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U S Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Prairie Island Nuclear Generating Plant Units 1 and 2
Dockets 50-282 and 50-306
License Nos. DPR-42 and DPR-60

NSPM Comments on NRC Supplemental Environmental Impact Statement Related to Renewal of Operating Licenses

By letter dated April 11, 2008, Northern States Power Company, a Minnesota Corporation, (NSPM) submitted an Application for Renewed Operating Licenses (LRA) for the Prairie Island Nuclear Generating Plant (PINGP) Units 1 and 2. In November 2009, the NRC issued the draft NUREG 1439, Generic Environmental Impact Statement for License Renewal of Nuclear Plants Supplement 39 Regarding Prairie Island Nuclear Generating Plant, Units I and 2 (DSEIS). Enclosure 1 to this letter provides the NSPM comments on the DSEIS. Enclosure 2 contains corrections and clarifications that should be incorporated into DSEIS Table 2-25.

If there are any questions or if additional information is needed, please contact Mr. Eugene Eckholt, License Renewal Project Manager.

Summary of Commitments

This letter contains no new commitments or changes to existing commitments.

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Enclosures (2)

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Enclosure 1
NSPM Comments on Draft NUREG-1439 Supplement 39

Comment Number	Page Number	Line Number	Comment / Proposed Change
1	ii	3	Replace "Dakota" with "Goodhue"
2	iii	4	Should be "States"
3	iii	4	Should be "licenses"
4	iii	8	Should be "from a new"
5	iii	9	Replace "combination cycle" with "combined cycle plant"
6	iii	10	Should be "licenses"
7	v	43	Indent to the right
8	vii	28	Correct capitalization
9	xiii	5	Add “the” before Prairie Island
10	xiii	12	“States” should not be capitalized
11	xiii	14	Should read "Volumes 1 and 2".
12	xiii	18-19	"supplemental environmental impact statement" should be capitalized
13	xiii	19-20	"environmental report" should be capitalized
14	xiii	26	Change "requesting a renewed" to "requesting renewed"
15	xiii	27	Add “Units” after PINGP
16	xiii	29	Change to "licenses"
17	xiii	35	Separate "decisionmakers" into two words throughout the DSEIS
18	xiii	41	Change "license is issued" to "licenses are issued"
19	xiii	43	Change "license is not" to "licenses are not"
20	xiv	36	"MIssissippi" should be “Mississippi” (capitalization)
21	xix	6	Delete "is" and capitalize. Should read "As Low As Reasonably Achievable"
22	xx	32	Change "mSy" to "mSv"
23	xxi	18	Add "man" after equivalent
24	xv	3-6	Delete this discussion. The subject is also discussed in lines 30 through 33, and this is not consistent with the discussion in lines 30 through 33. The related discussion on pages 3-4 and 3-5 makes no reference to the need for consultation.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
25	xv	17	Delete "nuclear" from line 17 on page xv. The transporter to be used will not be specific to nuclear component transport.
26	xv	33	Revise "via barge, though no changes to the river" to "by barge via river system, no changes to rivers..."
27	xv	39-44	Impact of refurbishment on human health is not discussed in the DSEIS Section 3.0 because it is a Category 1 issue, and, therefore, the discussion in lines 39 through 44 on page xv should be deleted.
28	xvi	39	"approximately 80 days" should be used for the duration of the steam generator replacement outage throughout the DSEIS.
29	xvi	45	Change "cultural resources management plans" to "a Cultural Resource Management Plan"
30	xvi, etc.	43, 46, etc	General comment: search document for instances where the acronym for Northern States Power (NSP) is erroneously written as "NPS." Please define "NSP" as "Northern States Power Company - Minnesota" in line 51 on page xx.
31	xvii	34	Should be "units"
32	xviii	Table	Give the table on page xviii a number, and a title that clarifies the purpose of the table.
33	1-2	Figure 1-1	Change black background to white so the text and lines in the shaded area can be read.
34	1-2	4	"January" should be "April." The LRA was submitted in April, not January.
35	1-2	4	Delete "(NMC 2008b)" or add the reference information to Section 1.10 of the DSEIS.
36	1-5	13	"scoping" should be "comment"
37	1-5, etc.	14, etc	General comment: search entire document for instances when "PINGP" is erroneously written as "PINPG" or "PINPGP".
38	1-6	36	"(PIIC 2008)" does not have a reference in Section 1.10 of the DSEIS.
39	1-8	22	General=s should be "General's." This is an issue throughout the DSEIS and should be globally corrected.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
40	1-11	Table 1-1	MN DNR-Fish, mussel, and icthyoplankton collection permit: Replace "14658" with "15975" and replace "14657" with "15994" MPCA - Operation of oil-fired boiler and diesel ... Permit: Replace "04900030-003" with "04900030-004" State of Tennessee - Transportation of radioactive materials ... Permit: Replace "T-MN003-L08" with "T-MN003-10" WDNR - Collect Fish and ichthyoplankton .... monitoring: Replace "SCP-WCR-20-C-08" with "SCP-WCR-20-C-10"
41	1-12	Table	Remove South Carolina radwaste permit. Permit was not renewed for 2009 as the Barnwell facility is closed to PINGP.
42	2-1	21	The PINGP cooling towers are not natural draft cooling towers. They are induced mechanical draft cooling towers, and they are not the most conspicuous structures on the site.
43	2-1	29	By the end of 2009 there were 25 casks in the PINGP ISFSI, and the 26th cask will be loaded and moved to the ISFSI in the first quarter of 2010. The NSP 2008 reference is no longer accurate with respect to the number of casks in the PINGP ISFSI.
44	2-1	29	There are 40 fuel assemblies in each cask. Adjust the number of fuel assemblies as required to reflect the number of casks noted at the beginning of line 29. Based on the 26 casks currently loaded, the number of fuel assemblies in the ISFSI is 1,040.
45	2-1	33	Replace "operating" with "operation"
46	2-2	3	This statement is incorrect for the PINGP steam generators. It should read "that produces steam." The statement is describing B&W once-through steam generators, not Westinghouse/Areva recirculating U-tube steam generators.
47	2-2	4	Replace "from" with "through"
48	2-2	8	"(NRC 1990)" does not have a reference in Section 1.10 of the DSEIS.
49	2-2	10-13	The discussion of the primary containment in Lines 10 through 13 on page 2-2 is not accurate for PINGP. In its place, use the discussion of the PINGP containment from the last paragraph on page 3-2 of the PINGP Environmental Report. The term reactor building is not used at PINGP.
50	2-2	40-41	Delete "in the reactor building." The spent fuel pool is not in the reactor building at PINGP.
51	2-3	3	The PI report is titled "Radiological Environmental Monitoring Report" instead of "Operating" report.

