



**Nebraska Public Power District**

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NLS2003128  
December 23, 2003

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011

Subject: Revisions to The Strategic Improvement Plan  
Cooper Nuclear Station, Docket 50-298, DPR-46

- Reference:
1. Nebraska Public Power District letter NLS2002141 to Ellis W. Merschoff (U.S. Nuclear Regulatory Commission) dated November 25, 2002, "The Strategic Improvement Plan Revision 2"
  2. Letter to Clay C. Warren (Nebraska Public Power District) from Ellis W. Merschoff (U.S. Nuclear Regulatory Commission) dated January 30, 2003, "Confirmatory Action Letter"

The purpose of this letter is to inform the Nuclear Regulatory Commission (NRC) of changes to The Strategic Improvement Plan (TIP) Action Plans. On December 9, 2003, Paul V. Fleming, Licensing and Regulatory Affairs Manager at Nebraska Public Power District, discussed these changes with Kriss Kennedy, Chief, NRC Region IV Branch C. It was determined that the changes discussed herein would require a formal submittal to the NRC. On December 15, 2003, Mr. Fleming and members of the Cooper Nuclear Station Engineering organization further discussed Action Plans 5.3.1.2.g and 5.3.1.2.j with Mr. Kennedy and members of the NRC.

Reference 1 transmitted TIP, Revision 2, to the NRC and identified TIP actions that were appropriate for inclusion in a Confirmatory Action Letter (CAL) as regulatory commitments. Reference 2 subsequently transmitted the CAL. Included among the CAL commitments identified in Reference 2 were TIP Action Plans 5.3.1.1, 5.3.1.2.b, 5.3.1.2.e, 5.3.1.2.g, 5.3.1.2.i, and 5.3.1.2.j. Steps within these Action Plans have been revised and are the subject of this correspondence.

TIP Action Plan 5.3.1.1 addresses the Equipment Reliability Improvement Plan. Action Steps 3f, 5d, and 8 have been revised in this Action Plan. Step 3f requires development of an action plan to resolve high priority obsolescence issues. The end date for this step was extended from 4Q/03 to 1Q/04 to levelize station work activities in the fourth quarter in order to support ongoing plant activities. The deliverable was also revised to clarify that the high priority equipment

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obsolescence issues will be integrated into system long-range plans. Step 5d requires establishment of a process to link individual system long-range plans to the station business plan. The end date for this step was revised from 4Q/03 to 4Q/04 in order to link the integration of the system long-range plans with the implementation of the revised station business plan process being implemented in accordance with TIP Action Plan 5.1.1.1. Step 8 requires performance of an interim self-assessment to determine the effectiveness of actions taken to improve the equipment reliability process. The end date for this step was revised from 4Q/03 to 1Q/04 to allow additional time to monitor the completed actions taken prior to performing an assessment.

TIP Action Plan 5.3.1.2.b addresses a long standing equipment issue related to Feedwater Check Valves. Action Steps 8, 9, 10, 11, 13, 14, and 15 have been revised in this Action Plan. The Action Plan was initially designed to implement the installation of new design Feedwater Check Valves in two phases. The initial phase was to involve the installation of two Inboard Feedwater Check Valves during Refueling Outage 22 (RE22) and the second phase was to involve the installation of two Outboard Feedwater Check Valves in RE23. As a result of this phased installation, a number of Action Steps were incorporated in the Plan as contingencies. However, a management decision has been made to install both the Inboard and Outboard Feedwater Check Valves during RE22. Therefore, Action Steps 8, 10, 13, 14, and 15 have been deleted and Action Steps 9 and 11 revised accordingly.

TIP Action Plan 5.3.1.2.e addresses a long standing equipment issue related to Water Sulfates. Action Step 5 has been revised in this Action Plan. Step 5 previously stipulated that a Change Evaluation Document (CED) would be developed to allow vacuum priming tank effluent to be routed to the Circulating Water discharge canal. This step was revised to state that a CED would be developed to eliminate draining river water from the vacuum priming tank into the liquid radioactive waste system. The Action Step originally required a specific solution that may not be the best one to solve the existing technical problem. The CED process requires identifying possible solutions and evaluating these to arrive at the optimum solution. Therefore, the Action Step was revised to provide for flexibility in developing the specific CED solution.

