



***Nuclear Fuel Services, Inc.***

*1205 Banner Hill Road*

*P.O. Box 337, MS 123*

*Erwin, TN 37650*

*www.nuclearfuelservices.com*

*(423) 743-9141*

**21G-08-0214**

**GOV-01-55-04**

**ACF-08-0422**

December 23, 2008

Mr. D. Charles Payne  
Configuration Management and Safety Culture  
Improvement Oversight Panel  
U.S. Nuclear Regulatory Commission  
Region II  
Atlanta, GA 30303-8931

References: 1) Docket No. 70-143; SNM License 124  
2) NFS Letter from B. Marie Moore to David A. Ayers, "Response to NRC Questions Regarding the 2007 Independent Safety Culture Assessment Results Report (ISCARR) and NFS' Comprehensive Safety Culture Improvement Initiative (CSCII) Plan," dated October 9, 2008

**Subject: Submittal of Updated Crosswalk for NFS' Comprehensive Safety Culture Improvement Initiative Plan**

Dear Sir:

In the second attachment of Reference 2 above, Nuclear Fuel Services, Inc. (NFS) committed to provide an updated Crosswalk document in response to NRC Question 26. The updated Crosswalk document is included as an Attachment to this letter. Please note that, as stated in the response to NRC Question 26 in Reference 2, the completion date and priority columns have been removed from the Crosswalk to avoid duplication of information that is tracked in the NFS Problem Identification, Resolution and Correction System (PIRCS).

If you or your staff have any questions, require additional information, or wish to discuss this, please contact me, or Mr. Rik Droke, Licensing and Compliance Director, at (423) 743-1741. Please reference our unique document identification number (21G-08-0214) in any correspondence concerning this letter.

Sincerely,

**NUCLEAR FUEL SERVICES, INC.**

A handwritten signature in dark ink, appearing to read "B. Marie Moore". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

B. Marie Moore  
Vice President,  
Safety and Regulatory

JKW/pdj-rcy  
Attachment

copy:  
Mr. Kevin M. Ramsey, Project Manager  
Fuel Cycle Facilities Branch  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

~~Mr. Manuel Crespo~~  
Project Inspector  
U.S. Nuclear Regulatory Commission  
Region II  
Atlanta Federal Center  
61 Forsyth Street, SW  
Suite 23T85  
Atlanta, GA 30303

Mr. Stephen Burris  
Senior Resident Inspector  
U.S. Nuclear Regulatory Commission

**ATTACHMENT**

**CROSSWALK FOR**

**COMPREHENSIVE SAFETY CULTURE IMPROVEMENT INITIATIVE (CSCII) PLAN**

**(44 pages)**

# Crosswalk for Comprehensive Improvement Initiative

## 2007 Independent Safety Culture Report Findings/Recommendations

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| Tracking Number / Name <sup>1</sup>                               | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Responsible Manager | Metrics |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-DEC-01, (MS)<br>Operational Decision Making                   | NFS-Erwin does not have a systematic, rigorous, and formalized system for making operational decisions when risk-significant or safety-significant issues arise. (p. 24)<br><b>PIRCS Problem 13644</b>                                                                                                                                                                                                                                                                   | Formally define the authority, roles and formal process steps for making operational decisions when issues involving safety and safe facility operations are under consideration. (p. 24)<br><b>PIRCS Commitment 6210</b><br><br>Develop and implement an Organizational Decision Making (ODM) process of the type utilized in the commercial nuclear industry. This process should include participation of both inter-disciplinary and multi-level reviewers to broaden the opportunity for employee involvement and input, ensure quality decision-making, and promote organizational sponsorship. (p. 24)<br><b>PIRCS Commitment 6211</b> | RDW                 | MET-N   |
| AFI-DEC-02, (MS)<br>Communicate the bases for decisions           | NFS does not adequately communicate the bases for decisions related to nuclear safety or safe facility operations to the work force. (p. 25)<br><b>PIRCS Problem 13645</b>                                                                                                                                                                                                                                                                                               | Management adopt a proactive communications strategy to deliver timely and effective communications on the bases/reasons for decisions. (p. 25)<br><b>PIRCS Commitment 6212</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                               | TEL                 | MET-N   |
| ANA-DEC-01, (MS)<br>Expectations for conservative decision-making | NFS-Erwin lacks an appropriate focus on conservatism when making decisions. Too frequently, operations focus has come to be interpreted as production focus. The basic premise for going forward with any safety-significant or risk-significant activity should be that it has been shown that it is safe to proceed as planned, rather than that it is acceptable to proceed unless it can be proven that it is unsafe to do so. (p. 25)<br><b>PIRCS Problem 13646</b> | Management establish and enforce the expectation that clear and convincing evidence that a proposed action is safe and compliant will be required before approval is given to proceed. (p. 25)<br><b>PIRCS Commitment 6213</b>                                                                                                                                                                                                                                                                                                                                                                                                                | TEL                 | MET-N   |

<sup>1</sup> See attached crosswalk legend for acronym definitions and other details

# Crosswalk for Comprehensive Improvement Initiative

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| Tracking Number / Name <sup>1</sup>                      | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Responsible Manager | Metrics |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-RES-01, (MS)<br>Top Ten Lists                        | <p>The NFS-Erwin organization has become accustomed to tolerating recurring equipment problems, operational burdens &amp; work-arounds, degraded equipment conditions and degraded infrastructure issues. For the most part, these do not represent immediate challenges to nuclear safety per se, but there are a number of situations that represent challenges to industrial/personnel safety. Organizational tolerance of such degraded conditions and the corresponding message that is sent with respect to management values and standards represents (1) a deficiency with respect to industry standards and norms, (2) a challenge to be overcome in leadership's quest for excellence and, unless abated, (3) the potential for adverse carryover effects on the organization's nuclear safety culture. (p. 28)</p> <p><b>PIRCS Problem 13647</b></p> | <p>Demonstrate higher management standards by focusing organizational attention and resources on resolving these conditions through the use of "top ten priority lists" in the following areas:</p> <ul style="list-style-type: none"> <li>Operational burdens and work-arounds with nuclear safety implications</li> <li>Operational burdens and work-arounds with industrial/personnel safety implications</li> </ul> <p>Recurring equipment problems (p. 28)</p> <ul style="list-style-type: none"> <li><b>PIRCS Commitment 6214</b></li> </ul> <p>Develop "on the shelf" resolutions for known degraded conditions such that they can be implemented as soon as the opportunity arises. (p. 28)</p> <p><b>PIRCS Commitment 6215</b></p> | FCK                 | MET-N   |
| AFI-RES-02, (MS)<br>Site Infrastructure Improvement Plan | <p>In the past, insufficient financial resources have been applied to meet NFS-Erwin's facility infrastructure needs. The current physical condition of the facility is considered to be deficient when compared to industry standards and norms. (p. 29)</p> <p><b>PIRCS Problem 13648</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <p>NFS provide funding and allocate resources to support implementation of the NFS-Erwin Infrastructure Improvement Plan in a timely and aggressive manner, with priority applied to those areas representing the highest operational and regulatory compliance risks. (p. 29)</p> <p><b>PIRCS Commitment 6216</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                      | CEA                 | MET-N   |
| AFI-RES-03                                               | <p>While it appears that NFS has sufficient engineering resources to support safe operations of its nuclear facilities, these resources are frequently diverted to support new business opportunities. This has contributed to significant engineering work backlogs, tolerance of degraded equipment conditions, delays in resolving recurring equipment problems and delays in addressing facility infrastructure improvement needs. (p. 29)</p> <p><b>PIRCS Problem 13649</b></p>                                                                                                                                                                                                                                                                                                                                                                            | <p>Inventory and prioritize the entire engineering work backlog. (p. 29)</p> <p><b>PIRCS Commitment 6217</b></p> <p>Develop and effectively implement a strategic approach to ensure the adequacy and sufficiency of engineering support resources, both internal and external. (p. 29)</p> <p>Provide support for resolving the HVAC issues. (p. E-2)</p> <p><b>PIRCS Commitment 6218</b></p>                                                                                                                                                                                                                                                                                                                                              | CEA                 | MET-N   |

# Crosswalk for Comprehensive Improvement Initiative

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| Tracking Number / Name-1                                                       | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Recommendation                                                                                                                                                                                                                                                                                                                                                            | Responsible Manager | Metrics |
|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-RES-04, (MS)<br>Resource functions to meet higher standards of performance | NFS-Erwin must successfully address a number of staffing issues in order to ensure the effectiveness of key programs and processes, as well as to successfully implement the additional and/or augmented programs, processes and functions necessary to support NFS leadership's quest for excellence. Appropriately qualified and trained staff is needed in the areas identified below. In some cases, this additional staffing is needed to ensure that regulatory commitments and/or regulatory expectations are met. (This staffing issue is also reflected in SCUBA Team Findings AFI-CM-01 and -02.) (p. 29)<br><b>PIRCS Problem 13650</b> | Corrective Action Program staffing needs to be augmented. There is inadequate staffing at the present time to ensure that root cause analyses, corrective actions, and tracking and trending activities are conducted in a timely and effective manner. (p. 29)<br><b>PIRCS Commitment 6219</b>                                                                           | RAC                 | MET-N   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Industrial/Personnel Safety staffing needs to be increased to assure (1) that all applicable regulations are identified and effectively implemented and (2) that there is increased field presence to provide first-hand behavioral reinforcement of industrial safety standards and required practices (e.g., Lock-out/Tag-out). (p. 29)<br><b>PIRCS Commitment 6220</b> | JHP                 | MET-N   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The Configuration Management program needs to be adequately resourced to ensure that regulatory commitments are met on schedule and in a high quality manner. (p. 29)<br><b>PIRCS Commitment 6221</b>                                                                                                                                                                     | CEA                 | MET-P   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | The current level of staffing of the Quality Assurance "compliance based" function is marginally adequate. (p. 30)<br><b>PIRCS Commitment 6222</b>                                                                                                                                                                                                                        | JWN                 | MET-N   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Implementation of a proactive Employee Concerns Program will require a full-time personnel assignment. (p. 30)<br><b>PIRCS Commitment 6223</b>                                                                                                                                                                                                                            | JWN                 | MET-P   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Implementation of a "performance based" Nuclear Oversight function will require additional personnel to support a robust self- and independent assessment program. (p. 30)<br><b>PIRCS Commitment 6224</b>                                                                                                                                                                | DBF                 | MET-N   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Implementation of other initiatives under the Safety Culture Improvement Plan will likely require the dedication of additional resources. (p. 30)<br><b>PIRCS Commitment 6225</b>                                                                                                                                                                                         | TEL                 | MET-N   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Evaluation of the adequacy of current Health Physics staffing in light of attrition. (p. E-2)<br><b>PIRCS Commitment 6226</b>                                                                                                                                                                                                                                             | MCT                 | MET-N   |
|                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Evaluation of the adequacy of operations staffing in light of then-current high levels of overtime. (p. E-2)<br><b>PIRCS Commitment 6227</b>                                                                                                                                                                                                                              | RDW                 | MET-N   |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Recommendation                                                                                                                                                           | Responsible<br>Manager | Metrics |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| ANA-RES-01                             | Although excessive overtime is not worked on an organization-wide basis, individual departments and employees occasionally have to work excessive amounts of overtime (multiple, repetitive 16-hour days) due to shipping and receipt workloads, seasonal vacation schedules, and unplanned leaves of absence. Recent efforts on the part of NFS executive leadership have been successful in mitigating this problem, but a permanent policy change is needed. (p. 30)<br><b>PIRCS Problem 13659</b> | Establish an appropriate policy for working hours and overtime that addresses fitness-for-duty fatigue considerations. (p. 30)<br><b>PIRCS Commitment 6228</b>           | JWP                    | MET-P   |
| OFI-RES-01                             | The operational readiness of the Emergency Response Brigade (including both personnel and equipment) has not been recently evaluated by an external expert. (p. 30)<br><b>PIRCS Problem 13660</b>                                                                                                                                                                                                                                                                                                     | It is recommended that such an evaluation be performed. (p. 30)<br><b>PIRCS Commitment 6229</b>                                                                          | GATP                   | MET-N   |
| OFI-RES-02                             | The NFS-Erwin Maintenance organization has historically not reported directly to same organizational chain of command as the Operations organization. (p. 30)<br><b>PIRCS Problem 13661</b>                                                                                                                                                                                                                                                                                                           | It is recommended that the Maintenance organization report through the same organizational chain as the Operations organization. (p. 30)<br><b>PIRCS Commitment 6230</b> | TEL                    | MET-N   |

