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Xcel Energy

Docket No.: EL12-046

Response To: South Dakota Public
Utilities Commission

Data Request No.

Requestor:

2-3

Date Received: July 30, 2012

Question:

Referring to the Monticello Appendix R 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 PF17 work papers to reflect actual costs incurred.
- d) Please refer to work paper PF17-11. Please describe the additional plants expected to be added in October 2012.
- e) Does NSP anticipate any reductions in test year expenses as a result of less maintenance or operational efficiencies? Please explain.
- f) Please refer to Witness Kramer's testimony on pg. 40, lines 9 – 12. Please provide documentation that supports the claim that the NRC will no longer allow compensatory measures to be taken in response to fire vulnerabilities, but rather, expects vulnerabilities to be fixed.

Response:

- a) The Nuclear Project Authorizations for this project are included as Attachments A and B to this response.
- b) Actual costs and projected expenditures are included in the updated work paper PF17-11 included in Attachment C. Expected in-service date is November 1, 2012.
- c) Please see Attachment C for updated work papers PF17-1 through PF17-11 which reflect actual project costs through June, 2012.

- d) We installed the original scope of the Appendix R project during the 2011 spring refueling outage at Monticello. The originally planned project scope was completed early and significantly under budget. A scope change was then approved for \$1 million -- to incorporate the additional fire protection to document no additional Multiple Spurious Operation issues exist -- which is expected to be completed November 2, 2012.
- e) NSP does not expect any reductions in test year expenses as a result of less maintenance or operational efficiencies. As discussed in item f) below compensatory measures did not have to be implemented prior to completion of this project and as such there is no reduction in maintenance or operational efficiencies.
- f) Page 40 at lines 9 through 13 of Mr. Kramer's testimony states:
"Recently, the NRC indicated that it will no longer allow compensatory measures to be taken in response to fire vulnerabilities, but rather, expects vulnerabilities to be fixed. This project addressed the areas of vulnerability to fire that were identified."

This statement did not adequately capture the intent of the Nuclear Regulatory Commission's May 14, 2009 Enforcement Management Guidance 09-002 (EGM 09-002) which is provided as Attachment D to this response. Fire induced circuit faults or hot shorts, has been a topic of discussion between the NRC and nuclear plants since requirements for safe shutdown analyses were promulgated in Appendix R to 10 CFR Part 50. EGM 09-002 provides guidance from the Office of Enforcement to the NRC regional offices defining their expectations for final resolution of the fire induced circuit faults issue. In Mr. Kramer's testimony it would have been more accurate to say:

"On May 14, 2009 the NRC indicated that a licensee must complete corrective actions associated with non-compliances by 36 months following the issuance of RG1.189 Rev 2, which was issued in October 2009. The Monticello Appendix R Hot Shorts Cable Replacement project addressed the areas of vulnerability at Monticello for fire induced circuit faults to meet this requirement."

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 16, 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 VP Nuclear Projects 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, 2011, 2012	Plant:	MT	Log #:	2010-054
Classification:	Capital: 100%	O&M:		Date:	1/10/11

Project Title: Appendix R Hot Shorts Modification Project

CAP: AR 1176349

Project Prioritization

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

Urgency:	1	Resolves a regulatory requirement
Risk:	2	Fails to correct a condition associated with an NRC regulation - 10 CFR 50 Appendix R

Phase:	Study	Design/Implementation	Close-out
New /Additional Funding Requested:	\$	\$ 700,000	\$ 0
Current Authorization:	\$	\$ 1,800,000	\$
YTD Phase Actual:	\$	\$ 1,549,470	\$
Project to Date:	\$	\$ 2,053,820	\$
Project to Date vs. Authorized		\$253,820	
Original Project Phase Cost:	\$	\$ 5,483,895	
(identify contingency separate)	\$	\$ 1,096,780	
Total		\$6,580,675	
Revised Project Cost:		\$6,643,895	
(identify contingency separate)		\$1,328,779	
Total		\$7,972,674	

YTD Actual Cost:	\$ 1,549,470
Revised Total Project Cost:	\$ 7,972,674
Original Total Project Cost:	\$ 6,580,675

- 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:**

This funding is required to meet 10 CFR 50 Appendix R requirements ensuring safe shut down post fire. See scope discussion for history of scope changes. IRC/Financial concile authorized 8,380,675 due to scope change, the current estimation is as shown. Due to a calc that is required for the HPCI configuration, \$150,000 was added to page one and to page seven.

Financial Analysis (NPV):

Project Manager:	Mark Hausman	Project Sponsor:	Gary Sherwood
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Concise Problem Statement: (Provide the problem description or the new requirement or function the project will meet).

Some motor operated valves (MOV's) have been identified as susceptible to fire-induced short circuits that bypass torque and limit switches. In addition, the valve motors develop forces greater than the withstand threshold of the valve body resulting in un-isolable leaks. For the case of the noted valves, the leaks result in an uncontrolled inventory loss as they are installed below the level of the suppression pool. A fire could cause two containment isolation valves to open; thereby preventing the Core Spray and RHR pumps from having adequate net positive suction head; thereby failing coolant inventory makeup and heat removal functions.

Fire-induced short circuits may cause the EDG output breaker to close onto a live bus out of phase resulting in damage to the EDG.

Fire-induced short circuits may result in opposite divisions being cross-tied out of phase through spurious operation of tie breakers.

Fire-induced short circuits may result in out of phase cross tying of offsite sources through the vital buses.

A fire in the Cable Spreading Room or Control Room may cause an internal wire-to-wire shorts between wires (control power) and other wires. This short would spuriously start the various equipment above. The same fire may cause an open circuit in cables. Some of these cables carry an auxiliary contact control input to energize relays, which, in turn may open needed circuits.

NUCLEAR PROJECT AUTHORIZATION (NPA)

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 Financial Manager for assistance.)

Capital Scope:

The original scope of this project was 17 valves to have conduit and cable installed to stop the hot shorts under EC-16563 and EC-16564. Now at 90% the scope has removed 8 valves: MO-1741, MO-1742, MO-1986, MO-1987, MO-1988, MO-1989, MO-2002 and MO-2003 from the scope.

- **MO-1750 – Core Spray Test Valve (Div II)**

Install new conduit and cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building to separate wire X1 of cable 2B4327-B from other wires in the cable.

- **MO-1752 – Core Spray Discharge Valve (Div II)**

Install new conduit with cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C03 in the Control Room (CR).

- **MO-1754 – Core Spray Test Valve (Div II)**

Install new conduit and cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C03 in the Control Room (CR).

- **MO-2007 – RHR Outboard Suppression Pool Cooling Valve (Div II),**

Install new conduit with cable routed from Motor Control Center (MCC) B42 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building.

- **MO-2009 – RHR Torus Cooling Injection Valve (Div II)**

Install new conduit and cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C03 in the Control Room (CR).

- **MO-2033 – RHR System Cross Tie Valve (Div II).**

Install new conduit and cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C03 in the Control Room (CR).

It also calls for the following control circuit change

- Replace the key operated maintained contact switch 10A-S7 on Control Room Panel

NUCLEAR PROJECT AUTHORIZATION (NPA)

C-03 with a key operated or momentary contact spring return to "neutral" switch.

- Install a valve control switch on the Panel C-292.
- Interface control circuit wiring with relay operated isolation/transfer contacts within Panel C-292.
- Interface the controlling relay on Panel C-292 with the Master RHR transfer switch on Panel C-292.

- **AO-2896 – TORUS MAIN EXHAUST (Div II)**

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor to valve AO-2896 in the Reactor Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C04 in the Control Room (CR).

- **AO-2387 – DW OTBD VENT (Div II)**

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor to valve AO-2387 in the Reactor Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C04 in the Control Room (CR).

- **AO-2377 – DW OTBD VENT (Div II)**

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor to valve AO-2377 in the Reactor Building.

Install new conduit and cable routed from Panel C292 (ASDS Panel) in the EFT Building third floor Panel C04 in the Control Room (CR).

The project now has increased by 3 other items under EC-17436:

1) Spurious RHR min flow failure to open with failure to establish a discharge path.

Install a new time delay relay in C-292 to open CV-1995 (12 RHR PUMP MINIMUM FLOW) if the RHR pump is running for more than 10 seconds without sufficient flow. Both the "Auto"/"Open" control switch in C33 and the position indication for CV-1995 in C03 will continue to remain available in the control room until ASDS transfer. Additionally, conductor 13 in cable 2Q421-A will be spared.

2) Fire-induced short circuits may cause the EDG output breaker to close onto a live bus out of phase resulting in damage to the EDG.

Install approx. 525' of conduit and install approx. 580' of cable from C08 to C293 ASDS Panel. Install cable within this new conduit to isolate conductor P1B of cable 2A602-F to prevent intra-cable and inter-cable hot shorts. This conductor must also be isolated within panel C08. Control

NUCLEAR PROJECT AUTHORIZATION (NPA)

switch 152-602 (located in C08) must also be protected from hot shorts.

