

**Kentucky Natural Resources and Environmental Protection Cabinet, Division of Water  
Frankfort, KY  
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JAMES E. BICKFORD  
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COMMONWEALTH OF KENTUCKY  
**NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET**  
DEPARTMENT FOR ENVIRONMENTAL PROTECTION  
FRANKFORT OFFICE PARK  
14 REELLY RD.  
FRANKFORT, KY 40601

**MEMORANDUM**

**TO:** Alex Barber  
State Environmental Review Officer  
Department for Environmental Protection

**FROM:** Timothy Kuryla *TK*  
EIS Coordinator  
Division of Water

**DATE:** February 8, 2002

**SUBJECT:** DEIS, Gas Electric Demonstration Generator Near Bloomingdale (Clark County),  
SERO 011113-101

The Division of Water has reviewed this Draft Environmental Impact Statement, prepared by the National Energy Technology Laboratory (NETL) regarding a gas electric demonstration generator at the J. K. Smith power plant located near Bloomingdale (Clark County). The J. K. Smith facility is owned by the East Kentucky Power Cooperative (EKPC).

The Division of Water emphasizes that the NETL document is not a Statement of Environmental Compatibility (SEC) from the Public Service Commission (PSC).

The Division of Water comments address matters the Division desires considered in the Final EIS.

**WATER QUALITY  
Wetlands**

4 **AFFECTED ENVIRONMENT**  
4.8 **Water Resources & Water Quality**  
4.8.4 **Wetlands**

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If the project can result in a discharge of dredge or fill material into:

- 200 linear feet of any "blue line" stream (as shown on the U.S. Geological Survey 7.5 minute topographical map for the project area), or



**Comment No. 1**

**Issue Code: 21**

Comment noted. Once design is complete, KPE will seek a Statement of Environmental Compatability from the Public Service Commission.

**Comment No. 2**

**Issue Code: 07**

It is not currently anticipated that the project would result in a discharge of dredge or fill material into "navigable waters of the United States." However, if KPE determines in the more advanced stages of plant design that such a discharge could occur, a Section 401 water quality certification and Section 404 permit would be obtained from the U.S. Army Corps of Engineers (USACE).

We concur with the recommendation that native flora should be used for erosion control revegetation.

1/21

2/07

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- One acre or more of any wetland.

then a 33 USC § 1341 ("401") water quality certification by the Division of Water for the U.S. Army Corps of Engineers and a 33 USC § 1344 ("404") dredge or fill permit must be obtained. The DEIS states that there are no wetlands on the proposed gas electric generator site.

The Division of Water recommends that erosion control revegetation consist of native flora. Using native vegetation will reduce erosion and benefit wildlife.

**Water Withdrawal**

4	<b>AFFECTED ENVIRONMENT</b>	
4.8	<b><u>Water Resources &amp; Water Quality</u></b>	
4.8.5	<b>Water Use</b>	Page 4-31
5	<b>ENVIRONMENTAL IMPACTS</b>	
5.8	<b><u>Water Resources &amp; Water Quality</u></b>	
5.8.4	<b>Water Resources Impacts from the Proposed Action</b>	Pages 5-24 & 5-25

The existing EKPC intake is located in the Kentucky River, at River Mile (RM) 187.4; the discharge is at approximately RM 187.35. These sites are behind the pool formed by Lock and Dam 10 located at RM 176.4.

The EKPC is exempt, under law, for a water withdrawal permit for the steam electric generators. However, for the FEIS, the discussions in 4.8.5 and 5.8.4 need to be expanded to discuss the constraints on water use in the Kentucky River during low flows. The Division of Water observes that the Kentucky River is already stressed during low flows. What additional impact would the proposed project have? The impact on the Kentucky River of the temperature of discharge flows also needs to be addressed in the FEIS.

**FLOODPLAIN CONSTRUCTION**

4	<b>AFFECTED ENVIRONMENT</b>	
4.8	<b><u>Water Resources &amp; Water Quality</u></b>	
4.8.3	<b>Floodplains</b>	Page 4-31
5	<b>ENVIRONMENTAL IMPACTS</b>	
5.8	<b><u>Water Resources &amp; Water Quality</u></b>	
5.8.4	<b>Water Resources Impacts from the Proposed Action</b>	Pages 5-24 & 5-25

In 4.83 (page 4-31) and in 5.8.3 (pages 5-24 & 5-25), the DEIS states that the existing intake and discharge are not considered in the floodplain. True, these structures are located in the Kentucky River. However, floodplain construction includes the channel as well as adjacent land. Work on either the intake or the discharge will require a floodplain construction permit.

cc: Leon Smothers, Water Quantity Branch

**Comment No. 3**

**Issue Code: 07**

2/07  
(cont.)

Sections 4.8 and 5.8, Water Resources and Water Quality, have been expanded to include information on constraints on water use in the Kentucky River during low flows. Although EKPC is exempt from obtaining a water withdrawal permit from the state, KPE has indicated that they would work with state authorities during low-flow conditions and would cease plant operations if required.

**Comment No. 4**

**Issue Code: 08**

3/07

The Kentucky Natural Resources and Environmental Protection Cabinet has established regulatory limits relative to the Kentucky River, which explicitly provide them with a mechanism to establish thermal impact parameters. Kentucky regulations (401 KAR 5:031) contain specific, seasonal (generally month to month) temperature limits on which permitted effluent limits are based. The impacts analysis contained in Section 5.9, Ecological Resources, of the EIS addresses the potential impacts from a thermal plume. Project-specific information will not be available until an application for a KPDES permit is submitted approximately 1 year (minimum time is 180 days) before construction begins. This will occur after the project is financed and the plant designed. However, effluent temperature will be limited, and will be established to avoid impacting the monthly Kentucky River receiving stream limits. Should low flow or drought conditions require the cessation of water withdrawal from the Kentucky River, an event that has not yet occurred, the plant would be shut down for that period of time. A statement to this effect has been added to Section 5.9, Ecological Resources, of the Final EIS.

4/08

5/07

**Comment No. 5**

**Issue Code: 07**

Comment noted. The text of the EIS has been revised accordingly.