



Nebraska Public Power District

"Always there when you need us"

NLS2010037
April 29, 2010

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Subject: Comments on Draft Generic Environmental Impact Statement Supplement 41
Regarding the Cooper Nuclear Station License Renewal Application
Cooper Nuclear Station, Docket No. 50-298, DPR-46

- References:**
1. Letter from Bo Pham, U.S. Nuclear Regulatory Commission, to Stewart B. Minahan, Nebraska Public Power District, dated February 18, 2010, "Notice of Availability of the Draft Plant-Specific Supplement 41 to the Generic Environmental Impact Statement for License Renewal of Nuclear Plants Regarding Cooper Nuclear Station, Unit 1 (TAC Nos. MD9763 and MD9737)."
 2. Letter from Stewart B. Minahan, Nebraska Public Power District, to U.S. Nuclear Regulatory Commission, dated September 24, 2008, "License Renewal Application" (NLS2008071).

Dear Sir or Madam:

The purpose of this letter is for the Nebraska Public Power District (NPPD) to provide comments on the draft Generic Environmental Impact Statement (GEIS) Supplement 41 per Reference 1. This draft GEIS supplement was prepared in response to NPPD's License Renewal Application (LRA) for Cooper Nuclear Station (Reference 2). The NPPD comments are itemized in Attachment 1. Section 2.1.6 of the draft GEIS supplement had significant number of comments, and so a recommended underline/strikeout revision is provided in Attachment 2. Attachment 3 contains certain changes to the LRA Environmental Report resulting from the review of this draft GEIS supplement.

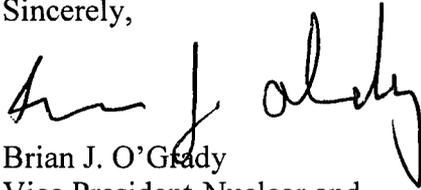
Should you have any questions regarding this submittal, please contact David Bremer, License Renewal Project Manager, at (402) 825-5673.

A136
NPPD

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 1/29/10
(Date)

Sincerely,



Brian J. O'Grady
Vice President-Nuclear and
Chief Nuclear Officer

/wv

Attachments

cc: Regional Administrator w/ attachments
USNRC - Region IV

Cooper Project Manager w/ attachments
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/ attachments
USNRC - CNS

Nebraska Health and Human Services w/ attachments
Department of Regulation and Licensure

NPG Distribution w/ attachments

CNS Records w/ attachments

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS⁴

ATTACHMENT 3 LIST OF REGULATORY COMMITMENTS⁴

Correspondence Number: NLS2010037

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITMENT NUMBER	COMMITTED DATE OR OUTAGE
None		

Attachment 1

**Comments on Draft Generic Environmental Impact Statement Supplement 41
Regarding the Cooper Nuclear Station License Renewal Application
Cooper Nuclear Station, Docket No. 50-298, DPR-46**

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
1	GENERAL	<p>The draft Supplemental Environmental Impact Statement (DSEIS) uses the acronym “CNS-1” when referring to Cooper Nuclear Station. No other nuclear units have ever been contemplated at the site. Consistent with other single unit SEISs (e.g., “KPS” (Kewaunee), “WCGS” (Wolf Creek), and “JAFNPP” (Fitzpatrick) the acronym “CNS” should be used for Cooper Nuclear Station, without “-1.”</p>	<p>Change “CNS-1” to “CNS” through draft SEIS.</p> <p>Basis for Change: List of Acronyms in the CNS Environmental Report.</p>
2	GENERAL	<p>Measurement units are inconsistent. Sometimes metric units are provided in the text and U.S. customary units are provided in parentheses. Sometimes the reverse is presented. Both measurements are not always provided.</p> <p>Examples:</p> <p>Page 2-19, lines 19-20: mg/l, but not ppm Page 2-19, line 4: 1000 ft., does not have accompanying meters Page 2-20, line 21: 50 miles, but not kilometers</p>	
3	GENERAL	<p>Punctuation within references in text is inconsistent. Periods, commas, semi-colons, or no punctuation at all are all used for the same purpose/ location within a reference.</p> <p>Examples:</p> <p>Page 2-29, lines 45-46: No punctuation within reference Page 2-29, line 18: Same reference, comma used Page 4-15, line 43: Semi-colon within reference</p>	
4	GENERAL	<p>Inconsistent use of abbreviations/ acronyms, etc.</p> <p>Example: Page 2-31, lines 29-30: River miles, river mile, and RM are all used within the same sentence. RM has been used previously and should be used from that point forward.</p>	

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5	GENERAL	<p>Inconsistent application of °C and °F. Degree symbol should be immediately after the number. No spaces between number, symbol, or C/F.</p> <p>Example: Page 2-33, line 15</p>	
6	GENERAL	<p>Per the Chicago Manual of Style, whenever there are multiple references in a given year from a single author, the series starts with "a." Example, Reference "(NPPD 2008)" should be "(NPPD 2008a)" on Page 2-82/Line 27; Reference "(NCDC 2009)" should be "(NCDC 2009a)" on Page 2-80/Line 10.</p> <p>It is recommended that all of the DSEIS Reference Sections be reviewed for this writing style inconsistency and renumbered, with corresponding changes made in the text.</p>	
7	iii/2	Brownville is a village, not a city.	<p>Revise to read: "...in the cityVillage of Brownville..."</p> <p>Basis for Change: CNS License Renewal Application Environmental Report (ER) Section 2.1</p>
8	xvii/11	References "(May 1996), (NRC 1996)" are not defined. They should either be deleted or a reference section added at the end of the Executive Summary.	
9	xix/10 and 11	It is not clear what the Staff means regarding the absence of "generic ground water issues."	<p>Revise to read: "...Category 1-or generic ground water issues."</p> <p>Basis for Change: A finding on "new and significant information" for ground water use and quality is unrelated to generic ground water issues.</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
10	xix/30	The statement "...plans to implement others..." regarding impingement mitigation measures should be clarified with a rejoinder to pending changes to Section 316(b) of the Clean Water Act.	<p>Revise to read: "NPPD has implemented some impingement mitigation measures and plans to implement others, <u>as necessary for compliance with Section 316(b) of the Clean Water Act.</u>"</p> <p>Basis for Change: Clarification. See Attachment 3, Changes 2, 4, 5, 6, 7, 8, 9, 10, and 11.</p>
11	xx/22	Insert space after "fields."	<p>Revise to read: "electromagnetic fields_— acute effects..."</p> <p>Basis for Change: Typographical correction.</p>
12	xx/38	Incomplete list of Category 2 socioeconomic impacts.	<p>Revise to include "public services (education – refurbishment)."</p> <p>Basis for Change: NUREG-1555 Supplement 1</p>
13	xxi/18	There should be a space inserted with "...impacts(...)" Typographical correction.	
14	xxii/24 through 40	The discussion of "Comparison of Alternatives" seems to be missing a summary of the Staff's conclusions regarding the combination alternative. Recommend a summary statement in the Executive Summary as it pertains to the "Comparison of Alternatives."	
15	xxii/27 and 28	Insert symbol of mercury and period after mercury. Delete dash. Delete "and" and capitalize "the" to form a new sentence. Otherwise it is a run-on sentence.	<p>Revise to read: "...and mercury (Hg). The corresponding..."</p> <p>Basis for Change: Grammatical enhancement</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
16	xxii/31	The statement “The gas-fired alternative would have slightly lower air emissions,...” makes it sound like gas-fired alternative would have lower air emissions than a nuclear plant.	Revise to read: “The gas-fired alternative would have slightly lower air emissions <u>than the coal-fired alternative,</u> ” Basis for Change: Verbiage enhancement for clarity
17	xxvi/3	“CWERCLA” should be changed to “CERCLA.”	Revise to read: “CWERCLA” Basis for Change: Typographical correction
18	xxix/1	“NDED” is defined as the “Nebraska Department of Education” in the Table of Acronyms. However, “NDED” is defined as the “Nebraska Department of Economic Development” on Page 2-81, Line 17. The Nebraska Department of Education is “NDE,” as stated on Page 2-81 Line 26. Recommend the Table of Acronyms be revised and include an “NDE” entry.	
19	xxxi/10	Delete “SPDES” and “State Pollutant Discharge Elimination System” since this program is designated as the “NPDES” program in Nebraska.	
20	1-1/7 and 8	The sentence reads awkwardly.	Revise to read: “The Atomic Energy Act of 1954 (AEA) originally specified that licenses for commercial power reactors be granted for up to 40 years, and permits license renewal.” Basis for Change: Grammatical enhancement
21	1-1/19	After “2014,” a reference should be provided to the CNS License Renewal Application.	Revise to read: “...2014. (NPPD 2008a)” Basis for Change: Referencing enhancement
22	1-2/Figure 1-1	The asterisked statement and block connector lines are difficult to read against the dark background.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
23	1-9 /last row of the table first entry	<p>The entry:</p> <p>“Mr. Ron Asche NPPD 1414 15th Street Columbus, NC 68601”</p> <p>is a duplicate entry from Page 1-8, and is also the wrong address, it is Nebraska, not North Carolina. Recommend deleting this entry.</p>	
24	1-10/Table 1-1	General NPDES Permit Expiration Date is incorrect.	<p>Revise to clarify that this is the storm water permit and to read: “Expires: 9/17/2012 2002.” (Add footnote that this has been administratively extended by the Nebraska Department of Environmental Quality (NDEQ)).</p> <p>Basis for Change: NLS2009036 Change 12.</p>
25	1-10/Table 1-1	Hazardous Waste Generator Identification Number is not correct.	<p>Revise to read: “NED1055071064-2 <u>NED055071062.</u>”</p> <p>Basis for Change: NLS2009036 Change 12</p>
26	1-10/Table 1-1	Permit Number 0218-26-08-X with the South Carolina Department of Health and Environmental Control is expired and is no longer being used.	<p>Revise to delete the entry for CNS-1 Radioactive Waste Transport Permit.</p> <p>Basis for Change: NPPD is no longer authorized to ship radwaste under this permit. See Attachment 3, Change 12.</p>
27	1-11/Table 1-1	Missing Stormwater NPDES Construction Permit for Independent Spent Fuel Storage Installation construction.	<p>Revise to include a third line item provided in NLS2009036, replacement page 9-5.</p> <p>Basis for Change: NLS2009036 Change 12</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
28	1-11/Table 1-1	The Section 404 Permit for dredging at intake structure and discharge of dredge material to the Missouri River is missing from the table.	Revise to include a fourth line item provided in NLS2009036, replacement page 9-5. Basis for Change: NLS2009036 Change 12
29	1-11/Table 1-1	Missing Section 404 Permit for intake structure ice deflectors.	Revise to include a fifth line item provided in NLS2009036, replacement page 9-5. Basis for Change: NLS2009036 Change 12
30	1-11/Table 1-1	Permit Numbers T-NE002-L08 and 0111000042 need to be updated with latest expiration dates.	Revise to read: [T-NE002-L08] " <u>Expires: 12/31/200810</u> " [0111000042] " <u>Expires: 1/3/200911</u> " Basis for Change: NPPD has received new expiration dates for these permits from the relevant State agencies. See Attachment 3, Changes 13 and 14.
31	Chapter 2 Global	The NAS 2002 and National Research Council 2002 are the same document. Change all references to "National Research Council 2002" throughout the chapter to "NAS 2002," and delete National Research Council reference in Section 2.4.	
32	2-1/9	Change "including" to "inclusive of the." Grammatical enhancement.	
33	2-1/10	This sentence could be read (in light of previous and subsequent sentences) to apply to the Nebraska Public Power District (NPPD) land in Nemaha County.	Revise to read: [Relocate to the end of Line 12] "Over 99 percent of the <u>total</u> acreage in Nemaha County is used for agriculture and farming." Basis for Change: Clarification

