



United States Department of the Interior

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WASHINGTON, D.C. 20240

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B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Youngblood:

Thank you for your letter of January 18, 1982, transmitting copies of the draft environmental statement (OLS) for Wolf Creek Generating Station, Unit No. 1, Coffey County, Kansas. Our comments are presented according to the format of the statement or by subject.

Water Quality

In reference to water withdrawals from the tailwater of John Redmond Reservoir, we would recommend that instream flow requirements be determined for the area immediately downstream from the impoundment. These requirements are necessary to ensure the maintenance of the aquatic ecosystem in the Neosho River.

The final statement should present historic and future downstream flows, including the maximum, minimum, and mean daily flows from John Redmond Reservoir, with and without make-up water withdrawal. In addition, it should be stated if any changes in the current reservoir operational criteria concerning minimum releases from John Redmond will occur. This information will aid in determining if adequate instream flows will occur to maintain the fishery resource and recreational activities.

The instream flow requirements; i.e., the amount of water flowing through a natural stream course needed to sustain the instream values at an acceptable level, should include four recognized instream values: fish and wildlife population maintenance, outdoor recreation activities, wetland preservation, and conveyance of water to downstream points of diversion. The instream flow requirements should, therefore, be based on the identified value which has the greatest need during any specific time period or, alternatively, on the resulting best achievable balance after recognized trade-offs have been made. For example, if water supply is released into the stream and withdrawn at some downstream point, it may contribute wholly or partially in meeting other instream flow needs. Thus, the quantity of water to be released for each value would not be added together. This allows for a degree of flexibility not possible with the fixed minimum flow approach frequently applied in the past.

The instream flow requirements to sustain the identified stream uses of the Neosho River have not at this time been quantified. The U.S. Fish and Wildlife Service has developed a tool which makes it possible to quantify the impact on fish habitat resulting from incremental modifications in streamflow. This instream flow methodology also provides a technique for estimating the streamflow required for recreation. If interested in

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discussing specific aspects regarding the instream flow methodology, contact the Kansas Field Office, U.S. Fish and Wildlife Service, Kansas State University, Ackert Hall, Manhattan, Kansas 66506.

It is also important to note that the State of Kansas recently passed a minimum streamflow bill with an objective of achieving the highest public benefit by recognizing a minimum desirable streamflow requirement. The reservation system adopted by Kansas provides a method by which an instream flow release from a federally operated reservoir can be protected.

NPDES Permit

The analysis of expected final mixed chemical concentrations in the Neosho River below the confluence of Wolf Creek is based upon an "average river flow" of 1335 cubic feet per second (CFS). It might be more realistic to discuss potential chemical concentrations in the Neosho River as they relate to the median flow of the river, rather than the average flow. Also, a more detailed comparison of projected chemical concentrations with the requirements outlined in the National Pollutant Discharge Elimination System (NPDES) permit would be helpful. The present NPDES permit should be included in the final statement as well as a discussion of any proposed modifications to that permit to allow for operational phase discharges as discussed in Section 1.2.

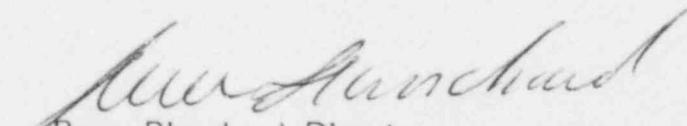
Ecology

We are concerned about existing and future impacts to fish and wildlife and their respective habitats. Construction of the power plant cooling lake inundated over 5,000 acres of land, and thus has adversely affecting wildlife habitat. Therefore, we believe a fish and wildlife management and public use plan for the site and transmission line rights-of-way should be prepared because intensive management of project lands could off-set losses already suffered by wildlife and help to partially mitigate these losses. Such a plan should include the preservation of natural areas and the restoration of others as well as providing facilities for public use, including areas for fishing, hunting and related recreational uses to assure maximum public benefit. The plan should also consider management of project land and water for the benefit of resident and migratory fish and wildlife resources since no specific measures have been presented for wildlife loss mitigation.