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52	2-3	Section 2.1.2.1	The discussion from Section 2.1.2.1 continues on page 2-6 with a large gap on page 2-3. Suggest that more of the discussion for section 2.1.2.1 be included on page 2-3. Figures 2-1 and 2-2 should be placed immediately following page 2-1 where they are first referenced.
53	2-4, 2-5, 2-13		General comment: The quality of the figures in the DSEIS is poor, making them difficult to read.
54	2-6	39	Replace "during" with "prior to". Replacement of the PINGP Unit 2 steam generators is scheduled for 2013, which is prior to the period of extended operation (PEO) for Unit 2.
55	2-6	40-48	Delete "from PINGP 1 and 2 during the period of extended operations." from lines 47 through 48 since the steam generator replacement outage is planned to be completed prior to the PEO for Unit 2. Since this paragraph is related to refurbishment, it should be relocated to Section 3 of the DSEIS.
56	2-6	46	Should be "Unit 1" not "Unit 2."
57	2-7	14	Replace "resulted" with "results."
58	2-7	18	Should read "reactor coolant hydrogen stripping" (Ref: USAR 9.3.2).
59	2-7	32	Replace "increase or decrease" with "change significantly."
60	2-7	36	Replace "during" with "prior to". Replacement of the PINGP Unit 2 steam generators is scheduled for 2013, which is prior to the PEO for Unit 2.
61	2-7	37-45	Delete "from PINGP 1 and 2 during the period of extended operations" from lines 36 through 45 since the steam generator replacement outage is planned to be completed prior to the PEO for Unit 2. Since this paragraph is related to refurbishment, it should be relocated to Section 3 of the DSEIS.
62	2-7	43	Should be "Unit 1" not "Unit 2"
63	2-8	14	Revise to read "does not normally produce low-level ..."
64	2-8	18	Delete "evaporator bottoms, and." The radioactive waste evaporator system is no longer used at PINGP. The equipment is abandoned in place.
65	2-8	19	Delete "solidification of the waste with an in-drum cement system." The in-drum cement system is no longer used at PINGP. The equipment is abandoned in place.
66	2-8	19	Delete "compacted" and replace with "collected". Compaction is no longer used at PINGP.
67	2-6 2-8	29 21-22	"(NMC 2001)" does not have a reference in Section 2.4 of the DSEIS.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
68	2-8	31	Replace "during" with "prior to." Replacement of the PINGP Unit 2 steam generators is scheduled for 2013, which is prior to the PEO for Unit 2.
69	2-8	32-37	Delete "from PINGP 1 and 2 during the period of extended operations." from line 37 since the steam generator replacement outage is planned to be completed prior to the PEO for Unit 2. Since this paragraph is related to refurbishment, it should be relocated to Section 3 of the DSEIS.
70	2-9	18	Should read, "PINGP 1 and 2 is classified as a Small Quantity Generator."
71	2-9	36	Should read, "PINGP 1 and 2 is subject to ..."
72	2-10	13	Replace "seven" with "eight". There are now eight onsite septic systems at PINGP.
73	2-10	24	Verify reference "(NMC 2008)" is the proper reference.
74	2-10	25-26	PINGP does engage in recycling of consumables. Replace "do not" with "does".
75	2-10	31	Verify reference "(EPA 2008b)" is the proper reference. The EPA references are confusing in Section 2.4.
76	2-12	7	Replace "pesticides" with "herbicides".
77	2-15	15	Sentence should begin "River water used for cooling..."
78	2-15	26	"(NRC 1973)" does not have a reference in Section 2.4 of the DSEIS.
79	2-16	17	Should have "the" in front of "discharge".
80	2-16	35, 36	Prior to this, presented as "xx fps (xx m/s)", then switched to "xx m/s (xx fps)". Use consistent units of measure: fps (m/s). This should be addressed globally through the DSEIS.
81	2-18	23	The cooling towers are induced mechanical draft cross flow towers. Replace "Fans blow air up through the falling water" with "Fans draw air up through the streams of water." (Ref: USAR 11.6.2)
82	2-18	33	Sentence should clarify that NPDES covers process water effluent. The sentence currently does not make a distinction as to what type of effluent is regulated under the permit. Replace "effluent" with "cooling water".
83	2-22	10	Reword to read "...order to prevent condenser inlet temperatures from exceeding..."
84	2-22	12-14	Temperature monitoring locations should be SW not SD.
85	2-22	13	Delete "directly" from line 13. The monitors are on the lock and dam piers/columns.

