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Xcel Energy

Docket No.: EL12-046

Response To: SDPUC

Data Request No.

Requestor:

2-5

Date Received: July 30, 2012

Question:

Referring to the Prairie Island Casks adjustment:

- a) Please provide copies of work order authorizations.
- b) Provide a statement of status for the project, i.e., actual expenditures and projected expenditures by month, expected in-service date, etc.
- c) Please provide revised PF20 work papers to reflect actual costs incurred.
- d) What is the licensed dry cask capacity at the Prairie Island ISFSI? How many casks are currently full? In order for Prairie Island to operate the additional 20 years granted through the license renewal, how many additional casks will Xcel need?
- e) Please explain how Xcel determines when and how many casks to purchase.

Response:

- a) The Nuclear Project Authorizations for this project are included as Attachment A to this response.
- b) Actual costs and projected expenditures are included in the updated work paper PF20-6 included in response to part c). Expected in-service date is August 1, 2014.
- c) Please see Attachment B to this response for updated work papers PF20-1 through PF20-11 which reflect actual project costs through June, 2012.
- d) The Nuclear Regulatory Commission (NRC) license for the Independent Spent Fuel Storage Installation (ISFSI) authorizes the use of 48 dry casks. The Minnesota Public Utility Commission has authorized the use of up to 64 dry casks to support operation of Prairie Island Units 1 and 2 for an additional 20 years until 2033 and 2034 respectively. There are currently 29 dry casks loaded and sitting on the concrete storage pad in the Independent Spent Fuel Storage Installation. An amendment to the NRC license for the

ISFSI will be processed in the future to increase the capacity from 48 dry casks to 64 dry casks.

- e) Dry casks are loaded on an as-needed basis to ensure sufficient storage spaces in the spent fuel racks in the spent fuel pool are available to allow both cores to be offloaded if it becomes necessary. A number of factors are considered when placing an order including the lead-time for having the casks manufactured, availability of fabrication shop capacity to manufacture casks, material costs and projected material cost inflation, refueling outage schedules and time windows between refueling outages to load casks so as not to interfere with refueling preparation and work. As discussed in Mr. Kramer's testimony this project is for 9 casks that will be loaded in 2013 and 2014. The subsequent 9 casks will be loaded from 2015 thru 2019.

Preparer: Terry A. Pickens \ Thomas E. Kramer
Title: Director, Regulatory Policy \ Principal Rate Analyst
Department: Nuclear Policy & Planning \ Revenue Requirements – North
Telephone: 612-330-1906 \ 612-330-5866
Date: August 10, 2012

NUCLEAR PROJECT AUTHORIZATION (NPA)

The NPA is a request for O&M and Capital Study, Design, and Implementation Phase authorization. In addition, updated NPAs are required to request additional project authorizations due to project overruns, and/or changes in scope, schedule, and cost in accordance with FP-BUS-PRG-01, Project Review and Approval Process. The NPA records the historical project information after initial funding authorization. The NPA is signed by the Project Manager and Project Sponsor to document their agreement at each project phase and/or changes in scope, schedule, and cost. The Site VP signature and Sr. Director Projects, Policy and Nuclear Services signatures are required for Capital project authorization. The Site VP Signature is required for O&M project authorization. For additional instructions on how to fill out the NPA form reference FP-BUS-PRG-01.

Budget Year(s):	2010-2014	Plant:	PRAIRIE ISLAND	Log #:	
Classification:	Capital: X	O&M:		Date:	12/08/2011

Project Title: PROCUREMENT of 9 TN-40HT SPENT FUEL STORAGE CASKS 30-38

CAP: _____

Project Prioritization

(Use FP-BUS-IPP-01 Integrated Planning Process)

Urgency:	2	<i>Present a risk of significant reduction in capacity, delayed startup or return to service</i>
Risk:	3H	<i>Could delay a unit startup or return to service</i>