3) Closure of Cross-Tie breaker B4300 can occur from a hot short, which would result in non-synchronous paralleling or unwanted bus inter-tie of MCC 133B and MCC 143B.

Install an under-voltage relay in MCC-143B and modify control circuit of 52-4300 to make MCC-143B under-voltage an additional permissive to close 52-4300. (52-4300 is the alternate feed to MCC-143B and is located in MCC-143B).

A fourth EC has been added EC-17464 to take of HPCI and RCIC which are items 4 and 5.

4) Fire-induced short circuits may cause the HPCI valve MO-2071 (HPCI TEST RETURN ISOLATION) to actuate.

HPCI Test return valve MO-2071 will be modified to prevent this from occurring. Reroute conductor 1F of control cable for valve MO-2071 (HPCI) in dedicated conduit to protect it from hot shorts. Conductor must be protected within control cabinet and MCC using glass sleeve or equiv. FPEE required to support.

5) Reroute conductor 1F of cable C04-D31105 for valve MO-2110 RCIC TORUS SUCTION OUTBOARD in dedicated conduit to protect it from hot shorts. Conductor must be protected within C04 and MCC using glass sleeve or equiv. FPEE required to support.

O&M Scope:

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 scope section above for description of the modification. Due to the impact on Primary Containment Isolation, the Alternate Shutdown System, 4160 VAC Bus, 480 VAC Bus and the MOV's this modification will require an outage for installation.

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

Once this modification is completed, MNGP will be able to ensure that Containment Over Pressure (COP) is maintained and that the plant can be safely shut down post fire as required by 10 CFR 50 Appendix R, the motor operated valves (MOV's), 4160 Bus, 480 MCC, HPIC, RCIC and other identified circuits would be inside the bounds of the Appendix R and Reg Guide 1.189.

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

Authorization of this project is late in the cycle and will challenge the ability to complete the design and installation activities prior to the 2011 RFO.

NUCLEAR PROJECT AUTHORIZATION (NPA)

Alternatives: (List and briefly describe other alternatives, including non-authorization, that were considered).
Other Alternatives were considered for Valve Damage Preventing Safe Shutdown:

- Reanalyze Appendix R demonstrating that containment over pressure is not required.
- 3 Hour Rated Cable
- Enclose the Raceway in 3 Hour Barrier
- Enclose the Raceway in 1 Hour Barrier
- Thermoset Cable in New Conduit
- Operator Manual Action
- Fire Model

Other Alternatives were considered for Containment Overpressure

- 3 Hour Rated Cable
- Enclose the Raceway in 3 Hour Barrier
- Enclose the Raceway in 1 Hour Barrier
- Reanalyze Appendix R demonstrating that containment over pressure is not required. This would be reanalysis of containment response.
- Reanalyze Appendix R demonstrating that containment over pressure is not required for a fire in the Torus room and/or Rx 962'. This would be an Appendix R analysis identifying all cables in each of these areas and identifying a specific safe shut down equipment set for each of these fires. This would not solve the CR/CSR issue and would be a significant departure from the existing Appendix R analysis and procedures.

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

There are no new spare parts associated with the equipment that will be modified.

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.

There are no existing spare parts associated with the equipment that will be modified.

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.

There are no additional spare parts associated with the equipment that will be modified.

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.

There are no retired or refurbished spare parts associated with the equipment that will be modified.

NUCLEAR PROJECT AUTHORIZATION (NPA)

Cash Flow

Capital

Year	2010	2011	2011	2011			
Phase	Design	Design	Implementation	Closeout			
Jan		432,349.00	155,000.00				587,349.00
Feb		463,117.00	569,412.00				1,032,529.00
Mar		463,380.00	569,412.00				1,032,792.00
Apr		425,755.00	250,000.00				675,755.00
May		280,000.00	130,000.00				410,000.00
Jun		275,000.00	90,000.00				365,000.00
Jul		275,000.00	90,000.00				365,000.00
Aug		200,000.00	45,000.00	0.00	0.00	0.00	245,000.00
Sep	187,714.00		45,000.00	100,000.00			332,714.00
Oct	374,794.00		26,000.00	80,000.00			480,794.00
Nov	293,552.00			80,000.00			373,552.00
Dec	693,410.00			50,000.00			743,410.00
TOTAL	1,549,470.00	2,814,601.00	1,969,824.00	310,000.00	6,643,895.00	0.00	6,643,895.00

(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): 2011

O&M

NUCLEAR PROJECT AUTHORIZATION (NPA)

(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): 2011

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

PROJECT MILESTONE DATES TO ECs 16563 & 16564	DATE
Issue 92 Valve Circuit Analysis	December 30, 2010
Issue 90% EC Package Part I and Part II for Review	January 7, 2011
90% Review Meeting	January 13, 2011
Issue EC Package Part I and Part II for DRB Review	January 18, 2011
DRB Review Meeting	January 25, 2011
Issue EC Package Part I and Part II for PORC Review	February 18, 2011
PORC Review Meeting	February 21, 2011
Final Approval in Passport	February 22, 2011

PROJECT MILESTONE EC-17436	DATE
Project Release from XCEL Energy (assumed)	December 17, 2010
Project Kickoff Meeting and Data Gathering	December 21, 2010
Issue 30% EC Package for Review	January 5, 2011
30% Review Meeting (Not Official)	January 12, 2010
Issue 60% EC Package for Review	January 18, 2011
60% Review Meeting	January 25, 2011
Issue Supplier Drawings and Conduit/Cable Inst Docs for Review	February 11, 2011
Approval of Supplier Drawings and Conduit/Cable Inst Docs	February 14, 2011
Issue 90% EC Package for Review	February 8, 2011
90% Review Meeting	February 15, 2011
Issue EC Package for DRB Review	February 23, 2011
DRB Review Meeting	February 24, 2011
Issue EC Package for PORC Review	February 25, 2011
PORC Review Meeting	February 26, 2011
Final Approval in Passport	February 28, 2011

New EC-17464

HPCI & RCIC is still being developed.

NUCLEAR PROJECT AUTHORIZATION (NPA)

Project Agreement

Project Manager: Mark Hausman <i>Mark Hausman</i>	Date: 2/21/11
Project Sponsor: Gary Sherwood <i>Gary Sherwood</i>	Date: 2/21/2011

PRG Sub-Committee Disposition

Accept Date:
 Reject

Recommendation:

Validate
Urgency: 1 2 3 (Check one)

Risk: (Refer to FP-BUS-IPP-01)

[Signature] 3/2/11

PRG Disposition

Approve
 Reject

Date: 2/22/11

Recommendation: Bring back - validate if new calcs are OSM or Capital Eng, Proj, & Acct to validate
3/1/11 - New information attached - Resubmit to PRG 3/2 Report at O&M but it approved

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

Form QF-2134 Required (AFCR)? Yes No

Budget Offset Recommendation: Savings - AFCR w/ Dennis
Please return signed NPA and AFCR document

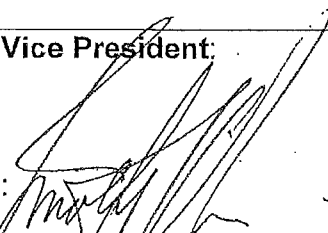

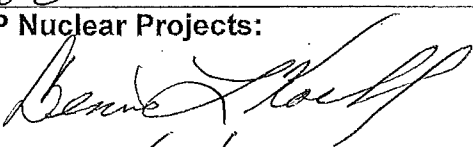
capital analysis for 450 modifications. PD 3/2/11

reviewed 3/2/11 @ 1300 w/ Dennis

NUCLEAR PROJECT AUTHORIZATION (NPA)

O&M and CAPITAL

CAPITAL

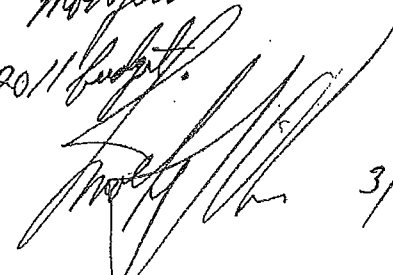
Site Vice President:  Date:  3/2/11	for VP Nuclear Projects:  Date: 3/2/11
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(Note: If Form QF-2134 (AFCR) is required, Authorization for funding can not be finalized until approved Form QF-2134 is signed by CNO and attached to NPA)

Site Finance Manager

Accounting Charge Number: Site Finance Manager: Date:

This is a savings given revised estimates from walkdowns and analysis to reduce the number of components (values) affected by the NISO work. The SAV tail pipe off R CER identified via the FEA for the Triannuclear being captured by the analysis prepared in the NISO scope. This estimate modifications and character an O&M expense to the 2011 budget.

 3/2/11

P: 11411387
C: 11411436

NUCLEAR PROJECT AUTHORIZATION (NPA)

The NPA is a request for authorization to implement a specific recommended alternative as determined by a project study. This authorization is required for all capital Design and Implementation Phase authorizations that exceed \$100,000. It is also required for all O&M Project Authorizations that exceed \$50,000. 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 Group and FP-NP-REV-02, Capital Project Review and Approval. The NPA records the historical project information after initial funding authorization. The NPA is signed by the Project Manager, Project Sponsor and Plant Manager to document their agreement at each project phase and/or changes in scope, schedule, and cost. The Site VP signature and VP Nuclear Projects signatures are required for Capital project authorization. The Site VP Signature is required for O&M project authorization.