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
34	2-1/11-12	These lines mention that 234 acres is leased for agricultural purposes, but that is the land that is now subject to the environmental easement that is mentioned later. For consistency, the text should mention the environmental easement in addition to the use for agricultural purposes.	<p>Revise to read: "A significant portion of NPPD property at CNS-1, 234 acres in Missouri and 715 acres in Nebraska, is currently leased for agricultural activities such as farming and raising livestock <u>or conservation purposes.</u>"</p> <p>Basis for Change: Change for consistency</p>
35	2-1/20	The 100m meteorological tower is 328.08 ft, not 328.8 ft.	<p>Revise to read: "... and the <u>approximately 328.8-</u>foot tall..."</p> <p>Basis for change: Clarification</p>
36	2-7/27	A reference should be provided for "40 CFR Part 190" in the Section 2.4 references for consistency with other CFR references provided.	
37	2-8/19	"NAC Title 128 was updated in 2004..." This is incorrect, it was updated August 18, 2007.	<p>Revise to read: "...was updated in 2004<u>2007</u>..."</p> <p>Basis for Change: NAC Title 128 was last updated on August 18, 2007.</p>
38	2-8/23 and 24	The sentence "State-level regulators may add wastes to the EPA's list of hazardous wastes." should be clarified.	<p>Revise to read: "States authorized to administer the RCRA program may require generators to manage additional wastes, in addition to those hazardous wastes listed by EPA."</p> <p>Basis for Change: Clarification</p>
39	2-8/24 and 25	The sentence "RCRA provides the standards for the treatment, storage, and disposal of hazardous wastes for hazardous waste generators (regulations are available in 40 CFR Part 262)." is not correct in that 40 CFR 262 only addresses generators, while 40 CFR 264 and 40 CFR 265 address treatment, storage and disposal facilities.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
40	2-8/27	The reference to 40 CFR 260.10 is not correct. It should be "40 CFR Part 262." Additionally, add 40 CFR Part 262 to Section 2.4 references.	Revise to read: "The EPA recognizes three main types of the hazardous waste generators (40 CFR 260.10 <u>Part 262</u>) based on the quantity of the hazardous waste produced:..." Basis for Change: CFR correction
41	2-8/29	Definition of Large Quantity Generators does not match Environmental Protection Agency (EPA) definition.	Revise to read: "...Large Quantity Generators (LQGs), that generate <u>more than</u> 2,200 pounds (1,000 kg) per month or more of hazardous waste...." Basis for Change: EPA website Glossary of Terms
42	2-8/36	The sentence is missing an initial definite article.	Revise to read: Insert "The" before "State..." Basis for Change: Grammatical correction
43	2-9/36	"(NPPD, 2008)" is an incorrect reference.	Revise to read: "(NPPD, 2008 <u>2009c</u>)" Basis for Change: NLS2009036 Enclosure 5.3
44	2-9/39	The "(EPA, 2009a)" reference appears to be incorrect based on Section 2.4, which shows the EPA 2009c reference addressing waste minimization.	Revise to read: "...approaches to pollution prevention (EPA, 2009a <u>2009c</u>)..." Basis for Change: Reference correction
45	2-9/40 and 41	The sentence "The EPA's clearinghouse can be used as a source for additional opportunities for waste minimization and pollution prevention at CNS-1, as appropriate." makes the implication that NPPD does not have an effective waste minimization plan.	Revised to read: "The EPA's clearinghouse can be used for waste minimization and pollution prevention opportunities by RCRA-regulated facilities, as appropriate. <u>Note that Cooper already has an effective waste minimization program in place.</u> " Basis for Change: Clarification

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
46	2-10/26	Statement that ER notes that four transmission lines are owned and operated by NPPD is incorrect.	<p>Revise to read: “The NPPD notes in their ER that four transmission lines, <u>three of which are</u> owned and operated by NPPD, are...”</p> <p>Basis for Change: ER Section 3.2.7.</p>
47	2-10/29	Transmission line “TL301” should be “TL3501.”	<p>Revise to read: “Two of these numbered lines, NPPD TL<u>3501</u> and...”</p> <p>Basis for Change: ER Section 3.2.7</p>
48	2-10/30	The 145 mile transmission corridor length should be 146 miles.	<p>Revise to read: “...transmission line corridor extending <u>1456</u> miles (23<u>35</u> km) west-northwest...”</p> <p>Basis for Change: ER Section 3.2.7, 63.6 + 82.6 = 146.2</p>
49	2-11/1-3	The paragraph as written does not accurately characterize the Omaha Public Power District lines that connect with the CNS switchyard.	<p>Revise to read: “There are several transmission lines <u>originating at that connect with</u> the CNS-1 switchyard that are neither owned nor operated by CNS NPPD. <u>These consist of t</u>Two transmission lines <u>originating at connecting with</u> the CNS-1 switchyard, <u>which</u> are owned by <u>the</u> Omaha Public Power District (OPPD); <u>Another transmission line connecting with one of the</u> <u>OPPD lines, not connected to the CNS switchyard and a third</u> is owned by <u>Aquila</u> Kansas City Power and Light.</p> <p>Basis for Change: ER Section 3.2.7. Also, Aquila became Kansas City Power and Light on 7/14/2008.</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
50	2-11/4 and 5	The discussion regarding the transmission lines that are in the scope of license renewal does not seem to indicate a proper rationale for inclusion; i.e., that the lines originally connected the plant to the grid. Instead, the Staff seems to indicate that the in-scope lines are those owned or under the control of NPPD.	<p>Revise to read: “As these three transmission lines are not owned or under the control of NPPD <u>and were not constructed to connect CNS to the transmission system</u>, they are not within the scope of license renewal for CNS-1 (NPPD, 2008a).</p> <p>Basis for Change: Refer to ER Page 3-20, Section 3.2.7.</p>
51	2-11/6 and 7	A word search was performed of the ER, and no statement could be found that transmission lines do not cross any Federal, State, or local parks. Only one transmission crosses the United States Fish and Wildlife Service (USFWS) rainwater basin area.	<p>Revise to read: “The transmission lines do not cross any Federal, State, or local parks (NPPD, 2008). However, the western half of the <u>only one in-scope</u> transmission line corridor traverses counties that...”</p> <p>Basis for Change: No ER information supports the statement. Clarification on transmission line corridors.</p>
52	2-11/11	The “(USFWS, 2009h)” reference appears to be inaccurate based on the Section 2.4 references, which shows it being associated with the Salt Creek tiger beetle.	
53	2-11/14	There are actually two separate farmers, one on each side of the Missouri River. It is not important to describe the number of farmers.	<p>Revise to read: “On the CNS-1 property the agricultural and is managed by a single farmer under an agreement with NPPD.</p> <p>Basis for Change: The statement appears to be irrelevant.</p>
54	2-11/26-27	Misquote of the ER.	<p>Revise to read: “Native grasses and low-lying growing woody plants...”</p> <p>Basis for Change: “Low-lying woody plants” is not the same as “low growing woody plants.”</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
55	2-12/1	Incorrect inspection periodicity.	<p>Revise to read: "ROW aerial inspections occur bi-monthly six times annually, and there is an annual foot patrol inspection."</p> <p>Basis for Change: Inspections do not occur every two months.</p>
56	2-15/Figure 2.1.6-2	NLS2009036 Change 10 has not been incorporated.	<p>Replace: Figure 2.1.6-2 with NLS2009036 Attachment 2, Enclosure Figure 3.2-4.</p> <p>Basis for Change: NLS2009036 Change 10</p>
57	2-17/34	The "(NPPD, 2008c)" appears to be incorrect based on the Section 2.4 references, since it refers to a 2007 NPPD Annual Report, which does not appear to support this information.	
58	2-17/42	"(NHHSS, 2000)" is defined as "Nebraska Department of Health and Human Services" on Line 42. On Page 2-81/Line 39, this reference is defined as "Nebraska Department of Health and Human Services System." Which is correct?	
59	2-18/8	For consistency with Page 2-20 (Line 7), change "This water eventually reaches the water table and disperses." to "This water eventually reaches the water table and disperses before likely discharging to the Missouri River."	
60	2-18/13-15	The DSEIS states: "Preliminary sampling and analysis results from the ground water monitoring program for tritium will be submitted and summarized in the final SEIS." NPPD has not committed to provide this information, and believes it is inappropriate to use the DSEIS as the venue to solicit this action. However, NPPD is willing to provide this information following a request from the NRC staff.	<p>Revise to read: "<u>The NRC staff will request that NPPD submit p</u>Preliminary sampling and analysis results from the ground water monitoring program for tritium will be submitted and for summarized<u>ation</u> in the final SEIS."</p> <p>Basis for Change: No communication has been received requesting this information.</p>

Comment No.	Page Number/Line Number	Comment	Suggested Resolution
61	2-18/29-30	NDEQ Title 117 lists additional beneficial uses for the Missouri River than those provided.	Revise to read: "Beneficial uses of surface water identified in the CNS-1 area are <u>recreational, aquatic life (Warmwater A), public drinking water supply, agricultural water supply, industrial water supply, and aesthetics for agricultural and industrial water supply</u> (NDEQ, 2004)." Basis for Change: Clarification
62	2-18/34	Reference to NPDES Permit NE-0001244 is not the correct designator.	Revise to read: "...Nebraska NPDES permit <u>NE-0001244 NE0001244</u> ." Basis for Change: ER Table 9.2-1
63	2-19/Table 2.1.7-1	Table 2.1.7-1 listed NPDES outfalls from an earlier permit. The present NPDES permit for CNS does not have Outfalls 002a, 003, 005, or 006. Also, the present NPDES permit has pH limits for each of the remaining outfalls. Limits are Min. 6.5 SU and Max 9.0 SU.	Revise Table 2.1.7-1 to: a) remove Outfalls 002a, 003, 005 and 006 from this table since there are no such outfalls listed in the current NPDES Permit, and b) for Outfalls 001, 002b, 002c, 004, 008 and 009, the pH effluent limitation of 6.5 (Minimum) and 9.0 (Maximum) should be added. Basis for Change: NPPD NPDES Permit No. NE0001244.
64	2-19/ Table 2.1.7-1	This table should have a reference to NPPD NPDES Permit No. NE0001244.	
65	2-19/Table 2.1.7-1	The "Max. proposed" temperature column should be deleted, as the proposed NPPD NPDES Permit was approved.	
66	2-19/6	"Outfall 006" should be "Outfall 001."	Revise to read: "...through Outfall 006 <u>1</u> ..." Basis for Change: NPPD NPDES Permit No. NE0001244.

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
67	2-19/9-17	The outfall description does not match the latest NPPD NPDES Permit as issued on June 26, 2007, by the NDEQ.	<p>Revise to read: Outfalls-002a, 002b is the discharge of industrial well ground water bypass, RO reject, and boiler blowdown.; and Outfall 002c is the discharge of diesel generator, turbine fan heater, boiler room floor drains, and HVAC blowdown discharge water from roof drain sumps outside the power block, from clear well discharge, and HVAC blowdown, respectively. Along with the intake screen backwash discharged through Outfall 003, Outfalls 002a, b, and c These outfalls discharge to the Missouri River. Outfall 005 discharges batch volumes of sanitary waste from the sewage lagoon system. The discharge is sprayed on nearby farm land and is not directly connected to area surface water bodies.</p> <p>Basis for Change: NPPD NPDES Permit NE0001244, Expiration Date June 30, 2012</p>
68	2-19/18	Sentence reads awkwardly.	<p>Revise to read: "The only NPDES non-compliance reported in the last five years was for total suspended solids..."</p> <p>Basis for Change: Grammatical enhancement.</p>
69	2-21/1	Referenced Figure should be 2.2.1-1.	<p>Revise to read: "...Atchison County, Missouri, see Figure 2.2.1-1."</p> <p>Basis for Change: Typographical error</p>
70	2-22/9	The cited source for Figure 2.2.1-2 is "(NPPD, 2008a)." This reference is not provided in Section 2.4.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
71	2-23/4-5	Reference "(David J. Wishart, 2004)" is not consistent with citation in Section 2.4.	Revise to read: "...(<u>David J. Wishart, 2004</u>) (<u>Wishart 2004</u>)." Basis for Change: Citation consistency
72	2-23/31-32	Change "@" symbols to "at" (grammatical enhancement).	
73	2-24/18-36	Paragraph should be rewritten to state that CNS's potential to emit is less than the criteria defined in Title V of the United States EPA Clean Air Act and in Chapter 5, Title 129 of Nebraska Administrative Code for criteria pollutants and hazardous air pollutants (HAPs). The presentation of the emissions in tons should be clarified to more clearly identify which pollutant is associated with which value for emissions, and the source for the basis of those emissions should be provided as a reference. Remove the mention of used oil as it is not relevant to air emissions as discussed.	Revise to read: "CNS-1 has a number of stationary emission sources, such as three standby emergency power supply diesel generators, auxiliaries required for safe starting and continuous operation and which are tested <u>periodically to ensure their reliability to perform their intended function</u> , and several petroleum fuel storage tanks. which do not require the facility to secure Title V permit. Since CNS's actual annual emissions are less than the criteria defined in Title V of the Clean Air Act and in Chapter 5, Title 129 of Nebraska Administrative Code for criteria pollutants and hazardous air pollutants (HAPs). CNS-1 is <u>has been granted a low emitter status by the NDEQ Air Quality Section due to the actual quantities of emissions that are required to meet criteria and not to exceed thresholds for the emissions of pollutants defined in Chapter 5, Title 129 of Nebraska Administrative Code: for the emissions of particulate matter PM10, carbon monoxide (CO), volatile organic compounds (VOC), oxides of nitrogen (NOx), SO2 or SO3 or any combination of the two (SOx), single Hazardous Air Pollutant (HAP) or Hazardous Air Pollutant (HAPs) and lead. As reported and submitted to NDEQ, actual total annual emissions from all sources at CNS-1 from 2004 to 2008 were 11.52 tons (10.45 MT)</u>