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|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| ANA-WC-01              | There is little or no Industrial Safety presence in these areas; thus, there is little reinforcement of safety requirements. This is particularly true for contractor activities outside the MAA, as demonstrated by the number and seriousness of contractor events documented in the PIRCS system. (p. 37)<br><b>PIRCS Problem 13662</b> | Industrial Safety oversight of maintenance, project, and contractor activities needs to be increased. (p. 37)<br><b>PIRCS Commitment 6231</b><br><b>PIRCS Commitment 6806</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | GATP                | MET-N   |
| OFI-WC-01              | NFS does not have a comprehensive work management process/system to identify, prioritize, plan, schedule, manage risks and execute work. (p. 36)<br><b>PIRCS Problem 13663</b>                                                                                                                                                             | NFS-Erwin should implement a comprehensive Work Management System to provide an integrated, organization-wide process for identifying and prioritizing issues, planning the required work and associated resources, and executing the work in a safe and error-free manner. Objectives of this initiative should include: (p. 37) <ul style="list-style-type: none"> <li>Improving equipment safety margin and reliability. (p. 37)</li> <li>Increasing the rigor, formality and management oversight of the work order process. (p. 37)</li> <li>Increasing organizational focus on reliability-centered maintenance. (p. 37)</li> <li>Eliminating the backlog of degraded equipment facilities, equipment and processes, and the associated operator work-arounds. (p. 37)</li> </ul> <b>PIRCS Commitment 6232</b> | MAD                 | MET-P   |
|                        |                                                                                                                                                                                                                                                                                                                                            | A benchmarking visit to the Westinghouse Columbia Fuel Fabrication Facility is recommended to start this effort. Interactions with INPO and manufacturing facilities having world-class maintenance programs are recommended as well. (p. 37)<br><b>PIRCS Commitment 6233</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MAD                 | MET-N   |

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|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-WP-01, (MS)<br>Comprehensive Human Performance Program | NFS-Erwin does not have a comprehensive Human Performance Program. As a result, employees are not trained or expected to recognize error-likely situations, or to apply tools that minimize the frequency and severity of events. (p. 42)<br><b>PIRCS Problem 13664</b> | <p>Designate a HuP manager and provide sufficient and appropriate resources ensure effective program implementation including: (p. 42)</p> <ul style="list-style-type: none"> <li>• Benchmark against "industry best" programs. (p. 42)</li> <li>• Align the organization and establish expectations. Support the program with the appropriate training. (p. 42)</li> <li>• Implement an effective management observation program to support the HuP Program. (p. 42)</li> <li>• Establish performance metrics with reinforcement and communication systems. (p. 42)</li> <li>• Frequently evaluate program effectiveness and make necessary adjustments. (p. 42)</li> <li>• Utilize INPO and a firm such as Aubrey Daniels International (ADI) to assist in the performance of evaluations, planning, and the development of reinforcement systems. (p. 47)</li> <li>• Redirect the management observation program. The near-term focus of this program should be on observing and coaching the behaviors and practices associated with nuclear, industrial, personal safety and procedure compliance. (p. 47)</li> <li>• Develop and implement (with INPO or ADI assistance) a training program for supervisors and managers on how to observe and reinforce proper behaviors for procedural compliance in the field and establish a team of supervisors and managers specifically tasked to conduct field observations focused on procedural compliance. (p. 47)</li> <li>• Schedule benchmarking visits to nuclear facilities that have struggled with procedural compliance problems, but have subsequently become "best in class" in implementing Human Performance. (p. 47)</li> </ul> <p><b>PIRCS Commitment 6234</b></p> | NCK                 | MET-P   |

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| Tracking Number / Name <sup>1</sup>      | Finding                                                                                                                                                                                                                                                                                                                                                                             | Recommendation                                                                                                                                                                                                                                                                              | Responsible Manager | Metrics |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-WP-02, (MS)<br>Procedural compliance | Procedural compliance is a significant problem at NFS-Erwin. The site has a history of NRC violations associated with procedural adherence deficiencies, and procedural non-compliance continues to an area for improvement. An immediate intervention with a proactive approach is necessary to address and correct this continuing problem. (p. 42)<br><b>PIRCS Problem 13665</b> | Clearly communicate expectations and responsibilities to the organization along with the reasons for an immediate step-change in organizational focus on meeting procedural adherence expectations. (p. 42)<br><b>PIRCS Commitment 6235</b>                                                 | RDW / RAB           | MET-N   |
|                                          |                                                                                                                                                                                                                                                                                                                                                                                     | Hold individuals, supervisors, and managers accountable for consistently meeting expectations for procedural adherence. (p. 42)<br><b>PIRCS Commitment 6236</b>                                                                                                                             | TEL                 | MET-N   |
|                                          |                                                                                                                                                                                                                                                                                                                                                                                     | Establish an oversight/observation program with a reinforcement plan specifically focused on procedural adherence. (p. 42)<br><b>PIRCS Commitment 6237</b>                                                                                                                                  | NCK                 | MET-P   |
|                                          |                                                                                                                                                                                                                                                                                                                                                                                     | Evaluate results of the initiative and adjust as necessary to reinforce strict procedural adherence. (p. 42)<br><b>PIRCS Commitment 6238</b>                                                                                                                                                | NCK                 | MET-N   |
|                                          |                                                                                                                                                                                                                                                                                                                                                                                     | Commit the appropriate resources to successfully effect a change in procedural adherence. (p. 42)<br><b>PIRCS Commitment 6239</b>                                                                                                                                                           | TEL                 | MET-N   |
|                                          |                                                                                                                                                                                                                                                                                                                                                                                     | Ensure that there is organization-wide ownership and accountability for procedural compliance. Managers and supervisors need to be assigned responsibility and ownership for procedural compliance in their area of responsibility (no exceptions). (p. 47)<br><b>PIRCS Commitment 6240</b> | TEL                 | MET-N   |

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| Tracking Number<br>/ Name-1 | Finding | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Responsible<br>Manager                                 | Metrics                                                          |
|-----------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------|
|                             |         | <p>Management must encourage the workforce to develop a questioning attitude. If someone is not sure if they are in compliance with existing procedures, they should stop and ask questions. Management and supervision must support and reinforce these traits to achieve the desired culture. (p. 47)<br/> <b>PIRCS Commitment 6241</b></p> <p>Initiation of a change in procedural expectations is likely to increase demands for support functions. This will quickly quantify gaps in the procedures, training, qualifications and knowledge of standards and expectations. Management must be prepared to support these issues with technical, administrative, and training resources, as the site is likely to encounter a rash of questions and requests for procedure changes or letters of authorization (LOA) for temporary changes. (p. 47)<br/> <b>PIRCS Commitment 6242</b></p> <p>Reinforce classroom lessons on procedural use and reference. Establish expectations regarding the level of required procedural compliance (verbatim, step-by-step, in-hand, refer as needed, etc.) and identify such on all procedures. (p. 47)<br/> <b>PIRCS Commitment 6243</b></p> <p>Union management should be apprised of the change necessary in procedural compliance expectations and performance, and afforded the opportunity to participate in plan development and implementation. (p. 48)<br/> <b>PIRCS Commitment 6244</b></p> <p>Contractor management must subscribe to the same standards and expectations as the balance of the site. (p. 48)<br/> <b>PIRCS Commitment 6245</b></p> | <p>TEL</p> <p>TEL</p> <p>NCK</p> <p>GAT</p> <p>CEA</p> | <p>MET-N</p> <p>MET-N</p> <p>MET-N</p> <p>MET-N</p> <p>MET-P</p> |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding                                                                                                                                                           | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Responsible<br>Manager | Metrics |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| AFI-WP-03                              | <p>The Lock-out/Tag-out practices at the NFS-Erwin site need to be strengthened in order to ensure employee safety. (p. 43)</p> <p><b>PIRCS Problem 13666</b></p> | <p>Improve Lock-out/Tag-out program:</p> <ul style="list-style-type: none"> <li>• Eliminate the practice of not locking out energy sources in the immediate vicinity of work. (p. 43)</li> <li>• Develop and implement a work practice utilizing individually keyed system locks for system isolation. (p. 43)</li> <li>• Develop and implement a records system to identify all personnel working on an isolated system and any changes occurring with locks and tags. Any interim lock change should require documentation, a new tag identifying the individual applying the lock, and a revalidation of system integrity. (p. 43)</li> <li>• Formalize Lock-out/Tag-out communications, particularly at morning briefings and shift turnovers, so that all individuals working with the system are kept up-to-date on current work status and safety hazards. (p. 43)</li> </ul> <p><b>PIRCS Commitment 6246</b></p> | GATP                   | MET-N   |