Budget Year(s):	2010, 2011, 2012	Plant:	MNGP	NPA:	2010-054
Classification %:	Capital: 100%	O&M:		Date:	8/20/2010

Project Title: Appendix R Hot Shorts

CAP: AR 1176349

Project Prioritization

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

Urgency:	1	Resolves a regulatory requirement.
Risk:	2	Fails to correct a condition associated with an NRC regulation - 10 CFR 50 Appendix R

New/Additional Funding Requested:	\$ \$1,800,000 Design Phase)
Current Project Authorization:	\$ NA
YTD Actual:	\$ NA
Project to Date:	\$ NA
Original Total Project Cost:	\$ 6,540,000 (Design & Installation)
Revised Total Project Cost:	\$ NA

- Project Development (Design Phase)
- Full Project (Implementation Phase)
- Study Phase
- *Project Overrun
- *Scope Change
- *Cash Flow Change
- *Schedule Change
- Fast Track Project

***Provide a clear explanation of why this funding or change is being requested:**
This funding is required to meet 10 CFR 50 Appendix R requirements ensuring safe shut down post fire.

NUCLEAR PROJECT AUTHORIZATION (NPA)

Financial Analysis (NPV):

Project Manager Mark Hausman **Project Sponsor** Steve Porter

Concise Problem Statement: (Provide the problem description or the new requirement or function the project will meet). The following motor operated valves (MOV's) have been identified as susceptible to fire-induced short circuits that bypass torque and limit switches. In addition, the valve motors develop forces greater than the withstand threshold of the valve body resulting in un-isolable leaks. For the case of the noted valves, the leaks result in an uncontrolled inventory loss as they are installed below the level of the suppression pool. A fire could cause two containment isolation valves to open; thereby preventing the Core Spray and RHR pumps from having adequate net positive suction head; thereby falling coolant inventory makeup and heat removal functions.

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). The following motor operated valves (MOV's) have been identified as susceptible to fire-induced short circuits that bypass torque and limit switches. In addition, the valve motors develop forces greater than the withstand threshold of the valve body resulting in un-isolable leaks. For the case of the noted valves, the leaks result in an uncontrolled inventory loss as they are installed below the level of the suppression pool.

1) MO-1987 – Div II RHR Torus Suction Valve

Remedy is the installation of a new conduit with thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building third floor. It also calls for replacing the key operated maintained contact switch 10A-S4B with a key operated or key locked momentary contact spring return to "neutral" switch.

2) MO-1750 – Core Spray Test Valve (Div II)

Remedy is the installation of a new thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building to separate wire X1 of cable 2B4327-B from other wires in the cable.

3) MO-1752 – Core Spray Discharge Valve (Div II)

Remedy is installation of a new conduit with thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building to separate wire X1 of cable 2B4325-B from other wires in the cable.

4) MO-1754 – Core Spray Test Valve (Div II)

Remedy is installation of a new conduit with thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building to separate wire X1 of cable 2B4324-B from other wires in the cable.

5) MO-1989 – Div II RHR Shutdown Cooling Valve

Remedy is installation of a new conduit with thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C03 in the Control Room (CR). Minor rewiring in C03 is also required to interpose the "OPEN" contact of switch 10A-S6B between two devices in the control circuit.

NUCLEAR PROJECT AUTHORIZATION (NPA)

6) MO-2003 – Div I RHR HX Bypass Valve

Remedy is moving a conductor from cable 2B4210-B1 to cable 2B4210-B2 and interchanging conductors between cables 1B4210-C1 and 2B4210-C2.

7) MO-2007 – RHR Outboard Suppression Pool Cooling Valve (Div II),

Remedy is installation of a new conduit with thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building to separate wires X1 and 11F of cable 2B4208-B from other wires in the cable.

8) MO-2009 – RHR Torus Cooling Injection Valve (Div II)

Remedy is the installation of a new conduit with thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building to separate wire X1 of cable 2B4337-B from other wires in the cable.

9) MO-2033 – RHR System Cross Tie Valve (Div II).

•Remedy is the using spare thermoset cable from MO-2033 to Panel C-292 (ASDS Panel) in the EFT Building – Spare thermoset cables exist in the buried cable duct between the west side of the Reactor Building and the EFT building. This cable duct was originally installed for the purpose of routing Division II cables from the EFT to Reactor Building without transiting the Cable Spreading Room. This was performed to meet Appendix R requirements related to Alternate Shutdown. New conduit and thermoset cable will be required from each end of the existing spares to both C-292 and the MO-2033 limit switch.

- MCC B43 to MO-2033 motor power cable - From the MCC to the cable duct where connection can be made to a spare cable and from the point the spare cable in the duct enters the Reactor Building to the MO-2033 motor.
- Panel C-292 to Motor Control Center (MCC) B43 in the Water Treatment Area - Two Cables are required to address the NRC RIS.

- Panel C-292 to Panel C03 in the Control Room - Two Cables are required to address the NRC RIS.

It also calls for the following control circuit changes.

- Replace the key operated maintained contact switch 10A-S7 on Control Room Panel C-03 with a key operated or key locked momentary contact spring return to "neutral" switch.

- Install a valve control switch on the Panel C-292.

- Interface control circuit wiring with relay operated isolation/transfer contacts within Panel C-292.

- Interface the controlling relay on Panel C-292 with the Master RHR transfer switch on Panel C-292.

10) MO-1741 – Core Spray Torus Suction Valve (Div I)

Remedy is the installation of a new thermoset cable routed from Motor Control Center (MCC) B33 in the Feedwater Pump Room to Panel C03 in the Control Room (CR). It also calls for replacing the key operated maintained contact switch 14A-S3A with a key operated or key locked momentary contact spring return to "neutral" switch. Minor rewiring in MCC B3326 and C03 is also required 1.

11) MO-1742 – Core Spray Torus Suction Valve (Div II)

Remedy is the installation of a new thermoset cable routed from Motor Control Center (MCC) B43 in the Water Treatment Area to Panel C292 (ASDS Panel) in the EFT Building third floor. It also calls for replacing the key operated maintained contact switch 14A-S3B with a key operated or key locked momentary contact spring return to "neutral" switch. Minor rewiring in MCC B4326 and C292 is also required.

12) MO-1986 – RHR Torus Suction Valve (Div I)

Remedy is the installation of a new thermoset cable routed from Motor Control Center (MCC) B33 in the Feedwater Pump Room to Panel C03 in the Control Room (CR). It also calls for replacing the key operated maintained contact switch 10A-S4A with a key operated or key locked momentary contact spring return to "neutral" switch. Minor rewiring in C03 is also required to interpose the "OPEN" contact of 10A-S4A between two devices in the control circuit.

QF-2331, Revision 0 (FP-NP-REV-02)

NUCLEAR PROJECT AUTHORIZATION (NPA)

13) MO-1988 – RHR Shutdown Cooling Suction Valve (Div I)

Remedy is the installation of a new thermoset cable routed from Motor Control Center (MCC) B33 in the Feedwater Pump Room to Panel C03 in the Control Room (CR). Minor rewiring in C03 is also required to interpose the "OPEN" contact of switch 10A-S6A between two devices in the control circuit.

14) MO-2002 – RHR HX Bypass (Div I)

Remedy is the installation of a new thermoset cables as follows:

- From Motor Control Center (MCC) B33 in the Feedwater Pump Room to Panel C03 in the Control Room (CR)
- From Panel C03 in the CR to Panel C32 in the CR
- From MO-2002 in the RHR Pump Room to Panel C03 in the CR

Although this option requires the installation of approximately 170 ft of cable as opposed to replacing switch 10A-S16A on Panel C03 and other minor rewiring.

Containment purge and vent valves (AO-2381, 2377, 2378, 2383, 2896, 2386, and 2387) are divisionally separated with exception of the CSR, CR and at the valve locations.

For a fire in the cable spreading room or control room, with fire induced loss of off site power, both inboard and associated outboard valves could experience hot shorts resulting in spurious opening, leading to venting of containment. Venting of containment during this scenario could result in the loss of required net positive suction head (NPSH) for the 12 core spray (CS) and 12 residual heat removal (RHR) pumps.

Similarly for the Torus and Reactor Building 962 elevation areas, again with a fire induced loss of off site power, both inboard and associated outboard valves could experience hot shorts resulting in spurious opening, leading to venting of containment.

15) AO-2377

See remedies below.

16) AO-2387

See remedies below.

17) AO-2896

See remedies below.

Remedy CR/CSR: Reroute control cables for the division 2, outboard, containment vent and purge valves (AO-2377, AO-2387 and AO-2896) to the ASDS panel. At the ASDS panel, provide isolation, so that when the transfer switch is operated, the CR/CSR portion of the control circuit is isolated. Note that the desired position for these normally closed/fail closed valves is closed; therefore, there is no need or desire to add controls (or power supply) for these valves on the ASDS panel.