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			<p>per-year, 10.73 tons (9.73 MT) per-year, 13.21 tons (10.73 MT) per-year, 11.43 tons (10.37 MT) per-year, and 9.85 tons (8.94 MT) per-year respectively. Highest emissions from 2004 to 2008, maximum reported annual emissions occurred were reported in 2006 at 13.21 tons (10.73 MT); 0.16 tons (0.15 MT) per year of PM10, 2.41 tons (2.19 MT) per year of CO, 0.22 tons (0.20 MT) per year of VOC, 9.0 tons (8.16 MT) per year of NOx, 1.41 tons (1.28 MT) per year of Sox, and 0.01 tons (0.009 MT) per year of single HAP (NPPD, 2009c). The generators are tested periodically to ensure their continued ability to perform their intended function; and there are procedures in place to ensure continuous monitoring, sampling, and filtering of the oil. Used oil is collected for offsite disposal; therefore, no used oil incineration activities occur on the CNS site. Used oil disposal is discussed further in the waste management section.</p> <p>Basis for Change: Clarification</p>
74	2-24/24-25	"PM10," "SO2," and "SO3" should all have the numbers as subscript ("PM ₁₀ ," "SO ₂ ," and "SO ₃ "). Grammatical enhancement.	
75	2-24/32	"Sox" should be "SO _x ." Grammatical correction.	
76	2-24/38-39	Text suggests that the two monitoring sites are more than the 100-m tower and the 10-m tower.	<p>Revise to read: "These first-monitoring sites consist of accommodates a 328-foot (100-m) primary meteorological tower and a 32.8-foot (10-m) back up tower."</p> <p>Basis for Change: Clarification</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
77	2-24/40	NLS2009036 Change 2 has not been incorporated.	<p>Revise to read: "The former is located approximately 31,230 feet (985375 m) and the latter..."</p> <p>Basis for Change: NLS2009036 Change 2</p>
78	2-24/42-44	NLS2009036 Change 3 has not been incorporated. The text suggests, incorrectly, that the second monitoring site is the new 100-m tower erected to support dry cask storage at CNS. See also Comment 76.	<p>Relocate text to Page 2-25 (new paragraph after Line 8) and revise to read: "The second <u>A new</u> monitoring site, a 328-foot (100-m) meteorological tower <u>is being planned for 2010, The design details are incomplete, but the new tower will meet or exceed the performance standards of the existing tower and will be fully compliant with NRC requirements with</u> equipment and monitoring system that is nearly identical to the original 328-foot (100-m) tower, was recently built approximately 2,000 feet (610 m) northwest of the first site."</p> <p>Basis for change: NLS2009036 Change 3</p>
79	2-25/11	Change "fresh water" to "freshwater." Grammatical enhancement.	
80	2-25/18	The acronym "CRA" is not defined after its use here (although it is listed in the Table of Acronyms). Some discussion of who "CRA" is would be helpful; e.g., some indication of their expertise.	<p>Revise to read: "As part of a hydrogeologic investigation undertaken by CNS-1 for the study of radioisotopes in ground water, <u>Conestoga Rivers Associates (CRA) (a noted industry vendor in such studies)</u> reviewed..."</p> <p>Basis for Change: Clarification</p>
81	2-25/38 2-29/16	"Main-stem" should be "mainstem."	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
82	2-26/4	The metric flow rate for 31,000 cfs is missing.	Revise to read: "... north of CNS-1, is 31,000 cfs (878 m ³ /s)." Basis for Change: Correction
83	2-26/4 and 5	The minimum permitted 3,000 cfs sanitary flow is not correct. The value should be 4,320 cfs per the U.S. Army Corps of Engineers Master Manual.	Revised to read: "In December through February, the minimum flow permitted is 3,000 4,320 cfs (85 122 m ³ /s), primarily for sanitary water quality purposes." Basis for Change: U.S. Army Corps of Engineers Master Manual. See Attachment 3, Change 1.
84	2-26/35	Change "... we derive..." to "...are derived..." Grammatical enhancement.	
85	2-27/12 and 13	Sentence does not read correctly.	Revise to read: "The authors presented a conceptual model to illustrate the links between these activities and those for recovery and restoration and of Midwestern river fish communities." Basis for Change: Grammatical correction
86	2-28/Figure 2.2.5-1	It is not clear what this figure is trying to communicate. Recommend clarification or deletion.	
87	2-29/22-23	Appears the terms "lentic" and "lotic" are interchanged. The reservoirs would cause lentic flow, not lotic.	Revise to read: "The reservoirs have changed lentic lotic (i.e., pertaining to flowing or running water) habitat into lotic lentic (i.e., pertaining to still or standing water) habitat..." Basis for Change: Merriam-Webster Dictionary.
88	2-29/23	Insert comma after "i.e." Grammatical correction.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
89	2-29/30	"Draught" should be "drought."	Revise to read: "...as fire, draught <u>drought</u> , flooding..." Basis for Change: Spelling correction
90	2-33/2	The upstream reservoir produces a lentic environment, not a lotic environment.	Revise to read: "...be largely determined by upstream reservoirs, where the lotic <u>lentic</u> environment ..." Basis for Change: Merriam-Webster Dictionary.
91	2-34/23	"Louis" should be "Lewis."	Revise to read: "...included the upstream Louis <u>Lewis</u> and Clark..." Basis for Change: Grammatical correction
92	2-35/12	"USACE 2003" is not listed in the Section 2.4 references. Add reference to "USACE 2003" to Section 2.4.	
93	2-35/26	Sentence reads awkwardly.	Revise to read: " <u>Within</u> the main channel..." Basis for Change: Grammatical correction
94	2-36/4	Insert "are" between "fish near." Grammatical correction.	
95	2-36/24	The site acreage differs from the number provided on Page 2-1, line 8.	Revise to read: "According to the ER, the CNS-1 facilities are located within 55 acres (22 ha) of a 1,1240 -acre (454 ha) site in Nemaha County..." Basis for Change: Consistency change

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
96	2-36/31	The statement "...cropland on north, south, and east sides..." is not correct.	<p>Revise to read: "The CNS property in Missouri is adjacent to the eastern bank of the Missouri River and is bordered by cropland <u>on its north, south, and east</u> and timberland <u>on its north and south sides</u> (Figure 2.2.1-1) (NPPD, 2008)."</p> <p>Basis for Change: ER Figure 2.2.1-1</p>
97	2-36/32	An incorrect number of acres is devoted to agricultural acres on the Nebraska side of CNS site.	<p>Revise to read: "On the Nebraska side of the CNS-1 site, approximately <u>900715</u> acres (364 <u>289</u> ha) are currently used..."</p> <p>Basis of Change: CNS ER Section 2.1</p>
98	2-36/37	This line states "...a 55-acre (22ha) wetland mitigation site." The site does not have a 55-acre wetland mitigation site. It has an approximately 1.5-acre wetland mitigation site on a 55-acre parcel of ground:	<p>Revise to read: "...and, according to NPPD staff, a 55-acre (22 ha) wetland area, <u>which includes an approximately 1.5-acre mitigation site.</u>"</p> <p>Basis for Change: Letter from L. Peterson (USACE) to B. Shanks (NPPD), July 6, 1995.</p>
99	2-37/24 and 25	There is an improper attribution to the License Renewal Application ER for 40-acre agricultural activity use on the Missouri side of NPPD property. Delete/relocate "NPPD, 2008" reference.	
100	2-38/3	The greater prairie chicken is not commonly found in the vicinity of CNS. Recommend that "greater prairie chicken" be deleted, as it is not indigenous.	
101	2-39/1	"(Bubo virginianus)" should be in italics.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
102	2-39/1	Incorrect number of bird deaths.	<p>Revise to read: "...horned owl (<i>Bubo virginianus</i>), <u>three a number of</u> additional birds, and the death..."</p> <p>Basis of Change: ER Page 2-52 cites more than three bird deaths.</p>
103	2-39/Table 2.2.7-1 2-48/10	Incorrect spelling of Blue sucker scientific name.	<p>Revise Blue sucker entry to read: "<i>Cycleptus elongateus</i>."</p> <p>Basis of Change: NatureServe- "Blue sucker."</p>
104	2-40/Table 2.2.7-1	The scientific name of the pallid sturgeon is listed as "Scaphirhynchus albus." Page 2-48/5 calls the pallid sturgeon "Scaphirhynchus albus" (emphasis added).	<p>Revise Table 2.2.7-1 entry to read: "Scaphirhynchus albus."</p> <p>Basis for Change: NatureServe- "Pallid sturgeon."</p>
105	2-41/Table 2.2.7-1	Incorrect spelling of "Western ribbonsnake" (needs space between "ribbon" and "snake").	<p>Revise entry to read: "Western ribbon snake."</p> <p>Basis of Change: NatureServe- "Western ribbon snake."</p>
106	2-41/Table 2.2.7-1	Incorrect spelling of Whooping crane scientific name.	<p>Revise Whooping crane entry to read: "<i>Grus Americana</i>."</p> <p>Basis of Change: NatureServe- "Whooping crane."</p>
107	2-41/Table 2.2.7-1	Need to include the "Bald Eagle" since it is listed as threatened in Nebraska and endangered in Missouri.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
108	2-43/Table 2.2.7-1	Incorrect spelling of Salt Creek tiger beetle scientific name.	Revise Salt Creek tiger beetle entry to read: "Cincindela nevadica lincolniana." Basis of Change: NatureServe- "Salt Creek tiger beetle."
109	2-43/Table 2.2.7-1	Per reference MDC, 2009c, the American burying beetle should be listed as possibly extirpated as other items are also listed as such.	
110	2-43/Table 2.2.7-1	Incorrect spelling of Thimbleweed scientific name.	Revise Thimbleweed entry to read: "Anemone cylindrical." Basis of Change: NatureServe- "Thimbleweed."
111	2-43/Table 2.2.7-1	"Harry Woodmint" should be "Harry woodmint."	Revise entry to read: "Harry W woodmint." Basis of Change: Typographical correction.
112	2-44/Table 2.2.7-1	For Buffalo grass, there should be a Habitat description beyond "Possibly extirpated" for consistency with other flora and fauna that are stuated as possibly extirpated.	
113	2-44/Table 2.2.7-1 2-45/Table 2.2.7-1 2-47/Table 2.2.7-1	The State Status for Toothed ticktrefoil, Glades gayfeather, and Twisted ladies'-tresses are "S1?" or "S2?" It is unclear what the "?" signifies.	
114	2-44/Table 2.2.7-1 2-45/Table 2.2.7-1 2-46/Table 2.2.7-1	The State Status for Bush's sedge, Frank's sedge, Plains frostweed, and Maryland senna are "S1S2." It is unclear what this classification signifies.	
115	2-45/Table 2.2.7-1	"Gastrophe olivacea" (Great Plains narrowmouth toad) should in the amphibian section rather than the plant section of the table.	
116	2-45/Table 2.2.7-1	"Seaside Heliotrope" should have a lower case "h."	Revise to read: "Seaside H heliotrope." Basis for Change: NatureServe – "Seaside heliotrope."