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| Tracking Number / Name <sup>1</sup>                                         | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Recommendation                                                                                                                                                                                                                                                                                                                                               | Responsible Manager | Metrics |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-CAP-01, (MS)<br>Re-evaluate the scope of CAP                            | NFS-Erwin needs to clearly define the types of issues that are required to be processed through the CAP using PIRCS. PIRCS is not currently being used to record every issue or problem that is identified at the NFS-Erwin site. It is important for management to reestablish standards and expectations for the use of CAP/PIRCS. (p. 49)<br><b>PIRCS Problem 13667</b>                                                                                                                                                  | Change to a more limited scope of applicability of the CAP to provide organizational focus on achieving excellence in performance with respect to safety-related programs, processes, procedures and equipment and with respect to regulatory commitments. (p. 49)<br><b>PIRCS Commitment 6247</b>                                                           | RAC                 | MET-N   |
|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Once sufficient performance improvement has been achieved for this initial scope of applicability, the coverage of the CAP could be expanded. (p. 49)<br><b>PIRCS Commitment 6248</b>                                                                                                                                                                        | RAC                 | MET-N   |
| AFI-CAP-02, (MS)<br>Remove barriers to problem identification and reporting | Several barriers to workforce participation in CAP/PIRCS issue identification exist that should be mitigated to the extent practicable. (p. 50)<br><b>PIRCS Problem 13668</b>                                                                                                                                                                                                                                                                                                                                               | Including a feature in PIRCS that would allow for Problem Report entry on an anonymous basis. (p. 50)<br><b>PIRCS Commitment 6249</b>                                                                                                                                                                                                                        | RAC                 | MET-P   |
|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Increasing PIRCS training. (p. 50)<br><b>PIRCS Commitment 6250</b>                                                                                                                                                                                                                                                                                           | RAC                 | MET-N   |
|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Increase computer access/availability. (p. 50)<br><b>PIRCS Commitment 6251</b>                                                                                                                                                                                                                                                                               | CRL                 | MET-N   |
|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Streamlining the process for providing feedback to Problem Report originators. The e-mail based system proposed is currently in beta testing. (p. 50)<br><b>PIRCS Commitment 6252</b>                                                                                                                                                                        | RAC                 | MET-N   |
|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Demonstrating that the CAP/PIRCS is effective in resolving identified problems (Refer to SCUBA Team Finding AFI-RES-01). (p. 50)<br><b>PIRCS Commitment 6253</b>                                                                                                                                                                                             | RAC                 | MET-P   |
| AFI-CAP-03, (MS)<br>CAP effectiveness and quality                           | NFS-Erwin management must make a significant commitment to improving the timeliness and quality of both event investigations (Root Cause and Apparent Cause Analyses) and identified corrective actions. Investigations tend to seize on the first compliance failure and describe that failure as the cause. Process improvements to correct these shortcomings can best be achieved by a combination of improved training, full-time investigative personnel, and increased management oversight. Similarly, the quality, | Establishing a more proactive and visible alternate channel for raising potential safety issues or concerns (This issue is also addressed in SCUBA Team Finding AFI-ERC-01) (p. 50)<br><b>PIRCS Commitment 6254</b>                                                                                                                                          | JWN                 | MET-P   |
|                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Assign additional personnel to support the Corrective Action Program Coordinator in the effective execution of the program. These individuals should serve as subject matter experts with responsibility for establishing liaison throughout the organization in order to ensure a high quality, responsive product. (p. 50)<br><b>PIRCS Commitment 6255</b> | RAC                 | MET-N   |

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| Tracking Number / Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Recommendation                                                                                                                                                                                                                                                                                                                                                                                              | Responsible Manager | Metrics |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
|                                     | <p>frequency, and ability to perform Common Cause Analyses needs to be improved. There is a tendency to produce corrective actions that lack a rigorous accountability trail (e.g., owner, due date, metrics) or that have limited potential to change behaviors that will prevent recurrence. Improvements in these areas will require management to commit additional full-time personnel to the CAP/PIRCS process. (This issue is also addressed in SCUBA Team Finding AFI-NOV-01.) (p. 50)</p> <p><b>PIRCS Problem 13669</b></p> | <p>Make improvement to Event Investigations:<br/>Expand the population of individuals who are qualified and experienced to serve as problem analysis team leaders. Too many individuals are qualified but not proficient and the site has not used formal training to spread the workload across the supervisory element. (p. 50)</p> <p><b>PIRCS Commitment 6256</b></p>                                   | RAC                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Improve the quality of Root Cause and Common Cause Analyses to ensure understanding of the underlying systemic conditions that created the opportunity for failure. (p. 50)</p> <p><b>PIRCS Commitment 6257</b></p>                                                                                                                                                                                      | RAC                 | MET-P   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Increase the number of common cause analyses conducted in response to trending data collected through routine PIRCS problem reports. Ensure that a common cause is, in fact, determined. (p. 50)</p> <p><b>PIRCS Commitment 6258</b></p>                                                                                                                                                                 | RAC                 | MET-P   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Consolidate ownership and accountability for the quality and effectiveness of the CAP/PIRCS within the PIRCS Oversight Committee. (p. 51)</p> <p><b>PIRCS Commitment 6259</b></p>                                                                                                                                                                                                                        | RAC                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Transfer the CAP/PIRCS functions currently being performed by the Safety and Safeguards Review Committee (SSRC) to the PIRCS Oversight Committee. (p. 51)</p> <p><b>PIRCS Commitment 6260</b></p>                                                                                                                                                                                                        | RAC                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Improve the metrics used to measure the success of PIRCS, especially those that are quality related. Measures such as RCA quality, corrective action effectiveness, repetitive occurrence, rework, average age, relative number of each category of investigation, and total hours spent on analysis teams are examples of potentially useful additions. (p. 51)</p> <p><b>PIRCS Commitment 6261</b></p> | RAC                 | MET-P   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Formalize the effectiveness review process to ensure that timely evaluations of corrective actions are conducted. (p. 51)</p> <p><b>PIRCS Commitment 6262</b></p>                                                                                                                                                                                                                                        | RAC                 | MET-P   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Establish a quality review board to periodically perform a formal and comprehensive evaluation of CAP/PIRCS products, selected on the basis of risk and consequence. The quality of root cause analyses, apparent cause analyses, corrective action identification and implementation will</p>                                                                                                           | RAC                 | MET-N   |

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| Tracking Number / Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Responsible Manager | Metrics |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | benefit from the feedback obtained through this process. One of the by-products should be a clear tie between problem analysis and the promulgation of lessons learned. (p. 51)<br><b>PIRCS Commitment 6263</b>                                                                                                                                                                                                                                                                                                                                              |                     |         |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Control the size of the backlog by establishing a low level of tolerance for overdue items. (NOTE: When the population of lingering CAP/PIRCS issues periodically reaches unacceptable levels, the solution has been to declare a day of site-wide focus to clear the backlog. This occurred twice in 2007 and was effective in reducing he numbers. However, it is reasonable to question the quality of products that are mass processed in a short time frame. The site needs to conduct an effectiveness review. (p. 51)<br><b>PIRCS Commitment 6264</b> | RAC                 | MET-E   |
| AFI-CAP-04                          | NFS-Erwin needs to fully convert the commitment tracking process to the PIRCS system as intended. There are currently multiple processes, and unclear ownership for effectiveness of corrective actions. This diffusion of responsibility provides the opportunity for administrative error and could lead to an inadvertent lapse in regulatory compliance. In addition, the current commitment approval process does not systematically evaluate the effectiveness of corrective actions taken and allows commitments to be closed when work is merely scheduled, not completed. (This issue is also reflected in SCUBA Team Finding AFI-RCC-01.) (p. 51)<br><b>PIRCS Problem 13670</b> | Develop a process to evaluate commitment closure that verifies completion and adequacy. The process should specify a committee or senior management review and should require more evidence of closure than a simple PIRCS entry. (p. 51)<br><b>PIRCS Commitment 6265</b>                                                                                                                                                                                                                                                                                    | RPD                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Close the gaps between COMTRACK (the previous commitment tracking program) and PIRCS. The COMTRACK procedure is still used for commitment tracking guidance. If retained, this procedure needs to be updated to formally recognize PIRCS as the corrective action commitment tracking system and fully describe how this system is to function. If COMTRACK is not retained, a new procedure should be generated that does formalize the process and contains all of the pertinent information. (p. 51)<br><b>PIRCS Commitment 6266</b>                      | RPD                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Consolidate responsibility for tracking all commitments under one owner. The primary tracking system (PIRCS) should be formalized and robust enough that an independent tracking system is not required. (p. 52)<br><b>PIRCS Commitment 6267</b>                                                                                                                                                                                                                                                                                                             | RPD                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Establish regular quality reviews of the commitment closure process by an independent review source (i.e., Quality Assurance). (p. 52)<br><b>PIRCS Commitment 6268</b>                                                                                                                                                                                                                                                                                                                                                                                       | RPD                 | MET-N   |

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| Tracking Number<br>/ Name: <sup>1</sup> | Finding | Recommendation                                                                                                                                                                                                                                                                                                                                                                        | Responsible<br>Manager | Metrics |
|-----------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
|                                         |         | Eliminate the practice of allowing one commitment to be closed by another. The chain of control is easily lost and the generation of a new initiation date with each new commitment complicates the business of controlling the age of the backlog, ensuring timely closure, and tracking adequacy of the actions taken to resolve the issue. (p. 52)<br><b>PIRCS Commitment 6269</b> | RPD                    | MET-N   |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Responsible<br>Manager | Metrics |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| ANA-CAP-01                             | <p>ANA-CAP-01 NFS-Erwin needs to improve the implementation of PIRCS to take full advantage of the capabilities resident in the software. When problem reports are entered, the process should flow smoothly from problem identification to problem resolution. When oversight is required, PIRCS should be capable of providing effective search tools that overlap with other record-keeping systems -in particular the Configuration Management Program. This capability requires computerized aids to properly bin deficiencies, search tools to easily check for extent of condition, commitment tracking processes, and feedback systems to seamlessly provide status reports to the originator. (p. 52)</p> <p><b>PIRCS Problem 13671</b></p> | <p>Develop a common cause trending methodology and capability. Common Cause Analyses performed to date are limited in number and have not been effective at identifying organizational attributes, which if corrected, would minimize or prevent future repeat events. This is primarily due to the lack of granularity of the cause codes available for use in binning and analyzing reported problems. (p. 52)</p> <p><b>PIRCS Commitment 6270</b></p>                            | RAC                    | MET-P   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Develop a cause code to designate commitments in PIRCS for ease of search and report generation. (p. 52)</p> <p><b>PIRCS Commitment 6271</b></p>                                                                                                                                                                                                                                                                                                                                 |                        |         |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Establish an expectation for a physical, as well as digital, search of similar components (or procedures) for extent of condition problems. (p. 52)</p> <p><b>PIRCS Commitment 6272</b></p>                                                                                                                                                                                                                                                                                      | RAC                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Modify the PIRCS database to allow designation of discrepancies that can be attributed to configuration management issues. (p. 52)</p> <p><b>PIRCS Commitment 6273</b></p>                                                                                                                                                                                                                                                                                                       | RAC                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Blend the paper-based Letter of Authorization tracking system into the LINC software being used to populate the Configuration Management database. (p. 52)</p> <p><b>PIRCS Commitment 6274</b></p>                                                                                                                                                                                                                                                                               | RPS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p>Establish software linkage between problem reporting and work control. Maximo® has reportedly been designated as the software of choice for use with work control. Develop a transition plan that will mesh Maximo® with PIRCS to allow both to make coordinated progress in order to be able to cross-correlate problem reports with work orders. The current proposal for transition to Maximo® is the second quarter of 2008. (p. 52)</p> <p><b>PIRCS Commitment 6275</b></p> | MAD                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        |         |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                         | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Responsible<br>Manager | Metrics |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| AFL-OE-01                              | NFS-Erwin currently does not currently have a systematic, thorough and formal program/process in place for obtaining, evaluating and acting upon external operating experience. NFS-Erwin lacks a single point of accountability and ownership for the success of such a program/process. (p. 58)<br><b>PIRCS Problem 13672</b> | Develop and implement an NFS-Erwin Operating Experience Program. The program should include guidance on objectives, process, management oversight, training and performance metrics. (p. 58)<br><b>PIRCS Commitment 6276</b>                                                                                                                                                                                                                                                                                                                                                                                                                        | RAC                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                 | Assign an appropriately qualified and experienced individual as the site OE lead. (p. 58)<br><b>PIRCS Commitment 6277</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | NCK                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                 | Conduct benchmarking activities to identify industry best practices for the design and implementation of an OE Program that is applicable to NFS-Erwin. (p. 58)<br><b>PIRCS Commitment 6278</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RAC                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                 | Identify the potential sources of OE information applicable to NFS-Erwin. Sources related to a fuel-cycle facility include, but are not limited to:<br>- NRC/Nuclear Material Safety & Safeguards Office<br>- Nuclear Energy Institute (NEI)<br>- Institute of Nuclear Power Operations (INPO)/World Association of Nuclear Operators (WANO)<br>- Other fuel cycle facilities<br>- Chemical industry facilities<br>- Occupational Safety and Health Administration (OSHA)<br>- Environmental Protection Agency (EPA)<br>- Industry peer groups<br>- Professional Societies<br>- NFS-Erwin equipment vendors (p. 58)<br><b>PIRCS Commitment 6279</b> | RAC                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                        |         |

