



May 9, 2007

Terry J. Garrett
Vice President, Engineering

ET 07-0017

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Reference: 1) Letter ET 06-0038, dated September 27, 2006, from T. J. Garrett, WCNOC, to USNRC
2) Letter dated April 9, 2007, from USNRC to T. J. Garrett, WCNOC (ML070851188)

Subject: Docket No. 50-482: Response to NRC Request for Additional Information Related to Wolf Creek Generating Station License Renewal Application

Gentlemen:

Reference 1 provided Wolf Creek Nuclear Operating Corporation's (WCNOC) License Renewal Application for the Wolf Creek Generating Station (WCGS). Reference 2 is a request for documents. The document request is in support of the environmental site audit associated to the environmental review for WCGS License Renewal Application.

The documentation requested was divided into three separate lists. This response provides the documents requested in the second list titled, "Master List for Audit Needs." These documents are considered to be references that were identified during the License Renewal process. Enclosed are those references identified by the list number. Some documents are provided in electronic format. No information was provided for those items identified as, "request eliminated," "no longer requested," "provided under a another request", and "duplicate request." In some cases, this letter serves as the source for the information provided to the reviewers during the audit.

Some of the documents requested are information prepared by and/or for federal and state agencies and a local university. Also included are documents generated by owner companies. These documents are beyond the control of WCNOC and cannot be verified and validated by WCNOC. In providing information responsive to the request, WCNOC makes no representation as to its accuracy or completeness.

Some information is copyrighted and therefore should be protected as such. There are also references that contain sensitive information and therefore should be withheld from public disclosure in accordance with 10 CFR 2.390. Several of the documents have been previously provided on the docket for WCGS in accordance with various requirements and regulations. A request for information associated to the 69 kV line was made. It is WCNO's understanding that this is no longer requested and is not within the scope of license renewal. Therefore, the information has not been included.

The attachment is a reproduction of the portion of the request list applicable to this document submittal. It contains an additional column that identifies those documents that are sensitive, copyrighted or not prepared by WCNO as well as other pertinent information.

The enclosure provides the requested documents in the order of the list. A sheet separates each document and includes the number of the document indicated on the list. A flyer sheet has been added in front of each document that identifies if the document is sensitive or copyrighted.

This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4084, or Mr. Kevin Moles at (620) 364-4126.

Sincerely,



Terry J. Garrett


TJG/rlt

Attachment
Enclosure

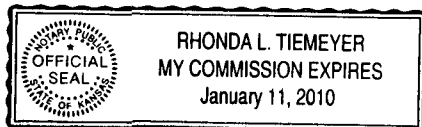
cc: J. N. Donohew (NRC), w/a, wo/e
V. G. Gaddy (NRC), w/a, wo/e
C. J. Jacobs (NRC), w/a, wo/e
B. S. Mallett (NRC), w/a, wo/e
V. M. Rodriguez (NRC), w/a, wo/e
Senior Resident Inspector (NRC), w/a, wo/e

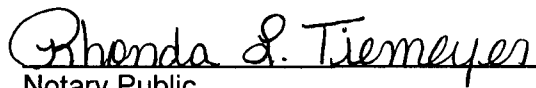
STATE OF KANSAS)
) SS
COUNTY OF COFFEY)

Terry J. Garrett, of lawful age, being first duly sworn upon oath says that he is Vice President Engineering of Wolf Creek Nuclear Operating Corporation; that he has read the foregoing document and knows the contents thereof; that he has executed the same for and on behalf of said Corporation with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By 
Terry J. Garrett
Vice President Engineering

SUBSCRIBED and sworn to before me this 9 day of May, 2007.