Remedy Torus: For AO-2377 and AO-2896, from the point just before the control cables enter the Torus Room, install new dedicated conduit and cable.

Remedy RB 962: For AO-2387, from the point just before the control cable enters RB 965 (Zone 3B), install new dedicated conduit and cable.

Summary:

Install new raceway, supports, and control cables for the division 2, outboard containment vent and purge valves (AO-2377, AO-2387 and AO-2896) to the ASDS panel. Thereby adding a new isolation function to the ASDS panel.

This Funding request includes funds for the Design as well as some funds for material and early implementation activities.

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 scope section above for description of the modification. Due to the impact on Primary Containment Isolation, the Alternate Shutdown System, and the MOV's this modification will require an outage for installation.

Justification / Benefits: (What is the justification for selecting the recommended alternative and what are the expected benefits).
Once this modification is completed, MNGP will be able to ensure that Containment Over Pressure (COP) is maintained and that the plant can be safely shut down post fire as required by 10 CFR 50 Appendix R and the motor operated valves (MOV's) identified would be inside the bounds of the Appendix R and Reg Guide 1.189.

Project Risk Assessment: (Provide the key assumptions and risks which could impact the success of the project).
Authorization of this project is late in the cycle and will challenge the ability to complete the design and installation activities prior to the 2011 RFO.

Alternatives: (List and briefly describe other alternatives, including non-authorization, that were considered).
Other Alternatives were considered for Valve Damage Preventing Safe Shutdown:

- Reanalyze Appendix R demonstrating that containment over pressure is not required.
- 3 Hour Rated Cable
- Enclose the Raceway in 3 Hour Barrier
- Enclose the Raceway in 1 Hour Barrier
- Thermoset Cable in New Conduit
- Operator Manual Action
- Fire Model

Other Alternatives were considered for Containment Overpressure

- 3 Hour Rated Cable
- Enclose the Raceway in 3 Hour Barrier
- Enclose the Raceway in 1 Hour Barrier
- Reanalyze Appendix R demonstrating that containment over pressure is not required. This would be reanalysis of containment response.
- Reanalyze Appendix R demonstrating that containment over pressure is not required for a fire in the Torus room and/or Rx 962'. This would be an Appendix R analysis identifying all cables in each of these areas and identifying a specific safe shut down equipment set for each of these fires. This would not solve the CR/CSR issue and would be a significant departure from the existing Appendix R analysis and procedures.

NUCLEAR PROJECT AUTHORIZATION (NPA)

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

There are no new spare parts associated with the equipment that will be modified.

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.

There are no existing spare parts associated with the equipment that will be modified.

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.

There are no additional spare parts associated with the equipment that will be modified.

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.

There are no retired or refurbished spare parts associated with the equipment that will be modified.

Cash Flow

Capital

Year	2010	Year	2011	Year		Year	
Phase	Design & Implemation	Phase	Design & Implemation	Phase		Phase	
Jan	\$	Jan	\$958,000	Jan	\$	Jan	\$
Feb	\$	Feb	\$958,000	Feb	\$	Feb	\$
Mar	\$	Mar	\$958,000	Mar	\$	Mar	\$
Apr	\$	Apr	\$958,000	Apr	\$	Apr	\$
May	\$	May	\$958,000	May	\$	May	\$
Jun	\$	Jun	\$450,000	Jun	\$	Jun	\$
Jul	\$	Jul	\$200,000	Jul	\$	Jul	\$
Aug	\$	Aug	\$	Aug	\$	Aug	\$
Sep	\$195,000	Sep	\$	Sep	\$	Sep	\$
Oct	\$200,000	Oct	\$	Oct	\$	Oct	\$
Nov	\$345,000	Nov	\$	Nov	\$	Nov	\$
Dec	\$345,000	Dec	\$	Dec	\$	Dec	\$
TOTAL	\$1,100,000	TOTAL	\$5,540,000	TOTAL	\$	TOTAL	\$

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

5,440,000

NUCLEAR PROJECT AUTHORIZATION (NPA)

O&M

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

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.

Total estimated cost for Appendix R Hot Shorts Modification Phase I is \$4,866,000

Authorization (assumed)	08/25/10
Project Kickoff Meeting and Data Gathering	08/30/10
Provide Alternate Modification Report	09/17/10
EC for Appendix R Modification Phase I	
Issue 30% DRM (including MNGP comments)	09/24/10
Issue 60% DRM (including MNGP comments)	10/22/10
Issue 90% DRM (including MNGP comments)	11/12/10
Approval of Supplier Drawings and Conduit/Cable Installation Docs	11/30/10
Start installation of conduit & cables	12/01/10
Final Approval in Passport	12/31/10
Outage Starts	03/06/10
Start installation of conduit & cables	12/01/10
Outage Starts	10/04/10

NUCLEAR PROJECT AUTHORIZATION (NPA)

Project Agreement

Project Manager: <i>Mark Hansen</i> <i>PM</i>	Date: <i>8/20/10</i>
Project Sponsor: <i>STEVE PORTER By TELECON 8/20/10 mtg.</i> <i>Mark Hansen</i>	Date: <i>8/20/10</i>
Plant Manager:	Date:
Accounting Manager:	Date:

Project Authorization

Date: _____
 Sub PRG: _____
 Sub PRG Chair: _____

Date: 8.24.10 \$1,100,000 capital 2010
 PRG: approved to begin design phase and long lead procurement
 PRG Chair: [Signature]

Ang of Projects to work w/ requestor to provide answers to
 IRC: - To be discussed on Thur AM call w/ corporate

O&M and CAPITAL

CAPITAL

Site Vice President: <i>[Signature]</i>	VP Nuclear Projects: <i>[Signature]</i>
Date: <i>[Signature]</i>	Date: <i>8/26/10</i>

This is only the first portion & is partial approval. The entire project appears to be 6 mil to will require IRC notification (>5mil) and the 5 mil

*in 2011 is not yet funded & will require most of 2011 proposed
 investments to be used about*

[Signature]
8.26.10

NUCLEAR PROJECT AUTHORIZATION (NPA)

Preparation of the Nuclear Project Authorization (NPA)

The NPA is a document to record the concurrence and acceptance of the project scope, cash flow, and implementation schedule. The NPA is normally prepared by the project manager. In cases where there is no Project Manager, the Project Sponsor or Project work supervisor will prepare the NPA. The NPA is signed by the Project Manager, Project Sponsor and Plant Manager to document their agreement at each project phase and/or for changes in scope, schedule, and cost. The Site VP and VP Nuclear Projects signatures are required for Capital project authorization. The Site VP Signature is required for O&M project authorization.

Projects funding activities are reviewed by the Site Project Review Group in accordance with FP-BUS-PRG-01, Project Review Group. Capital Projects must adhere to the requirements of the Project Review and Approval Procedure (FP-PM-REV-02) for projects exceeding \$100,000 in total project cost. That procedure identifies the financial expectations required for securing initial capital project authorization as well as the continued maintenance of the Capital Budget.

The NPA form requests the following project information:

Budget Year - Identify the year for which funded authorization is requested.

Plant – Monticello or Prairie Island.

NPA – This is the same number that has tracked the project from its origin as an issue, i.e., the EIR # and the RPA#.

Project Title - The title should be a clear and concise noun name identification of the project proposed for implementation.

Urgency and Risk – These attributes are assigned from the FP-BUS-IPP-01, Integrated Planning Process.

Costs – These are the amounts being requested for authorization, the current authorization, and the estimated total project cost.

Project Design Phase, Project Implementation, Project Overrun, Scope Change, Cash Flow Change, and Schedule Change – There are three funding levels available for Capital authorization. Project Development (Design Phase) is the initial funding level and is requested to enable the project scope and estimate to be determined to a greater level of confidence. Full Project (Implementation Phase) authorization will secure the total project funding. Project Overrun authorization is required if project management anticipates that the total project cost will exceed the Full Project funding. Scope, Cash Flow, and Schedule Changes must be identified.

Fast Track Project – Projects that are performed with some activities in parallel that are normally performed in series or that will not meet the normal on-line or outage work management milestones are considered Fast Track projects. In these cases the requirements of FP-NP-FTP-12, Fast Track Project, SHALL be applied.

NUCLEAR PROJECT AUTHORIZATION (NPA)

Provide an explanation of why the funding is being requested – It should be clearly described what the funds will be used for especially when the request may be for preliminary, long lead time materials, additional dollars, or other unique situations. The deliverables need to be concisely stated. Include the amount spent to date on analysis, engineering and materials. Explain the Scope, Cash Flow, and Schedule Changes.

Financial Analysis - This is the net present value, NPV. Consult with the Site Projects Cost Specialist for assistance in performing this calculation.

Project Manager – This is the project manager for the project.

Project Sponsor - This is the management sponsor of the project.

Concise Problem Statement - A clear description of the problem or opportunity must be given. Describe the function or new requirement the project will fulfill. The project scope and accountability will be directly linked to this statement.