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| Tracking Number / Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                         | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Responsible Manager | Metrics |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-OE-02                           | NFS-Erwin currently does not have a systematic, thorough and formal program/process in place for obtaining, evaluating and acting upon internal operating experience. The SCUBA Team believes that NFS-Erwin will identify more useful operating experience information, at least in the near term, from internal performance history than it will from external sources. (p. 59)<br><b>PIRCS Problem 13673</b> | The same actions recommended in Finding AFI-OE-01 are applicable to the development and management of an internal OE program. NFS should jointly develop and manage the internal and external OE programs, to ensure comprehensive review of all pertinent Operating Experience information sources. (p. 59)<br><b>PIRCS Commitment 6280</b>                                                                                                                                                                                                              | RAC                 | MET-N   |
|                                     |                                                                                                                                                                                                                                                                                                                                                                                                                 | Utilize the PIRCS system and the Corrective Action Program to identify and evaluate recurring events, such that opportunities to learn from internal operating experience are effectively captured and acted upon. (p. 59)<br><b>PIRCS Commitment 6281</b>                                                                                                                                                                                                                                                                                                |                     |         |
| OFI-OE-01                           | <b>PIRCS Problem 13674</b>                                                                                                                                                                                                                                                                                                                                                                                      | The SCUBA Team believes that NFS Erwin would benefit from a systematic, comprehensive evaluation and application of the lessons-learned from the BLEU Processing Facility Project to the Reliable Fuel Supply Project (from design through construction and operation). While it appears that this has occurred to some degree, there is no evidence of the use of a systematic and thorough approach. Such an approach could take place within the context of Operational Readiness Reviews for the RFS Project. (p. 59)<br><b>PIRCS Commitment 6282</b> | RAB                 | MET-N   |

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| Tracking Number / Name <sup>1</sup>             | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Responsible Manager | Metrics |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-SA-01, (MS)<br>Self-/independent assessment | <p>In mid-2007, NFS instituted a formal Self-Assessment Program, which is documented in NFS-GH-945. This program primarily focuses on management field observations. Compared to nuclear power plant industry standards the scope of this Self-Assessment Program is somewhat limited in nature. Since this Program is in the early stages of implementation, it is premature to reach a conclusion as to its effectiveness. On the other hand, the SCUBA Team has concluded that there are a number of additional opportunities to enhance organizational effectiveness through increased emphasis on additional self-assessment and external assessment activities. (p. 64)</p> <p><b>PIRCS Problem 13675</b></p> | <p>Develop and implement a multi-year, integrated self-assessment plan that:</p> <ul style="list-style-type: none"> <li>Includes a combination of compliance-based audits (which are focused on compliance with regulatory and customer requirements) and performance-based assessments (which are designed to evaluate the effectiveness of programs, processes and functions as compared to industry standards and best practices).</li> <li>Includes an appropriate mix of external assessments and/or industry peer participation on NFS performance-based self-assessments to ensure that NFS-Erwin keeps abreast of evolving industry standards and best practices.</li> <li>Includes forward-looking elements designed to self-identify potential fragilities in organizational effectiveness and performance.</li> <li>Is sufficiently flexible to address unanticipated or emerging performance assessment needs.</li> <li>Is managed and coordinated by a specifically assigned individual who serves as a single point of accountability and ownership for the success of the integrated plan. (The most likely candidate for this role would be the newly-appointed NFS Chief Nuclear Safety Officer.) (p. 64)</li> </ul> <p><b>PIRCS Commitment 6283</b></p> | JWN                 | MET-P   |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Conduct benchmarking activities to identify industry best practices for the design and implementation of the integrated self-assessment plan. (p. 64)</p> <p><b>PIRCS Commitment 6284</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                     |         |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Enhance the current Self-Assessment Program by including a program element focused on periodic (e.g., semi-annual) comprehensive self-assessments of organizational performance and effectiveness conducted by line organizations. Conduct a formal, collegial management team review of these self-assessments at the completion of each assessment period. (p. 64)</p> <p><b>PIRCS Commitment 6285</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                     |         |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p>Conduct benchmarking activities to identify industry best practices for the design and implementation of periodic (e.g., semi-annual) comprehensive self-assessments of organizational performance and effectiveness performed by</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                     |         |

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| Tracking Number / Name <sup>1</sup>                   | Finding                                                                                                                                                                                                                                                                                                                                                                                          | Recommendation                                                                                                                                                                                                                                                                                                                                               | Responsible Manager | Metrics |
|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-SA-02, (MS)<br>Performance indicators and metrics | NFS-Erwin currently does not currently have a comprehensive, formal program/process in place to effectively utilize performance metrics for evaluating and addressing weaknesses in organizational effectiveness and organizational performance. NFS-Erwin lacks a single point of accountability and ownership for the success of such a program/process. (p. 65)<br><b>PIRCS Problem 13676</b> | line organizations. This issue is further addressed in SCUBA Team Finding AFI-CLE-01. (p. 64)<br><b>PIRCS Commitment 6286</b>                                                                                                                                                                                                                                |                     |         |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Continue to enhance the effectiveness of management field observations (i.e., "Management by Walking Around") by providing training to participants on standards and expectations for the conduct of their observations, as well as on the standards and behaviors that they are expected to reinforce in the field. (p. 64)<br><b>PIRCS Commitment 6287</b> | SLS                 | MET-N   |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Train managers in program and process self-assessment methods, using external facilitators with demonstrated competence. (p. 65)<br><b>PIRCS Commitment 6288</b>                                                                                                                                                                                             | SLS                 | MET-N   |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Include "demonstrated effectiveness in conducting self-assessment activities" as a performance measure in the annual performance evaluations of NFS managers and supervisors. (p. 65)<br><b>PIRCS Commitment 6289</b>                                                                                                                                        | BAL                 | MET-N   |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Assign an appropriately qualified and experienced individual as the lead (i.e., ownership and accountability) for the development and implementation of an NFS-Erwin site-wide performance metrics system, including metrics relevant to nuclear safety, nuclear safety culture and security. (p. 65)<br><b>PIRCS Commitment 6290</b>                        | KBS                 | MET-N   |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Conduct benchmarking activities to identify industry best practices for the design and implementation of a site-wide metrics system that is applicable to NFS-Erwin. (p. 65)<br><b>PIRCS Commitment 6291</b>                                                                                                                                                 | KBS                 | MET-N   |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Include, as applicable, metrics associated with the implementation of NFS performance and cultural improvement initiatives. (p. 65)<br><b>PIRCS Commitment 6292</b>                                                                                                                                                                                          | KBS                 | MET-N   |
|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                  | Conduct a formal, collegial management team review of site-wide performance metrics on a monthly basis. This issue is further addressed in SCUBA Team Finding AFI-CLE-02. (p. 65)<br><b>PIRCS Commitment 6293</b>                                                                                                                                            | TEL                 | MET-N   |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding | Recommendation                                                                                                                                                                                                      | Responsible<br>Manager | Metrics |
|----------------------------------------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
|                                        |         | Revise SCCWE policies (NFS-MGT-04-006 REV 01 and NFS-MGT-05-007 REV 2) to include requirements for contractor compliance and metrics that will be used to track compliance. (p. 69)<br><b>PIRCS Commitment 6301</b> | JWN                    | MET-P   |
|                                        |         | Bring contractors into the environment on an active basis; currently there is no oversight of contractor SCCWE. (p. 69)<br><b>PIRCS Commitment 6302</b>                                                             | JWN                    | MET-N   |

