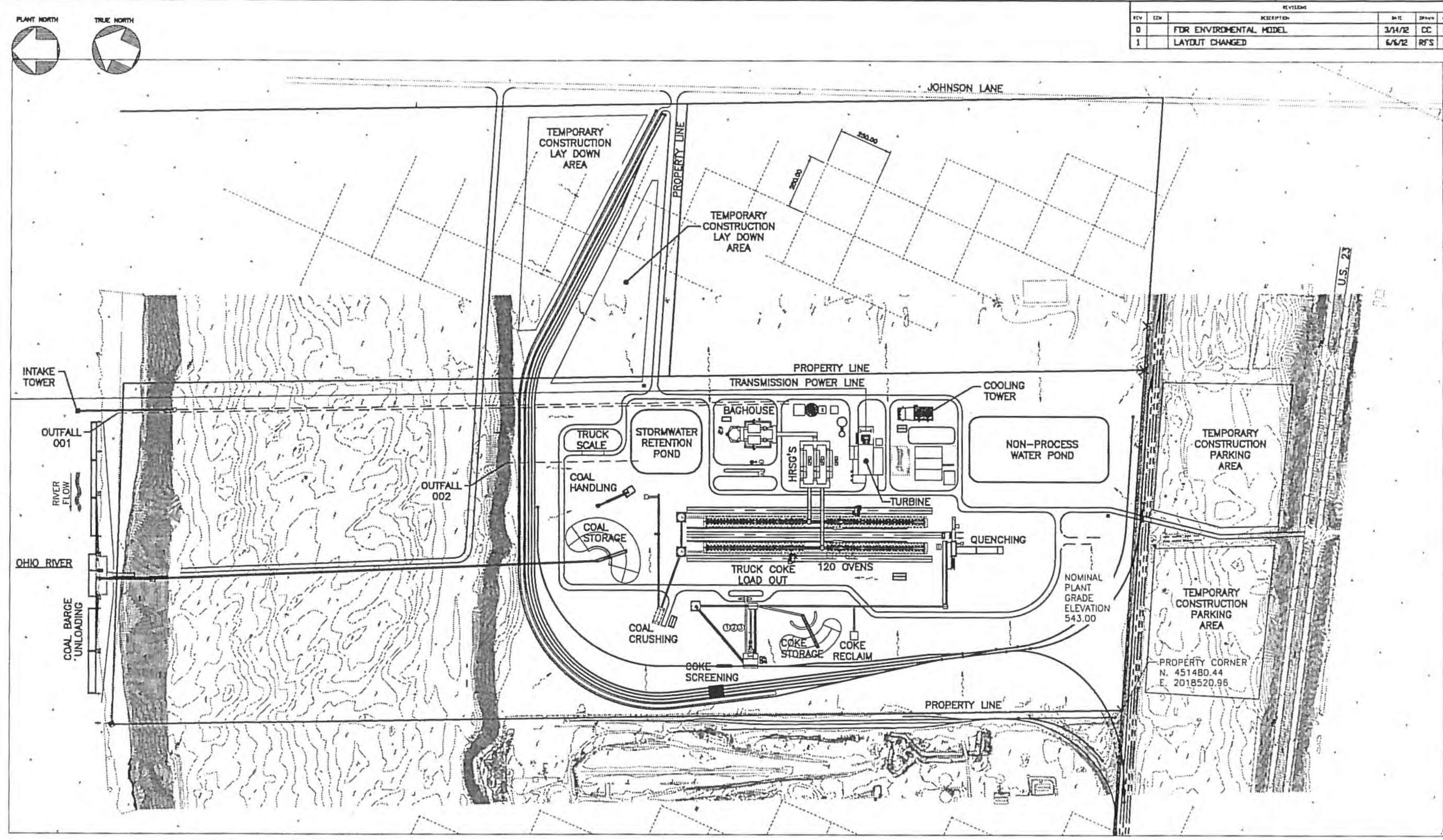
Part D - Provide data for the storm event(s) which resulted in the maximum values for the flow-weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gal/min or specify units)	6. Total flow from rain event (gallons or specify units)
Unknown, New Facility, No Analytical Data Available					

7. Provide a description of the method of flow measurement or estimate.

The design of the facility retention basin will allow only emergency overflows.

REV	ECN	DESCRIPTION	DATE	DRAWN	APPR
0		FOR ENVIRONMENTAL MODEL	3/14/12	CC	GR
1		LAYOUT CHANGED	6/6/12	RFS	CK



NOTES:

COKE CONVEYORS ① – ③ LEFT TO RIGHT
1. REVERSIBLE LOADOUT CONVEYOR
2. COKE SCREEN FEED CONVEYOR
3. COKE CRUSHER RETURNED CONVEYOR

POST CONSTRUCTION FLOW DIRECTION

HATCH Hatch Associates Consultants, Inc. Pittsburgh, PA 15219-1001

REVISION		SCALE: NTS	DATE
		DESIGNED BY R. STURGULEWSKI	3/06/12
		DRAWN BY R.SARACCO	2/22/12
1	CHANGED LAYOUT	CHECKED BY C. KOS	3/14/12
0	FOR ENVIROMENTAL MODEL	APPROVED BY G. RUDOWSKI	3/14/12
PROJECT NO. 341500			REVISION 1

INFORMATION CONFIDENTIAL: ALL PLANS, DRAWINGS, SPECIFICATIONS AND/OR INFORMATION FURNISHED HEREWITH ARE AND SHALL REMAIN CONFIDENTIAL AND SHALL NOT BE USED FOR ANY PURPOSE NOT PROVIDED FOR IN AGREEMENTS WITH HATCH ASSOCIATES CONSULTANTS, INC.

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE INCHES
TOLERANCES ON
2 PL DECIMALS ±.02
3 PL DECIMALS ±.005
ANGLES ± 1/2°
FRACTIONS ± 1/16

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	SIGNATURES	DATE
DRAWN	R.SARACCO	2/22/12
CHECKED	C. KOS	3/14/12
APPROVED	G. RUDOWSKI	3/14/12