TIP Action Plan 5.3.1.2.g addresses a long standing equipment issue related to Primary Containment Vacuum Breakers. Action Steps 2, 4, 5, 6, and 7 have been revised in this Action Plan. Step 2 requires the development and scheduling of Preventive Maintenance (PM) activities for air operator components. The end date for this step was revised from 4Q/03 to 1Q/04 to levelize Engineering work activities in the fourth quarter. However, this extension will not impact the performance of the PMs as they are required to be performed during a refueling outage and will be performed in RE22. Steps 4 through 7 are being deleted as the performance and reliability of the torus to drywell vacuum breakers have improved over the past two cycles such that replacement of the vacuum breakers is no longer warranted at this time. Corrective actions that have been implemented include the development of a new Maintenance Procedure providing instructions for performing inspection and maintenance of the torus to drywell vacuum breakers, training of Maintenance personnel on torus to drywell vacuum breaker maintenance, improvements to the surveillance testing procedure, and the performance (prior to startup from RE19) of necessary corrective maintenance to the vacuum breakers. In RE20 and RE21, all torus

to drywell vacuum breaker valves passed their leakage tests. In addition, monthly position indication tests are performed and there has been only one valve indication failure since RE19. Performance of the torus to drywell vacuum breakers will continue to be monitored by the System Engineer and the System Health Team and future replacement of the vacuum breakers will be pursued, if warranted, based upon system performance and evaluated in the context of other plant priorities as part of the Long Range Plan for the Primary Containment System. Additional steps were also added to this Action Plan to compile test results from RE20, RE21, and RE22 and perform a final assessment of Action Plan effectiveness in 2005.

TIP Action Plan 5.3.1.2.i addresses a long standing equipment issue related to Air Systems. Action Step 8b has been revised in this Action Plan. Step 8b requires the development of a CED to replace the Service Air Compressors. The end date for this step was revised from 4Q/03 to 1Q/04 to levelize station work activities in the fourth quarter in order to support ongoing plant activities. The extension of the completion date provides additional time for Engineering to perform the required CED reviews and approvals and will not delay the installation of the new Service Air Compressors.

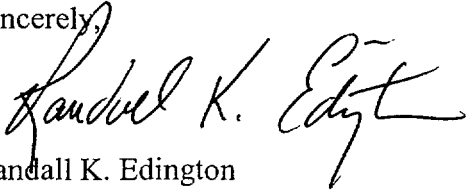
TIP Action Plan 5.3.1.2.j addresses a long standing equipment issue related to the KAMAN Radiation Monitors. Action Steps 3a, 3b, 4, 5, 6, 7, 8, 9, 10, 11, and 12 have been deleted and new Action Steps 2a, 2b, 2c, 2d, 2e, 2f, 2g, and 2h have been added to this Action Plan. This Action Plan originally contained two phases. Phase 1 required the implementation of a Short Term Action Plan to provide near term actions to improve performance of the KAMAN Radiation Monitors. Phase 2 required future replacement of the KAMAN Radiation Monitors. While preparing to implement Phase 2 long term actions, it was determined that proceeding with wholesale replacement of the monitors may not be the best solution. Instead, a structured approach will be used to identify additional corrective actions to further improve the performance of the radiation monitors based on an assessment by the System Health Team augmented by industry expertise. A performance monitoring plan will be established to measure the performance and reliability of the KAMAN Radiation Monitors throughout the implementation of this revised Plan. If performance improvement is not obtained as specified by the monitoring plan, a contingency plan for monitor replacement will be implemented. Since the implementation of the Initial Short Term Action Plan, the availability trend for the KAMAN Radiation Monitors has demonstrated improvement, with the exception of the Multi Purpose Facility KAMAN. While some improvement has been achieved in KAMAN performance, it is recognized that the objectives of this Plan have not yet been met. Implementation of this revised Action Plan will provide for a systematic approach to improving the performance and reliability of the KAMAN Radiation Monitors.