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86	2-22	21	Replace "service" with "cooling".
87	2-24	9, 10, 11	Delete sentence beginning with "In 2009, ..." in lines 9 through 11, and replace with the following to update the dredging status: "In 2009, PINGP 1 and 2 performed dredging of a 0.9 acre area of the intake channel and within the intake screenhouse. In 2010, PINGP 1 and 2 plans to perform a larger-scale maintenance dredging project of the intake channel."
88	2-24	12	Remove "will be implemented" from line 12.
89	2-24	24	Add "and modified by plant construction activities" after "were disturbed".
90	2-25	37	Add the centimeter equivalent after "40 in."
91	2-25	38	"(NCDC 2006)" does not have a reference in Section 2.4 of the DSEIS.
92	2-26	12-13	Delete "by the site meteorologist". PINGP does not have a site meteorologist.
93	2-26	17	Insert "for" after (NAAQS).
94	2-26	29-34	Replace lines 29 through 34 with the following, "PINGP 1 and 2 has a number of stationary emission sources, which include eight standby emergency power supply diesel engines, two diesel engine-powered cooling water pumps, and three emergency operations diesel engines, all of which are required for safe start-up and continuous operation. The facility currently has a Title V operating permit that allows the installation and operation of these emission units. The facility is considered a synthetic minor source for New Source Review (NSR) purposes, due to the low quantity of emissions and the restrictions on operation of its stationary sources."
95	2-27	26	"(NMC 2001g)" is not listed as a reference in Section 2.4 of the DSEIS. The correct reference may be (NMC 2001q).
96	2-28	10	Replace "liquid discharge" with "liquid radioactive waste discharge" in both locations in line 10. Insert "monitored and" between "were" and "released".
97	2-28	15 & 20	"Radiation" should be "Radiological."
98	2-28	20-22	The statement that PINGP does not currently implement a general Ground Water Monitoring Program is not correct. PINGP has implemented a Groundwater Monitoring Program per the NEI Ground Water Protection Initiative guidelines. Sample results from this program are reported in the annual REMP report. Aspects of this program are discussed in Lines 7 through 26 on page 4-19 of the DSEIS.
99	2-29	5	"(MPCA 2008)" is not listed as a reference in Section 2.4 of the DSEIS. The correct reference may be (MPCA 2008k).

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100	2-29	26	Replace "2-4 and 2-5" with "2-9 and 2-10."
101	2-29	Table 2-9	Remove "Month (cfs)" from the middle of Table 2-9.
102	2-30	4	Delete "...main stem of the."
103	2-30	7	General comment: Check consistency of references to the distance from PINGP to Lock and Dam 3. The distance specified in the PINGP Environmental Report (Sections 2.2.1 and 2.3.1.2) is approximately one mile.
104	2-30	13	Section 2.1.5 discusses five transmission lines in scope of license renewal; this section states there are three transmission lines in scope.
105	2-31	40	"(Benson 2008)" is not listed as a reference in Section 2.4 of the DSEIS.
106	2-32	36	Replace "3169(a)" with "316(a)".
107	2-32	36	Replace "CWA" with "Clean Water Act (CWA)."
108	2-34	35	Common buckthorn is also present on the PINGP site.
109	2-35	26	Replace "lists" with "list".
110	2-35	26-28	The headings of tables 2-11 and 2-12 do not match this text description. Clarify the titles of Tables 2-11 and 2-12 to match the descriptions on lines 26 through 30, to provide a more accurate description of the table content. Also add "species of concern" to the text description in lines 26 through 30.
111	2-36	18	Replace "muscles" with "mussels".
112	2-36	19	Replace "zebra populations" with "zebra mussel populations".
113	2-37	3	Change “sties” to “sites”.
114	2-37	15	This section should acknowledge that the Winged Mapleleaf is a species of mussel.
115	2-37	23 & 46	(WDNR 2008) is not listed as a reference in Section 2.4 of the DSEIS.
116	2-40	40	Sentence should begin, “The PINGP Unit 1 containment building has a nest box...”
117	2-41	24	Replace "prescent" with "present."
118	2-45	Figure 2-2	Remove Figure 2-2 from page 2-45, it is originally shown on page 2-5.
119	2-46	14	There is no Section 2.2.8.1.
120	2-46	15	"Table 2.14" should be "Table 2-14."
121	2-47	1	Delete the word "County" after "Goodhue", it is not necessary. Also add "and the Region" to the end of the title.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
122	2-47	9	"Table 2.15" should be "Table 2-15".
123	2-48	10	The reference to the Mt. Simon-Hinkley aquifer in lines 9 and 10 appears to be incorrect. The 180 ft depth listed is inconsistent with the 500 ft depth listed in line 7 of page 2-48.
124	2-49	Table 2-15	(EPA 2008) is not listed as a reference in Section 2.4 of the DSEIS.
125	2-50	10-11	This statement is no longer accurate. Wakonade drive is now two way to PINGP. As such, delete "..., which is currently limited to north-bound out-going traffic from the PINGP 1 and 2 site."
126	2-55	27	"Table 2.17" should be "Table 2-17."
127	2-56	3	"Table 2.19" should be "Table 2-19" and "Table 2.20" should be "Table 2-20."
128	2-56	10	"Table 2.19" should be "Table 2-19."
129	2-58	2	"Table 2.20" should be "Table 2-20."
130	2-59	11	"Table 2.21" should be "Table 2-21."
131	2-61	3	"Table 2.22" should be "Table 2-22."
132	2-61	7	"Table 2.23" should be "Table 2-23."
133	2-62	28	This statement should note that the indented information is not a direct quote from the NSPM ER.
134	2-63	7	(AMC 2002) is not listed as a reference in Section 2.4 of the DSEIS.
135	2-63	13	(Hove 2006) is not listed as a reference in Section 2.4 of the DSEIS.
136	2-63	8-38	References to "Table 2.24" should be changed to "Table 2-24."
137	2-63	38	(Fredrikson & Byron 2001) is not listed as a reference in Section 2.4 of the DSEIS.
138	2-65	18	Since issuance of the FES, underbrush and woods have taken over most of the grassland.
139	2-65	25	The citation to (Hildebrandt 2008) should be (Dobbs 1988).
140	2-65	43	Woodland culture is defined by production of pottery and earthen mound construction, though there is evidence that these technologies were present in earlier periods
141	2-66	7	Replace "the Woodland period" with "the earlier Woodland period."
142	2-66	7-8	The citation to (Hildebrandt 2008) should be (Dobbs 1988).
143	2-66	20	Replace "follow" with "follow and may have existed concurrently with."
144	2-66	29-32	The Bartron Village site has Late Woodland and Oneota components, and a very small amount of Mississippian-related artifacts.