Notary Public

Expiration Date January 11, 2010

Environmental Reports - References		
Item Number	Document Information	Comments
1	Aerial photographs of the site dating back to before and during site preparation and plant construction. WCNOG, undated, 1972 Coffey County Preconstruction Imagery; WCNOG, undated, 1979 Coffey County Preconstruction imagery; WCNOG, undated, 1991 Coffey County Preconstruction Imagery; WCNOG, 1/29/07, Coffey County Kansas, Source: National Aerial Imagery Project, Farm Service Agency, Summer 2006	Provided electronically
2	Other photographs of the site dating to before and during site preparation and plant construction. WCGS, undated, From Prairie to Protons: A Pictorial history of the construction of Wolf Creek Generating Station.	
3	Available water or sediment quality data for John Redmond Reservoir (JRR), Coffey County Lake (CCL), and Neosho River. Raw data tables - chemistry data for John Redmond Reservoir, Wolf Creek Lake, Neosho River Station Downstream of Wolf Creek, Neosho River Upstream of JRR. <i>Data source identification required.</i>	
4	Available information regarding local, state, or federal management measures for the JRR, CCL, and the Neosho River. This may include fisheries management, watershed management, flow regulation, etc. Jirak, L., undated, Progress and Management Report 2005, John Redmond Reservoir;	Not generated by WCNOG
5	Any available documentation regarding minimum flows in the Neosho River. Kansas Dept of Agriculture, Division of Water Resources, 1/25/07, Minimum Desirable Stream flows, http://www.accesskansas.org/kda/dwr/OTS/mds.htm Kansas Water Appropriation Act, Statutes KSA 82A-701 through 82A-737, and KSA 42-313, 42-314 as amended 2004	Not generated by WCNOG
6	Available records regarding the operation of the intake screens at either the Neosho River or CCL screen houses as well as information on the ongoing and periodic maintenance that occurs on the screens. Huynh, D.T., 1/26/07, Email to C.M. Medency, Question #31 & 32 for NRC License Renewal Audit; WCNOG, 2/1/07, CWSH and MUSH Traveling Screens Preventive Maintenance Activity; WCNOG WO#06-290030-000 and #06-285439-000; PM Work instructions for CWSH Traveling Screen Cleaning Inspection, and Lubrication and Oil Sampling of Gear Reducers; WP: 126386 Task:1, Rev 0, Work Package Task, PM for 1SW001FA	
7	Available information on invasive or nuisance species observed in the facility's intake, JRR, CCL, or the Neosho River and available information on WCNOG efforts to address this issue. Scherich, K.L., 1/25/07, Email to C.M. Medency, Item 33 response; undated and unreferenced text entitled "Invasive or Nuisance Species in the vicinity of WCGS - Audit;" Haines, 3/22/06, Zebra Mussel (<i>Dreissena polymorpha</i>) Monitoring near Wolf Creek Generating Station, 2005 Report and 2006 Plans: WCNOG, 06/06, Microfouling, Asiatic Clam and Zebra Mussel Control Program for WCGS, WCEM 05-012; <u>State of Kansas, 4/26/05, Kansas Aquatic Nuisance Species Management Plan;</u> " Goeckler, J., Nov 30, 2006, <u>Report to the Aquatic Nuisance Species Task Force on Kansas ANS management for federal Fiscal Year 2006</u>	Underlined items Not generated by WCNOG

8	Documentation regarding the WCNOG or Coffey County Sheriff's office management of the CCL access program. MOU, 5/24/96, Kansas Gas and Electric Co., Kansas City Power & Light Co., Kansas Electric Power Coop, Inc., WCNOG, KDWP, Coffey County; Amendment No. 1 to MOU 5/4/98	
9	Examples of the fishery regulations developed by the KDWP for CCL. See MOU under #8; Correspondence between WCNOG and KDWP regarding fishery regulations dated from 8/98 through 3/06	
10	If available, information on any occurrences of the Topeka Shiner in the JRR, CCL, Neosho River, or any water bodies crossed by the facility's transmission lines Text provided @ site audit, no reference; <u>KDWP, 2000, Topeka Shiner, <i>Notropis topeka</i></u> ; WCGS, ER (OLS), 6/81, figure 3.9-1, Transmission Line Routes; <u>USGS Maps, undated, Chase County, Coffey County, Greenwood County, Lyon County, http://ga2er.usgs.gov/kswater/index.cfm</u> ; <u>KDWP, April 2004, Recovery Plan of the Topeka shiner (<i>Notropis topeka</i>) in Kansas</u> ; KDWP, February 2006, Stream Monitoring and Assessment Program, Sub-Watershed Report	Underlined items Not generated by WCNOG
11	Section 2.5 of the ER (WCGS, 1980) states that USFWS and USGS recommended that additional data be obtained on the habitat requirements of the Neosho River madtoms. Please provide any new information related to these habitat requirements. Summary text from following refs: Wildhaber, et.al., April 17, 2000, Ictalurid Populations in Relation to the Presence of a Main-Stem Reservoir in a Midwestern Warmwater Stream with Emphasis on the Threatened Neosho Madtom, Transactions of the Am Fisheries Society; Bryan, et.al., 2004, Threatened fishes of the world: <i>Noturus placidus</i> Taylor, 1969 (Ictaluridae), Environmental Biology of Fishes; Bryan, et.al., 6/17/05, Examining Neosho Madtom Reproductive Biology Using Ultrasound and Artificial Photothermal Cycles, North Am Journal of Aquaculture; Bryan, et.al., undated, Influence of Water Flow on Neosho madtom (<i>Noturus placidus</i>) Reproductive Behavior, Am Midl. Nat. 156:305-318; Gillette, et.al., Habitat use by a Midwestern USA riverine fish assemblage: effects of season, water temperature and river discharge, Journal of Fish Biology; Gillette, et.al., 2005, Spatiotemporal Patterns of Fish Assemblage Structure in a river Impounded by Low-Head Dams, <i>Copeia</i> ; Gillette, 11/19/03, Effects of Lowhead Dams on Riffle-Dwelling Fishes and Macroinvertebrates in a Midwestern River, Transactions of the Am Fisheries Society; Tiemann, et.al., 2004, Correlations among densities of stream fishes in the upper Neosho River, with focus on the federally threatened Neosho madtom <i>Nothrus placidus</i> , Transactions of the Kansas Academy of Science; Bulger, et.al., 2002, Breeding Behavior and Reproductive Life History of the Neosho Madtom, <i>Noturus placidus</i> (Teleostei: Ictaluridae), Transactions of the Kansas Academy of Science; Bulger, et.al., March 2002, Effects of Photo period on Behavior and Courtship of the Neosho madtom (<i>Noturus placidus</i>), Journal of Freshwater Ecology; Wildhaber, et.al., 2000, Natural and Anthropogenic Influences on the Distribution of the Threatened Neosho Madtom in a Midwestern Warmwater Stream, Transactions of the Am Fisheries Society; The Conservation Behaviorist 2006 Vol 4(1)	Copyrighted