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. The project scope and accountability will be directly linked to this statement.

Project Description – The following information needs to be included:

- Specific tasks that will be completed.
- Sufficient detail to describe how the project will be implemented.
- Any key assumptions used for the project.

Justification / Benefits – The following information needs to be included:

- The technical basis for the need.
- Site-specific detail which explains the need.
- Failure history, both site-specific and industry, and quantifiable maintenance costs.
- The ability of the equipment to meet reliability, capacity and quality requirements.
- Describe any changes in priority of the project since the budget was created.
- Does this project address a site top – 10 issue?
- Is the project needed to address an NRC inspection/violation or commitment?
- Is the project an INPO AFI or other INPO related initiative?
- Describe the effect on plant operation and how that effect is currently being managed.
- Determine if environmental or potential tax benefits exist.
- Identify fleet savings and spare parts management.

Risk Assessment – Provide the key assumptions and basis used to analyze the project for risks and other potential changes, which could impact the success of the project. Provide the assumptions, which are important to the benefits used in the economic analysis.

Alternatives – The following information needs to be included:

- Alternatives considered including non-authorization.
- Can a process improvement be made in lieu of a complete replacement?
- Provide a technical evaluation of the options.

NUCLEAR PROJECT AUTHORIZATION (NPA)

- Evaluate extended power uprate and relicensing impact on scope and benefits.
- Determine if a fleet solution is available and how it would be implemented.

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

Cash Flow – Provide realistic monthly and yearly cash flows for the current and future years. If the project includes both O&M and Capital expense, include a specific breakout for each.

Estimate – Provide basic project breakdown costs for each major element or task including:

- Xcel/NSPM Labor
- A/E Contract Engineering
- NSPM Project Management
- NSPM Project/Design Engineering
- Construction
- Craft Labor
- QC,QA Contractor
- Materials
- E&S Allocation; this amount will be defined by Site Finance based on corporate and Energy Supply policies and practices for the project being proposed
- Contingency; this will normally be 10% of expected total project cost. Contingency funding greater than 10% must be based on exceptional circumstances such as exposure to technical, regulatory, schedule or field conditions beyond the norm. Added contingency must be agreed to by the Manager of Site Projects, the PRG and the Capital Asset Manager.

Project Milestones – A Total Project estimate and milestones are required for all projects.

Project Review and Authorization – The project manager is responsible for obtaining all required signatures.

EGM-09-002

May 14, 2009

MEMORANDUM TO: Samuel J. Collins, Regional Administrator, Region I
Luis Reyes, Regional Administrator, Region II
Mark A. Satorius, Regional Administrator, Region III
Elmo E. Collins, Regional Administrator, Region IV
Eric J. Leeds, Director, Office of Nuclear Reactor Regulation
Michael R. Johnson, Director, Office of New Reactors
Charles L. Miller, Director, Office of Federal and State Materials and
Environmental Management Programs
Michael F. Weber, Director, Office of Nuclear Material Safety
and Safeguards
Roy P. Zimmerman, Director, Office of Nuclear Security and
Incident Response

FROM: Cynthia A. Carpenter, Director
Office of Enforcement /RA/

SUBJECT: ENFORCEMENT GUIDANCE MEMORANDUM 09-002
ENFORCEMENT DISCRETION FOR FIRE INDUCED CIRCUIT
FAULTS

Purpose:

The purposes of this Enforcement Guidance Memorandum (EGM) are to describe the conditions limiting enforcement discretion during the resolution of fire protection concerns involving multiple spurious operations. Enforcement discretion is limited to three years from the date of issuance of Regulatory Guide (RG) 1.189, Revision 2: (1) six months following the issuance of RG 1.189, Revision 2, for licensees to identify noncompliances related to multiple fire induced circuit faults, place the noncompliances into their corrective action program and implement compensatory measures for the noncompliances¹ and (2) three years following the issuance of RG 1.189, Revision 2, for licensees to complete the corrective actions associated with noncompliant multiple fire induced circuit faults. This EGM supersedes EGM 98-002 Revision 2 (Agencywide Documents Access and Management System (ADAMS) accession number ML003710123).

CONTACTS: Gerry Gulla, OE Nick Hilton, OE
(301) 415-2872 (301) 415-3055
Gerald.Gulla@nrc.gov Nick.Hilton@nrc.gov

¹ Regulatory Guide 1.189, Rev. 2 is expected to be published before October 1, 2009.

Multiple Addressees

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Background:

In the 1990's, the Office of Nuclear Reactor Regulation (NRR) staff and regional inspectors found plant specific issues related to fire induced circuit analysis. The NRC staff began interacting with stakeholders to understand the problem and develop a solution to the circuit analysis issues. A few years later, the NRC staff issued enforcement discretion guidance in EGM 98-002 Rev 2, which provided enforcement discretion for *all* fire induced circuit failures where licensees had implemented compensatory measures.

On September 11, 2006, in SECY-06-0196, the staff proposed to the Commission to issue a generic letter to clarify the fire induced circuit failure issues, (see SECY-06-0196, "Issuance of Generic Letter 2006-XX, 'Post-Fire Safe-Shutdown Circuits Analysis Spurious Actuations"). In response to SECY-06-0196, the Commission published Staff Requirements Memorandum (SRM) SECY-06-0196, of the same title dated December 15, 2006.

In SRM-SECY-06-0196, the Commission: (1) disapproved issuance of the proposed generic letter, (2) directed the staff to develop a clearly defined method of compliance to resolve fire induced circuit failures for licensees who choose not to utilize the risk-informed approach contained in Title 10 of the *Code of Federal Regulations* Part 50, Section 48(c) (10 CFR 50.48(c)) – National Fire Protection Association Standard (NFPA) 805, and (3) directed the staff to engage industry stakeholders to discuss the clarification of regulatory expectations to ensure a common understanding of the path to closure for this issue.

In parallel to the disposition of issues related to circuit analysis, the staff has been addressing the issues pertaining to unapproved operator manual actions. The two issues overlapped in that many unapproved operator manual actions had been established to address circuit issues. In 2007, the NRC issued EGM-07-004, "Enforcement Discretion for Post-Fire Manual Actions Used as Compensatory Measures for Fire Induced Circuit Failures," to provide enforcement guidance consistent with the direction provided to the staff in SRM-SECY-06-0010, "Withdraw Proposed Rulemaking – Fire Protection Program Post-Fire Operator Manual Actions," dated February 8, 2006. EGM-07-004 provided licensees enforcement discretion for unapproved manual actions performed for *single* circuit failures. By September 6, 2007, the licensee must have entered these manual actions into the licensee's corrective action system and instituted compensatory measures. Once these compensatory measures were implemented, enforcement discretion continued until March 6, 2009, by which time licensees must have corrective actions in place or have submitted requests for exemptions or license amendments to the NRC for approval. However, as stated in EGM-07-004, other circuit failure issues, specifically *multiple* spurious actuations, continued to receive enforcement discretion under EGM-98-002 Rev 2.

On June 30, 2008, the staff published SECY-08-0093, "Resolution of Issues Related to Fire Induced Circuit Failures." This SECY proposed the technical path forward for the resolution of multiple fire induced circuit faults, including changes to enforcement guidance. On September 3, 2008, the Commission published SRM-SECY-08-0093, which approved the staff's changes to the enforcement discretion for fire induced circuit faults. This EGM will supersede EGM 98-002, Rev 2, and will set a date for licensees to initiate corrective actions and implement compensatory measures for noncompliant multiple fire induced circuit faults.

Discussion:

Single Spurious Actuations Contrasted with Multiple Spurious Actuations

When considering spurious operations it is necessary to separate the fire damage which causes the spurious operation to occur from the operation itself. For the purposes of this enforcement discretion, the NRC staff is providing the following distinction between single and multiple in the context of spurious actuations. Single spurious actuations involve a single fire induced circuit fault that causes undesired operation of one or more systems or components. Examples of single fire induced circuit faults include a single hot short, a short to ground or an open circuit. Multiple spurious actuations are multiple fire induced circuit faults causing an undesired operation of one or more systems or components.

This EGM provides enforcement discretion for analysis of the effects of multiple fire induced circuit faults. For example, two circuit failures may need to occur to cause the single actuation of the Emergency Core Cooling System (ECCS). Although the actuation of the ECCS is a single actuation, it requires multiple fire induced circuit faults and therefore is covered by this EGM.

Revised Regulatory Guide 1.189

The NRC staff met with industry stakeholders on the following dates: October 16, 2008 (ML083110683), November 19, 2008, (ML083380505), and December 18, 2008 (ML090230219) to discuss fire induced circuit issues. The staff views are documented in NRC Draft Regulatory Guide DG-1214 (ML090070453), which was released for public comment in April 2009. DG-1214, when finalized will be Regulatory Guide 1.189 Rev 2, "Fire Protection for Nuclear Power Plants."