USE CLIENT DWG NO: N/A

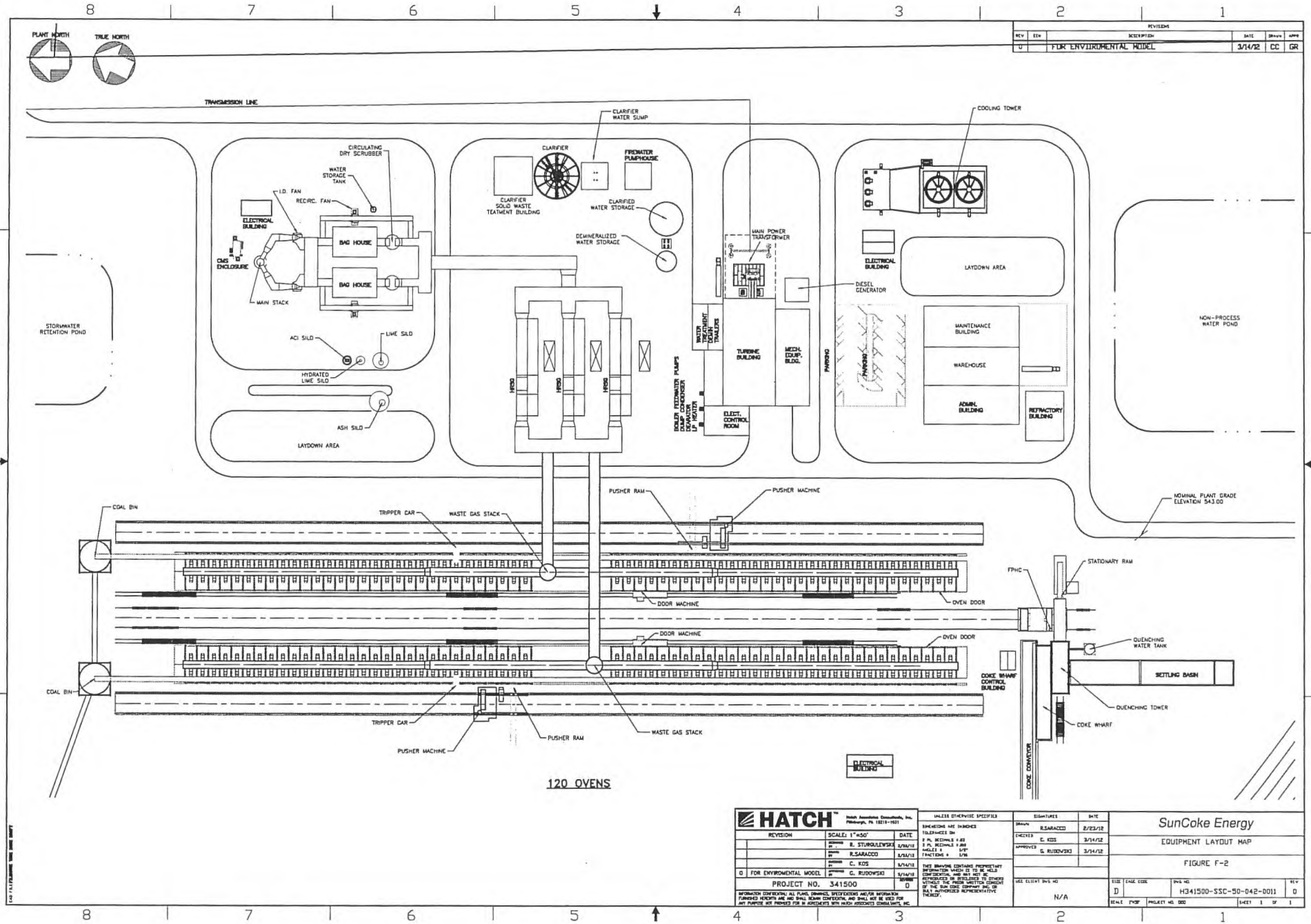
SunCoke Energy South Shore Facility

SITE DRAINAGE MAP

FIGURE F-1

SIZE	CAGE CODE	DWG NO.	REV
D		H341500-SSC-50-042-0010	1

SCALE: N/A PROJECT NO. 000 SHEET 1 OF 1



REVISIONS					
REV	ECN	DESCRIPTION	DATE	DRAWN	APPD
0		FOR ENVIRONMENTAL MODEL	3/14/12	CC	GR

HATCH™ — Hatch Associates Consultants, Inc., Pittsburgh, PA 15218-1021

REVISION	SCALE: 1"=50'	DATE
	DESIGNED BY R. STURGULEWSKI	2/28/12
	DRAWN BY R.SARACCO	2/23/12
	CHECKED BY C. KOS	3/14/12
	APPROVED BY G. RUDOWSKI	3/14/12
0 FOR ENVIRONMENTAL MODEL		3/14/12

PROJECT NO. 341500 — REVISION 0

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DIMENSIONS ARE IN INCHES
TOLERANCES ON
X PL DECIMALS ± .03
X PL DECIMALS ± .010
ANGLES ± 1/2°
FRACTIONS ± 1/16

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SIGNATURES		DATE
DRAWN	R.SARACCO	2/23/12
CHECKED	C. KOS	3/14/12
APPROVED	G. RUDOWSKI	3/14/12

SEE CLIENT DWG NO: N/A

SunCoke Energy

EQUIPMENT LAYOUT MAP

FIGURE F-2

SIZE	CAGE CODE	DWG NO	REV
D		H341500-SSC-50-042-0011	0

SCALE: 1"=50' | PROJECT NO. 000 | SHEET 1 OF 1

URS

ATTACHMENT 2
COOLING WATER INTAKE STRUCTURE DESIGN FOR 316(b)

SUNCOKE COOLING WATER INTAKE STRUCTURE DESIGN FOR 316(b)

SOUTH SHORE, KENTUCKY

March 2013

PREPARED FOR:

SunCoke Energy South Shore LLC
1011 Warrenville Road, Suite 600
Lisle, IL 60532

PRESENTED BY:

URS Corporation
525 Vine Street, Suite 1800
Cincinnati, OH 45202
Phone: 513-651-3440 / Fax: 513-651-3452

PREPARED BY:

Stephen A. Renzi, E.I.T.
Graduate Engineer

And

John D. Priebe, P.E.
Principal Engineer

CONTENTS

LIST OF FIGURES

1.0 INTRODUCTION

SunCoke Energy South Shore LLC (SESS), owned by Sun Coal and Coke LLC, which is owned by SunCoke Energy, Inc. (SunCoke) has proposed the construction of a new heat recovery coke plant (facility) along the Ohio River in South Shore, Greenup County, Kentucky. The site is located approximately 2.5 miles east of South Shore on U.S Route 23. The plant will require make up water for cooling and quenching operations. Surface water will be utilized for this cooling and quenching water source. The intake will be designed to withdraw cooling water at approximately 2.0 million gallons per day (MGD) from the Ohio River. The water intake will be downstream of the Greenup County Dam, and located at Ohio River Mile Marker 351.25. This document presents a conceptual cooling water intake structure (CWIS) design under considerations related to the operation of the plant's CWIS on the Ohio River under the Clean Water Act (CWA) 33 U.S.C. § 1251 Title III Section 316(b) (CWA Section 316(b)).

The CWA Section 316(b) regulations require that the design, construction, and location of a CWIS utilize the best available technology (BAT) to minimize adverse environmental impact under the site and operating conditions. The proposed SunCoke facility is subject to CWA Section 316(b) regulations under the requirements of 40 CFR 125.81(a)(1-3), namely: 1) it is a point source that proposes to use a cooling water intake structure, 2) it will have at least one cooling water intake structure that uses at least 25 percent of the water it withdraws for cooling purposes, and 3) it will have a design intake flow greater than two million gallons per day. URS has developed the conceptual CWIS design to conform to the Phase I, Track I National Pollutant Discharge Elimination System (NPDES) regulatory criteria. This criteria is applicable to new facilities that withdraw between 2 million and 10 million gallons per day (MGD) (40 CFR 125.84(c)(1) through (4)). The Kentucky Department of Environmental Protection is the statutory authority for NPDES implementation in the Commonwealth of Kentucky. After wastewater components are identified, SunCoke will apply for a Kentucky Pollutant Discharge Elimination System (KPDES) Individual Permit for discharge of certain facility wastewaters. Kentucky Administrative Regulation (KAR) 401 KAR 5:055 delineating the scope and applicability of the KPDES program include the provisions of 40 CFR 122.21 by reference for intake-related requirements. URS has endeavored to incorporate the permit application requirements contained in 40 CFR 122.21(r) and 125.86(b) into the conceptual design. The focus of this conceptual design is primarily the selection of an appropriate intake structure and the preliminary layout of associated system components for the purposes of permitting. The final design of the CWIS will include detailed design of the piping, pumps, controls, and other systems required for complete operation of the system.

2.0 BACKGROUND

SunCoke is proposing the construction of a heat recovery coke plant (facility) on the Ohio River. The proposed facility will operate 120 heat-recovery coke ovens. Operations at the facility will include coal

handling, coal storage, charging, heat recovery coking, pushing, quenching, coke handling, and coke storage. Heat recovery steam generators (HRSGs) will recover waste heat from the ovens to produce steam and electricity. At design capacity, the facility will carbonize 1,226,400 tons/year of coal and produce up to 831,100 tons/year of coke product. A nominal 40-75 megawatts (MW) of electricity will be produced from the waste heat.

3.0 OBJECTIVE

The objective of this document is to provide a conceptual design for the proposed 2.0 MGD CWIS at the proposed South Shore facility to be located on the Ohio River. This conceptual design is intended to conform to CWA Section 316(b) and NPDES regulatory criteria while also considering physical setting (Ohio River) operability, cost, and other features specific to the facility. A KPDES permit will be required for the facility, and as such the Phase I CWA Section 316(b) requirements will be applicable to this facility because 1) it is a new facility, 2) it will use at least 25 percent of the water it withdraws for cooling purposes, and 3) it has a design intake flow greater than 2 MGD.

The NPDES regulatory criteria further define two tracks for compliance under CWA Section 316(b). Compliance under Track I is achieved through designing the intake to a series of pre-established performance requirements that are designed to meet the CWA goal of aquatic life protection. Track II is an alternate compliance route whereby a facility may demonstrate equal protection to Track I. The proposed intake is designed to comply with the Phase I, Track I criteria.

Phase I, Track I requirements for new facilities located on a freshwater river that withdraw more than 2 MGD and less than 10 MGD are as follows (40 CFR 125.84(c)):

1) Intake flow must be reduced, at a minimum, to a level commensurate with that which can be attained by a closed-cycle recirculating cooling water system;
2) Maximum through-screen design intake velocity of 0.5 ft/s;
3) Design and construct the cooling water intake structure such that the total design intake flow is no greater than five percent of the source water annual mean flow;
4) Select and implement design and construction technologies or operational measures for minimizing impingement mortality of fish and shellfish; and
5) Select and implement design and construction technologies or operational measures for minimizing entrainment of entrainable life stages of fish and shellfish.

The following sections will provide a description of the conceptual design and how these permitting considerations have been met.

4.0 CONSIDERATIONS

This section describes the overall approach to meeting the Phase I, Track I regulatory requirements described in Section 3. In general, the maximum through screen velocity and impingement/entrainment requirements can be addressed with engineering controls with resulting operational and cost considerations. The maximum intake flow requirement is a function of the proposed water body. These considerations are discussed below.