In addition, specific comments are attached to this letter.

We hope these comments will be helpful to you.

Sincerely,


Bruce Blanchard, Director
Environmental Project Review

Enclosure

Specific Comments

Page 5-2, section 5.3.1.1, paragraph 1 and page 5-10, section 5.5.1.1, paragraph 2 - Operational activities of the Wolf Creek Generating Station potentially affecting surface water include the loss of management of John Redmond Reservoir for fish and wildlife production, and also lands of the Flint Hills National Wildlife Refuge (NWR). A discussion of this drawdown as it relates to wildlife management should be presented and plans to lessen severity should be formulated.

Flint Hills NWR is managed primarily for migratory waterfowl, and control is exercised over population distribution through the manipulation of food availability, sanctuary, and public hunting. Abnormal concentrations of waterfowl and increased tenure contribute towards the chances of an epidemic of duck viral enteritis (DVE). Although discussed in the DEIS, the Fish and Wildlife Service (FWS) believes there is a more eminent danger of DVE occurring. A contingency plan should be developed to handle this problem. The FWS is currently attempting to reduce concentrations and tenure of waterfowl on its refuges in order to reduce the potential for DVE and other diseases. It would be very difficult to reduce concentration and tenure of waterfowl at this project because of the warm open water at the defacto sanctuary available in the cooling lake. Also, lower levels in John Redmond Reservoir would increase the frequency and duration of the reservoir's ice cover and would result in the warmer, open water of the cooling lake attracting and holding waterfowl that would ordinarily migrate towards the Southern United States. Waterfowl food crops are produced on agricultural lands within the Flint Hills Refuge. This partially controls waterfowl depredation of crops on private lands. No such control would be provided at the cooling lake. A contingency plan should be developed to handle crop depredation problems. Although mentioned in the DEIS, no concrete plan to deal with the problem has been put forth.

Page 5-9, section 5.5.1.1, paragraph 2 - further explanation of the term "natural state" is needed to describe the buffer zone around the cooling lake.

Page 5-10, section 5.5.1.1, paragraph 3 and pages 5-10 and 5-11, section 5.5.1.2 - Although bird impactation events have been discussed and monitoring program is to be established, one means utilized by power companies to reduce bird mortality is to install spherical balls (orange in color) on transmission lines near areas of waterfowl use and/or in the direct flight path of waterfowl. The proximity of Flint Hills NWR to the plant site should indicate that concentrations of migratory waterfowl will undoubtedly be a major issue. Installation and/or use of such veer tactics to aid in lessening bird mortality should be discussed in the final EIS.

Page 5-12, section 5.5.2.1, paragraph 3 - Water withdrawals could cause less negative effects if they are coordinated with water level management needs at John Redmond Reservoir and Flint Hills NWR. Also, see General Comments section.

Pages 5-14 and 5-15, section 5.6 - Blowdown releases via Wolf Creek should be discouraged during low flow conditions in the Neosho River. Thermal stresses may occur at these times as well as high chemical concentrations which may not be adequately diluted by waters in the Neosho River.

Neosho madtoms have been collected at the confluence of Wolf Creek and the Neosho River. As this species inhabits riffles, the above recommendation is necessary to ensure its survival and habitat. Spawning by Neosho madtoms probably occurs during June and July. If low flows would occur during these times and spawning prohibited, the short life span of the species may cause severe inroads into the population. Flocculation of heavy metals may contribute to the "filling in" of riffle areas and gravel interstices reducing available habitat for adult madtoms. Releases from blowdown, therefore, should only be made during moderate or heavy flows in the Neosho River to avoid this problem.

Page 5-29, section 5.9.3.4 - In monitoring the ecosystem for radiological impacts, fish flesh from within the cooling lake should be monitored for potential uptake of radioactive contaminants.