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| Tracking Number<br>/Name | Finding                                                                                                                                                                                                        | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Responsible<br>Manager | Metrics |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| AFI-PDM-01               | NFS-Erwin should reinforce its "Zero Tolerance" policy for harassment, intimidation, retaliation and discrimination (HIRD) through a more formal and proactive approach. (p. 75)<br><b>PIRCS Problem 13679</b> | Establish an independent Employee Concerns Program (ECP) as per SCUBA Team Finding AFI-ERC-01. Adjust SCWE policies and procedures accordingly. This program should investigate HIRD issues. (p. 75)<br><b>PIRCS Commitment 6303</b>                                                                                                                                                                                                                                                                                                                                           | JWN                    | MET-P   |
|                          |                                                                                                                                                                                                                | Establish and reinforce behavioral expectations for supervision and management:<br>- Increase awareness of the potential for negative perceptions of their actions and reactions.<br>- Coordinate with the Employee Concerns Program Manager and the Human Resources Manager when faced with personnel actions that have the potential to create a chilling effect.<br>- Include HIRD-related behavioral expectations in individual performance evaluations.<br>- Incorporate mitigation strategies into major changes as appropriate. (p. 75)<br><b>PIRCS Commitment 6304</b> | DMB                    | MET-N   |
|                          |                                                                                                                                                                                                                | Develop and implement a Potential Chilling Effect Oversight Process<br>- Perform a periodic review of management actions to verify that they are consistent with the prevention of HIRD. Take corrective actions as appropriate.<br>- Review controversial changes and decisions so as to identify and prevent any systematic perceptions of HIRD. (p. 76)<br><b>PIRCS Commitment 6305</b>                                                                                                                                                                                     | TEL                    | MET-N   |
|                          |                                                                                                                                                                                                                | Ensure that the NFS Discipline Policy (revision pending) includes guidance on how to recognize and mitigate potentially chilling events. (p. 76)<br><b>PIRCS Commitment 6306</b>                                                                                                                                                                                                                                                                                                                                                                                               | GAT                    | MET-N   |
|                          |                                                                                                                                                                                                                | Revise NFS-HR-04-001-A, REV 2 to increase the degree of rigor and formality of this procedure:<br>- The document does not address retaliation or intimidation.<br>- It is a general guideline and does not specifically tie its prohibitions to the raising of nuclear safety concerns.<br>- There is no requirement for training identified in the procedure; training on this component is not imbedded in initial/continuing training.<br>- There is no requirement for collecting and trending data to                                                                     | DMB                    | MET-N   |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding | Recommendation                                                                                                                                                                                                                                                                                                                                                                      | Responsible<br>Manager | Metrics |
|----------------------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
|                                        |         | <p>determine whether or not the policy expectations are being met.</p> <ul style="list-style-type: none"> <li>- Responsibility for ensuring procedure compliance is not clearly defined.</li> <li>- The document does not mention the confidential alternate reporting path available through the company's General Counsel. (p. 76)</li> </ul> <p><b>PIRCS Commitment 6307</b></p> |                        |         |

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| Tracking Number / Name <sup>1</sup>                                    | Finding                                                                                                                                                                                                                                                                                                                                                                                                          | Recommendation                                                                                                                                                                                                                                  | Responsible Manager | Metrics |
|------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-ACC-01, (MS)<br>Questioning attitude                               | Management has not consistently demonstrated and promoted a questioning attitude in that there is an embedded reluctance to raise safety-related concerns that impact production or key organizational objectives (a form of self-censorship). This is, in part, due to the perception that the burden of proof rests with the individual that raises an issue or concern. (p. 79)<br><b>PIRCS Problem 13680</b> | Executive leadership needs to clearly communicate and reinforce the desired organizational behavior that all employees, especially management, are expected to demonstrate a questioning attitude. (p. 79)<br><b>PIRCS Commitment 6308</b>      | TEL                 | MET-N   |
|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  | This requirement should be part of every employee's annual performance objectives and appraisal. (p. 79)<br><b>PIRCS Commitment 6309</b>                                                                                                        | BAL                 | MET-N   |
| AFI-ACC-02                                                             | Management ownership and accountability for regulatory commitments is lacking in that commitments are not consistently executed in a high quality or timely manner, and documented corrective action effectiveness reviews are rarely performed. (p. 80)<br><b>PIRCS Problem 13684</b>                                                                                                                           | Apply "Principles for a Strong Nuclear Safety Culture" (INPO Document) (p. G-4)<br><b>PIRCS Commitment 6310</b>                                                                                                                                 | NCK                 | MET-N   |
|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  | Implement and institutionalize individual management ownership and accountability for regulatory commitments to assure regulatory commitments are fully implemented and effective on a long-term basis. (p. 80)<br><b>PIRCS Commitment 6311</b> | JWN                 | MET-P   |
| AFI-ACC-03 (MS)<br>Management must model high-accountability behaviors | Management does not consistently model high-accountability behaviors. For example, the newly-created initiative, "Management by Walking Around" only has a 60-70% participation rate after being in force for approximately six months. Management's failure to consistently follow all procedures undercuts organizational and individual accountability (p. 80)<br><b>PIRCS Problem 13685</b>                  | These requirements should be implemented through a formal performance management/appraisal process. (p. 80)<br><b>PIRCS Commitment 6312</b>                                                                                                     | BAL                 | MET-N   |
|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  | Establish a zero-tolerance environment for management deviation from procedures – including administrative procedures. (p. 80)<br><b>PIRCS Commitment 6313</b>                                                                                  | TEL                 | MET-P   |
| AFI-ACC-04, (MS)<br>Institutionalize single points of accountability   | Single-point accountability is not an institutionalized organizational practice. As a result, lines of accountability can become unclear (accountability by all is accountability by none). (p. 80)<br><b>PIRCS Problem 13686</b>                                                                                                                                                                                | This should be implemented through a formal performance management/appraisal process. (p. 80)<br><b>PIRCS Commitment 6314</b>                                                                                                                   | BAL                 | MET-N   |
|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  | Institutionalize use of single-point accountability for key organizational functions, objectives and initiatives. (p. 80)<br><b>PIRCS Commitment 6315</b>                                                                                       | TEL                 | MET-N   |
|                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                  | Document and enforce these accountabilities through a formal performance management / appraisal process. (p. 80)<br><b>PIRCS Commitment 6316</b>                                                                                                | BAL                 | MET-N   |

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| Tracking Number / Name-1                                                        | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Responsible Manager | Metrics |
|---------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-ACC-05, (MS)<br>Institutionalize a personnel performance management process | NFS executive leadership has not institutionalized a formal performance management process. Performance agreements are not routinely required of managers, supervisors, or salaried personnel, and formal performance appraisals are not performed. This results in a lack of organizational and individual alignment with, and progress toward, key safety-related improvement initiatives. Furthermore, management does not consistently or regularly interact with employees to reinforce desired behaviors and performance expectations. (p. 80)<br><b>PIRCS Problem 13688</b> | Develop a living strategic plan for safety and compliance. This vehicle must establish an organization-wide standard of excellence, to which all personnel are held accountable.<br><b>PIRCS Commitment 6317</b>                                                                                                                                                                                                                                                       | TEL                 | MET-N   |
|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Develop and implement a formal performance management system. This system should be utilized to directly tie individual performance objectives to leadership's vision, strategic plan, and objectives. (p. 80)<br><b>PIRCS Commitment 6318</b>                                                                                                                                                                                                                         | DMB                 | MET-N   |
|                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Significantly increase management interaction with employees for the specific purpose of communicating and reinforcing safety and compliance standards and expectations. These interactions should (1) include regular reinforcement of performance objectives established through the performance management system; and (2) incorporate a much greater presence on the shop floor by both line and support group management. (p. 81)<br><b>PIRCS Commitment 6319</b> | RDW                 | MET-E   |

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| Tracking Number / Name <sup>1</sup>                                                      | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Responsible Manager | Metrics |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-CLE-01, (MS)<br>Benchmarking                                                         | <p>NFS has developed a frame of reference that is based primarily upon its own experience as opposed to one based upon current nuclear industry standards and best practices. This is largely due to organizational insularity, which appears to have developed as a result of the organization's sense of the uniqueness of its operations. (p. 86)</p> <p><b>PIRCS Problem 13689</b></p>                                                                                                                                                       | <p>Industry benchmarking is needed to enhance overall organizational effectiveness and to address the existing organizational frame of reference issue. NFS should establish and implement a strategic, multi-year approach for conducting benchmarking activities at commercial nuclear power plants, other nuclear fuel cycle facilities and chemical industry facilities. A single point of accountability and ownership should be assigned for the success of this strategic benchmarking program. (p. 86)</p> <p><b>PIRCS Commitment 6320</b></p> | JWN                 | MET-P   |
|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Scheduling INPO Assist Visits, participating on external industry assessments and engaging external peers as participants in NFS-Erwin internal assessments will further enhance the development of a current, industry-based frame of reference. (p. 86)</p> <p><b>PIRCS Commitment 6321</b></p>                                                                                                                                                                                                                                                   | JWN                 | MET-P   |
|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Management must adopt and enforce a regulatory standard of excellence where minimum levels of compliance are not considered to be acceptable. (p. 86)</p> <p><b>PIRCS Commitment 6322</b></p>                                                                                                                                                                                                                                                                                                                                                       | TEL                 | MET-N   |
|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Management must create an environment where proactive self-criticism becomes the norm and where management holds itself, as well as the balance of the workforce, accountable for complying with all operational and administrative procedures. (p. 86)</p> <p><b>PIRCS Commitment 6323</b></p>                                                                                                                                                                                                                                                     | TEL                 | MET-P   |
| AFI-CLE-02, (MS)<br>Drive performance improvement by goal setting and management reviews | <p>NFS-Erwin does not have a formal goal-setting process and an associated systematic review process to drive improvements in organizational performance across the site. The nuclear industry standard is to convene periodic meetings of all functional managers and to conduct a collegial review of performance using second tier performance indicators as metrics. The goal of such reviews is to identify and address performance gaps in support of continuous organizational improvement. (p. 86)</p> <p><b>PIRCS Problem 13690</b></p> | <p>Conduct periodic management review meetings. Designate functional managers as the representatives for their organizations to discuss current levels of organizational performance, challenges and solutions, progress on organizational performance improvement initiatives and other activities to close gaps to excellence. (p. 86)</p> <p><b>PIRCS Commitment 6324</b></p>                                                                                                                                                                       | TEL                 | MET-N   |
|                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Establish challenging goals and progress curves. Develop performance indicators and metrics that are based on industry best practices. (p. 87)</p> <p><b>PIRCS Commitment 6325</b></p>                                                                                                                                                                                                                                                                                                                                                              | DBF / TEL           | MET-N   |