4.1 Intake and Water Body Flow

In accordance with 40 CFR 125.84(c)(2), the total design intake flow must be no greater than five percent of the source water body flow when the CWIS is located in a freshwater river. In order to quantify this flow, URS used the available resources of the United States Geological Society (USGS).

USGS annual mean flow data was obtained at the nearest upstream and downstream Ohio River locations. The nearest upstream location is Greenup Dam, KY (#03216600) located at Ohio River Mile Marker 341. The nearest downstream location is Maysville, KY (#03238000) located at Ohio River Mile Marker 480.5. The proposed CWIS is located at mile marker 351.25.

The mean annual flow data for the Greenup Dam, KY station (upstream) is available from the USGS for the period from 1969-2008. The mean annual flow for this period is 59,972 MGD. It is reasonable to assume that the mean annual flow at the proposed CWIS is greater than this because it is located downstream.

The proposed CWIS intake flow rate for this facility is 2.0 MGD. This is less than one-hundredth of a percent (0.01%) of the Ohio River mean annual flow at the proposed location (approximately 60,000 MGD). The intake flow is therefore significantly less than the regulatory requirement of 5-percent.

4.2 Best Available Technology

Available EPA guidance provides several alternatives for meeting the "best available technology" (BAT) requirement. Therefore, the selection of a BAT appropriate for a given facility requires additional consideration of the various operational needs, as well as cost. This section discusses the development of the conceptual design relative to both the regulatory requirements and the facility specific conditions.

4.2.1 Intake Classes

There are two primary classes of intake structures: active and passive. Active systems function on diversion or deterrence concepts and include traveling screens, electrical screens, air bubble curtains, magnetic field generators, and other technologies. Passive technologies function on the exclusion concept and include radial wells, cylindrical wedgewire screens, barrier nets, and more. While active and passive technologies each have merits, passive technologies are considered more appropriate for this facility due

to the physical setting of the site (Ohio River), system flow rate, more simplistic operation and maintenance, and lower overall operating costs.

4.2.2 Selected Technology

The proposed CWIS will be located in the Ohio River, which is a relatively dynamic water body with a significant flow rate. Available EPA guidance on intake structures (EPA-821-R-01-036) suggests that of the passive technologies, cylindrical wedgewire screens may provide the greatest minimization of impingement and entrainment in rivers and best meet the requirements of 40 CFR 125.84(c)(3) and (4). In addition, the screen can be designed to meet the velocity requirement of 40 CFR 125.84(c)(1). Therefore, the cylindrical wedgewire screen technology was selected for this application.

5.0 CONCEPTUAL DESIGN

The conceptual design is intended to address the requirements of CWA Section 316(b) and 40 CFR 125.84(c), while also taking into consideration facility specific performance requirements, operation, maintenance and cost. The conceptual design for the proposed CWIS is discussed below.

5.1 Site Conditions

The following are the known site conditions for the proposed CWIS at Ohio River Mile Marker 351.25.

1) Proposed CWIS Intake Rate – 2.0 MGD operating continuously, 365 days/year;
2) Mean River Annual Flow – 60,000 MGD;
3) Normal Pool Elevation – 485 feet MSL;
4) 100-Year Flood Elevation – 537 feet MSL; and
5) Riverbed Elevation – 466 feet MSL.

URS understands that the pump system will likely be installed within an approximately 15-foot by 15-foot concrete structure including a wet-well and located upstream of the barge system. The information provided above is used in the following sections to develop the conceptual design.

5.2 Screen Selection

As discussed in Section 4, the cylindrical wedgewire screen was selected as the BAT for use at this site in order to meet the maximum through screen velocity requirements (40 CFR 125.84(c)(1)) and the impingement and entrainment considerations (40 CFR 125.84(c)(3) and (4)). This section describes the selected cylindrical wedgewire screen characteristics for this application. Figure 4 presents a conceptual cylindrical wedgewire screen design.

A tee-type design has been selected with a conical debris reflector. The intake structure will be installed parallel to river flow. The tee type design was chosen over other cylindrical wedgewire screen alternatives

(e.g., a drum type design with a vertical orientation) because it allows for a lower through screen velocity profile. The conical reflectors and position parallel to the river reduce the likelihood of impingement and entrainment.

Many slot sizes are available for the screen ranging from less than a tenth of an inch to well over three quarters of an inch. The slot size can be varied with the overall diameter to meet the through screen velocity requirements (i.e. expansion of diameter increases surface area and decreases slot velocity). A screen size of 0.125-inches (approximately 3-mm) was selected for velocity and entrainment considerations. Based on URS' discussions with Johnson Screens and the references listed in Section 7, this slot size is most commonly used for most applications (including the Ohio River) to reduce entrainment. The overall intake conceptual design will also provide a through screen velocity less than 0.5 ft/s.

5.3 Placement

The physical placement of the CWIS within the water body influences the likelihood of impingement and entrainment. Certain zones (e.g. near shorelines, low-velocity regions such as divots, etc.) are more ecologically active. It is best practice to place intakes out of such areas. In addition, the manufacturer's recommendations suggest a minimum water depth of 4 to 6-feet above the wedgewire screen. Based on available bathymetric data for this site and these considerations, it is recommended that the tee intake be placed on the riverbed approximately 450 feet from the center of the wet-well (300 feet from the edge of the riverbank).

5.4 Other Considerations

While it not a regulatory requirement, EPA, the American Society of Civil Engineers (ASCE), and most manufacturers recommend that a tee type wedgewire screen be equipped with an air backwash system (or similar methodology) for ease of maintenance. This system flushes the screen with compressed air at appropriate intervals in order to reduce bio-fouling and remove debris, and reduces or eliminates manual screen cleaning. This serves to prolong the life and improve the performance of the screen.

SunCoke may also select to employ a screen of zinc-alloy material rather than the standard stainless steel in order to reduce bio-fouling. The zinc-alloy material is particularly useful in areas with zebra mussels, such as the Ohio River. The final screen material will be selected as part of the detailed intake design process.

Additional components of the complete cooling water intake system will be provided during the detailed design phase. These components include the pump system (likely vertical turbine or submersible), conveyance system (likely insulated steel pipe of 18 to 30-inch diameter), a controls system, a chemical feed system (as needed), and electrical/controls. The pumps will be installed within the concrete pump system structure and wet-well with the necessary components (such as a pump house or valve vault) being

located aboveground in the same approximate area. These items are generally depicted on Figures 3 and 4, but are subject to change during the detailed design phase.

6.0 NPDES PERMIT APPLICATION INFORMATION

As described in Section 1, URS understands that the proposed facility will require a KPDES Permit for discharge of facility wastewaters. In the process of preparing this conceptual design URS has generated or obtained several of the items required for the permit application as described in 40 CFR 122.21(r)(2),(3) and (4). This section provides the information available and discusses the additional items that will be assembled during the KPDES application preparation process.

6.1 Source Water Physical Data - 40 CFR 122.21(r)(2)(i)

This section of the permit application requests generally available source water body physical data. Several organizations collect and maintain Ohio River data, including the USGS, ACOE, Ohio River Valley Water Sanitation Commission (ORSANCO) and other private parties. For the purposes of this document, the primary data that was gathered and evaluated included flow and depth information. In the event that a KPDES application is required, additional information (such as temperature) may need to be collected.

6.2 Hydraulic Zone of Influence - 40 CFR 122.21(r)(2)(ii)

This section of the permit application requires an evaluation of the proposed CWIS hydraulic zone of influence (HZI) within the water body source. In general, available 7-day minimum flows at a ten year recurrence interval (7Q10) and velocity information can be used to evaluate the HZI. The 7Q10 flow from the Greenup Dam (mile marker 341) to the Meldhal Dam (mile marker 436) was found to be approximately 7,000 MGD using available data. The proposed withdraw rate (2 MGD) is approximately one quarter of a tenth of a percent (0.025%) of this 7Q10 flow. The velocity for this area of the river was not readily available using the common data sources, so instead a study conducted in the Cincinnati, Ohio area (mile marker 437 – 470) was utilized. This study indicated that during the August 2005 study, the average velocity of the river throughout the depth of six cross sections ranged from 0.72 to 0.94 ft/sec with corresponding flows of 13,500 and 18,500 MGD, respectively. The design through screen velocity is less than 0.5 ft/sec, or 50-70% of the average velocity over the entire river cross section at this area.

The flow and velocity information suggests that the HZI for the proposed CWIS can be considered negligible and would be local to the screen itself. The maximum design intake flow is one half of a tenth of a percent (0.05%) of the source water body flow, and the maximum through-screen intake velocity is considerably less than the velocity of the source water body.

6.3 CWIS Information - 40 CFR 122.21(r)(3)

Most of the information required under this section is included within this document, including a description of the CWIS and its location and a description of the intake flows and operational period. This section also requires that the approximate coordinate location of the CWIS be provided (N 38°44'56", W-82°54'54"). The conceptual drawings attached to this document may also meet the requirements for engineering drawings under this section, although additional information from the detailed design phase may be required.