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
117	2-45/Table 2.2.7-1	For hairy creeping lovegrass, it should be noted in the Habitat column that it is possibly extirpated.	
118	2-45/Table 2.2.7-1	The common name for "Nothocalais cuspidate" is "Prairie false dandelion."	Revise to read: "Prairie <u>false</u> dandelion." Basis for Change: NatureServe – "Prairie false dandelion."
119	2-46/Table 2.2.7-1	"Locoweed" is not a single species of plant. "Oxytropis lambertii var. lambertii" corresponds to "Stemless point vetch."	Revise to read: " Locoweed <u>Stemless point vetch</u> ." Basis for Change: NatureServe – "Stemless point vetch."
120	2-46/Table 2.2.7-1	"Panax quinquefolium" should be "Panax quinquefolius."	Revise to read: "Panax quinquefoli <u>us</u> ." Basis for Change: NatureServe - "American ginseng."
121	2-46/Table 2.2.7-1	"Pediomelum argophyllum" should be "Silvery scurfpea."	Revise to read: "Silvery psoralea <u>scurfpea</u> ." Basis for Change: NatureServe – "Silvery scurfpea."
122	2-48/15	"(Iowa Administrative Code, Chapter 77)" is not included in the Section 2.4 references.	
123	2-48/46	Regarding the pallid sturgeon, the statement "The populations are largely older fish that will die off in the near future" is too definitive.	Revise to read: "The populations are <u>believed to be mostly largely</u> older fish that <u>may will</u> die off in the <u>foreseeable near</u> -future." Basis for Change: Clarification
124	2-50/17	Insert comma after "chlordane." "Chlordane" and "DDT" are two different chemicals.	
125	2-50/36	Delete "had." Grammatical enhancement.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
126	2-51/8	Change "200b" to "2003b." Referencing correction.	
127	2-51/16	Incorrect scientific name for piping plover.	<p>Revise to read: "...piping plover (<i>Charadrius melodius</i>), and the ..."</p> <p>Basis for Change: NatureServe – "Piping plover."</p>
128	2-51/ 37	Delete "but" following the comma. Grammatical enhancement.	
129	2-51/38-43	<p>These lines should be deleted. The critical habitat for plovers in Nebraska was vacated and remanded for new designation but that has not occurred yet. This discussion is no longer accurate as the USFWS designation of critical habitat has been overturned.</p> <p>Reference: Case: 4:03-cv-03059-LES-DLP Document #: 53 Date Filed: 10/13/2005, Case: 4:03-cv-03059-LES-DLP Document #: 54 Date Filed: 10/13/2005</p>	
130	2-52/4 and 9	Change "NGPC 2009a" to "NGCP 2009b" to correlate with the Section 2.4 references.	
131	2-52/13 and 16	Delete the space between "NYS DEC" to be shown as "NYSDEC" for consistency with Section 2.4 references.	
132	2-52/27	Delete the space between "MN DNR" to be shown as "MNDNR."	
133	2-52/46	The whooping crane population discussion is no longer accurate, as the experimental population of whooping cranes in Idaho is extinct.	<p>Revise to read: "There are currently three <u>two</u> populations of whooping cranes totaling less than 400 adult and juvenile birds, including one wild population and two <u>one</u> experimental, nonessential populations.</p> <p>Basis for Change: http://www.whoopingcrane.com/FLOCKSTATUS.HTM</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
134	2-52/35, 38, 41	Change "(NGPC, 2009b)" to "(NGPC, 2009a)" to correlate with the Section 2.4 reference.	
135	2-53/7-8	The experimental population of whooping cranes in Idaho is extinct.	<p>Revise to read: "One of the two experimental populations breeds in Idaho and overwinters in Utah. The second experimental population breeds in Wisconsin and overwinters in Florida and several other southeastern States (NatureServe, 2008a)."</p> <p>Basis for Change: http://www.whoopingcrane.com/FLOCKSTATUS.HTM</p>
136	2-53/13	Recommend that the word "significant" be deleted since it implies that there are large populations, which is not the case.	
137	2-53/26 4-42/44-45	The statement that "...collisions with transmission lines are the main cause of whooping crane mortality during their migrations" should be clarified that these are the main <u>known</u> cause of mortality.	<p>Revise to read: "The USFWS has indicated that collisions with transmission lines are the main <u>known</u> cause of whooping crane mortality during their migrations ..."</p> <p>Basis for Change: It is not known what the main reason is for loss of whooping crane numbers during migratory transit. Therefore, it is appropriate to characterize transmission line collisions as a "known" cause.</p>
138	2-58/1-2 2-59/4	Section 2.4 contains no reference "(NDED and NPPD, 2008a)."	
139	2-59/Table 2.2.8.2-1	"City of Nebraska" should be "City of Nebraska City."	
140	2-59/10	There is no "(NDE, 2008)" listed in the Section 2.4 references.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
141	2-62/44 2-63/1-2	There has been no indication that noise levels at CNS have exceeded the 55 dBA threshold noise level.	<p>Revise to read: “The EPA uses However, noise levels may sometimes exceed the 55 dBA level that the EPA uses as a threshold level to protect against excess noise during outdoor activities (EPA, 1974).”</p> <p>Basis for Change: There is no data that noise levels at CNS have exceeded the 55 dBA noise level.</p>
142	2-63/Table 2.2.8.5-1	In title “2006” should be “2007.”	
143	2-63/Table 2.2.8.5-1	<p>Footnote: Reference “(USCB, 2009)” does not exist in Section 2.4.</p> <p>Reference “University of Nebraska-Lincoln, Nebraska Population Projections (2008)” does not exist in Section 2.4.</p>	
144	2-64/Table 2.2.8.5-2 2-65/Table 2.2.8.5-3	The race percentages do not add up to 100%.	
145	2-65/Table 2.2.8.5-3	If some other race category has been eliminated from the Census estimate, why is it being included in the table? Consider eliminating the category of “Other Race.”	
146	2-71/17-18	It is not clear what the nexus is between NPPD’s charter to provide electricity to it’s customers in Nebraska, and that payments would continue regardless of the operation of CNS.	<p>Revise to read: “NPPD’s would continue charter is to be responsible for provide electricity to customers throughout the State, these payments would continue regardless of whether or not the CNS is operating.”</p> <p>Basis for Change: Clarification</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
147	2-71/25	The numbers provided for "Nebraska in Lieu of Taxes to Counties With NPPD Retail Electric Sales Attributed to the CNS-1," "Payments to Retail Communities Attributed to CNS-1," and the Total values do not match what was provided in ER Table 2.7-1. Recommend revision to conform with ER information.	
148	2-71/26	Reference "NPPD, 2008b" is incorrect. Change "NPPD, 2008b" to "NPPD, 2008" to correlate with the reference in Section 2.4.	
149	2-73/17	Delete random ")" following "population."	
150	2-76/19 and 20	The reference "50 CFR Part 22" is not referenced in the Section 2.0 discussion.	
151	2-78/23-28	Hesse, L.W., [et al]. 1982a is not referenced in the Section 2.0 discussion.	
152	2-79/15-17	Missouri Conservation Department 2009 is not referenced in the Section 2.0 discussion.	
153	2-79/ 38-41	MDC 2009d" is not referenced in the Section 2.0 discussion.	
154	2-80/23-25	NRCS. 2000" is not referenced in the Section 2.0 discussion.	
155	2-82/10	Change "2004a" to "2004" to correlate with the reference listing in the Section 2.0 discussion.	
156	2-82/12	Change "2005a" to "2005" to correlate with the reference listing in the Section 2.0 discussion.	
157	2-82/24-26	NPPD 2007c is not referenced in the Section 2.0 discussion.	
158	2-82/35-37	NPPD 2008d is not referenced in the Section 2.0 discussion.	
159	2-82/42-43	NPPD 2009b is not referenced in the Section 2.0 discussion.	
160	2-83/9	Insert "2009a" after "(NGPC)" to correlate with the reference listing in the Section 2.0 discussion.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
161	2-84/27-30	USCB 2009b is not referenced in the Section 2.0 discussion.	
162	2-85/34-37	USFWS 2008c is not referenced in the Section 2.0 discussion.	
163	2-86/5 and 6	USFWS 2009d is not referenced in the Section 2.0 discussion.	
164	2-86/7-11	USFWS 2009e is not referenced in the Section 2.0 discussion.	
165	2-86/12-15	USFWS 2009f is not referenced in the Section 2.0 discussion.	
166	3-4/3-5	Need to separate 10 CFR 54 as a stand alone reference.	
167	3-4/10-12	NRC 1999 is not referenced in the Section 3.0 discussion.	
168	4-1/14	For consistency, "10 CFR Part 51" should be listed in the Section 4.12 references.	
169	4-2/13	Insert a "period" after "(gpm)."	
170	4-5/22	Delete "the" before "Section 316(a)." Grammatical enhancement.	
171	4-5/15 and 16	Delete the duplicated phrase "...for minimizing adverse environmental impact."	
172	4-5/35	On line 35, the NRC appears to be calculating a fish impingement value for the year 1974, not 1978. Please verify.	
173	4-5/39	Recommend the use of the word "reasonable" over "useful."	