12	Section 2.5 of the ER (WCGS, 1980) states that USFWS and USGS recommended that flows below the John Redmond Dam be increased during critical periods for the Neosho River madtoms. Please provide any new information related to this issue. Wildhaber, et.al., April 17, 2000, Ictalurid Populations in Relation to the Presence of a Main-Stream Reservoir in a Midwestern Warmwater Stream with Emphasis on the Threatened Neosho Madtom, Transactions of the Am Fisheries Society	Not generated by WCNO
13	If available, information on any occurrences of the Neosho river madtom in the JRR, CCL or Neosho river. Text provided @ site audit, no reference; WCNO, March 2007, Biological Assessment of Potential Impact to the Neosho Madtom and Neosho Mucket Due to License Renewal of WCGS; WCGS, undated, ER for License Renewal, Attachment C, Special Status Species Correspondence; US Dept of the Interior, 1/29/07, Letter from LeValley to NRC; An Assessment of the Potential Impacts on the Flow of the Neosho River, Related to the Operating License Renewal for WCGS, Unit NO. 1, undated, no reference.	
14	If available, information on any occurrences of the Neosho mucket mussel in the JRR, CCL or Neosho river? Text provided @ site audit. Data provided under #13.	
15	Section 3.1.2 of the ER (WCGS, 1980) states that water is released to Wolf Creek infrequently. Please provide available records documenting these releases and/or information regarding the frequency of these releases. Raw data tables: Coffey County Lake Spillway Discharges to Wolf Creek 4/16/97 – 03/16/06, Open CDM, Measurements-Samplepoint, Analysis, Sampledate, Wolf Creek Dec 99 - Jan 2007, 01/22/07. Data source identification required.	
16	Provided under another request	
17	System operating procedures for the circulating water system traveling screens. WCNO, 10/15/06, Startup, Operation and Shutdown of The Circulating Water System; WCNO, 11/30/05, Circulating Water Screen Wash System	
18	Drawings and a detailed description of the circulating water system/service water system/essential service water system. Attachment to ET -7-0001, Response to Request for Additional Information. Quality of drawings provided in the document is of poor quality. Are these drawings available in 11 x 17 color or electronically?	Withhold from public disclosure in accordance with 10 CFR 2.390
19	DMRs for the last 12 month period. Discharge Monitoring Reports, Jan 2006 through Dec 2006	
20	Whole effluent toxicity testing documentation or reports conducted at the facility (and as specified in the facilities NPDES permit). Water Treatment Chemical Additives Evaluation Log, undated, no reference; WCGS NPDES Discharge Monitoring Reports Nov '00, Apr '01, Jun '02, May '03, May '04, Jul '05, Jun '05, Jun '06. WCNO, 06/06, "Microfouling" article was removed from this group. It is provided in #7.	