Attachment 1 provides the specific revisions to the Action Plans discussed above.

The attached List of Regulatory Commitments contains those new or revised commitments within the scope of the CAL.

Should you have any questions concerning these revised TIP Action Plans, please contact Mr. Paul Fleming at (402) 825-2774.

Sincerely,



Randall K. Edington  
Vice President - Nuclear and  
Chief Nuclear Officer

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Attachment

cc: U.S. Nuclear Regulatory Commission w/attachment  
Attn: Document Control Desk  
Washington, D.C. 20555-0001

Senior Project Manager w/attachment  
USNRC - NRR Project Directorate IV-1

Kriss Kennedy w/attachment  
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U.S. Nuclear Regulatory Commission  
Region IV

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USNRC

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**REVISIONS TO THE STRATEGIC IMPROVEMENT PLAN  
ACTION PLANS**

**Revisions to TIP Action Plan 5.3.1.1, Steps 3f, 5d, and 8  
 Equipment Reliability Improvement Plan**

NO.	ACTION	START DATE	END DATE	DELIVERABLE
3f	Develop an action plan to resolve high-priority obsolescence issues.	2Q/03	<del>4Q/03</del> 1Q/04	Action plans for equipment obsolescence issues developed. <u>High priority equipment obsolescence issues integrated into respective system long-range plans.</u> (Ref: Action Step 5a)
5d	Establish process to link individual system long-range plans to the station business plan.	3Q/03	<del>4Q/03</del> 4Q/04	Process description for integration of long-range plans and reconciliation with business plan. This process should be integrated with the station integrated business planning process (0-CNS-26) to ensure consistency of management approach for prioritization and approval of equipment-related projects.
8	<u>Monitoring – Self-Assessments</u>  Form multi-discipline team and perform a Self-Assessment to AP-913. Revise Action Plan based upon Interim Assessment, as required, to improve effectiveness of the Equipment Reliability Process. Self-Assessments to be performed in accordance with 0-CNS-25, Self-Assessment.	3Q/03	<del>4Q/03</del> 1Q/04	Performance of Interim Assessments to determine effectiveness of actions taken to improve the Equipment Reliability Process. Action Plan would be revised to as required based upon results of the Interim Assessments.

**Revisions to TIP Action Plan 5.3.1.2.b, Steps 8, 9, 10, 11, 13, 14, and 15  
Feedwater Check Valves (Long Standing Equipment Issue)**

NO.	ACTION	START DATE	END DATE	DELIVERABLE
8	Develop contingency work package for RE22 to refurbish outboard FWCVs in the event both valves fail LLRT.	4Q/03	4Q/03	Completed work packages with scope of work to be performed as determined by initial FWCV open and inspection for each FWCV that fails LLRT.
9	Perform <u>AS FOUND</u> LLRT and document results per the Monitoring Plan.	4Q/04	1Q/05	Evaluation of AS FOUND LLRT results to 1) determine if one or both Outboard FWCVs must be refurbished in RE22 and 2) assess the effectiveness of refurbishment(s) completed in RE21) <u>per the Monitoring Plan.</u>
10	Based upon the results of LLRT, implement the contingency work package(s) required to restore the Outboard FWCVs involved to an operable condition.	4Q/04	1Q/05	Satisfactory AS LEFT LLRT results for FWCVs that had failed the AS FOUND LLRT
11	Replace the <del>two</del> Inboard <u>and</u> Outboard FWCVs with Swing Check Valves per the requirements of the CED developed in Action 4. <u>Perform AS LEFT LLRT.</u>	4Q/04	1Q/05	Installation of improved FWCVs ( <del>two</del> Inboard <u>and</u> Outboard) and acceptable Post Modification Testing per the CED.
13	Perform LLRT and document results per the Monitoring Plan.	1Q/06	2Q/06	Evaluation of AS FOUND LLRT results and performance of the Inboard Swing Check Valves installed in RE22 and the Outboard Check Valves originally installed.