6.4 Biological Characterization Data - 40 CFR 122.21(r)(4)

This section requests that biological characterization data be presented in order to assist with the development of the Design and Construction Technology report required under 40 CFR 125.86(b)(4). The Design and Construction Technology Report is intended to provide a description of how the selected BAT will reduce impingement and entrainment of the species most likely to be affected by the proposed CWIS. This section allows readily available data to be utilized, and does not require a separate study to be conducted. Significant biological characterization data has been gathered for the Ohio River. Based on similar applications on the Ohio River, use of BAT, slot screen size and HZI are believed to provide suitable information to demonstrate that impingement and entrainment is not anticipated to be an issue at this CWIS.

7.0 SUMMARY

This document was prepared to provide a narrative description of a proposed CWIS to be located at Ohio River mile marker 351.25, near South Shore, Kentucky. The conceptual design is intended to comply with CWA Section 316(b) and NPDES regulations (40 CFR 125) for a Phase I, Track I facility. The Phase I, Track I requirements are reserved for new facilities with withdrawal rates less than 10 MGD that meet specific criteria regarding intake flow, through screen velocity and impingement/entrainment characteristics.

The CWIS described in this document would utilize a cylindrical wedgewire screen as the BAT for reduced impingement and entrainment. The proposed cylindrical wedgewire screen would be tee-type, placed parallel to the direction of river flow and consist of a 0.125-inch (3-mm) slot screen size. The CWIS would be placed approximately 300-feet into the river (450-feet from the center of the wet-well) and on the riverbed to further reduce the likelihood of impingement/entrainment that can occur in low flow areas (near the river bank) and where the depth of the water is minimal. This conceptual design meets the flow, in-take velocity and impingement/entrainment requirements of the Phase I, Track I regulations. In addition, an evaluation of the HZI given available flow and velocity data indicates that the HZI is local to the screen itself. The associated CWIS components, including the pump, conveyance, electrical and controls systems will be detailed during the final design stage. However, URS understands

that a concrete structure will be used to house the pumps (vertical turbine or submersible) and that the required steel pipe sizing will likely range from 18 to 30-inches.

8.0 REFERENCES

Discussions with Johnson Screens, A Weatherford Company via email and telephone May 2009 to June 2009.

Federal Register Vol. 66, No. 243. Tuesday, December 18, 2001. Rules and Regulations. "National Pollutant Discharge Elimination System: Regulations Addressing Cooling Water Intake Structures for New Facilities: 40 CFR Parts 9, 122, 123, 124, and 125".

Hydraulics Division of the American Society of Civil Engineers (ed.). "Design of Water Intake Structures for Fish Protection". American Society of Civil Engineers, New York, NY. 1982.

Office of Water. "Economic and Engineering Analyses of the Proposed §316(b) New Facility Rule (EPA-821-R-00-019)". United States Environmental Protection Agency. Washington, DC. July 20, 2000.

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ORSANCO. "Revised 2006 Pollution Control Standards".

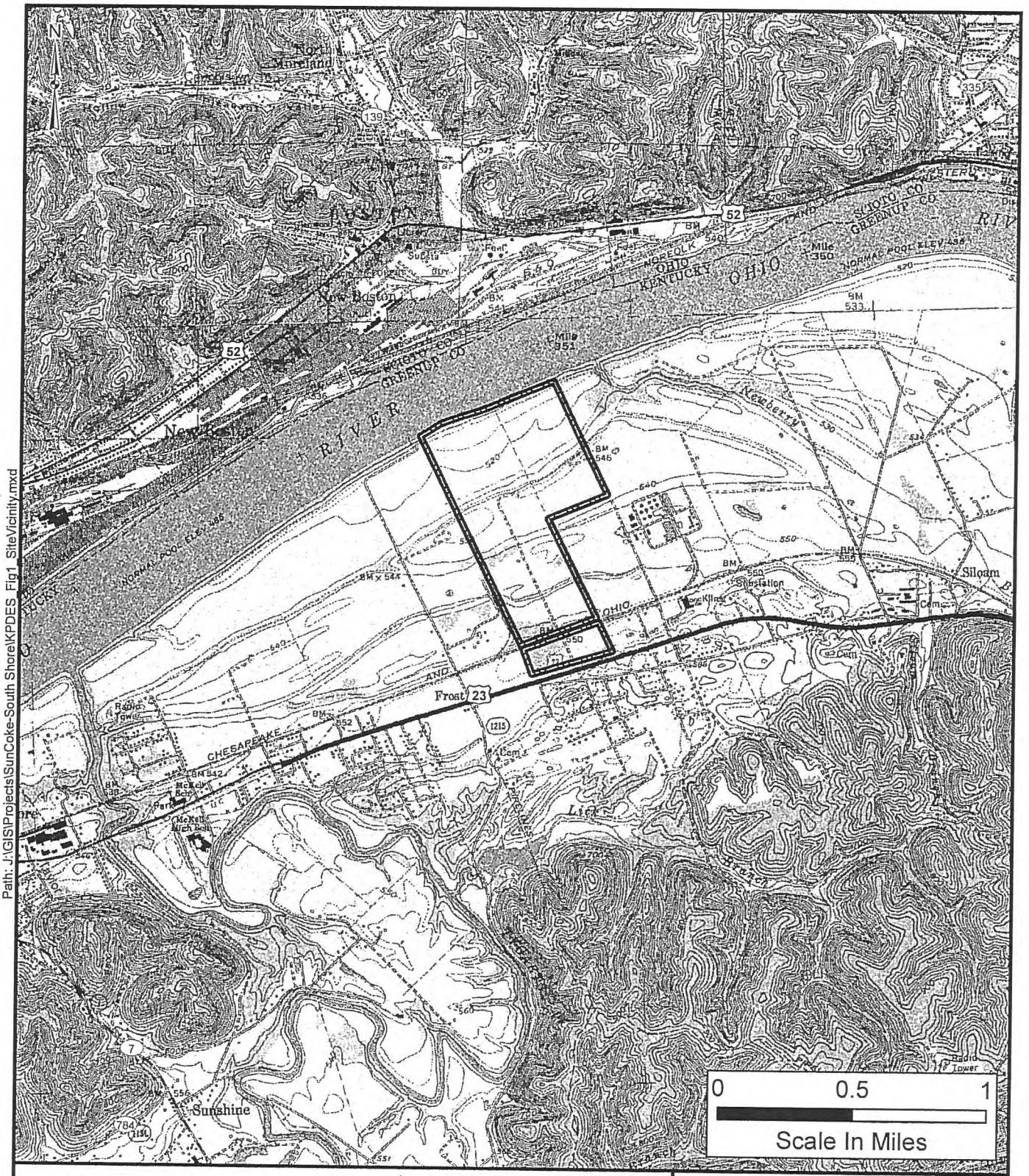
Symposium on Cooling Water Intake Technologies to Protect Aquatic Organisms. "Proceedings Report". United States EPA, United States Department of Energy, Hilton Crystal City at National Airport, Arlington, VA. May 6-7 2003.

U.S. Army Corps of Engineers. "Mechanical and Electrical Design of Pumping Stations". Department of the Army, Washington, D.C. November 30, 1999.

USGS. "Velocity, Bathymetry, and Transverse Mixing Characteristics of the Ohio River Upstream from Cincinnati, Ohio, October 2004—March 2006".

WE Energies. "Oak Creek Power Plant Expansion Project Offshore Wedge-wire Screen Intake". Powerpoint Presentation. October 17, 2008.

Wisconsin Department of Natural Resources. "Guidance for Evaluating Cooling Water Intake Structures". February 22, 2005.