Phase:	Study	Design	Implementation	Close-out
New /Additional Funding Requested:	\$	\$	\$	\$
Current Authorization:	\$	\$	\$ 50,251,576	\$
YTD Phase Actual:	\$	\$	\$ 9,724,589	\$
Project to Date:	\$	\$	\$ 13,420,176	\$
Original Project Phase Cost:	\$	\$	\$ 50,251,576	\$
(Identify contingency separate)	\$	\$	\$	\$
Revised Project Phase Cost:	\$	\$	\$ 48,924,737	\$

YTD Actual Cost:	\$ 9,724,589
Revised Total Project Cost:	\$ 48,924,737
Original Total Project Cost:	\$ 50,251,576

- Study Phase
- Design Phase
- Implementation Phase
- *Project Overrun
- *Scope Change
- *Cash Flow Change
- *Schedule Change

NUCLEAR PROJECT AUTHORIZATION (NPA)

***Provide a clear explanation of why this funding or change is being requested:**

The original NPA for this project was approved in July 2010. The NPA was revised in May, 2011 to reflect a change in the milestone payment schedule to Transnuclear (TN).

Xcel Energy issued their Current Energy Plan for PINGP Units 1 and 2 in September, 2011. The energy plan shifted 1R28 to late 2014. This shift requires the loading of Casks 36-38 to move to the Spring of 2014 instead of the Fall of 2014.

This NPA revision is required to reforecast the budget and schedule due to an expedited fabrication schedule and new projected contract payments to TN required to meet the change to the cask loading dates. Based upon discussions with TN and their fabricator, Kobe Steel, the intent would be to complete fabrication of the final 6 units of this order by early 2013 with delivery of Units 33-35 by April 2013. Units 36-38 would be delivered in the late Fall of 2013 after loading Casks 33-35.

Also, TN missed a December fabrication milestone for completion of the baskets for Casks 30-32. This milestone will be completed and the payment invoiced (approximately \$1.5M including MN sales tax) in the first quarter of 2012.

An expedited cask fabrication and delivery schedule minimizes the risks associated with cask loading and conformance to the PINGP Spent Nuclear Fuel Storage Master Plan. This NPA does not affect the overall project scope of this project to fabricate, deliver and load 9 TN-40HT casks. However, the expedited fabrication and delivery schedule reduces the total approved funding for the project by \$1,326,839.

The majority of the reduction for this project is attributed to reducing personnel costs associated with removing 16 months from the original fabrication schedule and loading casks 36-38 earlier than projected based upon changes to the Corporate Energy Plan for Prairie Island and outage schedules.

Financial Analysis (NPV):

Project Manager:	TIM MORRISON	Project Sponsor:	SCOTT SHARP
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Concise Problem Statement: (Provide the problem description or the new requirement or function the project will meet).

The Corporate Energy Plan for Prairie Island that was approved in September moved a 2014 Unit 1 outage by 6 months. This impacted the cask loading schedule by 6 months and requires casks 36-38 to be available to support an April, 2014 loading campaign.

Project Scope: (Provide what the project will and will not deliver, and what functionality is and is not included in the final product. Identify affected equipment, associated equipment, and similar equipment commodities that are included. If project includes O&M and Capital scope, separate scopes below in alignment with the calculated cash-flows documented toward the end of the NPA. See Site Manager Budgeting and Reporting for assistance.)

Capital Scope: See the original approved project NPA.

O&M Scope:

NUCLEAR PROJECT AUTHORIZATION (NPA)

Project Description: (For the recommended alternative being considered, provide the specific tasks that will be completed in sufficient detail to describe how the project will be implemented. Include any key assumptions use for the project).

See the original approved project NPA.

Justification / Benefits: (What is the justification for selecting the recommended alternative and what are the expected benefits).

See the original approved project NPA.

The project funding adjustment does account for rail car rental fees to store 3 casks at PINGP for 8 months. Rail car rental is about 1/3 of the cost associated with removing casks from the rail car, storing and retrieval from the ISFSI.

The intent is complete fabrication in early 2013, then begin fabrication of Casks 39-47 in early 2013 to support loading in 2015. This schedule keeps the fabrication support team intact to complete fabrication of casks to support full capacity of the ISFSI under our current 10CFR72 license.