21	Item D.21 of the Facilities NPDES permit states that information required by the 316(b) Phase II regulations shall be submitted to KDHE in accordance with the dates indicated in the Phase II regulations. Please describe the steps conducted to date by WCNOG to comply with this permit requirement and provide any data collected to date in support of this submission. Data provided under #30.	Data provided with Number 30
22	Current and historic flow records for the Neosho River. USGS, 2005, Water Resources Data, Kansas, Water Year 2004, Water-Data Report KS-04-1; USGS, 2006, Water Resources Data, Kansas, Water Year 2005, Water-Data Report KS-05-1	Not generated by WCNOG
23	A statement is made in the 5th paragraph of Enclosure 2 to WM 06-0046 (November 17, 2006) that the state of Kansas has not required entrainment monitoring and will not require it for the 316(b) determination. Please provide documentation from KDHE regarding this issue. Logsdon, 2/27/07, Email to Hammond and Haines, 316(b) CWSH Entrainment Exempt Letter; WCNOG, 1/24/07, Letter from K. Moles to KDHE, Entrainment Study Exemption Request	
24	Larval fish monitoring data as described in Paragraph 6 of Enclosure 2 to WM 06-0046 (November 17, 2006). Eichman and Triplett, 2/7/07. Generalized Larval Fish Densities in the Cooling Water Intake Water of WCGS	
25	If available, information on the location of the spawning areas for the various fish species in CCL. Text provided @ site audit, no reference; WCNOG, Nov 1992, 1991 Operational Fishery Monitoring Report; WCNOG, Feb 1988, 1997 Fisheries [Fisheries] Monitoring Report. Provided documents don't directly address the question. If spawning locations are known, please provide. Otherwise we have to infer from species descriptions. Prefer defined spawning areas.	
26	Bathymetric map of CCL. Sargent & Lundy, 7/9/82, Drawing No. S-1, General Arrangement, WCGS Unit 1. Only need the one map identified by yellow sticky tab. DO NOT NEED the other maps provided during the site audit	
27	Available information regarding the initial stocking of CCL and subsequent stocking efforts. Text with summary of stocking activities from 1984 - 2001 provided @ audit; Kansas Gas and Electric Company, Sep 1984, 1983 Preoperational Fishery Monitoring Report	
28	Available information regarding the initial stocking of CCL and subsequent stocking efforts. Text provided @ audit, no reference; DKWP, February 2006, Stream Monitoring and Assessment Program Sub-Watershed Report. Fish population data provided but it is not trend data.	Not generated by WCNOG

29	As discussed in Enclosure 1 to WM 06-0046 (November 17, 2006), please provide any information available regarding WCNO's stakeholder participation in the WRAPS. Text provided @ site audit, no reference; Kansas Natural Resources Sub-cabinet, undated, Watershed Restoration and Protection Strategy - WRAPS, www.kswraps.org ; Wilson, R. W., 12/4/06, Email to distribution, agenda for Neosho WRAPS meeting on Dec 5; KDHE, Dec 15, 2005, Coffey County Regional Watershed Restoration and Protection Strategy; Kansas Water Plan, Basin Planning and Implementation Process, August 2003 Draft with Neosho Basin Section; Undated and unreferenced text related to the Kansas Water Plan; KDWP raw data, undated, Neosho River fish community, water chemistry, and freshwater mussel community, http://www.kdwp.state.ks.us/news/other_services?stream_assessment_and_monitoring_program/sub_watershed_report State of Kansas, 2004. Kansas Water Plan, Neosho Basin Section, Kansas Water Office, Topeka, Kansas, November 18 provided in ER Refs #10.	
30	Additional details regarding the detailed assessment of impingement currently being prepared by WCNO's staff (as cited in Enclosure 3 to WM 06-0046, November 17, 2006). Additional data provided in #29. Logsdon and Haines, undated, Draft Comprehensive Demonstration Study, Wolf Creek Cooling Impoundment, Clean Water Act 316(b) - Cooling Water Intake Structures, WCGS.	
31	A mention is made in Section 2.2 of the ER (WCGS, 1990) of possible cold shock impacts to gizzard shad. If there have been any incidents of cold shock to gizzard shad or other fish, please provide supporting data. Text provided @ site audit, no reference; KGE 4/8/86, Environmental Noncompliance Report No. 86-08; WCNO's, Environmental Noncompliance Report No. 88-6 and No. 89-2; WCNO's EPP Design or Operational Change Evaluation No. 94-02. No. 96-05. and No. 2004-02	
32	Request eliminated - provided in Enclosure 5 to ET 07-0001	
33	Section 2.5 of the ER (WCGS, 1980) describes the Topeka shiner, Neosho madtom, and Neosho mucket mussel. Please have available any records of these species being collected in impingement and entrainment sampling. Text provided @ site audit, no reference; KGE, undated, Makeup Screenhouse Impingement Monitoring Report, November 1980 -October 1981.	
34	Request eliminated - resolved issue	
35	Request eliminated - provided in Enclosure 5 to ET 07-0001	
36	Request eliminated - provided in Enclosure 5 to ET 07-0001	
37	Request eliminated - provided in Enclosure 5 to ET 07-0001	