Path: J:\GIS\Projects\SunCoke-South Shore\KPDES_Fig1_SiteVicinity.mxd

LEGEND:

Site Boundary

BASE MAP SOURCE:
USGS 7.5' Topographic Quadrangle
Portsmouth, KY-OH (1977)
New Boston, OH-KY (1976)

Locator Map

SunCoke Energy
South Shore Facility

FIGURE 1
SITE VICINITY MAP

JOB NO. 25368724

URS

RIVER WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
R1	RIVER WATER SUPPLY	1025–1400	300	325
R2	UNLOADING HOPPER SPRAY	15	300	325
R3	RETENTION POND WET WELL SUPPLY	395	300	325
R4	POWER ISLAND SUPPLY	615–990	300	325
R5	FAILED PUMP BYPASS	0	300	325

RIVER WATER NOTES:
1. RIVER TDS (TOTAL DISSOLVED SOLIDS) & TSS (TOTAL SATURATED SOLIDS) ARE BASED ON THE OHIO RIVER AT GREENUP COUNTY, KY.
2. SECOND VALUES FOR R1 AND R4 INCLUDE FIREWATER MAKE-UP

CITY WATER BALANCE

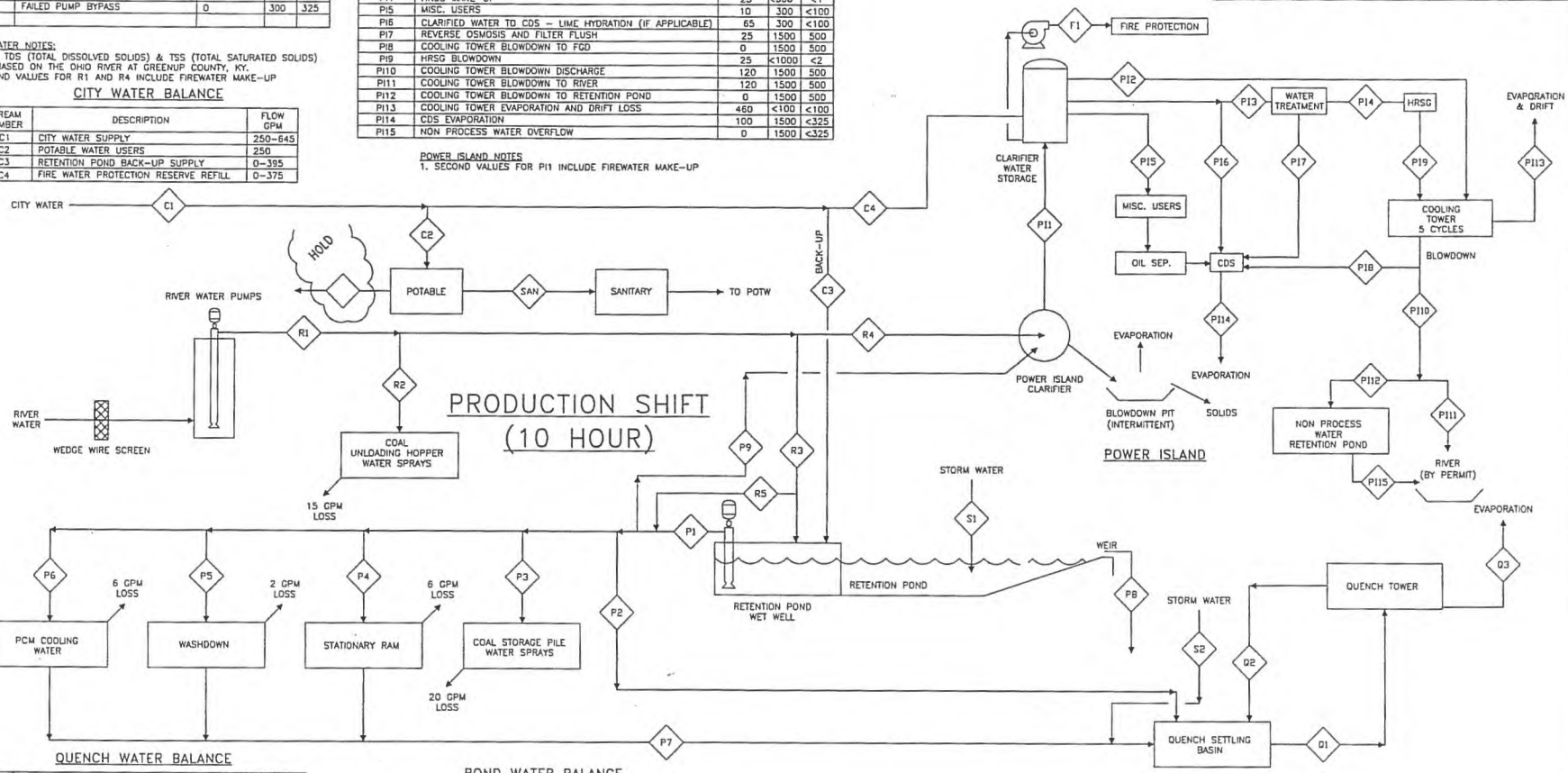
STREAM NUMBER	DESCRIPTION	FLOW GPM
C1	CITY WATER SUPPLY	250–645
C2	POTABLE WATER USERS	250
C3	RETENTION POND BACK-UP SUPPLY	0–395
C4	FIRE WATER PROTECTION RESERVE REFILL	0–375

POWER ISLAND WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
PI1	TO STORAGE TANK	615–990	300	<100
PI2	CLARIFIED WATER MAKE-UP WATER	555	300	<100
PI3	CLARIFIED WATER TO WATER TREATMENT	50	300	<100
PI4	HRSG MAKE-UP	25	<300	<1
PI5	MISC. USERS	10	300	<100
PI6	CLARIFIED WATER TO CDS – LIME HYDRATION (IF APPLICABLE)	65	300	<100
PI7	REVERSE OSMOSIS AND FILTER FLUSH	25	1500	500
PI8	COOLING TOWER BLOWDOWN TO FGD	0	1500	500
PI9	HRSG BLOWDOWN	25	<1000	<2
PI10	COOLING TOWER BLOWDOWN DISCHARGE	120	1500	500
PI11	COOLING TOWER BLOWDOWN TO RIVER	120	1500	500
PI12	COOLING TOWER BLOWDOWN TO RETENTION POND	0	1500	500
PI13	COOLING TOWER EVAPORATION AND DRIFT LOSS	460	<100	<100
PI14	CDS EVAPORATION	100	1500	<325
PI15	NON PROCESS WATER OVERFLOW	0	1500	<325

POWER ISLAND NOTES
1. SECOND VALUES FOR PI1 INCLUDE FIREWATER MAKE-UP

REV	ECN	DESCRIPTION	DATE	DRAWN	APPR
A		INTERNAL REVIEW	4-17-12	RFS	
B		PRELIMINARY	4-20-12	RJS	
C		CLIENT REVIEW	05/11/12		
D		FEL 3A DELIVERABLE	6-6-12	RFS	CK
E		FOR NDPES PERMIT SUBMITTAL	1/23/13	RFS	



QUENCH WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
Q1	QUENCH TOWER SUPPLY	2220	300	<325
Q2	QUENCH WATER RETURN TO BASIN	1780	300	<325
Q3	EVAPORATION	440	–	–

QUENCH WATER NOTES:
1. Q1 TO Q2 NO CHANGE IN TDS (TOTAL DISSOLVED SOLIDS) PER EPA EMB REPORT 79-CKO-21, MAY 1979.

STORM WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM
S1	STORM WATER RUNOFF – AVERAGE	0–230	10
S2	STORM WATER RUNOFF – AVERAGE	0–130	10

STORM WATER NOTES:
1. STORM WATER RUNOFF (S1) IS BASED ON A TYPICAL MONTHLY RAINFALL OF 3 INCHES AVERAGE OVER 30 DAYS.
2. THIS FLOW DOES NOT REFLECT THE CASE OF SEVERE STORMS.
3. THE RETENTION POND WILL HAVE STAND BY CAPACITY TO RETAIN RUNOFF FROM STORMS.

POND WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM	TDS PPM	TSS PPM
P1	POND WATER SUPPLY	474	300	<325
P2	QUENCH MAKE-UP	129	300	<325
P3	COAL PILE SPRAYS	20	300	<325
P4	STATIONARY RAM COOLING WATER FEED	35	300	<325
P5	WASHDOWN SERVICE WATER FEED	20	300	<325
P6	PCM COOLING WATER FEED	270	300	<325
P7	TOTAL RETURN TO QUENCH PIT	311	300	<325
P8	EMERGENCY POND OVERFLOW	0	300	<325
P9	RETENTION POND DRAWDOWN	0	300	<325

FIRE WATER BALANCE

STREAM NUMBER	DESCRIPTION	FLOW GPM
F1	FIRE WATER TO PUMP HOUSE	0–1500

Figure 2

HATCH — Hatch Associates Consultants, Inc., Pittsburgh, PA 15238-1621

REVISION	SCALE: NTS	DATE
E FOR NDPES PERMIT	J.LARKIN	1-23-13
D FEL 3A DELIVERABLE	R.SARACCO	6-6-12
C CLIENT REVIEW	P.IVANCIC	5-8-12
B PRELIMINARY	C.KOS	5-8-12

PROJECT NO. 341500 — REVISION E

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES; TOLERANCES ON: 0 PL DECIMALS ± .03, 2 PL DECIMALS ± .010, ANGLES ± 1/2°, FRACTIONS ± 1/16

THIS DRAWING CONTAINS PROPRIETARY INFORMATION WHICH IS TO BE HELD CONFIDENTIAL AND MAY NOT BE REPRODUCED OR DISCLOSED TO OTHERS WITHOUT THE EXPRESS CONSENT OF THE SUN COKE COMPANY INC. OR ITS AUTHORIZED REPRESENTATIVE THEREOF.