Note that a separate NPA will be required to address funding for Casks 39-47. The NPA's (Casks 30-38 and 39-47) address overlap of schedules and personnel as well as travel costs associated with each project. In 2013 and 2014 project personnel will mainly be supporting the loading process (Spring/Summer) for Casks 33-38 and fabrication only for Casks 39-47.

Project Risk Assessment: (Provide the key assumptions and risks which could impact the success of the project).

See the original approved project NPA.

Conclusion

Xcel should authorize the budget reforecast and complete the project per the revised schedule.

Intended Course of Action

Complete the project per the schedule proposed below.

Alternatives: (List and briefly describe other alternatives, including non-authorization, that were considered).

See the original approved project NPA.

NUCLEAR PROJECT AUTHORIZATION (NPA)

Material Management: (Identify how this project may create obsolete parts, require additional parts, or require the disposition of removed items).

Not applicable to this request.

Are there any spare parts or material (regular inventory or capitalized) that will no longer be usable as a result of implementing this project? Identify and determine the value of each.

Are there any additional spare parts or material (regular inventory or capitalized) that will be needed as a result of implementing this project? Identify and determine the value of each.

Are there any parts or material that will need to be retired or refurbished as a result of implementing this project? Identify and determine the value of each.

Cash Flow Capital

Year	2010	2011	2012	2013	2014		
Phase	IMPL	IMPL	IMPL	IMPL	IMPL		
Jan			12726165	94000	66000		
Feb			112000	2858438	76000		
Mar			1575875	253500	263500		
Apr			2841609	370000	350000		
May			112000	340500	349000		
Jun			1263187	500000	24000		
Jul			274000		24000		
Aug			2161500	40000	824655		
Sep			349000				
Oct		9724579	113000				
Nov		89000	1766908				
Dec		2475200	1984310	865395			
TOTAL	4057416	12288779	25279554	5321833	1977155	0	0

(The above table is an inserted Excel worksheet. Double click on table to enter data. Ensure when finished all data is shown before printing)

For carryover projects, enter the cash flow in the previous years' months.

Outage Related: Yes No Year/Outage Number(s):

O&M

NUCLEAR PROJECT AUTHORIZATION (NPA)

Year							
Phase							
Jan							
Feb							
Mar							
Apr							
May							
Jun							
Jul							
Aug							
Sep							
Oct							
Nov							
Dec							
TOTAL	0	0	0	0	0	0	0

(The above table is an Inserted Excel worksheet. Double click on table to enter data. Ensure when finished all data is shown before printing)

For carryover projects, enter the cash flow in the previous years' months.

Outage Related: Yes No Year/Outage Number(s):

Project Estimate and Project Milestones: (An estimate of Total Project cost and Project Milestones must be included for Design and Implementation phases).

BUDGET ESTIMATE 11/28/11

9 CASKS	2010	2011	2012	2013	2014	TOTALS
PROJECT PERSONNEL	\$ 145,000	\$ 545,000	\$ 671,000	\$ 286,000	\$ 358,000	\$ 2,005,000
FAB PERS.	\$ 142,000	\$ 240,000	\$ 585,000	\$ 662,000	\$ 41,000	\$ 1,070,000
PI TRAVEL	\$ 60,000	\$ 75,457	\$ 78,000	\$ 22,500	\$ -	\$ 235,957
EQUIP. & MAT.	\$ 3,571,239	\$ 9,832,499	\$ 21,387,244	\$ 3,302,438	\$ -	\$ 37,986,545
MISC. SUPPORT	\$ 21,000	\$ 800,000	\$ 51,000	\$ -	\$ -	\$ 872,000
CASK LOADING	\$ -	\$ -	\$ 630,000	\$ 703,500	\$ 757,000	\$ 2,091,000
SUBTOTAL	\$ 3,939,239	\$ 11,492,506	\$ 23,402,224	\$ 4,376,438	\$ 1,156,000	\$ 44,280,502
SITE A&G (3% OF SUB)	\$ 118,177	\$ 430,653	\$ 657,234	\$ 131,293	\$ 34,695	\$ 1,372,042
CONTINGENCY		\$ 365,620	\$ 1,220,086	\$ 814,102	\$ 785,960	\$ 3,195,228
YEARLY TOTALS	\$ 4,057,416	\$ 12,288,779	\$ 25,279,554	\$ 5,321,833	\$ 1,977,155	\$ 48,924,737