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| Tracking Number / Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                        | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Responsible Manager | Metrics            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------|
| AFI-CLE-03                          | Leadership skills at NFS-Erwin have been suborned to technical competence and there is no current training program to address this gap. (p. 87)<br><b>PIRCS Problem 13691</b>                                                                                                                                                                                                                  | NFS needs to create and sustain a leadership development program for its supervisors and managers. Both soft skills and management development training are needed in order to improve human performance. The intent of the program should be to align the organization, motivate the leadership team, and achieve the vision of excellence. (p. 87)<br><b>PIRCS Commitment 6326</b><br>The executive leadership team should perform a critical assessment of the current management/supervisor team to ensure there is reinforcing sponsorship for and alignment with NFS's safety culture programs and initiatives. (p. 87)<br><b>PIRCS Commitment 6327</b>                                                                                                                                                                                           | SLS                 | MET-P              |
| ANA-CLE-01                          | See recommendation<br><b>PIRCS Problem 13692</b>                                                                                                                                                                                                                                                                                                                                               | Increased emphasis should be placed on soliciting and acting on ideas and suggestions from the workforce to resolve problems and to continuously improve performance. (p. 87)<br><b>PIRCS Commitment 6328</b><br>This should be appropriately reflected in the performance evaluation expectations for supervisors and managers. (p. 87)<br><b>PIRCS Commitment 6329</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RDW<br><br>BAL      | MET-N<br><br>MET-N |
| OFI-CLE-01                          | There are aspects of the NFS-Erwin training program that represent opportunities for improvement. The site's performance is considered to be acceptable when compared to industry best standards, but this is a noteworthy candidate for continuous improvement. (This training issue is also reflected in SCUBA Team Findings OFI-SP-01 and AFI-CM-03.) (p. 87)<br><b>PIRCS Problem 13693</b> | Establish a Curriculum Review Committee and Training Review Council to mirror industry best practices. These forums would provide a collegial review of training requirements and match them with adequate resources on a site-wide basis. Perform industry benchmarking in this area. (p. 87)<br><b>PIRCS Commitment 6330</b><br>Conduct a comprehensive review of all aspects of formal training (an INPO assist visit could be beneficial in this regard). (p. 87)<br><b>PIRCS Commitment 6331</b><br>Implement a basic site qualification process to establish a fundamental level of understanding of all aspects of the work at NFS-Erwin. The curriculum could serve as the foundation for a continuing training program and would facilitate the transfer of information and lessons among work groups. (p. 87)<br><b>PIRCS Commitment 6332</b> | SLS<br><br>SLS      | MET-N<br><br>MET-N |

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| Tracking Number / Name <sup>1</sup> | Finding | Recommendation                                                                                                                                                                                                  | Responsible Manager | Metrics |
|-------------------------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
|                                     |         | Administer instructional methods training to Subject Matter Experts in order to standardize the quality of Toolbox training sessions. (p. 87)<br><b>PIRCS Commitment 6333</b>                                   | SLS                 | MET-N   |
|                                     |         | Develop classroom skills training for "occasional" instructors, to enhance the quality of the product. (p. 87)<br><b>PIRCS Commitment 6334</b>                                                                  | SLS                 | MET-N   |
|                                     |         | Train managers and selected supervisors in program self-assessment skills, using outside facilitators with demonstrated competence in this area. (p. 88)(Repeat from AFI-SA-01)<br><b>PIRCS Commitment 6335</b> | SLS                 | MET-N   |
|                                     |         | Develop instructors skilled in Configuration Management, dedicated to teaching the details of configuration management to system users and subject matter experts. (p. 88)<br><b>PIRCS Commitment 6336</b>      | RPS                 | MET-N   |

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| Tracking Number<br>/ Name. <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                            | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Responsible<br>Manager | Metrics |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| AFI-OCM-01                              | <p>NFS Erwin does not have a formal organizational change management program. Changes are not formally reviewed for potential safety or resource implications. Major changes are not consistently or effectively communicated throughout the organization. This safety culture component does not meet regulatory expectations, and is considered to be deficient when compared to industry standards. (p. 91)<br/> <b>PIRCS Problem 13694</b></p> | <p>Formalize a process to evaluate and manage the safety-related impacts of organizational change. (p. 91)</p> <ul style="list-style-type: none"> <li>Assign individual accountability and responsibility for the Organizational Change Management process and the conduct of the associated reviews, including the approval process. (The SCUBA Team recommends that the NFS General Manager have official responsibility for the program with implementation support from the Safety/Regulatory function.) (p. 91)</li> <li>The process should include development of formal communication plans appropriate to the scope of the change. (p. 92)</li> <li>Significant changes should be reviewed by the Safety Culture Leadership Team prior to implementation. (p. 92)</li> <li>Union management should be incorporated into the change management process when appropriate. The process should include the preparation of key stakeholders and sponsors to prevent any potential chilling effects of the proposed change. (p. 92)</li> </ul> <p><b>PIRCS Commitment 6338</b></p> | TEL                    | MET-N   |

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| Tracking Number / Name <sup>1</sup>          | Finding                                                                                                                                                                                                                                                                                                                                                                                                               | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                      | Responsible Manager | Metrics |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-SP-01, (MS)<br>Reinforce "Safety Strong" | There is a need to reinforce workforce understanding of NFS safety policies through enhanced communications and training. Objectives should include ensuring that the workforce (1) understands the underlying concepts associated with NFS safety policies and (2) appreciates how their day-to-day work activities relate to proper application of these underlying concepts. (p. 94)<br><b>PIRCS Problem 13695</b> | Systematic use of "daily safety message" discussions at all Site meetings, including daily briefings by supervisors and shift turnovers. Multiple (5 to 10) discussion themes/topics should be developed in advance for each of the 13 principles used in the "Safety Strong" concept, thereby creating a matrix of themes/topics for use (on a rotational basis) in daily safety messages across the Site. (p. 94)<br><b>PIRCS Commitment 6339</b> | RDW                 | MET-N   |
|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                       | Systematic use of periodic (i.e., weekly) General Manager messages focused on individual principles of the "Safety Strong" concept, including providing examples of recent events, decisions, etc. that demonstrate and reinforce the proper application of NFS standards and expectations with respect to "Safety Strong," as a means to reinforce the importance of safety. (p. 94)<br><b>PIRCS Commitment 6340</b>                               | RDW                 | MET-N   |
|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                       | Incorporation of specific training on the thirteen principles of "Safety Strong" and on the SCCWE that is designed to bring these concepts alive to the NFS-Erwin workforce. As a minimum, such training should be included in the GET curriculum and in the annual GET refresher training curriculum. (p. 94)<br><b>PIRCS Commitment 6341</b>                                                                                                      | SLS                 | MET-N   |
|                                              |                                                                                                                                                                                                                                                                                                                                                                                                                       | Timely communication on the bases/reasons for key decisions that could potentially be interpreted by the workforce as compromising nuclear safety as top priority, as a means of demonstrating that organizational decisions and actions are consistent with safety policies. (p. 95)<br><b>PIRCS Commitment 6342</b>                                                                                                                               | TEL                 | MET-N   |

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| Tracking Number / Name-1                        | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Recommendation                                                                                                                                                                                                                               | Responsible Manager | Metrics |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-NOV-01<br>(See Results Report Attachment A) | As demonstrated by the responses to these three specific NOV's, the use of root cause analysis by NFS does not meet commercial nuclear power plant industry best practices. Investigations tend to focus on the compliance failure itself and describe that failure as the cause. There is insufficient pursuit of the "whys" that would enhance understanding of the underlying human performance or systemic process failures that contributed to the event. Accordingly, there is a tendency to produce corrective actions that have limited potential to address the underlying causes or to effectively change behaviors. There is also a tendency to produce corrective actions that lack a rigorous accountability trail (owner, due date, metrics, etc). (This problem identification and resolution issue is also reflected in SCUBA Team Finding AFI-CAP-03.) (p. A-1) | Benchmark the commercial nuclear power plant industry's use of root cause analysis, particularly for events involving human performance. (p. A-1)<br><b>PIRCS Commitment 6348</b>                                                            | NCK                 | MET-N   |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Improve the quality of root cause analysis to ensure identification of underlying systemic conditions that create the opportunity for failure, particularly for events involving human performance. (p. A-1)<br><b>PIRCS Commitment 6349</b> | NCK                 | MET-?   |
|                                                 | <b>PIRCS Problem 13698</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Ensure that robust, high-accountability corrective actions are developed and implemented for events leading to regulatory compliance issues. (p. A-1)<br><b>PIRCS Commitment 6350</b>                                                        | BMM                 | MET-N   |

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| Tracking Number / Name-1                        | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Recommendation                                                                                                                                                                                                                                      | Responsible Manager | Metrics |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-RCC-01<br>(See Results Report Attachment B) | The NFS-Erwin standards for closure of regulatory commitments do not meet commercial nuclear power plant industry best practices. Closure should only be signed off when work is actually completed. Oversight and approval of commitment closure is somewhat subjective, relying on individual judgment and is not subjected to review and approval by a committee or by senior management. The current commitment management process does not require an evaluation of the effectiveness of corrective actions that have been taken to meet commitments. The current process also lacks a regular, systematic, independent third party (i.e., Quality Assurance) review. (This commitment tracking issue is also reflected in SCUBA Team Finding AFI-CAP-02.) (p. B-1)<br><b>PIRCS Problem 13699</b> | Revise commitment closure guidelines to include a prohibition against closing commitments to a scheduled event or task; that is, the work required to meet the intent of the commitment must be completed. (p. B-1)<br><b>PIRCS Commitment 6351</b> | RPD                 | MET-N   |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Develop a process to evaluate commitment closure that verifies completion and adequacy. This process should specify a committee or panel review prior to closure. (p. B-2)<br><b>PIRCS Commitment 6352</b>                                          |                     |         |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Engage senior management in the closure approval process. (p. B-2)<br><b>PIRCS Commitment 6353</b>                                                                                                                                                  |                     |         |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Revise commitment closure guidelines to include an effectiveness review, unless clearly not warranted. (p. B-2)<br><b>PIRCS Commitment 6354</b>                                                                                                     |                     |         |
|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Establish periodic quality reviews of commitment closure process by an independent review source (i.e., Quality Assurance). (p. B-2)<br><b>PIRCS Commitment 6355</b>                                                                                |                     |         |

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|------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| AFI-CM-01<br>(See Results Report Attachment C) | Currently there are inadequate resources assigned to ensure that CM Program improvements will be completed in accordance with the schedules specified in regulatory commitments. Initial short-term commitments have been extended in time, but the long-range goal of complete conversion of all affected systems by the end of 2010 is in jeopardy. Staffing levels need to be substantially augmented beyond the two individuals currently assigned. (This staffing issue is also reflected in SCUBA Team Finding AFI-RES-04.) (p. C-2)<br><b>PIRCS Problem 13700</b> | Establish ownership of the CM Program as a major project. Currently, it is not well defined. The Oversight Committee meets weekly; the Steering Committee meets sporadically. Place clear responsibility and accountability with one individual, possibly the CM Steering Committee Leader. Use milestone accomplishment dates as the basis for resource requests. The individuals assigned to complete this effort should be dedicated to the task, or at least assigned minimal responsibilities elsewhere. (p. C-2)<br><b>PIRCS Commitment 6356</b>                                                                                                                                                                                                                                                                                                                       | RPS                 | MET-N   |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Additional resources must be allocated and/or a revised timeline calculated to ensure that regulatory commitments can realistically be met. The CM database needs to be populated with information from the U-A1 bowl wash procedure and U-Metal process. Meeting these NRC commitments, originally scheduled for the second and third calendar quarters of 2007, respectively, will be a challenge. Based on estimates provided by NFS personnel, 26.3 man-years of effort will be required to complete all tasks associated with CM conversion. There four additional personnel currently requested to support this project will not be sufficient to complete the work in the remaining three years allotted. The alternative is to request NRC concurrence to adjust the project schedule on the basis of risk and consequence. (p. C-2)<br><b>PIRCS Commitment 6357</b> | RPS                 | MET-N   |
|                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Critically monitor the "cross-walk" technique for integrating existing procedures and processes into the framework of draft NFS-GH-901. Specifically, the Engineering Change Request and Engineering Change Notice processes need to be aligned shortly after the draft version is approved. The present April 2008 due date presents a challenge to full incorporation of the BPF Facility by the end of 2008. Currently, there are administrative disconnects that need to be closed although many of the subordinate procedures have been reviewed and aligned with the new CM process. (p. C-2)<br><b>PIRCS Commitment 6358</b>                                                                                                                                                                                                                                          | RPS                 | MET-N   |