Comment No.	Page Number/Line Number	Comment	Suggested Resolution
174	4-6/9	<p>The Staff indicates that NPPD has committed to change out the fish screens during the 2011 refueling outage, as opposed to the more general characterization of during the initial operating term. This should be clarified to be consistent with the discussion suggested in Attachment 2 for Page 2-13/Lines 26-31.</p>	<p>Revise to read: “CNS-1 has not yet completed the fish protection system. and plans to install, during a 2011 refueling outage, <u>The intention is to install a fish handling and return system to mitigate fish impingement consisting of inside and outside sprays to wash fish from the screens and a separate fish return trough (NPPD, 2008, pgs 4-11). The plant’s service water system would supply water for the spray wash. The new screens, fish handling system, and fish return trough primarily affect impingement but not entrainment. CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.</u>”</p> <p>Basis for Change: Clarification. See Attachment 3, Changes 2, 4, 5, 6, 7, 8, 9, 10, and 11.</p>
175	4-6/39	<p>The “(EPA, 2009)” reference should be changed to “(EPA, 2009b)” based on the Section 4.12 references.</p>	
176	4-7/1-6	<p>The NRC states the following:</p> <p>“The NRC staff examined the question of how the age of the data might affect the conclusions regarding entrainment and impingement at CNS-1. The NRC staff found that the argument used in the NPPD’s ER is inconsistent because it assumed at different points that the aquatic resources are both stable and unstable, although in fact they cannot be both. In describing the aquatic resources, the ER stated that fish communities have long been responding to changes in the river brought on by man’s activities.”</p> <p>These statements should be deleted. The CNS ER does not present an argument that aquatic species are stable or unstable. NPPD’s evaluation</p>	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
		<p>of the aquatic resources in the vicinity of CNS did not assume or conclude that the aquatic resources were stable. In fact, the available studies of Missouri River communities indicate little historic information is available related to the aquatic communities in the Missouri River prior to its damming and channelization. There have, however, been numerous studies that conclude alterations of the river flows and channel may have had significant impact on the communities that may have once existed. NPPD's ER made several statements that some species may be in decline while others may be aggressively and invasively increasing (e.g., Asian carp). NPPD's ER discusses at length the anthropogenic factors that have and continue to affect the aquatic resources. These anthropogenic factors, however, are unrelated to the operation of CNS or other power plants on the Missouri River.</p>	
177	4-7/30 and 31	<p>The "EPA (2009)" reference should be changed to "EPA (2009b)" based on the Section 4.12 references.</p>	
178	4-7/45	<p>The "(Berry et al.)" reference is not listed in the Section 4.12 references.</p>	
179	4-8/15-16	<p>Delete extra closing parentheses in two locations.</p>	
180	4-8/38-40	<p>NPPD's plans for installing a fish handling system should indicate that the final design is dependent on the content of the final 316(b) regulations.</p>	<p>Revise to read: "...and NPPD plans to install a fish handling <u>and return</u> system consisting of inside and outside sprays to wash fish from the screens and a separate fish return trough to mitigate adverse effects of impingement whose final design is dependent upon the content of the final 316(b) Clean Water Act requirements ..."</p> <p>Basis for Change: Clarification. See Attachment 3, Changes 2, 4, 5, 6, 7, 8, 9, 10, and 11.</p>
181	4-8/40	<p>Replace "NDEC" with "NDEQ."</p>	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
182	4-10/45-46	The design of the fish handling system is contingent on content of the final <u>316(b)</u> regulations.	<p>Revise to read: “Whatever the total effects of CNS-1 on the fish community were in the past, the installation of the modified dual-flow traveling screens in 2006 and future installation of a <u>fish handling and return system</u>low-pressure screen wash and fish return trough <u>(dependent upon the final design and implementation of the final 316(b) Clean Water Act requirements)</u> would mitigate those impacts....”</p> <p>Basis for Change: Clarification. See Attachment 3, Changes 2, 4, 5, 6, 7, 8, 9, 10, and 11.</p>
183	4-11/Table 4-4	Table 4-4 is not in the Table of Contents.	
184	4-12/10 and 17	As noted in Section 2.0, the number of acres owned by NPPD on the Missouri side of the river is 239 acres, not 230 acres. This entire parcel was offered for a conservation easement. The acreage values should be revised.	
185	4-12/21 and 22	The conservation agreement discussions should be updated.	<p>Revise to read: “At the time of writing this SEIS <u>The deed restriction for conservation has been placed upon the 239 acres that NPPD owns on the Missouri side of the river, and the MOU including conditions regarding the additional payment of \$250,000, has been finalized and signed by the parties involved</u> parties are discussing details of the conservation agreement.”</p> <p>Basis for Change: Status update</p>
186	4-12/31	The “Hrabik et al. (2007)” reference is not listed in the Section 4.12 references.	
187	4-13/3	Change “section” to “Section.” Grammatical correction.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
188	4-13/25-33	It is not necessary for the NRC to solicit a commitment for NPPD to report the existence of endangered or threatened species via the draft SEIS. Reporting is conducted in accordance with State and Federal regulations.	<p>Revise to read: “The staff requests that NPPD report the existence of any Federally listed or State listed endangered or threatened species within the CNS-1 site or near the transmission line corridor to NGPC, MDC, and the USFWS, if any such species are identified during the license renewal term. In addition, the NPPD is required to promptly report to the appropriate wildlife management agencies and to NRC, any evidence of injury to, or mortality of, migratory birds or threatened or endangered species observed within the transmission line corridor, especially injury to, or mortality of, Federally listed whooping cranes, interior least terns, and piping plovers along the Platte River near the western limit of CNS-1 transmission line NPPD TL3502, near Grand Island, NE. All of NPPD operations, including those necessary for transmission line maintenance and operation, are conducted in accordance with NPPD policies and procedures that require special precautions related to operations involving threatened and endangered species and avian protection [NPPD 2007a; NPPD 2007b].”</p> <p>Basis for Change: ER Page 4-47, Section 4.10.5</p>
189	4-13/40-41	The status of the bird diverters should be updated.	<p>Revise to read: “The NPPD is also has coordinateding with USFWS staff and has to installed bird diverters on transmission line NPPD TL3502 where it traverses the Platte River.”</p> <p>Basis for Change: Status update.</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
190	4-15/32	Insert space after "0.0031."	
191	4-16/21-22	The verbiage needs to be revised to more accurately reflect the applicability of the issue since CNS is not a closed-cycle plant.	Revise to read: "The effects of thermophilic microbiological organisms on human health, listed in Table B-1 of Appendix to Subpart A of 10 CFR Part 51, are categorized as a Category 2 issue and require plant-specific evaluation during license renewal process for the plants located on <u>the a small river, that use closed cycle cooling.</u> " Basis for Change: 10 CFR 51.53(c)(3)(ii)(G)
192	4-16/24	"3.15x10 ¹² ft ³ /year (9x10 ¹⁰ m ³ /year)" should be revised as follows: "3.15x10 ¹² ft ³ /year (9x10 ¹⁰ m ³ /year)"	
193	4-19/Table 4-7	Recommend that NRC confirm the subject matter of Table 4-7, as it appears to be nearly identical to Table 4.6. Should Table 4-7 cover Category 2 socioeconomic issues?	
194	4-20/8	Delete the period following "proximity."	
195	4-22/19	Add a space after the comma as follows "...history, (2)..."	
196	4-23/8	Extra "(" at end of the line.	
197	4-23/15	There is no "pending research" anticipated for historic archeological sites in the vicinity of CNS.	Revise to read: "All surface structures associated with the earlier house sites have been demolished; however, remnants of these buildings remain as historic archaeological sites and could be eligible for inclusion to the NRHP under Criteria A and D pending further research. " Basis for Change: Clarification
198	4-23/32	The "(Gibbon and Ames, 1998)" reference is not listed in the Section 4.12 references.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
199	4-23/34	The "(NSHS, 1937)" reference is not listed in the Section 4.12 references.	
200	4-24/22-30	<p>NPPD has procedural administrative controls in place to ensure that cultural resource reviews are conducted prior to engaging in construction or operational activities in previously undisturbed areas that may result in a potential impact to cultural resources at the site [NPPD, 2007c]. Areas depicted in Phase 1A Literature Review and Archeological Sensitivity Assessment were identified as higher probability archeological site areas on the CNS Owner Controlled Area. However, NPPD has developed a Cultural Resources Protection Plan in an effort to meet state and federal expectations and includes measures for archeological investigations (Phase 1B) and consultations with the Nebraska and Missouri State Historic Preservation Offices (SHPO), and the appropriate Native American groups prior to any future ground disturbing activities [CNS, 2008]. These measures provide adequate protection for potential area cultural resources.</p>	<p>Revise to read: "NPPD could further reduce potential impacts to historic and archaeological resources located at the CNS-1 by training NPPD staff in the Section 106 consultation process and cultural awareness training to ensure that informed decisions are made prior to any ground disturbing activities. In addition, NPPD could also forward its Cultural Resources Protection Plan to the NSHS and the Missouri SHPO for review and comment. This will ensure that historic and archaeological resources are protected at the CNS-1 site. Any revisions to the Cultural Resources Protection Plan should be developed in consultation with the NRC, NSHS, and Missouri SHPO. In addition, lands not surveyed should be investigated by a qualified archaeologist prior to any ground disturbing activity. NPPD should continue to fulfill all site, state, federal, and NEPA requirements regarding future land disturbances on-site."</p> <p>Basis for Change: It is not necessary for the DSEIS to make recommendations on actions NPPD could take to further reduce the SMALL impacts on historic and archaeological resources at CNS.</p>
201	4-26/16	The "(USCB, 2009)" reference is not listed in the Section 4.12 references.	
202	4-26/17	There is a big space at the end of this line that should be filled with text – check the carriage return.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
203	4-27/3 4-28/3 4-29/7 4-30/3 4-31/3	The "(USCB, 2008)" reference is not listed in the Section 4.12 references.	
204	4-29/11	The "(USCB, 2009)" reference is not listed in the Section 4.12 references.	
205	4-33/14	Change "Thorium" to "Naturally occurring thorium" to indicate that it's not plant-related.	Revise to read: " <u>Naturally occurring</u> Thorium-228 was measured in one sample." Basis for Change: Clarification
206	4-33/23	Sentence does not read correctly.	Revise to read: "There were 26 broadleaf vegetation samples were collected <u>from</u> June through September." Basis for Change: Grammatical correction
207	4-33/37	Change "10 CFR Part 72" to "10 CFR Part 50" since CNS has not yet implemented a General License under Part 72.	Revise to read: "The REMP continues to demonstrate that the dose to a member of the public from the operation of CNS-4 remains significantly below the Federally required dose limits specified in 10 CFR Part 20, 10 CFR Part <u>50</u> , and 40 CFR Part 190." Basis for Change: CNS has a Part 50 license, but not a General License under Part 72.