TOTAL \$ 48,924,737

NUCLEAR PROJECT AUTHORIZATION (NPA)

TN-40HT MILESTONE SCHEDULE

ISSUE PURCHASE ORDER TO TN (COMPLETE)
NPA APPROVAL FOR IMPLEMENTATION PHASE (COMPLETE)
ISSUE CONTRACT CHANGE REQUEST TO ESTABLISH FUNDING (COMPLETE)
ESTABLISH QA/QC @ KOBE (COMPLETE)
FABRICATE 9 TN-40HT STORAGE CASK/BASKETS
KOBE (12-10 to 04-13)

DELIVER CASKS 30, 31, 32 TO PI (06-12)
PERFORM EQUIPMENT PM'S (04-12 to 06-12)
LOAD CASKS 30, 31, 32 (06-12 to 09-12)

DELIVER CASKS 33, 34, 35 TO PI (04-13)
PERFORM EQUIPMENT PM'S (02-12 to 04-13)
LOAD CASKS 33, 34, 35 (04-13 to 07-13)

DELIVER CASKS 36, 37, 38 TO PI (08-13)
PERFORM EQUIPMENT PM'S (02-14 to 03-14)
LOAD CASKS 36, 37, 38 (03-14 to 5-14)

PROJECT CLOSEOUT (05-14 to 9-14)

Rework

Does this request include funding for re-work or work previously completed by a vendor?

Yes

No

Explain:

Scope Change

Does this work include a change of scope from previous PRG approval?

Yes

No

Explain:

NUCLEAR PROJECT AUTHORIZATION (NPA)

Project Agreement

Project Manager: <i>Jim Motta</i>	Date: <i>12/14/2011</i>
Project Sponsor: <i>Karin Decker</i> <i>Scott Sharp</i>	Date: <i>12/14/2011</i>

PRG Sub-Committee Disposition

<input type="checkbox"/> Accept	<i>NA</i>	Date:
<input type="checkbox"/> Reject		
Recommendation:		
Validate Urgency: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 (Check one)		
Risk: (Refer to FP-BUS-IPP-01)		

NUCLEAR PROJECT AUTHORIZATION (NPA)

PRG Disposition

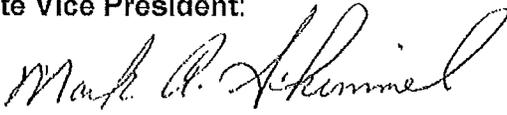
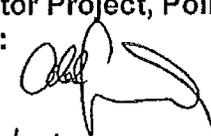
<input checked="" type="checkbox"/> Approve <input type="checkbox"/> Reject	Date: 12/14/11
Recommendation: Acting Finance Mgr to contact Linda Erickson with a note 1.5M delta rat in Rate Case.	
J. Swanson	

Savings and Use Guidance (See FG-BUS-FIN-01)

Form QF-2134 Required (AFCR)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Budget Offset Recommendation:	John Walters interview/IRC. TN-40 1.5M above offset w/ timing of other NPA.

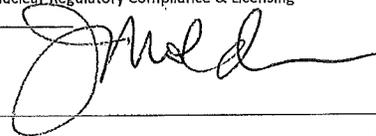
O&M and CAPITAL

CAPITAL

Site Vice President:  Date: 12/15/11	SR Director Project, Policy & Nuclear Services:  Date: 12/15/11
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(Note: If Form QF-2134 (AFCR) is required, Authorization for funding can not be finalized until approved Form QF-2134 is signed by CNO and attached to NPA)

Vice President, Engineering and Nuclear Regulatory Compliance & Licensing
Date: 12/16/11



Site Manager Budgeting and Reporting

Accounting Charge Number:
Site Manager Budgeting and Reporting:
Date:

Northern States Power, a Minnesota corporation
11101498 PI-9 TN-40 Casks (30-38) - With Actual Costs Thru June 2012
Revenue Requirement Calculation Inputs