Comment Number	Page Number	Line Number	Comment / Proposed Change
145	2-66	30-32	The sentence about neighborhoods and cultural lines needs to be modified. This has never been tested at the Bartron site, although several researchers have suggested it.
146	2-66	32-33	Take out the sentence about Bartron and the Middle Mississippian characteristics. This has been disproven over the years since Gibbon (1979) and others suggested its connections.
147	2-66	35	Replace "Oneota peoples can be traced through the years to ancestral" with "Oneota peoples are among some of the antecedents to ancestral..."
148	2-66	36	The citation should be the letter Ron Schirmer and Emily Hildebrant wrote on July 4, 2008 to update the PIIC and PINGP on the fieldwork conducted at the Bartron Site.
149	2-66	38-39	Replace "Middle Mississippian" with "Middle Mississippian-related."
150	2-67	5	Replace "discovered" with "recorded."
151	2-67	12	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
152	2-67	17	Insert "Christian" in front of "church."
153	2-67	21	(MHS 2009) is not listed as a reference in Section 2.4 of the DSEIS.
154	2-67	30	The tribe that the tribal elder belongs to should be identified.
155	2-67	31	Replace "most the land" with "most of the land."
156	2-67	39	Delete sentence "Members of the PIIC have.....generations." The heritage of the PIIC on Prairie Island is stated more clearly in the ending sentence of the paragraph (lines 41 through 44).
157	2-67	42	What is the reference for the statement that the Mdewakanton Dakota are descendants of the "earliest known inhabitants?"
158	2-68	45	Replace "1034" with "1934."
159	2-69	10-11	Reference (Hildebrant Iffert 2010) documents 13 archaeological sites, 11 reported sites and 2 unrecorded but reported sites. See comments on Table 2-25 for a summary of the 13 sites.
160	2-69	18	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
161	2-69	24-26	Wilford only excavated at the Bartron Site, not the Birch Lake Mound Group.
162	2-69	29	Insert after "mounds", "at least seven and possibly 10 mounds may have been on the PINGP site property."
163	2-69	32	Johnson identified 21GD148 in 1980, not in the 1960s. This sentence is probably referring to 21GD181, The Pickerel Slough Site.
164	2-69	34-35	End sentence at "uncovered". Delete remaining information.