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
208	4-33/39	"Soils" are not monitored.	<p>Revise to read: "Based on recent monitoring results, concentrations of contaminants in native leafy vegetation, soils and sediments, surface water, and fish in areas surrounding CNS-1 have been quite low (at or near the threshold of detection) and seldom above background levels."</p> <p>Basis for Change: CNS Offsite Dose Assessment Manual</p>
209	4-34/18	The "(NRC, 2000)" reference is not listed in the Section 4.12 references.	
210	4-36/3 4-44/21	The "(USGCRP, 2009)" reference is not listed in the Section 4.12 references.	
211	4-36/5	<p>"(14 °C)" should be "(3.3°C)."</p> <p>"(12 °C)" should be "(5.6°C)."</p>	
212	4-37\36-39	<p>This section states:</p> <p>"The impact of introduction and stocking of native and introduced fish species is also somewhat similar to the impact of CNS-1, because the effect of a power plant that impinges and entrains aquatic organisms is somewhat similar to that of a large predator introduced into an aquatic system."</p> <p>This appears to be subjective and is not substantiated. Recommend deletion.</p>	
213	4-38/1	Recommend clarification as to which states are being referred to.	
214	4-38/4 4-40/Table 4-9	The "Nelson-Stastny (2004)" reference is not listed in the Section 4.12 references.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
215	4-38/22-25 4-47/Table 4-10	The characterization of the Missouri River aquatic ecosystem being potentially past the point of reparable change is not adequately justified.	<p>Revise to read: “While the level of impact due to direct and indirect impacts of CNS-1 on aquatic communities is SMALL, the cumulative impact when combined with <u>of</u> all other sources of impact has resulted in the Missouri River aquatic ecosystem being unstable <u>and has resulted in a large and close to, if not past, the point of reparable change.</u> This condition meets NRC’s definition of a LARGE level of impact.”</p> <p>Basis for Change: Clarification</p>
216	4-40/Table 4-9	Why is this table titled “Stastny 2004?” No other tables have titles from the reference name.	
217	4-41/2, 13, and 20	The “(NGPC, 2005)” reference is not listed in the Section 4.12 references.	
218	4-41/27-29	The acreages listed do not match the values provided in ER Section 2.1.	<p>Revise to read: “Approximately 900 acres (364 hectares) of the 1,120+-acre (4534 hectare) CNS-1 site is used for agriculture (NPPD, 2008). Much of the 5590-acres (2236 hectares) of land where the CNS-1 facilities have been constructed was cropland prior to construction of the facility, so disturbance to wildlife habitat had occurred prior to construction of CNS-1.”</p> <p>Basis for Change: CNS Environmental Report, Section 2.1.</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
219	4-41/34 -36	The site does not have a 55-acre mitigation site, it has an approximately 1.5-acre mitigation site on 55-acre parcel of ground.	<p>Revised to read: "NPPD was recently required by the USACE to restore <u>approximately 1.5 55-acres (0.622 hectares) of disturbed wetlands habitat onsite on a 55-acre (22-hectacre) parcel of ground</u> as mitigation for NPPD filling in other disturbed wetlands for construction of CNS-1 parking facilities.</p> <p>Basis for Change: Letter from L. Peterson (USACE) to B. Shanks (NPPD), July 6, 1995.</p>
220	4-41/47	The "(NDNR, 2009)" reference is not listed in the Section 4.12 references.	
221	4-42/9-13	This discussion should be updated based on the recently reached wetland agreement.	<p>Revised to read: "Based upon discussions with NPPD staff during the environmental site audit, NPPD is currently coordinating with Federal and State resource agencies to place this Missouri land into a conservation easement, which may lead to long-term protection of this land from any development as well as removal of the 40 acres of cropland from agricultural production. A conservation deed restriction has been placed upon the 239 acres of land located on the Missouri side of the river to provide for long-term protection of this land from any development as well as agricultural production.</p> <p>Basis for Change: Clarification</p>
222	4-42/18	The "(NCRS), 2007" reference is not listed in the Section 4.12 references.	
223	4-42/25	The "(NGPC, 2005)" reference is not listed in the Section 4.12 references.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
224	4-43/3	“(NPPD, 2009)” appears to be an incorrect reference since it does not correlate with the Section 4.12 NPPD references.	
225	4-43/30-35	The NRC concluded that the cumulative impacts on terrestrial resources would be MODERATE. However, the information presented in Section 4.11.4 makes it unclear how that conclusion was reached. Additional justification should be provided.	
226	4-43/33-35	It is recommended that this section be revised for consistency with the language utilized on Page 4-38 of the DSEIS regarding aquatic impacts.	<p>Revise to read: “...however, the cumulative impacts on terrestrial resources resulting from all 34 past, present, and reasonably foreseeable future actions, including non-CNS-1 activities, while the level of impact due to direct and indirect impacts of CNS on terrestrial communities is SMALL, the cumulative impact when combined with all other sources, even if CNS was excluded, would be moderate.”</p> <p>Basis for Change: Clarification</p>
227	4-43/35	Moderate should be in all capital letters.	
228	4-44/1	Delete “the” before 34. Grammatical enhancement.	
229	4-44/21 and 22	“(14 °C)” should be “(3.3°C)” “(12 °C)” should be “(5.6°C)”	
230	4-44/34-38	This sentence appears to be out of place for this air quality discussion: “As discussed in Nonradioactive Waste Management Section 2.1.3, NPPD is committed to the EPA’s Reduce, Reuse, Recycle program at its major and minor facilities, with a growing Green Team, that focuses on pollution prevention, waste minimization, education and training of the personnel, and incorporates EPA recommendations on the national implementation of the climate change energy conservation techniques (EPA, 2009a).”	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
231	4-44/42-45 4-45/1-10	In Comment 73, a significant rewording was suggested for Section 2.2.2.1. If these changes are accepted by the NRC, conforming changes to Page 4-44/42-45 and Page 4-45/1-10 are necessary.	
232	4-44/45	Insert "(CO)" after carbon monoxide. Grammatical enhancement.	
233	4-45/2	A cross-reference is made to Air Quality Impacts in Section 2.2.2.2. This should be Section 2.2.2.1.	
234	4-45/13.	Delete the second "The staff concludes." It is repeated.	
235	Page 4-45/16-20	It is not clear why a discussion of alternatives is made in this cumulative impacts assessment. The National Environmental Protection Act requires the cumulative impact conclusions be based on known and foreseeable actions, not hypothetical alternatives. Recommend deletion.	
236	4-46/13 and 14	NPPD has made no commitments to initiate further consultations with the NRC and SHPO should plans change for future land-disturbing activities. NPPD procedures stipulate when outside agency consultations should be initiated. Accordingly, the statement: "Should plans change, further consultation would be initiated by NPPD with the NRC and SHPO." should be deleted.	
237	4-46/19-21	<p>It is unclear if the NRC is describing the potential cumulative impacts of CNS operation alone, or the cumulative impacts of CNS operation combined with other Federal or non-Federal actions (ref. Council on Environmental Quality implementation of 40 CFR 1508.7).</p> <p>If describing CNS operation alone, the text should be: "...resulting from CNS-1 operation <u>alone</u> during the period of extended operation would be SMALL. to MODERATE" based on the Staff's conclusions in Sections 4.1 through 4.9.</p> <p>If describing CNS operation with other non-CNS actions, the text should read: "... resulting from CNS-1 operation <u>combined with these other actions</u> during the period of extended operation would be SMALL</p>	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
		to MODERATE <u>LARGE</u> ” due to the previous aquatic determination of a LARGE impact in Section 4.11.3.	
238	4-47/Table 4-10 Air Quality	It is unclear what NPPD’s commitment to “the EPA’s Reduce, Reuse, Recycle program at its major and minor facilities, with a growing Green Team, that focuses on pollution prevention, waste minimization, education and training of personnel...” relates to air quality. Recommend deletion.	
239	4-48/6 and 7	10 CFR Part 54 is not referenced in the Section 4.0 discussion.	
240	4-48/8 and 9	36 CFR Part 60 is not referenced in the Section 4.0 discussion.	
241	4-49/5-7	AEC 1972 is not referenced in the Section 4.0 discussion.	
242	4-50/12-15	EPA 2009b is not referenced in the Section 4.0 discussion.	
243	4-50/42-46	MDC 2009a is not referenced in the Section 4.0 discussion.	
244	4-51/9-11	NEIHS 1999 is not referenced in the Section 4.0 discussion.	
245	4-51/12 and 13	Change “2009a” to “2009” so that the reference will correlate with how it’s listed in the Section 4.0 discussion.	
246	4-51/17-19	NDEQ 2008 is not referenced in the Section 4.0 discussion.	
247	4-51/20 and 21	NDEQ 2009 is not referenced in the Section 4.0 discussion.	
248	4-51/22-24	NIEHS 1999 is not referenced in the Section 4.0 discussion.	
249	4-52/6-9	NPPD 2008a is not referenced in the Section 4.0 discussion.	
250	4-52/10 and 11	NPPD 2008b is not referenced in the Section 4.0 discussion.	
251	4-52/12-14	NPPD 2008c is not referenced in the Section 4.0 discussion.	
252	4-53/16-20	NRC 1999 is not referenced in the Section 4.0 discussion.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
253	4-54/8-10	USAEC 1973 is not referenced in the Section 4.0 discussion.	
254	4-54/24-27	Delete the "USFWS 2009a" reference since it is already listed on Lines 20 – 23.	
255	4-54/42-44	WHO 2007a is not referenced in the Section 4.0 discussion.	
256	5-3/2	Replace verb "requires" with "require" to agree with subject, "Regulations."	
257	5-3/9	Incomplete sentence and misspelled word.	<p>Revise to read: "of severe <u>accident</u> mitigation alternatives..."</p> <p>Basis for Change: Grammatical correction</p>
258	5-3/11-12	Incorrect corporate name.	<p>Revise to read: "...conducted by the <u>Nebraska Public Power District</u> NPPD Energy Company, LLC, (NPPD)..."</p> <p>Basis for Change: Correction</p>
259	5-3/27-33	<p>Section states, "NPPD identified 33 potential SAMAs for CNS-1. NPPD performed an initial screening to determine if any SAMAs could be eliminated because they are not applicable to CNS-1 due to design differences, or have estimated implementation costs that would exceed the dollar-value associated with completely eliminating all severe accident risk at CNS-1. No SAMAs were eliminated based on this screening, leaving all 33 for further evaluation."</p> <p>This is not consistent with the information provided in Section E.2 of the ER, with the summary in DSEIS Section 5.3.3 (page 5-5), or with DSEIS Appendix F (Section F.3.1, page F-13). In fact, 244 potential Severe Accident Mitigation Alternatives (SAMA) were identified for CNS. The dollar-value of completely eliminating severe accident risk was not used in the screening phase, and 80 SAMAs were left for further evaluation.</p>	<p>Revise to read: "NPPD identified 33 <u>244</u> potential SAMAs for CNS-1. NPPD performed an initial screening to determine if any SAMAs could be eliminated because they are not applicable to CNS-1 due to design differences, or because they have estimated implementation costs that would exceed the dollar-value associated with completely eliminating all severe accident risk already been implemented at CNS-1, <u>or because they are addressed by another SAMA candidate</u>. No 164 <u>244</u> SAMAs were eliminated based on this screening, leaving all 33 <u>80</u> for further evaluation."</p> <p>Basis for Change: Clarification</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
260	5-5/8-10	<p>Section states, "Accordingly, the staff based its assessment of offsite risk on the CDFs and offsite doses reported by NPPD in their December 2009 letter (NPPD, 2009b)."</p> <p>It appears that the Staff actually based its assessment of the offsite risk on the Core Damage Frequencies and offsite doses reported by NPPD in the ER (NPPD, 2008). The December 2009 letter merely indicates that the ER results are conservative compared to the results that would have been obtained using corrected meteorological data.</p>	<p>Revise to read: "Accordingly, the staff based its assessment of offsite risk on the CDFs and offsite doses reported by NPPD in their December 2009 letter <u>LRA Environmental Report</u> (NPPD, 20089b)."</p> <p>Basis for Change: Clarification</p>
261	5-7/25-28	<p>Section states, "NRC staff reviewed NPPD's re-analysis as submitted by NPPD and agrees that the error was conservative relative to the average population dose and offsite economic cost and that no SAMAs were inappropriately excluded from consideration in the LRA as a result of the error."</p> <p>This paragraph is not clear as a stand-alone paragraph. Suggest moving this paragraph to Section 5.3.2, page 5-4, following lines 11-17.</p>	
262	5-8/4	<p>Insert an open parenthesis "(" at the beginning of the line, prior to "e.g." Also, recommend changing "e.g." to "i.e." since this statement appears to be paraphrasing for clarity of meaning rather than providing an example of managing the effects of aging.</p>	
263	5-8/14 and 15	<p>10 CFR Part 100 is not referenced in the Section 5.0 discussion.</p>	
264	5-8/16-22	<p>The NPPD 1993 (ML073600192 and ML073600193) references were not found in ADAMS search.</p>	
265	5-8/30	<p>NPPD 2009 reference should be ML091880319 (delete trailing 3).</p>	
266	5-8/40 and 41	<p>Add, "September 2004" at the end of the reference for consistency with same reference on page F-39 (line 25).</p>	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
267	6-3/1 6-4/2, 15, 16, 19, 26 and 28 6-5/ 9 and 15	Change "lifecycle" to "life cycle."	
268	6-3/24	"(Keepin, 1988; Hagen et al., 2001; and MIT, 2003)" are not listed in the Section 6.3 references.	
269	6-5/Table 6-2.	The POST (2006) line of data contains an arrow after coal. There is nothing like it elsewhere so it appears it should be deleted.	
270	6-5/Table 6-2 6-6/Table 6-3 6-7/Table 6-4	"POST (2006)" is not listed in the Section 6.3 references.	
271	6-9/8 and 9	10 CFR Part 63 is not referenced in the Section 6.0 discussion.	
272	6-9/10-12	40 CFR Part 191 is not referenced in the Section 6.0 discussion.	
273	7-2/24-26	NPPD 2008 is not referenced in the Section 7.0 discussion.	
274	8-2/Box	The "EIA 2009a" reference appears to be inaccurate based on the Section 8.7 references. Based on Section 8.7, it appears that it should be "EIA 2009."	
275	8-4/8 8-6/22 and 23 8-10/12 and 25 8-17/21 8-18/8, 38 and 39 8-19/8 8-23/18 and 21 8-24/39 8-31/5 and 27 8-35/4	There is no "(NPPD, 2008)" in the Section 8.7 references.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
276	8-4/20 and 21	Since the DSEIS had not previously discussed coal ash and scrubber sludge being recycled, the following sentence is incorrect: "As noted above, much of the coal ash and scrubber sludge (about 38,300 tons (34,800 MT)) could be recycled."	Revise to read: " As noted above, much of t The coal ash and scrubber sludge (about 38,300 tons (34,800 MT)) could be recycled." Basis for Change: Correction
277	8-4/40	Change "(EPA, 2008a)" to "(EPA, 2008)" to correlate with the Section 8.7 reference.	
278	8-5/19-24	The Table of Acronyms identify "MT" as "metric tonnes." This section spells it "metric tones." Recommend replacing with "MT." Grammatical correction.	
279	8-5/22-23 8-6/28	The numbers after PM should be subscript in two locations.	
280	8-6/15	The citation "40 CFR 60.44Da(1)" should be "40 CFR 60.44Da(a)(1)."	
281	8-6/24	Insert space after "SO ₂ ."	
282	8-13/17	Change "driveshaft" to "drive shaft."	
283	8-15/3	PM10 should be PM ₁₀ .	
284	8-15/17 and 18	The statement that "there is no required reporting of GHG emissions in Nebraska" is inaccurate. EPA finalized the mandatory reporting of greenhouse gases rule which was effective January 1, 2010. This sentence should be deleted.	
285	8-16/16	Delete extra parentheses after "2 m ³ /s."	
286	8-20/13	Large space at the end of line needs to be corrected.	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
287	Page 8-21/10-17	It does not appear to be reasonable to conclude that 250 MWe of CNS baseload generation can be replaced by conservation. The Staff claims that this is supported by the state's energy efficiency goals, but this does not seem realistic. Request NRC verify and provide reference of the source of the Nebraska energy efficiency goals.	
288	8-21/14	Change "is" to "would be." Grammatical enhancement.	
289	8-21/22	Change "will" to "would." Grammatical enhancement.	
290	8-22/2	Delete the "s" after "require."	
291	8-22/28	Insert ")" after Congress.	
292	8-31/7	There is no "(Nucleonics Week, 2008)" in the Section 8.7 references.	
293	8-32/4	There is no "(NREL, 2008)" in the Section 8.7 references.	
294	8-32/23	There is no "(ORNL, 2007)" in the Section 8.7 references.	
295	8-33/24	There is no "(Integrated Waste Services Association, 2007)" in the Section 8.7 references.	
296	8-40/4-6	ACAA, 2007 is not referenced in the Section 8.0 discussion.	
297	8-40/34	Change "2000a" to "2000" to correlate with the reference listing in the Section 8.0 discussion.	
298	8-40/37	Change "2008a" to "2008" to correlate with the reference listing in the Section 8.0 discussion.	
299	8-40/39 and 40	EPA 2009a is not referenced in the Section 8.0 discussion.	
300	9-1/3	Incorrect corporate name for NPPD.	<p>Revise to read: "...Nebraska Public Power District (NPPD) Energy Company, LLC's..."</p> <p>Basis for Change: Correction</p>