NO.	ACTION	START DATE	END DATE	DELIVERABLE
14	Conduct Management Review of LLRT results and performance assessment of the FWCVs. If Action Plan Objectives are determined to be satisfied; EXIT this Action Plan.	2Q/06	2Q/06	Management decision to EXIT this Action Plan or to continue on with Action 15
15	Replace the two Outboard FWCVs with Swing Check Valves per the requirements of the CED developed in Action 4.	1Q/06	2Q/06	Installation of improved FWCVs (two inboard)



**Revisions to TIP Action Plan 5.3.1.2.e, Step 5  
Water Sulfates (Long Standing Equipment Issue)**

NO.	ACTION	START DATE	END DATE	DELIVERABLE
5	Develop Change Evaluation Document (CED) to <del>allow vacuum priming tank effluent to be routed to Circulating Water discharge canal</del> <u>eliminate draining river water from the vacuum priming tank into the liquid radioactive waste system.</u>	3Q/03	1Q/04	CED to install modification.

**Revisions to TIP Action Plan 5.3.1.2.g, Steps 2, 4, 5, 6, 7, 8, and 9  
 Primary Containment Vacuum Breakers (Long Standing Equipment Issue)**

NO.	ACTION	START DATE	END DATE	DELIVERABLE
2	Develop and schedule Preventative Maintenance Activities (PMs) for air operator components to improve reliability.	3Q/03	<del>4Q/03</del> 1Q/04	Approved PM established and incorporated into schedule.
4	<del>Phase 2 - Replacement of Valves</del> Prepare and present a project plan to Integrated Management Committee (IMC) to obtain funding for Engineering work in 2004 to develop a Change Evaluation Document (CED) to replace the torus to drywell vacuum breaker valves.	3Q/03	4Q/03	Identification of project for funding in 2004.
5	Perform necessary engineering design activities to develop and obtain approval of a CED to replace the torus to drywell vacuum breakers with a more reliable are more easily serviced valve design.	2Q/04	1Q/05	Approved CED to install more reliable torus to drywell vacuum breakers.
6	Implement CED to replace existing torus to drywell vacuum breakers with a more reliable design.	1Q/06	2Q/06	Installation of new vacuum breakers completed.
7	Perform a Final Self-Assessment following Refueling Outage 24 (RE24) to determine the acceptability of the valves installed in Refueling Outage 23 (RE23) to meet the performance specifications identified for development of the CED.	4Q/07	1Q/08	Final Effectiveness Assessment.
8	<u>Establish results of testing performed on the torus to drywell vacuum breakers during RE20, RE21, and RE22.</u>	<u>1Q/05</u>	<u>1Q/05</u>	<u>Results of the testing performed during RE20, RE21, and RE22 are compiled for assessment in Action Step 9.</u>

<u>9</u>	<u>Perform a final assessment to determine the effectiveness of the actions taken in order to close this Action Plan.</u>	<u>2Q/05</u>	<u>2Q/05</u>	<u>Final assessment performed in accordance with 0-CNS-25 in order to determine the effectiveness of this Action Plan.</u>
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**Revision to TIP Action Plan 5.3.1.2.i, Step 8b  
Air Systems (Long Standing Equipment Issue)**

NO.	ACTION	START DATE	END DATE	DELIVERABLE
8b	Develop a CED to replace the SA Compressors with current generation design units.	3Q/03	<del>4Q/03</del> <u>1Q/04</u>	Approved CED to replace the current station air compressors.