The revised RG 1.189 will include a method of compliance for licensees to resolve multiple fire induced circuit faults for licensees that chose not to adopt 10 CFR 50.48(c) – NFPA 805. Specifically, Regulatory Position 5.3 of RG 1.189 will provide the necessary definition for licensees to understand the regulatory requirements and implement these requirements at their stations. Regulatory Position 5.3 is consistent with the staff views based on the discussions with the industry stakeholders on this issue.

Action:

This EGM is not applicable to licensees' who are transitioning to 10 CFR 50.48(c) – NFPA 805. Nor will enforcement discretion be granted to identified noncompliances that are found to be willful or a finding that the Reactor Oversight Process Significant Determination Process would evaluate as red or categorized at Severity Level I.

This EGM establishes a period of enforcement discretion for six months following the issuance of RG 1.189 Rev 2, as the date by which licensees must,

- identify noncompliances related to multiple fire induced circuit faults,
- implement compensatory measures for the noncompliances, and
- place the noncompliances in the licensees' corrective action program.

Noncompliances identified after this 6 month period will be dispositioned in accordance with the Enforcement Policy.

Multiple Addressees

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The 6 months will be followed by a 30 month period of additional enforcement discretion for the licensees to resolve identified multiple fire induced circuit fault related noncompliances in the licensees' corrective action program. Adequate compensatory measures for the noncompliances must be established and/or maintained for the entire period or until resolved, whichever is sooner, in order to receive enforcement discretion. At the end of the 36 months, the enforcement discretion will end for all unresolved noncompliances, regardless of any compensatory measures that are still in place.

While violations associated with this enforcement discretion do not require discussion at an Enforcement Panel, they do require assignment of an Enforcement Action (EA) tracking number and shall be documented in an inspection report. The following or similar language should be included in the cover letter to the inspection report which discusses the violation:

“A violation of [insert either 10 CFR Part 50, Appendix R, Sections III.G.2 or III.G.3 or the licensees' approved fire protection program] was identified. Because the violation was associated with multiple fire induced circuit faults and identified during the discretion period as described in Enforcement Guidance Memorandum (EGM) 09-002, the NRC is exercising enforcement discretion in accordance with EGM-09-002.”

This EGM emphasizes that three years following the issuance of RG 1.189 Rev 2 is the date the licensee must complete corrective actions associated with noncompliances involving multiple fire induced circuit faults in order to receive enforcement discretion. These dates are consistent with Commission direction provided in SRM-SECY-08-0093.

Corrective actions for these noncompliances could involve actions to:

- comply with 10 CFR Part 50, Appendix R, Sections III.G.2 or III.G.3, or licensees' approved licensing basis; or
- submit appropriate exemption requests or license amendments; or
- adopt National Fire Protection Association Standard 805 (NFPA-805), through 10 CFR 50.48(c).²

The guidance of NRR Office Instruction LIC-109 “Acceptance Review Procedures” (ML081200811) will be utilized to process an exemption/amendment request. Licensees that submit an acceptable high quality and complete exemption/amendment request before the end of the 36 months will continue to receive enforcement discretion until the staff disposes the exemption/amendment request. If the exemption/amendment is unacceptable with opportunity to supplement, the enforcement discretion will continue while under review by the staff. If after receipt of the supplemental information and the exemption/amendment is determined to be acceptable for review, enforcement discretion will continue until the exemption/amendment is dispositioned by the NRC. If after the three years following the issuance of RG 1.189 Rev 2 and

² Licensees who submit their letter of intent to transition to NFPA 805 will have enforcement discretion as stated in the NRC Enforcement Policy, “Interim Enforcement Policy Regarding Enforcement Discretion for Certain Fire Protection Issues” (73 FRN 52705).

Multiple Addressees

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during the LIC-109 process, a licensee's submittal is not acceptably supplemented or a submittal is initially characterized as unacceptable with no opportunity to supplement, the licensee will no longer receive enforcement discretion. The noncompliances related to these multiple fire induced circuit faults will be dispositioned in accordance with the Enforcement Policy.

cc: R. W. Borchardt, EDO
M. Virgilio, DEDMRT
B. Mallett DEDR
V. Ordaz, OEDO
B. Boger, NRR
SECY

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Mary Ann Ashley, NRR

OE staff (electronic)

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OFFICE	ES:OE	NRR	BC:OE	DD:OE	OGC
NAME	GGulla	SWeerakkody	NHilton	SMagruder	CMarco
DATE	02/25/09	02/25/09	02/26/09	02/27/09	02/26/09

OFFICE	RI:RA	RII:RA	RIII:RA	RIV:RA	D:OE
NAME	SCollins /RA/ by MDapas for	LReyes /RA/ by VMcCree for	MSatorius /RA/ by CPederson for	ECollins /RA/ by CCasto for	CCarpenter
DATE	02/26/09	02/27/09	02/26/09	02/26/09	5/14/09

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Xcel Energy

Docket No.: EL12-046

Response To: SDPUC

Data Request No. 6-3

Requestor: South Dakota Public
Utilities Commission

Date Received: August 24, 2012

Question:

Please refer to the Company's response to DR 2-3 regarding the Monticello Appendix R adjustment.

- a. Referring to "SDPUC-2-003-Att C.xls", please provide revised PF17 work papers to reflect actual costs incurred, removing all projected expenditures.
- b. Referring to the Company's response to DR 2-3 (d), please provide the project's final actual cost after the additional fire protection is completed. Please also provide the actual date that the plant addition was placed in-service.

Response:

- a. Please see Attachment A to this response for revised work papers PF17- 1 through PF17-11 that reflect actual costs through June 2012. As requested by South Dakota Commission Staff, all projected expenditures have been excluded. Exclusion of the projected expenditures through 2013 could result in an understatement of the total revenue requirements associated with this project in the 2011 pro forma test year.
 - b. As discussed in the Company's response to DR 2-3, the project is expected to be placed in service in November 2012. Therefore, the Company cannot provide final actual costs or actual in-service dates at this time.
-

Response By: Thomas E. Kramer
Title: Principal Rate Analyst
Department: Revenue Requirements – North
Telephone: 612-330-5866
Date: August 30, 2012

Northern States Power, a Minnesota corporation
Annual Revenue Requirement
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only
2011 Test Year South Dakota Electric Rate Case - 2011 Rev Requirement
(000's)

Docket EL12-046
Revised Work Paper PF17-2
South Dakota PUC Data Request No. 6-3 - Attachment A

Rate Analysis

	Total Company	SD Jurisdiction
Plant Investment	2,279	110
Depreciation Reserve	20	1
CWIP	-	-
Accumulated Deferred Taxes	1,296	63
	<u>963</u>	<u>46</u>
Average Rate Base	963	46
Tax Preferred Items:		
Tax Depreciation & Removal Expense	6,516	315
Avoided Tax Interest	85	4
Debt Return	28	1
Equity Return	47	2
Current Income Tax Requirement	(1,979)	(96)
Book Depreciation	113	5
Annual Deferred Tax	2,595	126
ITC Flow Thru	-	-
AFUDC Expenditure	-	-
Property Taxes	-	-
Total Revenue Requirements	804	39

Last Authorized			
Capital Structure	Rate	Ratio	Weighted Cost
Long Term Debt	6.1300%	46.9600%	2.8800%
Short Term Debt	0.0000%	0.0000%	0.0000%
Preferred Stock	0.0000%	0.0000%	0.0000%
Common Equity	9.2500%	53.0400%	4.9100%
Required Rate of Return			7.7900%
Tax Rate (SD)	35.0000%		

Ave RB * Weighted Cost of St & LT Debt
Ave RB * Weighted Cost of Equity
(Eq Ret+Bk Depre+Def Tx+ITC-Tax Depre-ADUDC+Avoid Tax)* T/(1-T)

Dt Ret+Eq Ret+Cur Tax+Bk Depre+Def Tax+ITC+ADUDC+Prop Tax

Northern States Power, a Minnesota corporation
2011 Test-Year Actual
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only

Docket EL12-046
Revised Work Papers PF17-3 and PF17-4
South Dakota PUC Data Request No. 6-3 - Attachment A

Property Tax Rate 0.0000%
Demand Prod SD Jur % 5.7712%
Demand MN Co % 83.8019%
South Dakota Post I/A 4.8364%

CWIP (Not Allowed in SD)

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	-	-	-	-	-	-
COSS Adj (000's)	-	-	-	-	-	-

Plant

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	2,279,396.00	2,279,396.00	1,910,177.16	1,910,177.16	110,240.14	110,240.14
COSS Adj (000's)	2,279	2,279	1,910	1,910	110	110

Reserve

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	19,791.00	19,791.00	16,585.23	16,585.23	957.17	957.17
COSS Adj (000's)	20	20	17	17	1	1

Accumulated Deferred

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	1,296,182.00	1,296,182.00	1,086,225.14	1,086,225.14	62,688.23	62,688.23
COSS Adj (000's)	1,296	1,296	1,086	1,086	63	63

Northern States Power, a Minnesota corporation
2011 Test-Year Actual
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only

Docket EL12-046
Revised Work Papers PF17-3 and PF17-4
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Property Tax Rate 0.0000%
Demand Prod SD Jur % 5.7712%
Demand MN Co % 83.8019%
South Dakota Post I/A 4.8364%