38	A description, including volumes and chemical and radiological characteristics, of all solid, liquid, aqueous, and gaseous waste streams generated by the facility. Include information on whether waste streams are disposed at off-site locations, or released to land, air, or water bodies on-site. Text and data tables provided @ site audit, no reference; WCNO, 6/24/05, Waste Minimization Plan, WCEM-04-010; WCNO, 2004, WCGS Annual Radioactive Effluent Release Report - Report 27; WCNO, 2005, WCGS Annual Radioactive Effluent Release Report - Report 28; WCNO, 2006, WCGS Annual Radioactive Effluent Release Report - Report 29	Previously docketed
39	Residential locations, by city and county, of full-time WCGS employees. Raw data provided @ site audit. Data source identification required.	
40	Approximate on-site land area used by major structures and facilities, in square feet. Data provided in #41	See Number 41
41	Information on plant noise and what can be heard at the site boundaries. Text provided @ site audit. Data source identification required.	
42	Records of public water usage by WCGS (e.g., water bills from City of Burlington Table: WCNO Water Consumption Report Feb 06 - Jan 07. Coffey County Rural Water District #3, New Strawn.	
43	Federal lands and Native American lands in the area. Map for Kansas from nationalatlas.gov	Not generated by WCNO
44	Information regarding the source of the water Public Wholesale District 12 and the City of Burlington distribute as potable water. Public Wholesale Water Supply District Status, Capacity Development Program, Public Water Supply Section, KDEH; Water Statistics, Water/Wastewater Department, Capital Improvement Projects/Utilities, http://skyways.lib.ks.us/kansas/towns/Burlington/capital.html	Not generated by WCNO
45	WCNO policies and procedures concerning the identification and documentation of cultural resources in advance of ground surface disturbing activities Data provided in #46	See Number 46
46	Examples of the implementation of these policies and procedures during past ground surface disturbing activities. WCNO, 8/4/06, EPP Plant Design or Operational Change Evaluation and form; WCNO, 2/27/04, Letter from K. Moles to A. Brooks, KDEH; WCNO, 7/8/03, Letter from K. Moles to A. Brooks, KDEH; Dept of the Army, 2/9/96, Letter from R. Lenning to W. Wood, WCNO; WCNO, 8/7/06, Resource Management and Ecological Monitoring Programs; Dept of the Army, 9/11/97, Letter from D. Hoover to B. Loveless, WCNO; WCNO, 3/20/06, Regulatory Evaluations (Other than 10CFR50.59).	

47	Site-specific hydrogeological information, including: groundwater depth(s) at site; aquifer(s) present at site; location, elevation, construction, and historical analyses on current and past monitoring wells (including B-12, C-10, C-49, J-1, J-2, G-2, and F-1); details of the current monitoring and analytical program; flow direction information (direction, rate, fate); and comprehensive local production information (locations, construction information, history of analysis, pump rates, use). AP 07B-004, Offsite Dose Calculation Manual (Radiological Environmental Monitoring Program), Rev 12, Attachment A, Figure 5.3, Waterborne Pathway Sampling Locations; WCGS, 1982, ER (OLS), Sections 2.4 and 2.5.6.2; Section 2.4.12.2 - 2.4.14 of unreference text; Wolf Creek Updated Safety Analysis Report, Rev 0, Figure 2.4-1, -2, -5, -6; WCGS Unit No. 1 Environmental Report (OLS), Figures 2.4-1, -6, -14, -17, -19. <i>Submittal is not sufficient to answer questions but submittal is all available data. The actual data do not exist.</i>	Previously docketed
48	Documentation of any environment releases, including any evaluations of the incident with respect to the nature, extent, and impact of the release. Text provided @ audit, summary of Reportable Releases of Oil and Hazardous Substances, undated, no reference. <i>Requested NPDES monitoring data. According to applicant, these are not NPDES releases</i>	
49	Locations, volumes, and existing chemical and radiological analytical data on drinking water intakes for Burlington, Neosho Falls, Iola, and any other intakes on the Neosho River between John Redmond Reservoir and Iola. Kelsey, K., 4/21/05, personal communication log; Sowder, J, 5/5/05, personal communication log; WCNO, April 15, 2006, 2005 Annual Radiological Environmental Operating Report	Previously docketed
50	Correspondence, reports, and any other information related to any past restrictions on water withdrawal, if any have occurred. If none have occurred, a statement that these restrictions have never been implemented. State of Kansas, 12/19/72 and 2/21/68, Certificates of Appropriation for Beneficial Use of Water; Correspondence (4 letters) between State of Kansas and Western Resources dated 1992 - 1998 regarding billing/water meters; Correspondence (3 letters) between KDEH and WCNO (K. Moles) dated 1/23/07, 1/24/07, 3/8/07	
51	More detailed data regarding the groundwater quality study performed from 1973-87. Provide the locations of the wells included in the study, their depths, production rates, and water uses. Discuss any regulatory involvement, including the regulatory program of which the study was a part, which agency(ies) reviewed and approved work plans and conclusions, the chemical and radiological parameters that were measured, the periodicity of the sampling, and the standards to which results were compared. Provide the rationale for ceasing the program only two years into operations including any regulatory concurrence in this action. EA 1988. Operational Phase Environmental Monitoring Program Final Report	Previously docketed
52	A map showing the locations of all groundwater monitoring or production wells in the local area, including their depths, rates of production, and use of water, if known. Section 2.9.1 states that 80% of water use in the basin is from surface sources - describe the source, location, and use of the other 20%. Map and Coffey County water well data from Kansas Geological Survey web site http://www.kgs.ku.edu/kgs.html	Not generated by WCNO