Comment No.	Page Number/Line Number	Comment	Suggested Resolution
301	9-1/25-30	The discussion states that the NRC staff has identified a variety of measures to mitigate potential acute electromagnetic field (EMF) impacts. The discussion of EMF impacts, however, does not indicate the consideration of any such mitigation alternatives in this case. Recommend deletion.	
302	9-1/31-37	The discussion states that the NRC staff has identified a variety of measures to mitigate potential impacts of thermophilic microbiological organisms resulting from continued operation of CNS. These measures are not enumerated in section 4.8.2 of the document, so it is unclear where the NRC staff identified mitigation measures. Recommend deletion.	
303	11-1/33-37	It is unclear how regulatory agencies in Pennsylvania are related to license renewal at CNS. Recommend deletion.	
304	11-2/3	Unclear how the Susquehanna River Basin Commission is related to license renewal at CNS. Recommend deletion.	
305	F-1/5	Change "In December 7, 2009" to "On December 7, 2009." Grammatical correction.	
306	F-1/19	There is no "(NRC, 1998a)" in the Section F.8 references.	
307	F-1/22	Change "... who addressed..." to "...that addressed..."	
308	F-5/3	The "(8.9 x 10-5 per year)" value does not agree with the CDF value reported in Section E.1.4 of the ER and in DSEIS Table F-3.	Revise to read: "...(<u>8.90</u> x 10-5 per year)..." Basis for Change: Correction
309	F-7/23-27	Recommend providing a reference to "(NPPD 2009a)."	
310	F-10/44 through F-11/2	Recommend providing a reference to "(NPPD 2009a)."	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
311	F-11/11-13	Recommend providing a reference to Measurement Uncertainty Recapture power uprate approved by the NRC in 2008 (NPPD License Amendment 231 ADAMS Accession Number ML081540280).	
312	F-11/46 through F-12/2	<p>Section states, "Year 2004 tourist information was used to estimate the transient population for year 2005 (Global Insight, 2006; IDED, 2006; Kaylen, 2006; NDED, 2006)."</p> <p>These references were used for the tourist information. Although this information was not provided in the ER or the responses to Requests for Additional Information, it was included in the supporting Engineering Report (CNS-RPT-07-PRA3). This report indicates that year 2004 tourist information was used for Kansas since 2005 data was not available. However, 2005 data was used for the other states (Iowa, Missouri, and Nebraska).</p> <p>Thus, the statement in the DSEIS is not accurate.</p>	<p>Revise to read: "<u>Year 2005 tourist information was used to estimate the transient population in Iowa, Missouri, and Nebraska (IDED, 2006; Kaylen, 2006; NDED, 2006).</u> Year 2004 tourist information was used to estimate the transient population <u>in Kansas</u> for year 2005 (Global Insight, 2006; IDED, 2006; Kaylen, 2006; NDED, 2006)."</p> <p>Basis for Change: Clarification</p>
313	F-12/10 and 11	Add reference to the time estimate studies (listed on Page F-38/Lines 1-4) for the following sentence: "The evacuation speed and time were based on the average values identified in the Missouri and Nebraska time estimate studies."	
314	F-12/2-14	<p>Section states, "NPPD performed sensitivity analyses in which the evacuation delay time was increased to 4.0 hours, and the evacuation speed was decreased to 1.0 m/s. These sensitivity cases resulted in less than 1 percent and 2 percent increases in the total population dose, respectively."</p> <p>Table E.1-15 of the ER provides the results of the sensitivity cases. Comparison of the sums of the third and fourth columns with the sum of the second column shows that both sensitivity cases resulted in less than 1% increase in the total population dose.</p> <p>Thus, the statement in the DSEIS is not accurate.</p>	<p>Revise to read: "NPPD performed sensitivity analyses in which the evacuation delay time was increased to 4.0 hours, and the evacuation speed was decreased to 1.0 m/s. <u>Each of these</u> sensitivity cases resulted in less than <u>a 1 percent and 2 percent</u> increases in the total population dose, <u>respectively.</u>"</p> <p>Basis for Change: Correction</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
315	F-12/19-21	<p>Section states, "In response, NPPD performed a sensitivity analysis that showed only a slight increase in population dose (less than 1 percent for the late release) would result (NPPD, 2009a)."</p> <p>The RAI response letter (NPPD, 2009a) states, "If only 95 percent of the population had been assumed to evacuate the EPZ, then the offsite exposure risk would have been 2.15 person-rem/yr for the baseline severe accident consequences."</p> <p>This represents an increase of less than 1% for the total population dose. Since the increase in total population dose, rather than "late release" population dose was reported, suggest deleting "for the late release."</p>	<p>Revise to read: "In response, NPPD performed a sensitivity analysis that showed only a slight increase in population dose (less than 1 percent total for the late release) would result (NPPD, 2009a)."</p> <p>Basis for Change: Correction</p>
316	F-21 through F-30/Table F-5	For consistency with the rest of the table, remove horizontal lines prior to SAMAs 12, 26, 31, and 66.	
317	F-24 and F-30/Table F-5	Details in modeling assumption for SAMA 78 are beyond the level of detail provided for other SAMAs. Suggest deleting, "to 5.0E-02 for events FPS-XHE-FODFPAL and FPS-XHE-FO-RPVIN and to 9.5E-03 for event FPS-XHE-FODISEL.(c)" and note (c).	<p>Revise to read: "Reduce failure of operator actions to provide alternate injection via the fire water system by a factor of two to 5.0E-02 for events FPS-XHE-FO-RPVIN and to 9.5E-03 for event FPS-XHE-FO-DISEL.(c)"</p> <p>Also, delete note (c).</p> <p>Basis for Change: Level of detail consistency</p>
318	F-28/Table F-5	Typo in modeling assumptions for SAMA 70; "drywall" should be "drywell."	

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
319	F-30/Note (a)	<p>Note (a) indicates that SAMAs in bold are potentially cost-beneficial, but no SAMAs are bold. The following SAMAs are potentially cost-beneficial, based on the CNS SAMA analysis:</p> <p>SAMAs 14 and 25 on page F-23 SAMAs 78 and 33 on page F-24 SAMAs 30 and 68 on page F-25 SAMAs 40 and 45 on page F-26 SAMA 64 on page F-29 SAMAs 75 and 79 on page F-30</p>	
320	F-31/33-34 F-32/8-9 and 25-26 F-33/8-9	<p>For each of the averted cost calculations, the text states, "For the purposes of initial screening, which assumes elimination of all severe accidents caused by internal events, NPPD calculated..." However, NPPD did not use the value of eliminating all severe accidents in the initial screening task.</p>	<p>Revise to read: "For the purposes of initial screening, which assumes elimination of all severe accidents caused by internal events, NPPD calculated..."</p> <p>Basis for Change: Correction</p>
321	F-32/31 and 32	<p>Section states, "Repair and refurbishment costs are considered for recoverable accidents only and not for severe accidents." Wording incorrectly suggests that repair and refurbishment costs are considered in the analysis.</p>	<p>Revise to read: "Repair and refurbishment costs are considered for recoverable accidents only not considered for severe accidents."</p> <p>Basis for Change: Clarification</p>
322	F-33/28 and 29	<p>Section states, "...also referred to as the Modified Maximum Averted Cost Risk (MMACR)." This qualifying statement is not necessary since the ER and DSEIS do not use the term MMACR. Recommend deletion.</p>	<p>Revise to read: "...external event severe accident risk at CNS-1, also referred to as the Modified Maximum Averted Cost Risk (MMACR)."</p> <p>Basis for Change: Clarification</p>

Comment No.	Page Number/ Line Number	Comment	Suggested Resolution
323	F-35/36 and 37	<p>Section states that the NRC “requested that NPPD reassess whether or not SAMA 13 would be cost-beneficial if it were to use the same portable generator as for SAMA 14, which was determined to be cost beneficial (NRC, 2009). In response, NPPD stated that since the SAMA submittal, SAMA 13 has been implemented at CNS-1 (NPPD, 2009a).”</p> <p>As stated, it sounds like NPPD did not address the question. However, in the RAI response, NPPD also stated that the available skid mounted portable power supply considered in the cost estimate for SAMA 14 was not sufficient to supply the battery chargers as proposed in SAMA 13. No DSEIS change needed.</p>	
324	F-38/1 and 2	Missouri State Emergency Management Agency (1991) is not referenced in the Section F discussion. It appears to be related to Page F-12/Lines 10 and 11.	
325	F-38/3 and 4	Nebraska Civil Defense Agency (1993) is not referenced in the Section F discussion.	
326	F-38/21	Add “ADAMS Accession No. ML091880319” for consistency with same reference on page 5-8 (line 30).	
327	F-39/21-23	NRC 2002 is not referenced in the Section F discussion.	

Attachment 2

Proposed Revision to Section 2.1.6 of the Draft Generic Environmental Impact Statement Supplement 41

During the course of reviewing draft Supplement 41 to the Generic Environmental Impact Statement, the Nebraska Public Power District identified an extensive number of comments for Section 2.1.6, "Cooling and Auxiliary Water Systems." These comments included: a) the need to incorporate Environmental Report changes from NLS2009036, b) the need to clarify the U.S. Army Corps of Engineers Missouri River flow regulation, and c) to reorganize the paragraphs in a more topical manner. As this section describes one of the key environmental interfaces of Cooper Nuclear Station, an underline/strikeout version of this section has been generated for the Nuclear Regulatory Commission's consideration.

2.1.6 Cooling and Auxiliary Water Systems

CNS-1 lies on the western shore of the Missouri River, withdraws river water for its once through cooling system, and discharges heated water back to the river. Unless otherwise cited, NRC staff drew information about CNS-1's cooling and auxiliary water systems from NPPD(2006c) and the applicant's ER. Under the present flow regulation, a minimum Nebraska City flow of 31,000 cfs (878 m³/sec) is maintained for navigational purposes beginning in March and extending through November. In the vicinity of the plant, the Missouri River has a regulated minimum flow of 31,000 cubic feet per second (cfs) (878 cubic meters per second (m³/sec)) to the southeast. During the winter months, the winter flow in recent years has routinely been maintained at approximately 6,000 cfs (170 m³/sec) or greater. Since the establishment of present flow regulation, the lowest flow at Nebraska City to date (16 year record) was 4,320 cfs (122 m³/sec) in January 1957, which is also the minimum regulated flow by the U.S. Army Corps of Engineers. [see Attachment 3, Change 1] Should a prolonged drought occur such that water is not available to maintain the above required flows, the navigational season will be shortened so that the minimum sanitary flows can always be maintained, if needed. The annual mean river flow is 38,251 cfs (1,083 m³/sec)(1930-2001) at the United States Geological Survey (USGS) gauging station at Nebraska City, Nebraska, which is located approximately 30 river miles north of CNS (NPPD 2008a).

The circulating water intake structure is located on the western shore of the river behind a guide wall and submerged weir meant to reduce the amount of suspended sediment in the cooling water. The weir attaches to shoreline structures north of the intake and then runs parallel to the face of the intake at a distance of 14.25 feet (4.3 m). The wall continues past the intake and ends approximately 40 feet (12 m) downstream of the downstream corner of the intake structure. In a line riverward of the weir wall and extending downstream of it, 23 sheet

pile vanes (10 ft wide by 6 ft high, 3 m wide by 2 m high) oriented at a 22 degree angle to the weir redirect sand and gravel outward from the weir and the intake structure. After flowing generally south along the weir and vanes, river water must reverse course and turn northwest to move between the weir and shore and reach the intake bays. An array of 20 submerged flow turning vanes has been installed east of the guide wall in the river channel. Each vane is constructed of steel sheet piling and driven into the river bed to a top elevation below barge navigation depth. The vane array functions to induce scouring of the river bed adjacent to the guide wall to prevent sediment accumulation. The prevention of sediment accumulations increases the effectiveness of the guide wall. River water flows over the weir wall leaving heavier sediment on the river side of the wall. Water velocity between the weir wall and the cooling water intake structure is approximately about 4 ft/sec (1.2 m/sec).

In winter, about 25 to 30 percent of main condenser discharge water recirculates through an ice control tunnel at the front of the intake structure and discharges in front of the trash rack to prevent icing. Water flows beneath a curtain wall at about 1.1 ft/sec (0.3 m/sec). Water enters the five intake bays, four of which provide circulating water and are 22 feet (6.7 m) wide and one of which provides service water and is 22.5 feet (6.8 m) wide. The incoming water then flows through trash racks, 3/8 inch (1.0 cm) vertical bars separated 3 inches (7.6 cm) on center, at up to 0.7 ft/sec (20 cm/sec). Water for the facility is drawn through five intake bays. Four of these bays provide circulating water to the generating unit while the other is used for service water. Each circulating water intake bay splits into two screen bays, while the service water intake bay narrows to a smaller screen bay. These bays are 9.7 feet (3 m) in length by 5.6 feet (1.7 m) wide, providing space for 4.2 feet (1.3 m) wide dual flow screens. Each bay is fitted with modified dual flow traveling screens designed with fish collection baskets. The modified dual flow screens operate at 90 degrees to the water flow. Four circulating water pumps provide the circulating water for the facility. Each pump can draw 159,000 gpm (10 m³/sec). The pump design water level is at El. 875.0 ft, with a minimum submergence level at El. 865.0 ft. There are four service water pumps providing a combined flow of 32,000 gpm (2 m³/sec). Velocities in the intake structure are 1.1 ft/sec (0.3 m/sec) under the curtain wall, 0.7 ft/sec (20 cm/sec) at the trash racks, and approximately 2.0 ft/sec (0.6 m/sec) at the traveling water screens. These velocities were calculated at low water levels (El. 874.5 ft) and maximum circulating water pump flow (159,000 gpm (10 m³/sec) per pump). Fish and debris are currently collected on both the ascending and descending sides of the dual-flow screen, which allows only filtered water to pass downstream to the pumps. Fish and debris are removed by a high pressure screen wash system and conveyed back to the river. Modified dual-flow traveling screens were installed in 2006 to address debris carry-over problems encountered with the original flow-through traveling screens. (NPPD 2008a)

The circulating water intake bays each separate into two screen bays and the service water intake bay narrows before water encounters the traveling screens, which are oriented at right

angles to the flow. Water filters twice through nine 1/8 by 1/2 in. (.3 cm by 1.3 cm) smooth top mesh modified dual flow traveling screens (eight for circulating water and one for service water). The upward pass is in the front and the downward pass is behind the screens, that rotate continuously at 8.2 ft/min (2.5 m/min). The intake water velocity at the screens is about 2 ft/sec (0.6 m/sec).