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165	2-69 - 2-70	Table 2-25	Based on reference (Hildebrant Iffert 2010), revise Table 2-25 as shown in Enclosure 2.
166	2-70	10	Replace first sentence with: "The PINGP 1 and 2 cooling towers are laid out in a roughly east-west configuration."
167	2-70	12	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
168	2-71	5	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
169	2-71	10	NSPM is not aware of any archaeological work performed in 2005.
170	2-71	11	Add "and no cultural findings" after "no artifacts recovered."
171	2-71	21	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
172	2-76	39	The citation to (Hildebrandt, Emily 2008) should be (Hildebrant Iffert 2010).
173	3-1	Table 3-1	Add new category under "Land Use": "Offsite Land Use". This is a Category 2 issue.
174	3-2	1	Northern "States" Power
175	3-2	2	Delete "with new, once-through, enhanced steam generators." PINGP does not use once-through steam generators. The original and new steam generators are "recirculating U-tube vertical steam generators."
176	3-2	14	Delete everything after "delivered", and replace with "and installed in 2013."
177	3-2	14	"(AREVA 2008)" is not listed as a reference in Section 3.5 of the DSEIS.
178	3-2	15-16	Reword the sentence on lines 15 and 16 of page 3-2 to read: "The replacement steam generators will be transported across the Atlantic Ocean via ship, and then transferred to a barge for transportation via river system."
179	3-3	2	Revise "...temporary buildings will be constructed, including..." with "...temporary buildings will be constructed, which may include...". Temporary buildings will be required to support Unit 2 steam generator replacement; however, specific plans for temporary buildings are still under development.
180	3-3	3-4	Replace "Warehouses will be built..." with "Warehouses may be built..." in line 3. Replace "will" with "if built, would" in line 4. Specific plans for buildings required to support steam generator replacement are under development. NSPM may determine that no additional warehouses are required to support Unit 2 steam generator replacement.
181	3-3	6	Delete "via rail car". Other modes of transport could be utilized.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
182	3-3	22	Replace "Temporary construction would..." with "Temporary construction may...". Temporary buildings will be required to support Unit 2 steam generator replacement; however, specific plans for temporary buildings are still under development.
183	3-3	31	Insert "offsite" between "no" and "road."
184	3-4	11	Insert "offsite" between "no" and "overland."
185	3-4	18-22 30-32	Lines 18 through 22 state that the falcon nest on Unit 1 is far enough away from the ground so that steam generator replacement is not expected to cause significant noise or other types of disturbance to the birds. Based on that conclusion, and the distance between the nest box on Unit 1 and the Unit 2 steam generator replacement activities, we suggest that the mitigation measure to limit activities during midday hours be deleted.
186	3-4	22-24 28-30	Lines 22 through 24 note that the steam generator replacement will occur outside the falcon breeding period. Since the replacement is already planned to occur outside the breeding period, we suggest that the mitigation measure be deleted.
187	3-5	2-5	The mitigation measure noted in lines 2 through 5 on page 3-5 related to protection of the Higgins Eye relocation project is unnecessary. The barge landing site to be used during receipt of the replacement steam generators is located near the plant intake screen house and is located well down river of the Higgins Eye relocation project. Because there would be no reason for the replacement steam generator barge to travel up river beyond the location of the barge landing site, we suggest that the mitigation measure be deleted.
188	3-5	44	Replace "PINGP 1 and 2, Unit 1" with "PINGP Unit 1..."
189	3-6	22-24	Lines 22 through 24 on page 3-6 discuss mitigation measures that could be taken to mitigate potential air quality impacts related to the steam generator replacement project. In a December 24, 2009 response to new PIIC environmental contentions, NSPM committed to work with the PIIC to coordinate and implement appropriate measures to mitigate transportation impacts resulting from the Unit 2 steam generator replacement project, including (1) using NSPM's private access road for heavy truck traffic related to the project, so that it minimizes interference with traffic entering the PIIC casino and reservation property; (2) using local law enforcement to control traffic during PINGP shift changes; and (3) staggering the refurbishment work schedule if necessary. These lines should be revised to reflect the NSPM response to the PIIC contention.