53	More detailed meteorological data, including historic rainfall data, to provide additional information for the evaluation of water use conflicts in Section 2.10 of the ER (WCGS, 1980). Include average rainfall, seasonal variations, and information on extreme conditions. Please provide the average peak and low-flow values for the Neosho River. Also provide information on seasonal variability, if it exists. USACE, 1/96 - 12/06, Monthly Lake Report, John Redmond Lake, from http://www.swt-wc.usace.army.mil/JOHNcharts.html	Not generated by WCNOG
54	Clarification of the relationship between the WCNOG contract with the Kansas Water Resources Board, versus the "Certificate of Appropriation" discussed in ER Section 4.1. It appears that the contract has controls based on available supply within the reservoir, while certificate has controls based on the flow rate in the river. Please verify if this is correct. Also identify if a different agency implements the controls in either case, or if this is a single agency. Text provided @ site audit. Data source identification required	
55	Historical information on how the water withdrawal controls have been implemented in the past. If there have never been any incidents where low water levels in the reservoir or low flow in the river have resulted in water withdrawal restrictions, then state this. If there have been incidents where the rights of any user (WCGS or any other user) have been restricted, provide information on the cause of the incident, length of duration, restrictions placed on which users, and any other relevant information. State of Kansas, 2/21/07 and 11/8/06, Letters from K. Tietz to WCNOG, Minimum Desirable Stream Flows	
56	Please provide actual historical data on water withdrawal volumes from the Neosho River. Summary table of water pumped from Neosho River. Data from Annual Environmental Operating Reports, 1985-2005 <i>Summary table references 20 years. Reviewers request copies the Environmental Operating Reports for 2001, 2002, 2003, 2005, and 2006 (if 2006 is available). Report for 2004 is provided in ER References #62</i>	Previously docketed
57	Groundwater levels were predicted to rise 45.8 feet within 100 feet of the site 50 years after the filling of Coffey County Lake. The height of the groundwater table was predicted to rise 0.4 feet, 2 miles from the site after the lake was filled. Please provide the elevation of the water table before the lake was filled and the current water table elevation. Data provided in #58	See Number 58
58	The groundwater flow direction was noted to be generally SW from WCGS to the Neosho River. Are there any localized groundwater flow directions to Wolf Creek (below Coffey County Lake)? WCGS, undated, Environmental Report for License Renewal, Section 2.3, 4.6; page 2-11 from an undated, untitled report; WCGS, 9/13/74, ER, pages 2.5-1 - 2.5.-4; pages 5-3 and 5-4 from an undated, untitled report; KSG, 1/17/07, <u>Ground-Water Levels in Kansas, A Briefing to the Kansas Legislature.</u>	Underlined items Not generated by WCNOG

59	Regarding water use conflicts at Wolf Creek, although the ER Section 4.1 indicates no surface water use conflicts, our Generic Environmental Impact Statement (GEIS) for license renewal says (Section 4.4.2.1, p. 4-52): "Two nuclear power plants, the Braidwood Station and Wolf Creek Generating Station, have already experienced water-use conflicts." Furthermore, the GEIS on p. 4-53 (left column, first full para) uses Wolf Creek Generating Station as an example of potential water use conflicts. Water use conflicts at Wolf Creek are also cited in section 4.4.3, p. 4-57, left column. Although there seems to be a discrepancy, perhaps all water use conflicts have been solved. If so, Wolf Creek should provide this information. Text provided @ site audit summarizing info from WCNO, 1990; Rhodes, F.T., 6/25/90, personal communication log, H. L. Spiker; Spiker, H, 6/4/90, personal communication log, B. Loveless; WCNO, undated, An Assessment of the Potential Impacts on the Flow of the Neosho River	
60	An assessment of the impact of population increases attributable to the proposed project on the public water supply, as per 10 CFR 5 1.53(c)(3)(ii)(I). Text provided @, site audit referencing the ER	
	Identify the source of the potable water purchased by WCGS (i.e., where do City of Burlington and Public Wholesale District 12 obtain their potable water?).	Rural Water District #3/Pomona Lake
61	Clarify discussions regarding site boundaries, land ownership, and land use within Section 2.4 and Figure 2-3 of the ER (WCGS, 1980). Clarify the difference between "Site Boundary" and the "Plant Site" on the map, with respect to whether these are a land ownership distinction, a physical fencing distinction, or some other regulatory or access distinction. Please clarify whether or not the referenced agricultural production areas are within the "Site Boundary" as shown on Figure 2-3. Identify any areas fenced to restrict human access and any areas fenced that may restrict wildlife access. Text provided @ site audit. No reference. Aerial photograph provided in #1	
62	Additional data on the avian collision studies that were ceased in 1986. Section 2.4 of the ER (WCGS, 1980) states that sufficient data had been collected by 1986. Provide any documentation of regulatory involvement and concurrence in this determination of sufficiency. Text provided @ site audit; WCNO, 4/29/97, Letter from C. Warren to NRC; Table of mean number of selected avian species using Coffey County Lake, 1982-1998, no reference; WCNO, 11/88, 1987-1988 Operational Wildlife Monitoring Report; WCNO, 10/96, 1995-1996 Operational Wildlife Monitoring Report; Avian Protection Plan Attachment, Review of Bird Collision Data on Transmission Facilities at WCGS with emphasis on the LSP, undated; WCNO, 4/26/06, Letter from K. Moles to NRC	Previously docketed
	Clarify the scope requirements for the various transmission lines. According to ER Section 3.1, some lines were pre-existing, while some were newly constructed for this plant, but all would be retained after WCGS is decommissioned. Since all are to be used during the re-licensing period, and all are to be retained following this period, it is not clear why some are within scope, and some are not.	Answered prior to audit