Updated Work Paper PF20-6

Project Identification Information			CWIP/RWIP				Plant In-service				Depreciation Reserve				Tax Depreciation				Deferred Taxes			RWIP																	
Grandparent or Parent	Description	Functional Use	Beginning	(CWIP) Expenditures	AFUDC Debt	AFUDC Equity	Closings	Ending	Beginning	Additions	Retirements	Ending	Beginning	Provision	(RWIP) Salvage/ Removal	Retirements	Ending	Tax Composite (16)	Federal Tax Depreciation (5)	State Tax Depreciation (32)	Avoided Tax	Beginning	Annual	Ending	Beginning	Spend	Closing	Ending											
As Reported by Capital Asset Accounting Related Items 2010-2011 11101498 PI-9 Island-Spent Fuel Storage Nuclear																																							
2010	December							3,783,817																															
2011	January		3,783,817	24,269	8,602	15,381	-	3,832,069					280																										
	February		3,832,069	62,566	8,364	14,835	-	3,917,834					279																										
	March		3,917,834	12,965	9,915	18,450	-	3,959,163					278																										
	April		3,959,163	39,635	9,930	18,399	-	4,027,128					277																										
	May		4,027,128	63,471	9,957	18,351	-	4,118,907					276																										
	June		4,118,907	36,279	10,173	18,793	-	4,184,152					275																										
	July		4,184,152	9,267,270	21,197	38,987	-	13,511,606					274																										
	August		13,511,606	41,315	32,735	60,259	-	13,645,915					273																										
	September		13,645,915	44,018	31,121	56,764	-	13,777,818					272																										
	October		13,777,818	132,801	33,281	61,121	-	14,005,021					271																										
	November		14,005,021	319,921	40,194	75,433	-	14,440,569					270																										
	December		14,440,569	1,383,306	36,090	66,249	-	15,926,215					269																										
2011 Total				11,427,817	251,258	463,023	-																																
2011 Beg/End Avg								9,855,016				0																											
2011 13 Mo Avg								8,702,324				0																											
2012	December							15,926,215																															
2012	January		15,926,215	12,647	33,140	62,918	-	16,034,919					268																										
	February		16,034,919	257,939	34,167	65,468	-	16,392,493					267																										
	March		16,392,493	79,058	33,376	63,368	-	16,568,296					266																										
	April		16,568,296	14,281,976	49,295	94,166	-	30,993,733					265																										
	May		30,993,733	77,079	64,330	122,702	-	31,257,844					264																										
	June		31,257,844	109,764	64,911	123,811	-	31,556,329					263																										
	July		31,556,329	254,000	64,015	122,102	-	31,996,446					262																										
	August		31,996,446	184,000	64,855	123,703	-	32,369,005					261																										
	September		32,369,005	1,308,605	66,793	127,400	-	33,871,803					260																										
	October		33,871,803	1,496,500	70,103	133,713	-	35,572,119					259																										
	November		35,572,119	164,000	72,247	137,802	-	35,946,168					258																										
	December		35,946,168	3,007,390	75,969	144,902	-	39,174,430					257																										
2012 Total				21,232,959	693,201	1,322,055	-																																
2012 Beg/End Avg								27,250,322				0																											
2012 13 Mo Avg								28,281,523				0																											
2013	December							39,174,430																															
2013	January		39,174,430	197,000	67,563	149,434	-	39,588,428					256					2,859,710	2,859,710	2,859,710	156,730	(316,020)	1,111,806	(316,020)															
	February		39,588,428	1,276,875	69,238	153,140	-	41,087,681					255					2,859,710	2,859,710	2,859,710	160,446	795,786	1,111,806	1,907,592															
	March		41,087,681	1,552,000	72,113	159,498	-	42,871,292					254					2,859,710	2,859,710	2,859,710	166,994	1,907,592	1,111,806	3,019,398															
	April		42,871,292	1,104,688	74,853	165,558	-	44,216,391					253					2,859,710	2,859,710	2,859,710	173,212	3,019,398	1,111,806	4,131,204															
	May		44,216,391	596,000	46,523	102,899	(35,428,200)	9,533,613		35,428,200			252					2,859,710	2,859,710	2,859,710	107,549	4,131,204	1,111,806	5,243,010															
	June		9,533,613	1,449,500	17,717	39,187	-	11,040,017	35,428,200				251	70,294	140,868			2,859,710	2,859,710	2,859,710	41,001	5,243,010	1,111,806	6,354,816															
	July		11,040,017	162,000	19,232	42,538	-	11,263,787	35,428,200				250	211,162	140,868			2,859,710	2,859,710	2,859,710	44,522	6,354,816	1,111,806	7,466,622															
	August		11,263,787	165,000	19,628	43,413	-	11,491,827	35,428,200				249	352,030	140,868			2,859,710	2,859,710	2,859,710	45,387	7,466,622	1,111,806	8,578,428															
	September		11,491,827	177,000	20,039	44,322	-	11,733,188	35,428,200				248	492,898	140,868			2,859,710	2,859,710	2,859,710	46,287	8,578,428	1,111,806	9,690,234															
	October		11,733,188	162,000	20,450	45,230	-	11,960,868	35,428,200				247	633,767	140,868			2,859,710	2,859,710	2,859,710	47,184	9,690,234	1,111,806	10,802,040															
	November		11,960,868	165,000	20,852	46,120	-	12,192,840	35,428,200				246	774,635	140,868			2,859,710	2,859,710	2,859,710	48,060	10,802,040																	