Comment Number	Page Number	Line Number	Comment / Proposed Change
190	3-8	14-19	Lines 14 through 19 on page 3-8 discuss mitigation measures that could be taken to mitigate potential transportation impacts related to the steam generator replacement project. In a December 24, 2009 response to new PIIC environmental contentions, NSPM committed to work with the PIIC to coordinate and implement appropriate measures to mitigate transportation impacts resulting from the Unit 2 steam generator replacement project, including (1) using NSPM's private access road for heavy truck traffic related to the project, so that it minimizes interference with traffic entering the PIIC casino and reservation property; (2) using local law enforcement to control traffic during PINGP shift changes; and (3) staggering the refurbishment work schedule if necessary. These lines should be revised to reflect the NSPM response to the PIIC contention.
191	3-8	21	Offsite Land Use is not listed as a Category 2 issue in table 3-1 (it is not mentioned at all).
192	3-8	38-43	This section deals with refurbishment impacts, so this paragraph does not belong in this section.
193	3-8	40-42	Replace last three sentences with, "NSP has no plans to alter historic and archaeological resources at the PINGP 1 and 2 site for license renewal. Should activities involve areas that are considered undisturbed or having a significant potential for impacting resources, then further consultation with the SHPO, MN State Archaeologist, and PIIC will be initiated in accordance with corporate procedures."
194	3-9	1-6	This paragraph should be moved to just prior to the conclusion paragraph for this Section.
195	3-9	15-16	Revise "Several temporary buildings would be built, including…" with "Several temporary buildings would be built, which may include…". Temporary buildings will be required to support Unit 2 steam generator replacement; however, specific plans for temporary buildings are still under development.
196	3-9	16-18	Replace "Warehouse(s) would also be built…" with "Warehouse(s) may be built…" in line 16. Replace "would" with "if built, would" in line 18. Specific plans for buildings required to support steam generator replacement are under development. NSPM may determine that no additional warehouses are required to support Unit 2 steam generator replacement. Delete "to temporarily house the replaced steam generators" from line 17. Warehouses will not be used to temporarily house the replaced steam generators.
197	3-9	18	Insert "offsite" between "no" and "road."
198	3-9	20	Delete "nuclear" from line 20 on page 3-9. The transporter to be used will not be specific to nuclear component transport.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
199	3-9	22	Replace "PINGP 1 and 2, Unit 2" with "PINGP Unit 2…"
200	3-9	23	Insert the following sentence into line 23: "The service road was used during the Unit 1 steam generator replacement."
201	3-9	24-25	Permits and approvals will not be required because transport of the replacement steam generators will not occur on public roads. As such, delete the sentence that begins with "According to NSP…" in lines 24 and 25.
202	3-9	27	Replace "PINGP 1 and 2, Unit 2" with "PINGP Unit 2…"
203	3-9	27	Replace "generator" with "generators."
204	3-9	30-32	Replace "with the NRC, MHNS, and the PIIC" with "through consultation with applicable agencies in accordance with corporate procedures."
205	3-9	34	Environmental justice is not a Category 2 issue per table 3-1. It is "Uncategorized."
206	3-10	11-18	For the nine Category 2 issues and environmental justice, the impacts of refurbishment at PINGP 1 and 2 range from no impact to MODERATE impact. There would be no impact for the following refurbishment issues: Housing, Public Services - Education, Public Services - Public Utilities, and Offsite Land Use. There would be SMALL impact for the following refurbishment issues: Terrestrial Resources, Threatened and Endangered Species - Terrestrial, Threatened and Endangered Species - Aquatic, Air Quality, and Historic and Archaeological Resources. There would be a SMALL to MODERATE impact for the following refurbishment issues: Public Service - Transportation, and Environmental Justice.
207	4-2	22, 26	DSEIS previously referred to aquifer as the "Mount Simon-Hinckley" aquifer.
208	4-12	30	Replace "Sander" with "Stizostedion."
209	4-14	8-12	Xcel Energy's APP for Wisconsin has been approved, and is being implemented.
210	4-14	12	Replace "February" with "January."
211	4-14	12-14	In April 2008, NSPM personnel found a dead Pelican off of NSPM property, but near the Spring Creek transmission lines south of the PINGP Training Center.
212	4-15	1-5	Table 4-10 should follow this paragraph for consistency.
213	4-15	17	Reference to Appendix E is incorrect. The biological assessment is included in Appendix D. Suggest that the biological assessment be separated into a new Appendix E, and the existing Appendices E and F be renumbered.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
214	4-16	29	It is important to note that the accuracy of the 1984 data for impingement of all fish species is in question due to sampling methodology.
215	4-17	28	Add period to end of sentence.
216	4-19	6	Replace "Operating" with "Monitoring."
217	4-19	26	Note that the practice of discharging to the landlocked area was discontinued in 2009.
218	4-21	1-7	What is the basis for the statement that the planned refurbishment activities will result in slightly higher dose to the public? Suggest deletion of lines 1 through 7. The discussion of dose to the public resulting from refurbishment activities is not appropriate for Section 4. Radiation exposure to the public during refurbishment is a category 1 issue (NUREG-1555, Supplement 1, page 3.0-3). In addition, Section 4 discusses potential environmental impacts related to the period of extended operation. The Unit 2 steam generator replacement will be completed prior to the period of extended operation for Unit 2.
219	4-24	9-10	Delete lines 7 through 15, because, as stated in lines 6 and 7, the potential impacts from electric shock would be small, and because the NRC did not identify any cost benefit to the mitigation measures proposed. Furthermore, no trespassing signs are already in place to restrict access to those NSPM transmission lines near the PIIC. Erecting barriers along the remaining transmission lines in scope of license renewal or raising the lines is not practical or cost effective and is not warranted where, as here, compliance with the NESC standards has been demonstrated.
220	4-25	Table 4-12	Final category should be "Uncategorized"
221	4-28	17-25	The statements that the assessed value of PINGP 1 and 2 is not expected to increase are not correct. The value of PINGP will increase as a result of the replacement of the Unit 2 steam generators. These statements are not consistent with the information provided on page 2-29 of the PINGP ER.
222	4-29	40	"(MNHS 2008)" is not listed as a reference in Section 4.12 of the DSEIS.
223	4-29	44	"(PIIC 2008a)" is not listed as a reference in Section 4.12 of the DSEIS.
224	4-29	46	"(PIIC 2008c)" is not listed as a reference in Section 4.12 of the DSEIS.
225	4-30	20 & 25	The Birch Lake Mound Group has not been dated to the Mississippian period.
226	4-30	29	"(Johnson, Peterson, and Streiff 1969)" is not listed as a reference in Section 4.12 of the DSEIS.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
227	4-30	43	Change last sentence to read "Portions of these sites could still be intact and should be avoided."
228	4-31	3	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
229	4-31	8-9	Revise the last sentence to read, "A Phase 1 Reconnaissance Field Study conducted by NSP in 2009 did not find any evidence of these reported mounds."
230	4-31	11	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010).
231	4-31	14	Insert "may be" after "remains."
232	4-32	16	Add "(Hildebrant Iffert 2010)" at end of sentence.
233	4-32	29	Delete "Subsequent to the issuance of this draft SEIS." This statement is not accurate, and will not be required in the final SEIS.
234	4-32	29-35	NSPM has conducted the Phase I survey and the tense of this paragraph should be updated to reflect that.
235	4-32	37-39	Delete the sentence discussing construction of warehouses from line 37, the original steam generators removed from Unit 2 will not be permanently stored onsite. Delete the sentences starting with "All construction will take place..." and "Undisturbed areas of the plant..." from lines 37 through 39, they are unnecessary if the sentence discussing construction of warehouses is deleted.
236	4-43	39	"(McGovern, et.al. 2006)" is not listed as a reference in Section 4.12 of the DSEIS, and it should be made available to NSPM.
237	4-47	24-28	The paragraph on lines 24 through 28 of page 4-47 could be deleted. It provides the same information as the paragraph above it (lines 15 through 23).
238	4-48	47	Delete sentence beginning "Currently zebra mussels.....pools." There are zebra mussels in Pool 3.
239	4-53	Table 4-13	Replace "Lake Sturgeon" with "Sturgeon Lake."
240	4-53	Table 4-13	Delete "cumulative" from the first sentence of the discussion of Aquatic and Water Resources.
241	4-53	Table 4-13	Delete "including refurbishment" from the Socioeconomics discussion.
242	4-55	14	Delete this reference. It is part of the (USDOJ 2002) reference.
243	4-56	10	The citation to (Hildebrandt 2008) should be (Hildebrant Iffert 2010). Add "Non-public reference per 36CFR 800.11(c)."