SIGNATURES		DATE
DRAWN	R.SARACCO	4-13-12
CHECKED	P.IVANCIC	6-5-12
APPROVED	C.KOS	6-6-12

USE CLIENT DWG NO: 341500-SSC-60-030-0001

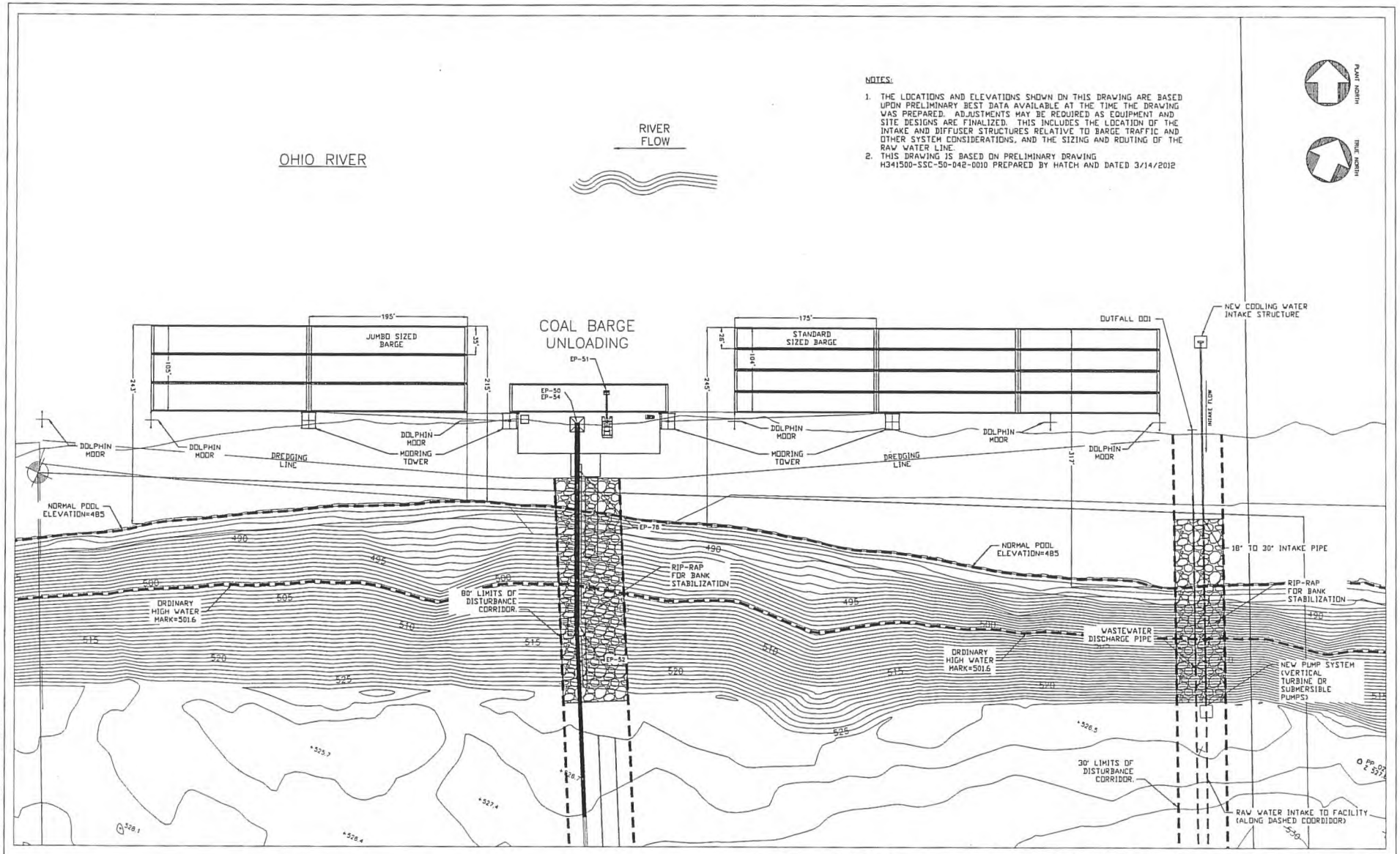
SunCoke Energy South Shore Facility

OVERALL WATER BALANCE

FIGURE SC-1

SIZE D | CAGE CODE | DWG NO: SSC-060-1F-001 | REV E

SCALE NONE | PROJECT NO. 000 | SHEET 1 OF 1



BARGE UNLOADING FACILITY
1" = 50'-0"

CONCEPTUAL
NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY	AUTH.
	06/07/12	CONCEPTUAL		