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|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| AFI-CM-02                              | <p>NFS has not formalized the process for reviewing the progress of the conversion to a centralized CM database nor is a timeline for proactive oversight included in the project plan. Such reviews must be conducted in a timely manner in order to protect the design margin from errors being introduced as well as to reduce the potential for costly rework. (This staffing issue is also reflected in SCUBA Team Finding AFI-RES-04.) (p. C-3)</p> <p><b>PIRCS Problem 13701</b></p> | <p>Assign responsibility for evaluating and maintaining the design margin, as represented in the design documents and as-built conditions. The CM Manager has acknowledged this requirement as a primary function of the CM effort. NFS must establish a plan of action for each of the affected systems, structures, and components selected for inclusion in the database. (p. C-2)</p> <p><b>PIRCS Commitment 6359</b></p> | RPS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Designate CM Coordinators within each department or organizational group that has a major role in the process. These individuals should assist and be held accountable for constancy of purpose and should mitigate the natural tendency to alter the program to fit individual preferences. (p. C-3)</p> <p><b>PIRCS Commitment 6360</b></p>                                                                              | RPS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Revise the draft NFS-GH-901 to ensure that suggested practices are mandated. For example, a safety review should be required whenever a modification change is submitted. Currently, the verbiage states, "safety review, when applicable." Such checks should not be optional. (p. C-3)</p> <p><b>PIRCS Commitment 6361</b></p>                                                                                           | RPS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Modify the PIRCS database to allow designation of discrepancies that can be attributed to configuration management issues. This change will allow for better trending and lessons learned processes. (p. C-3) (Repeat from ANA-CAP-01)</p> <p><b>PIRCS Commitment 6362</b></p>                                                                                                                                             | RPS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Accelerate the timetable for the next biennial audit of the CM Program to occur in the first calendar quarter after NFS-GH-901 is approved and the first pilot procedure and prototype process are entered into the LINC software. This will provide an early opportunity to identify strengths and weaknesses before significant additional effort is expended. (p. C-3)</p> <p><b>PIRCS Commitment 6363</b></p>          | MWS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <p>Conduct a self-assessment of the CM Program. (p. C-3)</p> <p><b>PIRCS Commitment 6364</b></p>                                                                                                                                                                                                                                                                                                                              | RPS                    | MET-N   |

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| Tracking Number<br>/ Name | Finding | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Responsible<br>Manager           | Metrics                                |
|---------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------|
|                           |         | <p>The LINC software provides the capability for tracking outstanding Letters of Authorization (LOA), which temporarily authorize procedure modifications. The site should take the opportunity to establish criteria for maintaining these temporary changes and use the new tracking tool to reduce the population. (p. C-3)<br/> <b>PIRCS Commitment 6365</b></p> <p>Correct the behaviors that led to a QA audit finding that biennial walkdowns to verify the accuracy of Process and Instrumentation Drawings (P&amp;ID) were completed late. This problem with schedule compliance should be corrected to ensure that the entry of each system in the LINC database is checked in order to ensure a match between design documentation and the as-built condition. (p. C-3)<br/> <b>PIRCS Commitment 6366</b></p> <p>Audit the LOA process. The tracking system should be computerized to improve the record keeping for these temporary documents that can have significant impact on system operation and design. Currently, the master LOA logbook is maintained by the Quality Control Department in accordance with NFS-RM-008. Each organization generates LOAs, categorized by Sales Number, using a hand-written index. Although the standard lifetime of an LOA is 90 days, that expectation is not enforced. Other LOAs appear never to have been issued and some are still assigned to individuals who are no longer employed at NFS-Erwin. (p. C-3)<br/> <b>PIRCS Commitment 6367</b></p> | <p>RPS</p> <p>CEA</p> <p>MWS</p> | <p>MET-N</p> <p>MET-N</p> <p>MET-N</p> |

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| Tracking Number<br>/ Name <sup>1</sup> | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Responsible<br>Manager | Metrics |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
| AFI-CM-03                              | <p>Although all employees have received introductory training on the CM process, it is necessary to conduct additional training in order to saturate the site with the requisite level of knowledge to make configuration management an integral part of the daily routine. Specialized skills need to be taught to a significant part of the workforce in an aggressive manner during the coming year. (This training issue is also reflected in SCUBA Team Finding OFI-CLE-01.) (p. C-4)</p> <p><b>PIRCS Problem 13702</b></p> | <p>All employees must be trained on those specifics of the CM Program needed to do their job. General employee training was completed in November 2007 but it will be necessary to follow up with specialty training for individual groups, tailored to meet their particular needs. In this regard, the CM Manager has acknowledged the need to develop roles and responsibilities and then designate subject matter experts; this has not been completed to date. (p. C-4)</p> <p><b>PIRCS Commitment 6368</b></p> | RPS                    | MET-N   |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Increase the population of individuals qualified to review safety scenarios during the configuration change process per NFS-GH-55. The site currently has one person qualified to perform the "What If" analysis and none qualified to perform the "Hazop" analysis.</p> <p><b>PIRCS Commitment 6369</b></p>                                                                                                                                                                                                      |                        |         |
|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Additionally, there is not a requirement to include operators in the ISA analysis process as OSHA suggests. Their inclusion would improve the product and better align NFS-Erwin with practices across the nuclear and chemical industry. (p. C-4)</p> <p><b>PIRCS Commitment 6370</b></p>                                                                                                                                                                                                                        |                        |         |

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| Tracking Number / Name <sup>1</sup>       | Finding                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Recommendation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Responsible Manager                  | Metrics                                      |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------------|
| IP-1<br>(See Results Report Attachment E) | In August 2007, the SCUBA Team became aware of an imminent NFS reorganization that was primarily related to the creation of the General Manager (GM) position and the associated realignment of the reporting relationship for certain NFS-Erwin organizations and organizational functions. By this point in time, the SCUBA Team had concluded that it would be recommending that NFS: (p. E-1)<br><b>PIRCS Problem 13704</b>                         | Adopt an approach to Nuclear Oversight that included both "compliance-based" and "performance-based" oversight and assessment activities. (p. E-1)<br><i>Repeat – See AFI-S4-01</i><br><br><b>PIRCS Commitment 6371</b><br>Create a new senior management position to serve as the leader of the Nuclear Oversight function with that position/function reporting directly to the NFS Chief Executive Officer (CEO). (p. E-1)<br><i>Complete – New position has been filled</i>                                                                     | MWS                                  | MET-N                                        |
| IP-2                                      | In August 2007, the SCUBA Team became aware of the lack of an NFS policy on Fitness for Duty (FFD) fatigue considerations. (p. E-1)<br><b>PIRCS Problem 13705</b>                                                                                                                                                                                                                                                                                       | <b>PIRCS Commitment 6372</b><br>Development of an overtime policy that appropriately addressed FFD fatigue considerations. (p. E-1)<br><i>Repeat – See ANA-RES-01</i>                                                                                                                                                                                                                                                                                                                                                                               | DBF                                  | MET-N                                        |
| IP-3                                      | In August 2007, the SCUBA Team developed concerns regarding project management and control over the new Reliable Fuel Supply (RFS) project and found that those concerns were shared by a spectrum of NFS-Erwin staff. (p. E-1)<br><b>PIRCS Problem 13706</b>                                                                                                                                                                                           | <b>PIRCS Commitment 6373</b><br>The individual assigned overall project management responsibility for the RFS project be relieved of other concurrent responsibilities. (p. E-1)<br><i>RFS Project is complete</i>                                                                                                                                                                                                                                                                                                                                  | JWP                                  | MET-P                                        |
| IP-4                                      | In September 2007, NFS management informed the SCUBA Team that they were reopening consideration of the 2008 budget and requested SCUBA Team input on any likely SCUBA Team recommendations that would have potential resource-related implications. The SCUBA Team responded to that request in telephone conversations and in a meeting with the NFS GM. The recommendations discussed included the following: (p. E-1)<br><b>PIRCS Problem 13707</b> | <b>PIRCS Commitment 6374</b><br>Establishment of an Employee Concerns Program. (p. E-1)<br><i>Repeat – See AFI-ERC-01</i><br><br><b>PIRCS Commitment 6375</b><br>Augmentation of resources supporting the implementation of the NFS-Erwin Corrective Action Program. (p. E-1)<br><i>Repeat – See AFI-RES-04</i><br><br><b>PIRCS Commitment 6376</b><br>Augmentation of resources supporting the implementation of the NFS-Erwin Industrial/Personnel Safety Program. (p. E-2)<br><i>Repeat – See AFI-RES-04</i><br><br><b>PIRCS Commitment 6377</b> | TEL<br><br>JWN<br><br>RAC<br><br>JHP | MET-N<br><br>MET-P<br><br>MET-N<br><br>MET-N |

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| Tracking Number / Name | Finding | Recommendation                                                                                                                                                                                                                   | Responsible Manager | Metrics |
|------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
|                        |         | Augmentation of resources to implement the "compliance-based" Quality Assurance organization and addition of resources to implement a "performance-based" Nuclear Oversight function. (p. E-2)<br><i>Repeat – See AFI-RES-04</i> | JWN                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6391</b><br>Augmentation of engineering resources to ensure increased availability of process and project engineers. (p. E-2)<br><i>Repeat – See AFI-RES-04</i>                                              | TEL                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6378</b><br>Hiring a qualified leader for the NFS Human Performance Program. (p. E-2)<br><i>Complete – See AFI-WP-01</i>                                                                                     | TEL                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6379</b><br>Allocation of resources necessary for the implementation of a supervisor/manager leadership training program. (p. E-2)<br><i>Repeat – See AFI-RES-04</i>                                         | JWN                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6380</b><br>Evaluation of the adequacy of current Health Physics staffing in light of attrition. (p. E-2)<br><i>Moved to AFI-RES-04</i>                                                                      | MCT                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6381</b><br>Evaluation of the adequacy of operations staffing in light of then-current high levels of overtime. (p. E-2)<br><i>Moved to AFI-RES-04</i>                                                       | RDW                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6382</b><br>Evaluation of augmenting engineering resources, including but not limited to providing support for resolution of HVAC issues. (p. E-2)<br><i>Repeat – See AFI-RES-03 (Added "HVAC Issue")</i>    | CEA                 | MET-N   |
|                        |         | <b>PIRCS Commitment 6383</b>                                                                                                                                                                                                     |                     |         |