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Comment Number	Page Number	Line Number	Comment / Proposed Change
244	4-56	25	This reference was not used in the text of Section 4.
245	5-4	20	Clarify the source of the dose to the population. Should note that this dose is an accident related dose and not a dose from normal operation.
246	5-4	Table 5-2	Replace "STGR" with "SGTR" in Table 5-2.
247	5-6	20	Correct "developed B one."
248	6-1	19	Replace "State" with "States". Replace "(ER; NMC 2008)" with "(ER)(NMC 2008)."
249	6-2	5	Replace "reclicensing" with "license renewal."
250	6-3	14, 16	Correct the numbering of the bullets in lines 14 and 16.
251	7-1	21	Replace "Three Mile Island Nuclear Station, Unit 1, is..." with "PINGP 1 and 2, are...".
252	8-4	14	The gas turbines themselves do not require condenser cooling; however, the heat recovery steam generator does. Though requiring less cooling water than a simple steam cycle unit, combined cycle plants still require a significant volume of cooling water.
253	8-4	45	Spent catalyst is generally either regenerated for reuse, or the components are recycled for other uses. Very little material is actually disposed of as waste.
254	8-5	24-26	A new gas-fired unit would not be subject to 40 CFR Part 60, Subpart D. It would be subject to 40 CFR 60, Subpart KKKK, "Standards of Performance for Stationary Combustion Turbines."
255	8-5	26-32	Replace with "Additionally, construction of a new electric production facility of greater than 25 MWe capacity would trigger the state environmental review process, found in Minn. R. 4410. As part of the review, the Minnesota Pollution Control Agency (MPCA) requires the submission of an Air Emission Risk Analysis for hazardous air pollutants, and a Greenhouse Gas Emissions Evaluation."
256	8-6	24-25	The new plant would be subject to the continuous monitoring requirements for SO_2 and NO_x specified in 40 CFR Part 75, and the CO monitoring requirements specified in 40 CFR Part 60.
257	8-8	32-33	Federal and state air emission standards are designed to protect the public, not occupational workers. Occupational exposure is governed under the Occupational Safety and Health Administration, per 29 CFR.

Comment Number	Page Number	Line Number	Comment / Proposed Change
258	8-8	38-39	Industrial fabric filters or electrostatic precipitators can be used to control particulate emissions. However, very rarely are these kinds of controls installed on natural gas plants. Natural gas is considered inherently clean for particulate matter, and additional controls are unlikely. This would be formalized in the Best Available Control Technology (BACT) analysis submitted with the air permit application.
259	8-9	14	Replace "collocated" with "co-located".
260	8-13	23, 24	Spent catalyst is generally either regenerated for reuse, or the components are recycled for other uses. Very little material is actually disposed of as waste.
261	8-14	22, 26	Replace "8.1.2" with "8.1.1."
262	8-15	12, 13	The new plant would be subject to the continuous monitoring requirements for SO2 and NOx specified in 40 CFR Part 75, and the CO monitoring requirements specified in 40 CFR Part 60.
263	8-15	19	Replace "8.1.2" with "8.1.1."
264	8-15	19-21	This discussion was not included in section 8.1.1.
265	8-15	32, 33	The wood-fired combustion facility would be subject to different Federal and state air regulations than the combined-cycle natural gas plant. The wood fired boiler would likely be subject to 40 CFR Part 60, Subpart D (or Da), and the electric utility MACT standard, which is currently under development at the EPA. The combined cycle natural gas plant would be subject to 40 CFR Part 60, Subpart KKKK.
266	8-17, 18	33-47, 1-10	This discussion seems to blend the conclusions for the wood-fired and gas-fired plants together. This makes the discussion confusing and disjointed. This section needs to be re-written in order to clarify the point the authors are trying to make.
267	8-17	43, 44	Federal and state air emission standards are designed to protect the public, not occupational workers. Occupational exposure is governed under the Occupational Safety and Health Administration, per 29 CFR.
268	8-21	10-11	For this alternative, neither of the existing PINGP units would continue to operate. There appears to be copy error here.
269	8-23	15-17	Spent catalyst is generally either regenerated for reuse, or the components are recycled for other uses. Very little material is actually disposed of as waste.
270	8-25	30-35	This paragraph does not need to be included. This alternative does not include the construction of any new air emission units.