**Revisions to TIP Action Plan 5.3.1.2.j, Steps 2a, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 3a, 3b, 4, 5, 6, 7, 8, 9, 10, 11, and 12  
 KAMAN Radiation Monitors (Long Standing Equipment Issue)**

NO.	ACTION	START DATE	END DATE	DELIVERABLE
2a	<p><u>Establish Performance Monitoring Plan for KAMAN Radiation Monitors. Establish in the Performance Monitoring Plan:</u></p> <ul style="list-style-type: none"> <li>• <u>Metrics to measure the performance and reliability of the KAMAN Radiation Monitors, and</u></li> <li>• <u>Criteria for determining when to implement Contingency Action Plan (Reference Action Step 2d)</u></li> </ul>	1Q/04	1Q/04	<p><u>Performance Monitoring Plan established for use in performing the Quarterly Monitoring Assessments and Effectiveness Assessments.</u></p>
2b	<p><u>Perform Interim Effectiveness Assessment per 0-CNS-25 to assess KAMAN performance following implementation of the initial Short Term Action Plan.</u></p>	1Q/04	1Q/04	<p><u>Completed Interim Effectiveness Assessment in accordance with 0-CNS-25.</u></p>
2c	<p><u>System Health Team (composed of Engineering, Maintenance, Operations, and Chemistry augmented by industry expertise) determines additional corrective actions to further improve performance of the KAMAN Radiation Monitors.</u></p> <p><u>This determination will be based on a review that includes:</u></p> <ul style="list-style-type: none"> <li>• <u>Results of the Interim Effectiveness Assessment,</u></li> <li>• <u>Industry experience,</u></li> <li>• <u>Previous Notifications applicable to KAMANs, and</u></li> <li>• <u>Previous action plans identified by the System Health Team intended to resolve KAMAN concerns.</u></li> </ul>	1Q/04	1Q/04	<p><u>Revised Short Term Action Plan developed, incorporating additional corrective actions to further improve performance of the KAMAN Radiation Monitors.</u></p>

2d	<u>Contingency Action Plan</u>  <u>Prepare Contingency Action Plan to replace Radiation Monitor(s) in the event that performance improvement is not effective as demonstrated by the Quarterly Monitoring Assessments.</u>	2Q/04	2Q/04	<u>Contingency Action Plan is developed, including as required:</u> <ul style="list-style-type: none"> <li>• <u>Replacement options,</u></li> <li>• <u>Preliminary time and cost estimates for replacement options.</u></li> </ul>
2e	<u>Implement the additional corrective actions in the revised Short Term Action Plan to improve performance of the KAMAN radiation monitors.</u>	2Q/04	2Q/05	<u>Corrective actions contained in the revised Short Term Action Plan are implemented.</u>
2f	<u>Perform Quarterly Monitoring Assessments to determine effectiveness of the corrective actions specified in the revised Short Term Action Plan.</u>  <u>Note: If at any time during the monitoring period, KAMAN performance is not demonstrably improved, as defined by the Performance Monitoring Plan, then implement the Contingency Action Plan.</u>	2Q/04	2Q/05	<u>Completed Quarterly Monitoring Assessments. Initiate Contingency Action Plan if criteria met per Performance Monitoring Plan.</u>
2g	<u>Perform a Final Effectiveness Assessment, per 0-CNS-25, to determine the effectiveness of the actions implemented by the Revised Short Term Action Plan to improve KAMAN performance.</u>	2Q/05	2Q/05	<u>Completed Final Effectiveness Assessment. Based upon the results of the Final Effectiveness Assessment, a determination is made by Senior Management to perform one of the following actions:</u> <ul style="list-style-type: none"> <li>• <u>Exit the Action Plan based upon the criteria established for improved performance, or</u></li> <li>• <u>Execute the Contingency Action Plan.</u></li> </ul>
2h	<u>If prescribed by Action 2f or 2g, implement the Contingency Action Plan.</u>	2Q/05	4Q/06	<u>Contingency Action Plan is implemented in accordance with the applicable station procedures.</u>
3a	<u>Monitor performance of each Kaman unit following refurbishment as specified in the Short Term Action Plan.</u>	2Q/03	1Q/04	<u>Quarterly monitoring report consistent with the Equipment Reliability Improvement initiative as specified in Short Term Action Plan. (Action Plan 5.3.1.1)</u>