63	Details on the power transmission system, including information on the design of the towers, the number and configuration of the lines on the towers within each right-of-way (ROW). Some data are provided under #65. <i>Need schematic of tower design for 345kV T-lines and 69 kV T-line</i>	69 kV line information not provided. Not generated by WCNOG Withhold from public disclosure in accordance with 10 CFR 2.390
64	Details regarding the maintenance procedures used in the transmission line ROWs, including mechanical, chemical, and biological control methods for vegetation management. Westar Energy, Inc., undated, Transmission Line Vegetation Management Program. <i>Need this information from Kansas Electric Power Coop for Sharp T-Line</i>	69 kV line information not provided. Withhold from public disclosure in accordance with 10 CFR 2.390
65	More detailed maps/aerial photos of the transmission line ROWs showing topographic features, major habitats/vegetation communities, land uses, wetlands, and floodplains, and the location of the Sharpe Generating Station. Kansas Gas and Electric Company, Select Plan & Profile Drawings for La Cygne - Benton, 245 kV Line, KD-7388 (1 973/74); Wolf Creek - Rose Hill 345 kV Line, KD-7568 (1975/1981); and Route Map for Wolf Creek-Rose Hill 345 kV Line, KB-7607 (1975). <i>If the aeriels in #66 are available, don't need these map</i>	See Number 66
66	Please provide information on the locations of transmission line ROWs crossings with parks, wildlife refuges, or wildlife management areas, or any major lakes (in addition to CCL), ponds, or streams? If so, please provide information on these crossings and their locations. WCGS, 1980. Environmental Report, Section 2.4. <i>Aerial maps from Westar Energy, Inc. are NOT to be made available lo the public. IF these are available don't need the maps provided in #65</i>	Withhold from public disclosure in accordance with 10 CFR 2.390

67	<p>Any available studies or other information about the issues raised in the letter from the US Fish and Wildlife Service (November 14, 2005) regarding terrestrial threatened and endangered species. For example:</p> <ul style="list-style-type: none"> -- Any assessments of the transmission lines for conformity with "Suggested Practices for Raptor Protection on Power Lines" (Raptor Research Foundation 1996)? Please provide any such assessments and details of transmission line construction relevant to raptor protection. Also provide a copy of "Suggested Practices," if available. -- Any special ROW maintenance procedures used to reduce the potential for impacts to Mead's milkweed or animals with federal or state listing status. <p>Text provided @ site audit, no reference; WCNOG, August 2006, Avian Protection Plan at Wolf Creek Generating Station, with emphasis of potential impacts to the Bald Eagle from License Renewal at Wolf Creek Generating Station; Lyon-Coffey Electric Coop, undated and unsigned, Policy for Prevention of Wildlife Contacts; Westar Energy, Inc., 5/18/04, Environmental Services Policies and Procedures, Avian Protection Plan, Policies 3.01-3.03</p>	
68	<p>Any available maps and aerial photographs of the WCGS plant site and the area within and adjoining the larger site boundary (which encompasses Coffey County Lake) showing topographic features, major habitats/vegetation communities, land uses, wetlands, and floodplains. Provided under #1. <i>E-copy of color aerialphotoshowing site boundary, Owner Controlled Area, Protected Area Boundary, Exclusionary Boundary. Plot date January 29, 2007. Photography date Summer 2006; Floodplain with site boundaries defined; Community type map.</i></p>	See Number 1
69	<p>Any available information identifying natural communities and dominant species of plants and animals that utilize terrestrial habitats of the site and the transmission line ROWS, as well as semiaquatic species such as waterfowl that use Lime Sludge Pond and Coffey County Lake. Attachment to ET 07-0001, Select pages, undated, no reference. <i>Need information on "animals that utilize terrestrial habitats of the site and the transmission line ROWs, as well as semiaquatic species such as waterfowl that use Lime Sludge Pond and Coffey County Lake."</i></p>	
70	<p>Would additional transmission infrastructure be necessary if purchased power replaced Wolf Creek's capacity, i.e., do existing transmission lines have sufficient capacity to support purchased or imported power? Would any new utility rights-of-way (ROW) be necessary? Would existing ROW need to be expanded or otherwise modified? Would existing ROW be retired and return to other uses? What are the impacts of these actions? Text provided @ site audit. No reference. <i>Provide source of response.</i></p>	
70	<p>Can construction begin on a new facility at the Wolf Creek site while WCGS is in operation? Can a new plant be constructed that would use Wolf Creek's cooling system prior to the retirement of WCGS? Can a new plant be constructed on previously-disturbed areas of the site prior to retirement of WCGS? If not, what are the impacts of building a new, alternative plant on a Greenfield site or of constructing and operating a new cooling system? Text provided @ site audit. No reference.</p>	