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Xcel Energy

Docket No.: EL12-046

Response To: SDPUC

Data Request No.

Requestor: South Dakota Public
Utilities Commission

5-3

Date Received: August 16, 2012

Question:

Please refer to NSP's response to DR 2-5.

- a. Referring to NSP's response to DR 2-5 (b), the expected in-service date for the Prairie Island on-site storage casts [**Correction-casks**] is August 1, 2014. According to the excel spreadsheet filed in response to DR 2-5 (c), SDPUC-2-005-Att B.xls, tab Rainbow-Actual (SD) tab, \$35,428,200 of plant is scheduled to be placed in-service in May 2013. Please clarify the expected in-service date for the Prairie Island on-site storage cast [**Correction-cask**] project.
- b. Referring to NSP's response to DR 2-5 (d), NSP stated "As discussed in Mr. Kramer's testimony this project is for 9 casks that will loaded in 2013 and 2014." Please identify the pages and line numbers where Mr. Kramer discussed that nine casks will be loaded in 2013 and 2014.
- c. According to Mr. Kramer's direct testimony, page 42, line 4, the Prairie Island on-site storage cast [**Correction-cask**] project was projected to have an in-service date of August 2012. Please reconcile and clarify the projected in-service dates for the Prairie Island on-site storage casts [**Correction-casks**] provide in Mr. Kramer's direct testimony, NSP's response to DR 2-5 (b), NSP's response to DR 2-5 (c), and NSP's response to DR 2-5 (d).
- d. Please provide the NPAs approved for this project in July 2010 and May 2011 as identified on Attachment A, page 2 of 8.

Response:

a. & c. The original schedule for these nine casks called for three casks to be loaded and placed in-service in 2012, three casks to be loaded and placed in-service in 2013 and 3 casks to be loaded and placed in-service in 2014. As a result of delays in delivery of the first three casks the loading in 2012 was postponed until 2013. At this time it is currently planned to load and place in-service six of the nine casks in 2013 with the remaining three to be loaded and placed in-service in 2014.

b. The Prairie Island Casks project is discussed in the paragraph beginning on line 22 of page 41 of Mr. Kramer's direct testimony. The 9 casks, numbers 30 through 38, are identified on page 42 at lines 1 and 2. The reference to the testimony in response 2-5(d) was to the number of casks and not the timing of the loading of the casks.

d. Attachment A to this response contains the July 2010 NPA and Attachment B to this response contains the May 2011 NPA.

Response By: Terry A. Pickens \ Thomas E. Kramer
Title: Director, Regulatory Policy \ Principal Rate Analyst
Department: Nuclear Policy & Planning \ Revenue Requirements – North
Telephone: 612-330-1906 \ 612-330-5866
Date: September 5, 2012