Book Depreciation

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	113,467.85	95,088.21	5,487.73
COSS Adj (000's)	- 113	- 95	- 5

Annual Deferred

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	2,595,055.18	2,174,705.55	125,506.61
COSS Adj (000's)	- 2,595	- 2,175	- 126

Tax Depreciation

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	6,515,585.20	5,460,184.19	315,118.15
COSS Adj (000's)	- 6,516	- 5,460	- 315

AFUDC (Not allowed in SD)

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	-	-	-
COSS Adj (000's)	- -	- -	- -

Avoided Tax

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	85,463.99	71,620.45	4,133.36
COSS Adj (000's)	- 85	- 72	- 4

Property Tax

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	-	-	-
COSS Adj (000's)	- -	- -	- -

Northern States Power, a Minnesota corporation
Annual Revenue Requirement
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only
2011 Test Year South Dakota Electric Rate Case - 2013 Step Rev Requirement
(000's)

Docket EL12-046
Revised Work Paper PF17-5
South Dakota PUC Data Request No. 6-3 - Attachment A

<u>Rate Analysis</u>	<u>Total Company</u>	<u>SD Jurisdiction</u>
Plant Investment	5,114	247
Depreciation Reserve	676	33
CWIP	-	-
Accumulated Deferred Taxes	1,162	56
	<hr/> 3,276	<hr/> 158
 Average Rate Base	 3,276	 158
Tax Preferenced Items:		
Tax Depreciation & Removal Expense	(6,351)	(307)
Avoided Tax Interest	(85)	(4)
 Debt Return	 94	 5
Equity Return	161	8
Current Income Tax Requirement	2,163	104
 Book Depreciation	 275	 13
Annual Deferred Tax	(2,684)	(130)
ITC Flow Thru	-	-
AFUDC Expenditure	-	-
Property Taxes	81	4
Total Revenue Requirements	91	4

Last Authorized			
<u>Capital Structure</u>	<u>Rate</u>	<u>Ratio</u>	<u>Weighted Cost</u>
Long Term Debt	6.1300%	46.9600%	2.8800%
Short Term Debt	0.0000%	0.0000%	0.0000%
Preferred Stock	0.0000%	0.0000%	0.0000%
Common Equity	9.2500%	53.0400%	4.9100%
Required Rate of Return			7.7900%
 Tax Rate (SD)	35.0000%		

Ave RB * Weighted Cost of St & LT Debt
Ave RB * Weighted Cost of Equity
(Eq Ret+Bk Depre+Def Tx+ITC-Tax Depre-ADUDC+Avoid Tax)* T/(1-T)

Per 2012 Step tab
Per 2012 Step tab
Per 2012 Step tab
Per 2012 Step tab
Per 2012 Step tab
Dt Ret+Eq Ret+Cur Tax+Bk Depre+Def Tax+ITC+ADUDC+Prop Tax

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Northern States Power, a Minnesota corporation
Annual Revenue Requirement
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only
2011 Test Year South Dakota Electric Rate Case - 2013 Rev Requirement
(000's)

Docket EL12-046
Revised Work Paper PF17-6
South Dakota PUC Data Request No. 6-3 - Attachment A

<u>Rate Analysis</u>	<u>Total Company</u>	<u>SD Jurisdiction</u>
Plant Investment	7,393	358
Depreciation Reserve	696	34
CWIP	-	-
Accumulated Deferred Taxes	2,458	119
	<u>4,239</u>	<u>205</u>
Average Rate Base	4,239	205
Tax Preferenced Items:		
Tax Depreciation & Removal Expense	164	8
Avoided Tax Interest	-	-
Debt Return	122	6
Equity Return	208	10
Current Income Tax Requirement	185	9
Book Depreciation	388	19
Annual Deferred Tax	(89)	(4)
ITC Flow Thru	-	-
AFUDC Expenditure	-	-
Property Taxes	81	4
Total Revenue Requirements	895	44

Last Authorized			
<u>Capital Structure</u>	<u>Rate</u>	<u>Ratio</u>	<u>Weighted Cost</u>
Long Term Debt	6.1300%	46.9600%	2.8800%
Short Term Debt	0.0000%	0.0000%	0.0000%
Preferred Stock	0.0000%	0.0000%	0.0000%
Common Equity	9.2500%	53.0400%	4.9100%
Required Rate of Return			<u>7.7900%</u>
Tax Rate (SD)	35.0000%		

Ave RB * Weighted Cost of St & LT Debt
Ave RB * Weighted Cost of Equity
(Eq Ret+Bk Depre+Def Tx+ITC-Tax Depre-ADUDC+Avoid Tax)* T/(1-T)

Per 2012 Step tab
Per 2012 Step tab
Per 2012 Step tab
Per 2012 Step tab
Per 2012 Step tab
Dt Ret+Eq Ret+Cur Tax+Bk Depre+Def Tax+ITC+ADUDC+Prop Tax

Northern States Power, a Minnesota corporation
2013 Step Adjustment
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only

Docket EL12-046
Revised Work Papers PF17-7 and PF17-8
South Dakota PUC Data Request No. 6-3 - Attachment A

Demand Prod SD Jur % 5.7712%
Demand MN Co % 83.8019%
South Dakota Post I/A 4.8364%

CWIP (Not Allowed in SD)

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	-	-	-	-	-	-
COSS Adj (000's)	-	-	-	-	-	-

Plant

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	5,113,897.00	5,113,897.00	4,285,542.85	4,285,542.85	247,327.25	247,327.25
COSS Adj (000's)	5,114	5,114	4,286	4,286	247	247

Reserve

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	676,063.00	676,063.00	566,553.64	566,553.64	32,696.94	32,696.94
COSS Adj (000's)	676	676	567	567	33	33

Accumulated Deferred

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	1,161,931.00	1,161,931.00	973,720.25	973,720.25	56,195.34	56,195.34
COSS Adj (000's)	1,162	1,162	974	974	56	56

Northern States Power, a Minnesota corporation
2013 Step Adjustment
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only

Docket EL12-046
Revised Work Papers PF17-7 and PF17-8
South Dakota PUC Data Request No. 6-3 - Attachment A

Demand Prod SD Jur % 5.7712%
Demand MN Co % 83.8019%
South Dakota Post I/A 4.8364%

Book Depreciation

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	274,789.49	230,278.81	13,289.85
COSS Adj (000's)	- 275	- 230	- 13

Annual Deferred

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	(2,684,037.45)	(2,249,274.38)	(129,810.12)
COSS Adj (000's)	- (2,684)	- (2,249)	- (130)

Tax Depreciation

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	(6,351,274.73)	(5,322,488.90)	(307,171.48)
COSS Adj (000's)	- (6,351)	- (5,322)	- (307)

AFUDC

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	-	-	-
COSS Adj (000's)	- -	- -	- -

Avoided Tax

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	(85,463.99)	(71,620.45)	(4,133.36)
COSS Adj (000's)	- (85)	- (72)	- (4)

Property Tax

	Total Company Annual	Total Company after IA Annual	SD Jurisdiction Annual
Production	80,882.63	67,781.18	3,911.79
COSS Adj (000's)	- 81	- 68	- 4

Northern States Power, a Minnesota corporation
2011 Test-Year - Year 2013
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only

Docket EL12-046
Revised Work Papers PF17-9 and PF17-10
South Dakota PUC Data Request No. 6-3 - Attachment A

Property Tax Rate 1.0940%
Demand Prod SD Jur % 5.7712%
Demand MN Co % 83.8019%
South Dakota Post I/A 4.8364%

CWIP (Not Allowed in SD)

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	-	-	-	-	-	-
COSS Adj (000's)	-	-	-	-	-	-

Plant

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	7,393,293.00	7,393,293.00	6,195,720.01	6,195,720.01	357,567.39	357,567.39
COSS Adj (000's)	7,393	7,393	6,196	6,196	358	358

Reserve

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	695,854.00	695,854.00	583,138.87	583,138.87	33,654.11	33,654.11
COSS Adj (000's)	696	696	583	583	34	34

Accumulated Deferred

	Total Company		Total Company after IA		SD Jurisdiction	
	BOY	EOY	BOY	EOY	BOY	EOY
Production	2,458,113.00	2,458,113.00	2,059,945.40	2,059,945.40	118,883.57	118,883.57
COSS Adj (000's)	2,458	2,458	2,060	2,060	119	119

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Northern States Power, a Minnesota corporation
2011 Test-Year - Year 2013
11411387 MNGP Appen R Hot Shorts Cble R - Actual Costs Thru June 2012 Only

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Property Tax Rate 1.0940%
Demand Prod SD Jur % 5.7712%
Demand MN Co % 83.8019%
South Dakota Post I/A 4.8364%

Book Depreciation

	Total Company	Total Company after IA	SD Jurisdiction
	Annual	Annual	Annual
Production	388,257.33	325,367.02	18,777.58
COSS Adj (000's)	- 388	- 325	- 19