Each circulating water screen has 1/8 by 1/2 in. (0.3 cm by 1.3 cm) smooth top mesh. The service water screen has 0.2-in. (5 mm) perforated plastic mesh. Each screen has a high and low speed, but is normally rotated continuously at the slow 8.2 ft/min (2.5m/min) speed to prevent excess debris build up. A high pressure screen backwash system providing 3,000 gpm (0.19 m³/sec) at 30-60 psig (207-414 kPa) is used to remove fish and debris from the screens. Water for the screenwash is drawn from the service water pumps. Fish and debris flushed from the screens are returned to the river via an 18 in. (0.46 m) steel pipe. This steel pipe discharges downstream from the intake. The existing screen wash system does not have the capacity to provide the required flow to support both a low pressure fish protection spray system and the high pressure debris removal system nor is there a separate fish return trough and conveyance system to return fish back to the river. (NPPD 2008a) Figure 2.1.6-1, Figure 2.1.6-2, and Figure 2.1.6-3 show the CNS intake structures. After the 4.2 ft (1.28 m) wide traveling screen panels rotate over the upper cog and begin moving down, a high pressure (30-60 psig, 200-400 kPa) screen wash of 3000 gallons per minute (gpm) (0.19 m³/sec) supplied by the service water pumps removes fish and debris, which return together to the river through an 18 in (0.46 m) diameter steel pipe that discharges downstream from the intake. Although the screens are fitted with fish baskets, the system has neither a low pressure spray system to more gently remove fish from the screens nor a fish return trough to convey fish and other aquatic organisms back to the river separately from potentially damaging debris. Debris loads are approximately about 10 cubic yards per month (8 m³/month).

In winter, some of the main condenser discharge (about 25 to 30 percent) recirculates through an ice control tunnel at the front of the intake structure and discharges in front of the trash rack to prevent icing.

CNS-1NPPD plans to install "dual flow conversion screen a fish handling and return systems to mitigate the effects of impingement." during its current operational term. This system will have low pressure (5 to 10 psi, 35-70 kPa) fish washing sprays on both the ascending and descending screens and a fish return trough that is separate from the debris trough. A recovery basket will collect fish and other aquatic organisms washed from the screens, and the fish trough will return them to the river. The final design and implementation of the fish handling system are dependent upon the requirements of the final Phase II 316(b) Clean Water Act amended regulations. Figure 2.1.6-1, Figure 2.1.6-2, and Figure 2.1.6-3 show the CNS-1 intake structures. [See Attachment 3, Changes 2, 4, 5, 6, 7, 8, 9, 10, and 11]

After water passes through the traveling screens, the two screen bays of each intake bay rejoin behind the screens. The four circulating water pumps, one per bay, draw water from the bays and provide up to 159,000 gpm (10 m³/sec) each. The four service water pumps in the fifth bay provide a combined flow of 32,000 gpm (2 m³/sec). Water from the circulating water pumps travels to and circulates through the condenser, where it cools steam from the turbines. Because of the scouring from the suspended sediment, CNS-1 typically does is not need required to chlorinate the circulating water to control biological film fouling, although it has the capacity to chlorinate or brominate if needed. NPPD is studying the effectiveness of these options. [See Attachment 3, Change 3] Water temperature increases approximately about 17.8°F (10°C) as it passes through the condenser tubes. From the condenser, circulating cooling water flows through concrete tunnels to a seal well structure and then to the discharge canal, where it travels about 1,000 feet (300 m) to discharge to the river at a slight angle. Water velocity at the discharge is about 1 ft/sec (0.3 m/sec) at average river flow and about 5.6 ft/sec (1.7 m/sec) during low flows. The travel time from the intake structure to the discharge is about 20 minutes at high river flow and 10 to 12 minutes at low flow. From the seal well and gate control structure, the water is directed into a discharge canal that is approximately 1,000 ft (305 m) long; it then enters the river at a slight angle. The velocity of discharge is about 1 fps (0.03 m³/sec) during average water levels of 879.4 ft and 35,000 cfs (991 m³/sec) river flow, and increases to about 2.5 fps as the river water surface elevation is reduced to 874.5 ft and flows near 11,000 cfs (311 m³/sec) which is the nominal control low maintained by the USACE below the confluence of the Platte River. Travel times in the pump house-condenser-canal system will be approximately 20 minutes at high flow and 10 to 12 minutes at lower river flows. Stone rip-rap is used to prevent scours in the vicinity of the discharge structure.

Cooling water flow demand varies with electrical load plant power and ambient river water temperature. At full load during summer, the expected circulating water system flow is highest: about 636,000 gpm (40 m³/sec). Lower circulating water flow is lower required under other lower river temperature conditions. In comparison, the lowest river flow at CNS-1 is about 3,000 cfs. Under the worst conditions, the circulating water system flow would be about 47 percent of Missouri River flow. Stone riprap at the discharge structure prevents the discharge from eroding the river bottom. The annual mean river flow is 38,251 cfs (1,083 m³/sec) (1930-2001) at the United States Geological Survey (USGS) gauging station at Nebraska City, Nebraska, approximately 30 river miles north of CNS (NPPD 2008a). The CNS maximum circulating water withdrawal represents less than 4 percent of the average annual Missouri River flow. While the percentage of river flow withdrawn by CNS may be higher during winter, the withdrawal is significantly less than in summer, and occurs at a time when impacts due to entrainment of fish eggs and larval fish are non-existent or minimal.

Attachment 3

Changes to the License Renewal Application Environmental Report

As a result of reviewing the draft Supplement 41 to the Generic Environmental Impact Statement, the Nebraska Public Power District identified certain corrections/enhancements to the License Renewal Application Environmental Report. They are presented in underline/ strikeout format.

- 1) Page 2-10, 1st paragraph is revised to read:

“During the winter months, a minimum regulated flow of ~~3,000~~ 4,320 cfs is maintained required at Nebraska City for sanitary purposes; however, the actual winter flow in recent years has been maintained at 6,000 cfs or more.”

Reference: Correction based on USACE Master Manual.

- 2) Page 3-4, second paragraph is revised to read:

“However, CNS is planning to augment its existing intake structure design with a dual flow conversion screen fish handling and return systems ~~during the current operational term to mitigate the effects of fish impingement. The system currently being considered is the Brackett Green USA, Inc. Fish Handling Screen with the Advanced S.I.M.P.L.E. Process. This possible modification to the intake structure would involve the installation of inside and outside fish sprays which operate between 5-10 psi and a separate fish return trough. As raw water would pass through the existing fish baskets, floating and suspended debris larger than the mesh opening of the existing dual flow screens would be retained on the upstream side of the mesh and juvenile marine life would be captured in the hydraulically stabilized fish recovery basket. The recovered fish would then be discharged on the descending side with aid from the inside and outside fish sprays into a fish trough located above the debris trough. [Brackett]~~ The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.”

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 3) Page 3-4, last paragraph, Page 3-5, 1st paragraph is revised to read:

“Chlorination is typically not required because of the inherent scouring action of the sandy river water. However, a connection is provided for such a system in the event

should it's be found necessary potentially needed in the future. The chlorination system connection is located on the common inlet to Screen Wash Pump A and B from the service water system. [NPPD 2008, Section XI-6.3]. Bacteria that occur naturally in the Missouri River may contribute to the growth of biological film fouling of the main condenser tubes. ~~The station is proceeding with a study to determine if routine chemical injection (chlorine, bromine, etc.) will be effective in eliminating the microbiological film on the interior walls of the condenser tubes.~~

Reference: NPPD has completed the chlorination study and has determined that application of up to twice per year can be effective in optimizing thermal performance.

- 4) Page 4-10, 1st paragraph is revised to read:

“However as discussed in Section 3.2.2, CNS has already installed dual flow conversion screens that are equipped with fish baskets and is planning on installing a fish handling and return system to mitigate the effects of fish impingement consisting of inside and outside fish sprays and a separate fish return trough prior to the end of the current operational term. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.”

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 5) Page 4-11, 4th paragraph is revised to read:

“However, as discussed in Section 3.2.2, CNS is planning to install a fish handling and return system to mitigate the effects of fish impingement consisting of inside and outside fish sprays and separate fish return trough prior to the end of the current operational term. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.”

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 6) Page 4-21, 1st paragraph is revised to read:

“However as discussed in Section 3.2.2, CNS is planning to install a fish handling and return system to mitigate the effects of fish impingement consisting of inside and outside fish sprays and a separate fish return trough prior to the end of the current operational term. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.”

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 7) Page 4-23, 1st paragraph is revised to read:

“However as discussed in Section 3.2.2, CNS is planning to install a fish handling and return system consisting of inside and outside fish sprays and a separate fish return trough prior to the end of the current operational term. This change to the CWIS design would most likely be considered Best Technology Available for minimizing impingement impacts. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.”

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 8) Page 4-28, 4th paragraph is revised to read:

“Although NDEQ had already determined that the cooling water intake impacts were probably minimal at CNS, NPPD is planning to install a fish handling and return system consisting of inside and outside fish sprays and a separate fish return trough during the current operational term. This change to the existing design of the CWIS (Ristroph screens) would most likely be considered Best Technology Available for minimizing impingement impacts. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements.”

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 9) Page 4-28, last paragraph, and 4-29, 1st paragraph is revised to read:

“NPPD is planning to install a fish handling and return system at CNS, consisting of inside and outside fish sprays and a separate fish return trough to the existing design of the CWIS (Ristroph screens). This change to the CWIS would most likely be considered Best Technology Available as it relates to minimizing impingement impacts. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements. In addition, even though current impingement impacts are minimal, impacts during the license renewal period would be even smaller due to this CWIS design change. Therefore, In summary, NPPD concludes the impact due to impingement of fish and shellfish in the Missouri River is SMALL and mitigation measures are not warranted.”

Reference: Clarification: It is expected that the final design will be at least as robust as currently described.

- 10) Page 4-4-93, 3rd paragraph is revised to read:

NPPD is planning to install a fish handling and return system ~~consisting of inside and outside fish sprays and a separate fish return trough to the existing design of the CWIS (Ristroph screens)~~. This change to the CWIS would most likely be considered Best Technology Available as it relates to minimizing impingement impacts. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements. ~~Therefore~~In summary, NPPD concludes the cumulative impact due to impingement of fish and shellfish in the Missouri River is SMALL and mitigation measures are not warranted.

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 11) Page 6-2, "Impinge of fish and shellfish [10 CFR 51.53(c)(3)(ii)(B)]" is revised to read:

SMALL. Missouri River studies and previous agency determinations identify factors (i.e., river and tributary dams, channelization and other habitat management, invasive aquatic species) other than impingement as being the primary cause of direct and cumulative impacts to the fish populations. CNS is also planning to install a fish handling and return system ~~consisting of inside and outside fish sprays and a separate fish return trough to the existing CWIS design (Ristroph screens)~~ which would most likely be considered Best Technology Available. The CNS implementation date and the final design of the fish handling system are dependent upon the content of the final 316(b) Clean Water Act requirements. ~~Therefore~~In summary, NPPD concludes the impact from plant operations due to impingement of fish and shellfish in the Missouri River is SMALL. Further consideration of mitigation measures is not warranted.

Reference: Clarification. It is expected that the final design will be at least as robust as currently described.

- 12) Page 9-4, Table 9.2-1, delete entry 7, "CNS Radioactive Waste Transport Permit No. 0218-26-08-X."

Reference: NPPD is no longer authorized to ship radwaste under this permit.

- 13) Page 9-5, Table 9.2-1, revise entry 1, "CNS Radioactive Waste License for Delivery No. T-NE002-L08 expiration date from "December 31, 2008" to "January 3, 2011."

Reference: Letter from M. Singleton (Tennessee Department of Environment and Conservation) to J. Kuttler (NPPD), dated November 24, 2009, "Radioactive Waste License-for-Delivery."

- 14) Page 9-5, Table 9.2-1, revise entry 2, "Generator Site Access Permit No. 0111000042 expiration date from "January 3, 2009" to "January 3, 2011."

Reference: Letter from D. Finerfrock (Utah Department of Environmental Quality) to J. Kuttler (NPPD), dated November 24, 2009, "Generator Site Access Permit Number 0111000042."