70	What is the current attainment status (Clean Air Act) of the region within which WCGS is situated? Text provided @ site audit. No reference. Provide source of response.	
70	PM2.5 is a Clean Air Act criteria pollutant. Please provide any available information on how much PM2.5 would be emitted using the coal, oil or gas alternatives to license renewal. Text provided @ site audit. No reference. Provide source of response.	
70	What is the heat rate for Wolf Creek? How would the differential levels of heat rejection from the sited appropriate alternative energy sources affect the heating of Coffey County Lake? Would you be aware of any significant effects to water quality or ecology should the thermal output to the lake change in conjunction with alternative energy sources? Text provided @, site audit. No reference. Provide source of response.	
70	Provide the annual average capacity factor for WCGS for the ten year period ending in 2006. Please indicate those years during which refueling outages occurred. Raw data table, Refuel Outage Dates, provided @ site audit. No reference. Provide source of response.	
70	Provide the gross and net electrical output of WCGS based on summer and winter conditions. Raw data tables [Capacity Factor (Design), Gross Generation MWH, Net Generation MWH) provided @ site audit. No reference. Provide source of response.	
70	What does WCNOG view to be a realistic schedule for implementing the alternatives evaluated in detail in the ER (gas, coal, nuclear)? Please provide a simplified permitting, design and construction schedule for each such alternative. To be provided by Dan Williamson/Ken Frederickson	
70	Provide the range of WCNOG employee salaries. Also, provide the range of salaries for permanent contract employees at WCGS. Text provided @ site audit. No reference. Provide source of response.	
70	Is there a gas transmission line in the immediate WCGS vicinity to support a gas fired alternative. What is the distance that a new gas line would need to be run to support gas fired operations at the WCGS site and what would be the diameter of the line? Also, is there adequate capacity in the nearest gas transmission lines to support gas fired operations at the WCGS site? Text provided @ site audit. No reference. Provide source of response.	
70	Please update the information presented in Section 7.2 of the ER to show both Generating Capacity and Generation by Fuel type for the years 2000 through 2006 inclusive. Text provided @ site audit. No reference. Provide source of response.	

70	WCNOC has limited its analysis of coal fired alternatives to pulverized coal systems (ER Section 7.2.1). However, the WCGS operating license does not expire until 2025 which is 18 years off. At this point in time integrated gasification combined cycle (IGCC) systems are well under development and is likely that these and other advanced coal utilization systems will be operational by the time the WCGS license expires. Please provide updated information including a brief assessment of the state of advanced coal utilization technologies, whether such technologies could be employed at the WCGS site and the potential benefits of the new technologies. In particular, the possible environmental advantages of advanced coal systems should be mentioned including reduced air emission in comparison to pulverized coals burners. The purpose of addressing advanced coal technologies would not be to consider those technologies as formal "alternatives" to license renewal but rather to generally update the information presented in the alternatives analysis. Text provided @ site audit. No reference. <i>Provide source of response.</i>	
70	Most license renewal EISs contain an analysis of a combination of alternatives to replace the output of a generating station should the operating license not be renewed. Please provide an analysis of at least one combination alternative that WCNOC considers feasible. Text provided @ site audit. No reference. <i>Provide source of response.</i>	
70	With regard to Section 7.2.1.4, please identify the range of conservation, efficiency and load management programs being conducted in Kansas. This should list each program, identify its sponsor and goals, and provide information relative to the success of the effort. Text provided @ site audit. No reference. <i>Provide source of response.</i>	
70	ER Section 7.2.1.3 addresses purchased power. Please provide a chart showing Kansas power imports for the last ten years. Also, identify transmission line constraints, if any, to importing power into the state. Text provided @ site audit. No reference. <i>Provide source of response.</i>	