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Comment Number	Page Number	Line Number	Comment / Proposed Change
271	8-28	45-46	What is the basis for the conclusion that operating only one unit would reduce the impact on Archaeological Resources from Moderate to Small. The other unit would not be decommissioned until both units were removed from service.
272	8-31	21	Clarify the reference.
273	9-1	15-19	Suggest providing table to summarize this information.
274	9-1	18	Revise "1 Category" to "one Category 2."
275	9-1	28	See comments on lines 9-10 of page 4-24.
276	9-1	36-39	The discussion of mitigation actions noted in lines 36 through 39 on page 9-1 related to reducing the impact to peregrine falcons seems unnecessary based on the discussion in lines 18 through 24 on page 3-4. Lines 18 through 22 on page 3-4 state that the falcon nest is far enough away from the ground and that steam generator replacement is not expected to cause significant noise or other types of disturbance to the birds. Based on that conclusion, why is it necessary to suggest a mitigation measure to limit activities during midday hours? Lines 22 through 24 on page 3-4 note that the steam generator replacement will occur outside the falcon breeding period. Since the replacement is already planned to occur outside the breeding period, why is it necessary to note this as a possible mitigation measure?
277	C-2	First item in table	The discussion implies new permits are required, however, PINGP holds a Title V permit, which authorizes the installation and operation of all emission sources at the site. New or modified units may require an amendment to the permit prior to installation. The MPCA issues and enforces the permit.
278	C-4	First item in table	The MPCA does not require a permit amendment for temporary emissions, such as those associated with the refurbishment.
279	D-71	41-43	Revise to read "... to replace the two steam generators at PINGP Unit 2 with replacement steam generators to support the extended life of PINGP Unit 2 through the period of extended operation." PINGP Unit 2 only uses two steam generators, and the replacement steam generators are "recirculating vertical steam generators" (same as the original steam generators).

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Comment Number	Page Number	Line Number	Comment / Proposed Change
280	D-71, D-72	44, 1	Replacement of the PINGP Unit 2 steam generators is scheduled for 2013, which is prior to the PEO for Unit 2. In line 44 on page D-71 and line 1 on page D-72, replace "...would replace steam generators only on Unit 2 during the period of extended operation." with "...only the steam generators on Unit 2 must be replaced to support operation during the period of extended operation."
281	D-77	13	The cooling towers are induced mechanical draft cross flow towers. Replace "Fans blow air up through the falling water" with "Fans draw air up through the streams of water" (Ref: USAR 11.6.2).
282	D-77	38	Revise to read "To minimize the impacts of the heated..."
283	D-78	8	Reword to read "...order to prevent condenser inlet temperatures from exceeding..."
284	D-80	17	Replace "Center" with "Services."
285	F-4	21	What is the basis for the 5.1E-5 Unit 2 IPE value? NSPM did not provide a CDF for Unit 2 in the IPE, except to say that based on qualitative analysis it would be about the same as Unit 1.
286	F-4	Table F-3	What is the basis for the 5.1E-5 Unit 2 IPE value? NSPM did not provide a CDF for Unit 2 in the IPE, except to say that based on qualitative analysis it would be about the same as Unit 1.
287	F-11	41, 45, 46	Replace "Level 2" with "Level 1 plus LERF model."
288	F-11	45-46	Replace "Level 2 model" with "the Level 1 plus LERF and the full Level 2 model."
289	F-12	14, 15, 16	Change the second "Level 2" to "Level 1 plus LERF."
290	F-21	Table F-6	Table is missing entries for SAMAs 19, 20 and 22 and footnote (a). There appears to be a missing page.
291	F-22	20	Replace "potable" with "portable".

Enclosure 2
Corrections and Clarifications to SEIS Table 2-25

The following table contains various corrections and clarifications based on reference (Hildebrant Iffert 2010) that should be incorporated into DSEIS Table 2-25.

Site Number	Site Name	Description	Current Condition
21GD02	Bartron Site	Artifact Scatter—Base Camp (SHPO 1996)	Disturbance on PINGP only: 70% moderately disturbed (by cultivation), 20% heavily disturbed (by historic and modern use), 10% completely destroyed (by archaeological excavation, borrow pit, road construction)
21GD58/61	Birch Lake Mounds	Earthwork, Cemetery—Mortuary (SHPO 1996)	Heavily (90%) disturbed (by railroad construction, cultivation, archaeological excavation)
21GD59	NSP II Site	Earthwork (SHPO 1996)	Heavily disturbed/destroyed (by cultivation and construction of cooling towers); small areas may be capped by spoil deposits
21GD62	Birch Lake Mound	Earthwork (SHPO 1996)	Completely destroyed (by archaeological excavation)
21GD148	Cooling Tower Site	Artifact Scatter (SHPO 1996)	Unassessed condition
21GD149	Substation Site	Artifact Scatter (Merjent 2009)	Unassessed condition
21GD207	Dike Site	Artifact Scatter (SHPO 1996)	Unknown (no evidence of site in 2009)
21GD277	Indian Slough Mound	Earthwork (Merjent 2009)	Minimally disturbed
21GD278	Otto Phlika Farmstead	Farm (Merjent 2009)	Moderately disturbed
21GD279	Kuhns Farmstead	Farm (Merjent 2009)	Moderately disturbed
21GD280	Reliance Stove Door Site	Artifact Scatter, Possible Homestead (Merjent 2009)	Unassessed
21GD/	Vergil Larson Mounds II	Earthwork (OSA 1999)	Not field verified
---	Prairie Island Schoolhouse Site	Schoolhouse (Merjent 2009)	Unassessed