3b	Continue to monitor performance of each Kaman unit until installation of new Radiation Monitoring System:	1Q/04	2Q/06	Continue quarterly monitoring report consistent with the Equipment Reliability Improvement initiative until installation of New Radiation Monitoring System. (Action Plan 5.3.1.1)
4	Perform an Effectiveness Review of the Short Term Action Plan implemented to improve the operational readiness of the KAMAN Monitors and minimize unplanned entries into LCOs. Self-Assessment to be performed in accordance with 0-CNS-25, Self-Assessment.	3Q/03	4Q/03	Approved report developed per the requirements of 0-CNS-25 addressing the suitability of the Short Term Action Plan to achieve improved operation of the KAMAN Monitors:
5	Exit the Immediate Action Phase of this Action Plan based on improved performance of the existing KAMAN Monitors:	4Q/03	1Q/04	Management Review of the Effectiveness Report and Quarterly Monitoring Reports that demonstrate improved performance and on-schedule progress of Long Term Actions:
6	<u>Phase 2 - Long Term Actions</u>  Communicate with potential vendors (MGP, CANBERRA) in order to obtain system and equipment information associated with their specific product:		Complete	Vendor information received:
7	Establish a Project Manager in accordance with 0-CNS-018, Project Management:		Complete	Project Manager assigned:
8	Prepare Project Charter, get funding approval and request bids from vendors:	2Q/03	4Q/03	Bids from vendors received:
9	Award contract:	4Q/03	2Q/04	Contract in place:
10	Prepare Change Evaluation Documents (CEDs) in accordance with Cooper Nuclear Station Engineering Procedure 3.4, Configuration Change Control:	2Q/04	2Q/05	Approved CEDs:
11	Install, test and release equipment to operations:	2Q/05	2Q/06	Required CED Post Modification Testing completed and system declared operational:

12	Monitor system performance to demonstrate that the modification was successful and that the end Objective has been satisfied:	2Q/06	2Q/07	System performance meets design requirements established for the upgraded Radiation Monitoring System:
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Correspondence Number: NLS2003128

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

COMMITMENT	COMMITTED DATE OR OUTAGE
Action Plan 5.3.1.1, Step 3f - Develop an action plan to resolve high-priority obsolescence issues.	1Q/04
Action Plan 5.3.1.1, Step 8 - Form multi-discipline team and perform a Self-Assessment to AP-913. Revise Action Plan based upon Interim Assessment, as required, to improve effectiveness of the Equipment Reliability Process. Self-Assessments to be performed in accordance with 0-CNS-25, Self-Assessment.	1Q/04
Action Plan 5.3.1.2.e, Step 5 - Develop Change Evaluation Document (CED) to eliminate draining river water from the vacuum priming tank into the liquid radioactive waste system.	1Q/04
Action Plan 5.3.1.2.g, Step 2 - Develop and schedule Preventative Maintenance Activities (PMs) for air operator components to improve reliability.	1Q/04
Action Plan 5.3.1.2.i, Step 8b - Develop a CED to replace the SA Compressors with current generation design units.	1Q/04
Action Plan 5.3.1.2.j, Step 2a - Establish Performance Monitoring Plan for KAMAN Radiation Monitors. Establish in the Performance Monitoring Plan: metrics to measure the performance and reliability of the KAMAN Radiation Monitors, and criteria for determining when to implement Contingency Action Plan.	1Q/04
Action 5.3.1.2.j, Step 2b - Perform Interim Effectiveness Assessment per 0-CNS-25 to assess KAMAN performance following implementation of the initial Short Term Action Plan.	1Q/04

<p>Action Plan 5.3.1.2.j, Step 2c - System Health Team (composed of Engineering, Maintenance, Operations, and Chemistry augmented by industry expertise) determines additional corrective actions to further improve performance of the KAMAN Radiation Monitors. This determination will be based on a review that includes: results of the Interim Effectiveness Assessment, industry experience, previous Notifications applicable to KAMANS, and previous action plans identified by the System Health Team intended to resolve KAMAN concerns.</p>	<p>1Q/04</p>
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