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| Tracking Number<br>/ Name-1 | Finding | Recommendation                                                                                                                                                                                                                         | Responsible<br>Manager | Metrics |
|-----------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
|                             |         | Increase the focus of recruiting activities to fill currently open positions. (p. E-2)<br><i>Open positions have been filled</i>                                                                                                       | DMB                    | MET-N   |
|                             |         | <b>PIRCS Commitment 6384</b><br>Conduct an inventory of currently exiting operator burdens/work-arounds and other degraded conditions, and dedicate resources to aggressively work them off. (p. E-2)<br><i>Repeat – See OFI-WC-01</i> | MAD                    | MET-N   |
|                             |         | <b>PIRCS Commitment 6385</b><br>Evaluate the readiness (personnel and material) of the NFS Fire Brigade. (p. E-2)<br><i>Repeat – See OFI-RES-01</i>                                                                                    | PLC                    | MET-N   |
|                             |         | <b>PIRCS Commitment 6386</b><br>Evaluate working conditions at the NFS firing range. (p. E-2)<br><i>Repeat – See SEC-03</i>                                                                                                            | JHP                    | MET-N   |
|                             |         | <b>PIRCS Commitment 6387</b><br>Assign ownership and accountability to a single person for design and coordination of the implementation of an NFS Operating Experience Program. (p. E-2)<br><i>Repeat – See AFI-OE-01</i>             | RAC                    | MET-N   |
|                             |         | <b>PIRCS Commitment 6388</b><br>Evaluate and address the reasons underlying high levels of attrition in Security. (p. E-2)<br><i>Moved to SEC-12</i>                                                                                   | KDW                    | MET-E   |
|                             |         | <b>PIRCS Commitment 6389</b><br>Evaluate changing the Maintenance organization's reporting relationship from Engineering to Operations. (p. E-2)<br><i>Repeat – See OFI-RES-02</i>                                                     | TEL                    | MET-N   |
|                             |         | <b>PIRCS Commitment 6390</b>                                                                                                                                                                                                           |                        |         |

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| Tracking Number / Name <sup>1</sup>             | Finding                                          | Recommendation                                                                                                                                                                                                                                                                                           | Responsible Manager | Metrics |
|-------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| OFI-REF-01<br>(See Results Report Attachment G) | PIRCS Problem 13708                              | The SCUBA Team recommends that NFS-Erwin consider the following sources of information as helpful reference material that will assist the Site as the leadership team addresses the Findings offered in the SCUBA Team's Independent Safety Culture Assessment. (p. G-1)<br><b>PIRCS Commitment 6392</b> | JWN                 | MET-N   |
| OFI-REF-02<br>(See Results Report Attachment G) | See AFI-DEC-01-003<br><b>PIRCS Problem 13709</b> | A benchmarking trip to a nuclear utility, recommended as exemplary by INPO, is recommended after the operational decision-making tool has been put in place at NFS-Erwin. (p. G-1)<br><b>PIRCS Commitment 6394</b>                                                                                       | JWN                 | MET-N   |
| OFI-REF-03<br>(See Results Report Attachment G) | See AFI-CAP-03<br><b>PIRCS Problem 13710</b>     | It is recommended that NFS-Erwin refresh the quality of its team leaders by conducting initial and refresher training for potential analysts, using the services of one of the companies that provide such training to nuclear utilities. (p. G-2)<br><b>PIRCS Commitment 6395</b>                       | RAC                 | MET-N   |

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| Tracking Number / Name. <sup>1</sup> | Finding                                                                                                                     | Recommendation                                                                                                                                                                                                                        | Responsible Manager | Metrics |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------|
| SEC-01, Resources                    | See Classified Supplement to Results Report ("Special Topic Area: Nuclear Material Security")<br><b>PIRCS Problem 13711</b> | Allocate sufficient dedicated security resources in a timely manner (i.e., Replace CAS, SAS, Radio System)<br><b>PIRCS Commitment 6396</b>                                                                                            | KDW                 | MET-N   |
| SEC-02, Weapons                      | <b>PIRCS Problem 13712</b>                                                                                                  | Replace Off-Site Security Training Facility<br><b>PIRCS Commitment 6397</b>                                                                                                                                                           | KDW                 | MET-N   |
| SEC-03, SAS and Offsite Safety       | <b>PIRCS Problem 13713</b>                                                                                                  | Be prepared to immediately implement automatic weapons and use of deadly force policies when authorized<br><b>PIRCS Commitment 6398</b>                                                                                               | KDW                 | MET-N   |
| SEC-04, Policy Changes               | <b>PIRCS Problem 13714</b>                                                                                                  | Evaluate and correct potential OSHA violations in SAS and Off-site facility<br><b>PIRCS Commitment 6399</b><br><b>PIRCS Commitment 6807</b>                                                                                           | JHP                 | MET-N   |
| SEC-05, ECP for Security             | <b>PIRCS Problem 13715</b>                                                                                                  | Continue recent guard force hiring and assignment policy changes<br><b>PIRCS Commitment 6400</b>                                                                                                                                      | KDW                 | MET-E   |
| SEC-06, Inattentiveness              | <b>PIRCS Problem 13716</b>                                                                                                  | Establish an Employee Concerns Program for Security, including guard force (Included in AFI-ERC-01)<br><b>PIRCS Commitment 6401</b>                                                                                                   | JWN                 | MET-P   |
| SEC-07, Professional Development     | <b>PIRCS Problem 13717</b>                                                                                                  | Closely monitor potential guard force inattentiveness<br><b>PIRCS Commitment 6402</b>                                                                                                                                                 | KDW                 | MET-N   |
| SEC-08, Event Reporting              | <b>PIRCS Problem 13718</b>                                                                                                  | Establish professional development program for Security<br><b>PIRCS Commitment 6403</b>                                                                                                                                               | KDW                 | MET-N   |
| SEC-09, Security CAP                 | <b>PIRCS Problem 13719</b>                                                                                                  | Establish professional development program for MC&A<br><b>PIRCS Commitment 6404</b>                                                                                                                                                   | CLB                 | MET-N   |
| SEC-10, MC&A Succession              | <b>PIRCS Problem 13720</b>                                                                                                  | Continue security event reporting enhancements<br><b>PIRCS Commitment 6405</b>                                                                                                                                                        | KDW                 | MET-E   |
| SEC-11, MC&A Team Working            | <b>PIRCS Problem 13721</b>                                                                                                  | Continue inclusion of security in the Corrective Action Program<br><b>PIRCS Commitment 6406</b><br>Develop and implement succession plan for MC&A Department<br><b>PIRCS Commitment 6407</b>                                          | KDW                 | MET-N   |
| SEC-12 (IP-4)                        | <b>PIRCS Problem 13722</b>                                                                                                  | Improve communications and team work between MC&A and other departments<br><b>PIRCS Commitment 6408</b><br>Evaluate and address the reasons underlying high levels of attrition in Security. (p. E-2)<br><b>PIRCS Commitment 6409</b> | CLB                 | MET-N   |
|                                      |                                                                                                                             |                                                                                                                                                                                                                                       | KDW                 | MET-E   |

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| Tracking Number<br>/ Name.1 | Finding | Recommendation                                                                                                                                                                                        | Responsible<br>Manager | Metrics |
|-----------------------------|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|---------|
|                             |         | NFS needs to evaluate its policy on guards that repeatedly experience difficulty during firearms training as the transition to an all armed guardhouse is implemented<br><b>PIRCS Commitment 6410</b> | KDW                    | MET-E   |

## Crosswalk Legend

### Tracking Number

|     |                                                                 |
|-----|-----------------------------------------------------------------|
| AFI | Area for Improvement                                            |
| ANA | Area in Need of Attention                                       |
| OFI | Opportunity for Improvement                                     |
|     |                                                                 |
| DEC | Decision Making                                                 |
| RES | Resources                                                       |
| WC  | Work Control                                                    |
| WP  | Work Practices                                                  |
| CAP | Corrective Action Program                                       |
| OE  | Operating Experience                                            |
| SA  | Self and Independent Assessments                                |
| ERC | Environment for Raising Concerns                                |
| PDM | Preventing, Detecting and Mitigating Perceptions of Retaliation |
| ACC | Accountability                                                  |
| CLE | Continuous Learning Environment                                 |
| OCM | Organizational Change Management                                |
| SP  | Safety Policies                                                 |
| LOC | Based on Workforce Survey Results                               |
| NOV | Notice of Violation                                             |
| CM  | Configuration Management                                        |
| IP  | In-Process                                                      |
| REF | References                                                      |
| SEC | Security and MC&A                                               |
|     |                                                                 |
| MS  | Most Significant Findings (per SCUBA team)                      |

### Finding

SCUBA Results Report page number and NFS PIRCS Problem Number are included.

### Recommendation

SCUBA Results Report page number and NFS PIRCS Corrective Action number are included.

## Crosswalk Legend

### Responsible Managers

| Initials/Name | Title                                      |
|---------------|--------------------------------------------|
| BALanders     | Director Compensation & Benefits           |
| BMMoore       | VP Safety & Regulatory                     |
| CEAthon       | VP Applied Technology                      |
| CLBrown       | Materials Manager                          |
| CRLow         | Information Services Director              |
| DBFerguson    | President & CEO                            |
| DMBuck        | VP Human Resources                         |
| FCKerns       | Plant Superintendent Manager               |
| GATipton      | Director Labor Relations                   |
| JHParker      | Industrial Safety Manager                  |
| JKWheeler     | Licensing and ISA Manager                  |
| JWNagy        | VP & Chief Nuclear Safety Officer          |
| JWPugh        | Director Operations Support                |
| KBSchutt      | Director Business Process Improvement      |
| MADotson      | Construction & Maintenance Service Manager |
| MCTester      | Radiation Control Senior Manager           |
| MWShope       | Quality Assurance Manager                  |
| NCKenner      | Director Human Performance & Learning      |
| RABond        | Senior Project Director                    |
| RACrowe       | CAP Manager                                |
| RDWise        | VP Fuel Production                         |
| RPDroke       | Licensing & Compliance Director            |
| RPStorey      | Configuration Management Manager           |
| RVBishop      | Employment Programs Manager                |
| SLSanders     | Training Manager                           |
| TELindstrom   | General Manager                            |
| PLCreamer     | Industrial Safety Specialist               |
| KDWeir        | Security Director                          |
| GATapp (GATP) | Industrial Safety Manager                  |

### Metrics Legend

|       |                                                                |
|-------|----------------------------------------------------------------|
| MET-? | Metrics undetermined; will be considered during monthly review |
| MET-E | Metrics established                                            |
| MET-P | Metrics planned                                                |
| MET-N | Metrics not planned                                            |