Annual Deferred

	Total Company	Total Company after IA	SD Jurisdiction
	Annual	Annual	Annual
Production	(88,982.27)	(74,568.83)	(4,303.52)
COSS Adj (000's)	- (89)	- (75)	- (4)

Tax Depreciation

	Total Company	Total Company after IA	SD Jurisdiction
	Annual	Annual	Annual
Production	164,310.46	137,695.29	7,946.67
COSS Adj (000's)	- 164	- 138	- 8

AFUDC (Not allowed in SD)

	Total Company	Total Company after IA	SD Jurisdiction
	Annual	Annual	Annual
Production	-	-	-
COSS Adj (000's)	- -	- -	- -

Avoided Tax

	Total Company	Total Company after IA	SD Jurisdiction
	Annual	Annual	Annual
Production	-	-	-
COSS Adj (000's)	- -	- -	- -

Property Tax

	Total Company	Total Company after IA	SD Jurisdiction
	Annual	Annual	Annual
Production	80,882.63	67,781.18	3,911.79
COSS Adj (000's)	- 81	- 68	- 4

Project Identification Information			CWIP/RWIP					Plant In-service				Depreciation Reserve					Tax Depreciation				Deferred Taxes			RWIP											
Grandparent or Parent	Work Order	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																																			
Rate Case Impact - Plant & Plant 2010-2011																																			
11411387	MNGP-Monticello-	Nuclear	Regulatory																																
				2010																															
				2011																															
				December	1,565,280	504,350	4,118	7,364	-	2,081,112	-	-	-	237	-	-	-	-	-	542,965	611,428	122,286	7,005	(1,346)	216,255	214,909	(1,346)	-	-	-	-				
				January	2,081,112	1,064,612	5,696	10,115	-	3,161,536	-	-	-	236	-	-	-	-	-	542,965	611,428	122,286	11,079	214,909	216,255	431,163	-	-	1,032	-	1,032				
				February	3,161,536	2,644,651	11,053	20,410	-	5,837,650	-	-	-	235	-	-	-	-	-	542,965	611,428	122,286	19,692	431,163	216,255	647,418	1,032	-	-	-	1,032				
				March	5,837,650	1,286,533	16,045	29,656	-	7,169,903	-	-	-	234	-	-	-	-	-	542,965	611,428	122,286	25,669	647,418	216,255	863,672	1,032	(1,032)	-	-	-				
				April	7,169,903	219,860	17,851	32,896	-	7,440,510	-	-	-	233	-	-	-	-	-	542,965	611,428	122,286	34,043	1,079,927	216,255	1,079,927	-	-	-	-	-	-			
				May	7,440,510	(5,652)	18,288	33,787	-	7,486,932	-	-	-	232	-	-	-	-	-	542,965	611,428	122,286	36,181	1,079,927	216,255	1,296,182	-	-	-	-	-	-			
				June	7,486,932	89,331	17,980	33,038	-	7,627,281	-	-	-	231	-	-	-	-	-	542,965	611,428	122,286	36,490	1,296,182	216,255	1,512,436	-	-	-	-	-	-			
				July	7,627,281	65,721	18,530	34,111	-	7,745,642	-	-	-	230	-	-	-	-	-	542,965	611,428	122,286	35,158	1,512,436	216,255	1,728,691	-	-	-	-	-	-			
				August	7,745,642	597	(63,781)	(117,693)	(7,412,951)	151,814	7,412,951	-	-	229	-	16,185	-	-	16,185	542,965	611,428	122,286	(123,073)	1,728,691	216,255	1,944,945	-	-	-	-	-	-	-		
				September	151,814	68,994	447	821	-	222,077	7,412,951	-	-	228	16,185	-	-	-	48,627	542,965	611,428	122,286	867	1,944,945	216,255	2,161,200	-	-	-	-	-	-	-		
				October	222,077	24,588	559	1,026	-	248,250	7,412,951	-	-	227	48,627	-	-	-	32,442	542,965	611,428	122,286	1,056	2,161,200	216,255	2,377,455	-	-	-	-	-	-	-	-	
				November	248,250	64,720	693	1,272	19,658	334,592	7,412,951	-	-	226	81,069	-	-	-	113,468	542,965	611,428	122,286	1,296	2,377,455	216,255	2,593,709	-	-	-	-	-	-	-	-	
				December	248,250	64,720	693	1,272	19,658	334,592	7,412,951	-	-	226	81,069	-	-	-	113,468	542,965	611,428	122,286	1,296	2,377,455	216,255	2,593,709	-	-	-	-	-	-	-	-	
				2011 Total	6,028,324		47,479	86,803	(7,393,293)	949,936	7,393,293	-	-	113,468					6,515,585	7,337,138	1,467,428	85,464		2,595,055											
				2011 Beg/End Avg					949,936				3,696,646													1,296,182							0		
				2011 13-Mo Avg					3,928,660				2,279,396													1,296,182							159		
																									0										
				2011	December	334,592	7,591	704	1,336	334,592	7,393,293	-	-	7,393,293	113,468	-	-	-	113,468	13,693	-	97,829	1,458	2,593,709	2,593,709	2,593,709	-	-	-	-	-	-	-		
				2012	January	344,223	39,557	769	1,473	344,223	7,393,293	-	-	7,393,293	145,823	-	-	-	145,823	13,693	-	97,829	1,513	2,586,117	2,586,117	(7,592)	2,586,117	-	-	-	-	-	-		
				February	386,022	79,566	867	1,646	1,473	386,022	7,393,293	-	-	7,393,293	178,177	-	-	-	178,177	13,693	-	97,829	1,739	2,578,525	(7,592)	2,578,525	-	-	-	-	-	-	-		
				March	468,101	1,019	1,946	1,646	1,473	468,101	7,393,293	-	-	7,393,293	210,532	-	-	-	210,532	13,693	-	97,829	1,955	2,570,933	(7,592)	2,570,933	-	-	-	-	-	-	-		
				April	513,913	84,458	1,153	2,199	1,646	513,913	7,393,293	-	-	7,393,293	242,887	-	-	-	242,887	13,693	-	97,829	2,065	2,565,341	(7,592)	2,565,341	-	-	-	-	-	-	-		
				May	601,723	87,891	1,338	2,553	1,646	601,723	7,393,293	-	-	7,393,293	275,242	-	-	-	275,242	13,693	-	97,829	2,326	2,555,749	(7,592)	2,555,749	-	-	-	-	-	-	-		
				June	693,506	-	-	-	2,553	693,506	7,393,293	-	-	7,393,293	307,597	-	-	-	307,597	13,693	-	97,829	2,548,157	(7,592)	2,548,157	2,548,157	-	-	-	-	-	-	-		
				July	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	339,951	-	-	-	339,951	13,693	-	97,829	2,540,565	(7,592)	2,540,565	(7,592)	2,540,565	-	-	-	-	-	-		
				August	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	372,306	-	-	-	372,306	13,693	-	97,829	2,532,973	(7,592)	2,532,973	(7,592)	2,532,973	-	-	-	-	-	-		
				September	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	404,661	-	-	-	404,661	13,693	-	97,829	2,525,381	(7,592)	2,525,381	(7,592)	2,525,381	-	-	-	-	-	-		
				October	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	437,016	-	-	-	437,016	13,693	-	97,829	2,517,789	(7,592)	2,517,789	(7,592)	2,517,789	-	-	-	-	-	-		
				November	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	469,370	-	-	-	469,370	13,693	-	97,829	2,510,197	(7,592)	2,510,197	(7,592)	2,510,197	-	-	-	-	-	-		
				December	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	501,725	-	-	-	501,725	13,693	-	97,829	2,502,604	(7,592)	2,502,604	(7,592)	2,502,604	-	-	-	-	-	-		
				2012 Total	341,911	5,850	11,154	-		514,049	7,393,293	-	-	7,393,293	388,257	-	-	-	388,257	164,310	-	1,173,942	11,056	(91,105)											
				2012 Beg/End Avg					514,049				7,393,293												2,548,157									0	
				2012 13-Mo Avg					577,163				7,393,293												2,548,157										
																								0											
				2012	December	693,506	-	-	-	693,506	7,393,293	-	-	7,393,293	501,725	-	-	-	501,725	13,693	-	97,829	2,502,604	(9,418)	2,502,604	2,502,604	-	-	-	-	-	-	-		
				2013	January	693,506	-	-	-	693,506	7,393,293	-	-	7,393,293	534,080	-	-	-	534,080	13,693	-	97,829	2,495,189	(7,415)	2,495,189	(7,415)	2,495,189	-	-	-	-	-	-		
				February	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	566,435	-	-	-	566,435	13,693	-	97,829	2,487,774	(7,415)	2,487,774	(7,415)	2,487,774	-	-	-	-	-	-		
				March	693,506	-	-	-	-	693,506	7,393,293	-	-	7,393,293	598,790	-	-	-	598,790	13,693	-	97,829	2,480,359	(7,415)	2,480,359	(7,415)	2,480,359	-	-	-	-	-	-		
				April	693,506	-	-	-	-	693																									