URS
URS CORPORATION
525 VINE STREET, SUITE 1800
CINCINNATI, OHIO 45202
(513) 651-3440

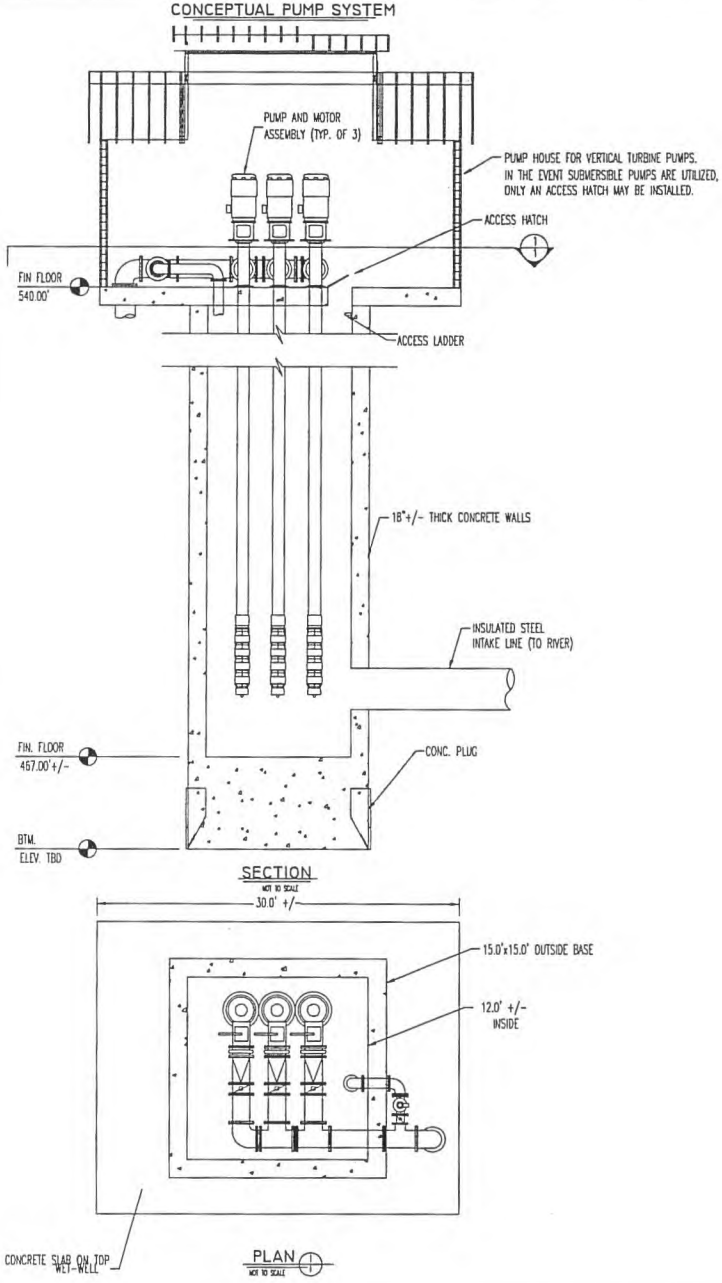
SUNCOKE ENERGY
SOUTH SHORE FACILITY

BARGE UNLOADING FACILITY

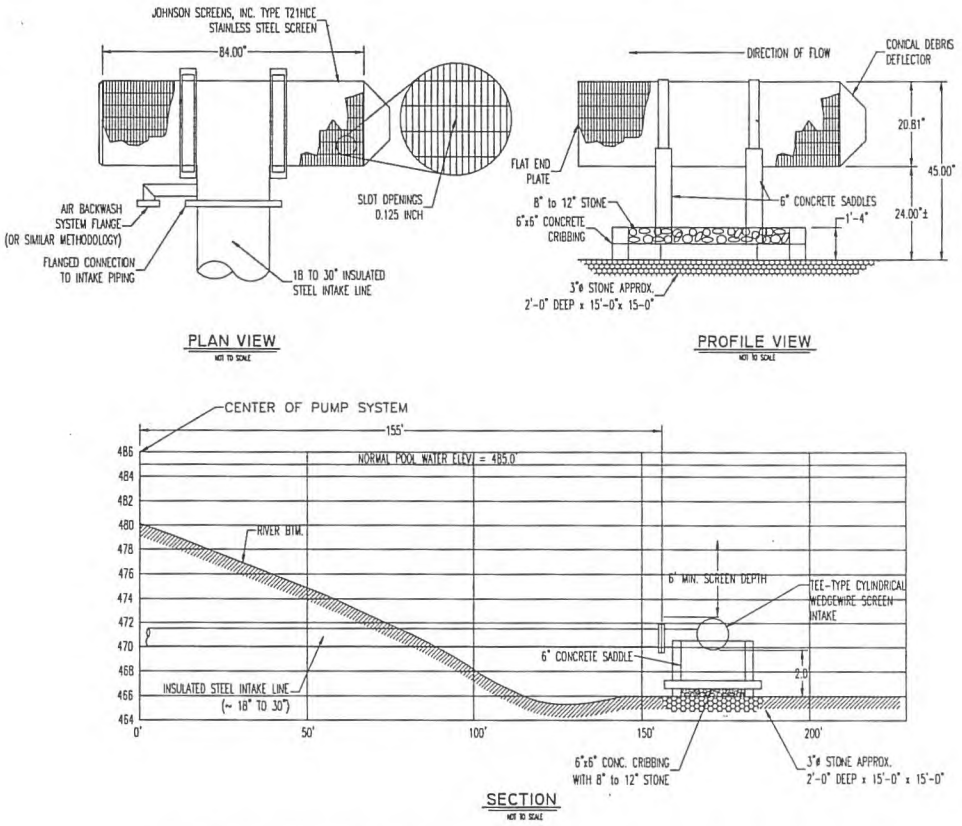
PROJ NO:	25368724	DWG BY:	SAB
DATE:	06/07/2012	CHK BY:	JDP
SCALE:	AS NOTED	DSG BY:	N/A
CAD NO:		FIGURE 3 DWG.dwg	

FIGURE 3

CONCEPTUAL PUMP SYSTEM



CYLINDRICAL WEDGEWIRE SCREEN



NOTES:
1. THE EXAMPLE PUMP SYSTEM AND CYLINDRICAL WEDGEWIRE SCREEN INFORMATION ARE CONCEPTUAL IN NATURE, AND SUBJECT TO FINAL DETAILED DESIGN.
2. AN APPROPRIATE SUPPORT SYSTEM FOR THE INTAKE LINE WILL NEED TO BE DEVELOPED AFTER THE FINAL PIPELINE ROUTING IS SELECTED.
3. DURING THE DETAILED DESIGN PHASE THE MIN. SCREEN DEPTH WILL NEED TO BE EVALUATED RELATIVE TO THE BARGE LOCATION AND LOADED DEPTH.

CONCEPTUAL
NOT FOR CONSTRUCTION

NO.	DATE	REVISION	BY	AUTH.
	6/7/2012	CONCEPTUAL		

URS

SUNCOKE ENERGY
SOUTH SHORE FACILITY

WATER INTAKE SYSTEM & PUMP HOUSE
CONCEPTUAL DESIGN DETAILS

PROJ.NO.	25388724	DSGN.BY:	SAR
DATE:	6/7/2012	CHK.BY:	AP
SCALE:	NOT TO SCALE	DSGN.BY:	N/A
CAD NO:	INTAKE & PUMP HOUSE DETAILS.DWG		

FIGURE 3

Baldwin's Kentucky Revised Statutes Annotated
Title XVIII. Public Health
Chapter 224. Environmental Protection (Refs & Annos)
Subchapter 10. Energy and Environment Cabinet
Operational Procedures

KRS § 224.10-280

224.10-280 Cumulative environmental assessment and fee required before construction of facility for generating electricity; conditions imposed by cabinet; administrative regulations

Currentness

(1) Except for a person that commenced construction of a facility prior to April 15, 2002, or that has received a certificate of public convenience and necessity from the Public Service Commission prior to April 15, 2002, no person shall commence to construct a facility to be used for the generation of electricity unless the person:

(a) Submits a cumulative environmental assessment to the cabinet with the permit application; and

(b) Remits a fee set pursuant to KRS 224.10-100(20) by the cabinet to defray the cost of processing the cumulative environmental assessment.

(2) The person may submit and the cabinet may accept documentation of compliance with the National Environmental Policy Act (NEPA) as satisfying the requirements to file a cumulative environmental assessment under subsection (1) of this section.

(3) The cumulative environmental assessment shall contain a description, with appropriate analytical support, of:

(a) For air pollutants:

1. Types and quantities of air pollutants that will be emitted from the facility; and

2. A description of the methods to be used to control those emissions;

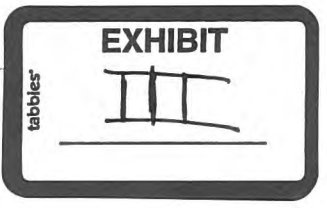
(b) For water pollutants:

1. Types and quantities of water pollutants that will be discharged from the facility into the waters of the Commonwealth; and

2. A description of the methods to be used to control those discharges;

(c) For wastes:

1. Types and quantities of wastes that will be generated by the facility; and



2. A description of the methods to be used to manage and dispose of such wastes; and

(d) For water withdrawal:

1. Identification of the source and volume of anticipated water withdrawal needed to support facility construction and operations; and

2. A description of the methods to be used for managing water usage and withdrawal.

(4) The cabinet may impose such conditions regarding the timing, volume, duration, or type of pollutants on a permit, registration, general permit, or permit-by-rule for a facility subject to this section as are necessary to comply with applicable standards.

(5) The cabinet may promulgate administrative regulations to implement the provisions of this section.

Credits
HISTORY: 2002 c 365, § 10, eff. 4-24-02

KRS § 224.10-280, KY ST § 224.10-280
Current through the end of the 2014 legislation

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Baldwin's Kentucky Revised Statutes Annotated
Title XXIV. Public Utilities
Chapter 278. Public Service Commission (Refs & Annos)
Public Utilities Generally

KRS § 278.010

278.010 Definitions for KRS 278.010 to 278.450, 278.541 to 278.544, 278.546 to 278.5462, and 278.990

Effective: June 8, 2011
Currentness

As used in KRS 278.010 to 278.450, 278.541 to 278.544, 278.546 to 278.5462, and 278.990, unless the context otherwise requires:

(1) "Corporation" includes private, quasipublic, and public corporations, and all boards, agencies, and instrumentalities thereof, associations, joint-stock companies, and business trusts;

(2) "Person" includes natural persons, partnerships, corporations, and two (2) or more persons having a joint or common interest;

(3) "Utility" means any person except a regional wastewater commission established pursuant to KRS 65.8905 and, for purposes of paragraphs (a), (b), (c), (d), and (f) of this subsection, a city, who owns, controls, operates, or manages any facility used or to be used for or in connection with:

(a) The generation, production, transmission, or distribution of electricity to or for the public, for compensation, for lights, heat, power, or other uses;

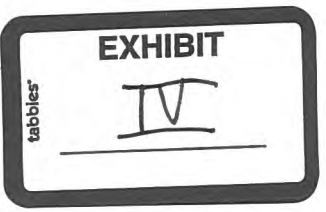
(b) The production, manufacture, storage, distribution, sale, or furnishing of natural or manufactured gas, or a mixture of same, to or for the public, for compensation, for light, heat, power, or other uses;

(c) The transporting or conveying of gas, crude oil, or other fluid substance by pipeline to or for the public, for compensation;

(d) The diverting, developing, pumping, impounding, distributing, or furnishing of water to or for the public, for compensation;

(e) The transmission or conveyance over wire, in air, or otherwise, of any message by telephone or telegraph for the public, for compensation; or

(f) The collection, transmission, or treatment of sewage for the public, for compensation, if the facility is a subdivision collection, transmission, or treatment facility plant that is affixed to real property and is located in a county containing a city of the first class or is a sewage collection, transmission, or treatment facility that is affixed to real property, that is



located in any other county, and that is not subject to regulation by a metropolitan sewer district or any sanitation district created pursuant to KRS Chapter 220;

(4) "Retail electric supplier" means any person, firm, corporation, association, or cooperative corporation, excluding municipal corporations, engaged in the furnishing of retail electric service;

(5) "Certified territory" shall mean the areas as certified by and pursuant to KRS 278.017;

(6) "Existing distribution line" shall mean an electric line which on June 16, 1972, is being or has been substantially used to supply retail electric service and includes all lines from the distribution substation to the electric consuming facility but does not include any transmission facilities used primarily to transfer energy in bulk;

(7) "Retail electric service" means electric service furnished to a consumer for ultimate consumption, but does not include wholesale electric energy furnished by an electric supplier to another electric supplier for resale;

(8) "Electric-consuming facilities" means everything that utilizes electric energy from a central station source;

(9) "Generation and transmission cooperative" or "G&T" means a utility formed under KRS Chapter 279 that provides electric generation and transmission services;

(10) "Distribution cooperative" means a utility formed under KRS Chapter 279 that provides retail electric service;

(11) "Facility" includes all property, means, and instrumentalities owned, operated, leased, licensed, used, furnished, or supplied for, by, or in connection with the business of any utility;

(12) "Rate" means any individual or joint fare, toll, charge, rental, or other compensation for service rendered or to be rendered by any utility, and any rule, regulation, practice, act, requirement, or privilege in any way relating to such fare, toll, charge, rental, or other compensation, and any schedule or tariff or part of a schedule or tariff thereof;

(13) "Service" includes any practice or requirement in any way relating to the service of any utility, including the voltage of electricity, the heat units and pressure of gas, the purity, pressure, and quantity of water, and in general the quality, quantity, and pressure of any commodity or product used or to be used for or in connection with the business of any utility, but does not include Voice over Internet Protocol (VoIP) service;

(14) "Adequate service" means having sufficient capacity to meet the maximum estimated requirements of the customer to be served during the year following the commencement of permanent service and to meet the maximum estimated requirements of other actual customers to be supplied from the same lines or facilities during such year and to assure such customers of reasonable continuity of service;

(15) "Commission" means the Public Service Commission of Kentucky;

(16) "Commissioner" means one (1) of the members of the commission;

(17) "Demand-side management" means any conservation, load management, or other utility activity intended to influence the level or pattern of customer usage or demand, including home energy assistance programs;

(18) "Affiliate" means a person that controls or that is controlled by, or is under common control with, a utility;

(19) "Control" means the power to direct the management or policies of a person through ownership, by contract, or otherwise;

(20) "CAM" means a cost allocation manual which is an indexed compilation and documentation of a company's cost allocation policies and related procedures;

(21) "Nonregulated activity" means the provision of competitive retail gas or electric services or other products or services over which the commission exerts no regulatory authority;

(22) "Nonregulated" means that which is not subject to regulation by the commission;

(23) "Regulated activity" means a service provided by a utility or other person, the rates and charges of which are regulated by the commission;

(24) "USoA" means uniform system of accounts which is a system of accounts for public utilities established by the FERC and adopted by the commission;

(25) "Arm's length" means the standard of conduct under which unrelated parties, each party acting in its own best interest, would negotiate and carry out a particular transaction;

(26) "Subsidize" means the recovery of costs or the transfer of value from one (1) class of customer, activity, or business unit that is attributable to another;

(27) "Solicit" means to engage in or offer for sale a good or service, either directly or indirectly and irrespective of place or audience;

(28) "USDA" means the United States Department of Agriculture;

(29) "FERC" means the Federal Energy Regulatory Commission;

(30) "SEC" means the Securities and Exchange Commission;

(31) "Commercial mobile radio services" has the same meaning as in 47 C.F.R. sec. 20.3 and includes the term "wireless" and service provided by any wireless real time two (2) way voice communication device, including radio-telephone communications used in cellular telephone service, personal communications service, and the functional or competitive equivalent of a radio-telephone communications line used in cellular telephone service, a personal communications service, or a network radio access line; and

(32) "Voice over Internet Protocol" or "VoIP" has the same meaning as in federal law.

Credits

HISTORY: 2011 c 98, § 20, eff. 6-8-11; 2006 c 239, § 5, eff. 7-12-06; 2005 c 109, § 2, eff. 6-20-05; 2002 c 365, § 15, eff. 4-24-02; 2001 c 11, § 1, eff. 6-21-01; 2000 c 511, § 1, c 101, § 5, c 118, § 1, eff. 7-14-00; 1998 c 188, § 1, eff. 7-15-98; 1994 c 238, § 1, eff. 7-15-94; 1982 c 82, § 1, eff. 7-15-82; 1978 c 379, § 1; 1974 c 118, § 1; 1972 c 83, § 1; 1964 c 195, § 1; 1960 c 209; 1942 c 208, § 1; KS 3952-1

Notes of Decisions (41)

KRS § 278.010, KY ST § 278.010
Current through the end of the 2014 legislation

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Baldwin's Kentucky Revised Statutes Annotated
Title XXIV. Public Utilities
Chapter 278. Public Service Commission (Refs & Annos)
Public Utilities Generally

KRS § 278.212

278.212 Filing of plans for electrical interconnection with merchant electric generating facility; costs of upgrading existing grid

Currentness

(1) No utility shall begin the construction or installation of any property, equipment, or facility to establish an electrical interconnection with a merchant electric generating facility in excess of ten megawatts (10MW) until the plans and specifications for the electrical interconnection have been filed with the commission.

(2) Notwithstanding any other provision of law, any costs or expenses associated with upgrading the existing electricity transmission grid, as a result of the additional load caused by a merchant electric generating facility, shall be borne solely by the person constructing the merchant electric generating facility and shall in no way be borne by the retail electric customers of the Commonwealth.

Credits
HISTORY: 2002 c 365, § 11, eff. 4-24-02

KRS § 278.212, KY ST § 278.212
Current through the end of the 2014 legislation

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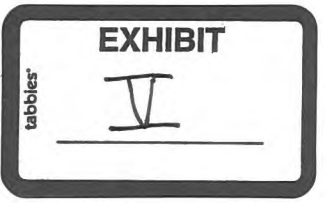

Baldwin's Kentucky Revised Statutes Annotated
Title XXIV. Public Utilities
Chapter 278. Public Service Commission (Refs & Annos)
Public Utilities Generally

KRS § 278.214

278.214 Curtailment of service by utility or generation and transmission cooperative

Currentness

When a utility or generation and transmission cooperative engaged in the transmission of electricity experiences on its transmission facilities an emergency or other event that necessitates a curtailment or interruption of service, the utility or generation and transmission cooperative shall not curtail or interrupt retail electric service within its certified territory, or curtail or interrupt wholesale electric energy furnished to a member distribution cooperative for retail electric service within the cooperative's certified territory, except for customers who have agreed to receive interruptable service, until after service has been interrupted to all other customers whose interruption may relieve the emergency or other event.

Credits
HISTORY: 2002 c 365, § 12, eff. 4-24-02

Notes of Decisions (3)

KRS § 278.214, KY ST § 278.214
Current through the end of the 2014 legislation

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Title XXIV. Public Utilities
Chapter 278. Public Service Commission (Refs & Annos)
Public Utilities Generally

KRS § 278.216

278.216 Site compatibility certificate; site assessment report; commission action on application

Currentness

(1) Except for a utility as defined under KRS 278.010(9) that has been granted a certificate of public convenience and necessity prior to April 15, 2002, no utility shall begin the construction of a facility for the generation of electricity capable of generating in aggregate more than ten megawatts (10MW) without having first obtained a site compatibility certificate from the commission.

(2) An application for a site compatibility certificate shall include the submission of a site assessment report as prescribed in KRS 278.708(3) and (4), except that a utility which proposes to construct a facility on a site that already contains facilities capable of generating ten megawatts (10MW) or more of electricity shall not be required to comply with setback requirements established pursuant to KRS 278.704(3). A utility may submit and the commission may accept documentation of compliance with the National Environmental Policy Act (NEPA) rather than a site assessment report.

(3) The commission may deny an application filed pursuant to, and in compliance with, this section. The commission may require reasonable mitigation of impacts disclosed in the site assessment report including planting trees, changing outside lighting, erecting noise barriers, and suppressing fugitive dust, but the commission shall, in no event, order relocation of the facility.

(4) The commission may also grant a deviation from any applicable setback requirements on a finding that the proposed facility is designed and located to meet the goals of this section and KRS 224.10-280, 278.010, 278.212, 278.214, 278.218, and 278.700 to 278.716 at a distance closer than those provided by the applicable setback requirements.

(5) Nothing contained in this section shall be construed to limit a utility's exemption provided under KRS 100.324.

(6) Unless specifically stated otherwise, for the purposes of this section, "utility" has the same meaning as in KRS 278.010(3) (a) or (9).

Credits
HISTORY: 2003 c 150, § 3, eff. 6-24-03; 2002 c 365, § 13, eff. 4-24-02

KRS § 278.216, KY ST § 278.216
Current through the end of the 2014 legislation

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KRS § 278.218

278.218 Approval of commission for change in ownership or control of assets owned by utility

Currentness

(1) No person shall acquire or transfer ownership of or control, or the right to control, any assets that are owned by a utility as defined under KRS 278.010(3)(a) without prior approval of the commission, if the assets have an original book value of one million dollars ($1,000,000) or more and:

(a) The assets are to be transferred by the utility for reasons other than obsolescence; or

(b) The assets will continue to be used to provide the same or similar service to the utility or its customers.

(2) The commission shall grant its approval if the transaction is for a proper purpose and is consistent with the public interest.

Credits
HISTORY: 2002 c 365, § 14, eff. 4-24-02

KRS § 278.218, KY ST § 278.218
Current through the end of the 2014 legislation

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