Designated Original
per Roger Doornbos

FENOC

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Docket Number 50-346
License Number NPF-3
Serial Number 1-1485

February 2, 2007

Mr. James L. Caldwell, Administrator
United States Nuclear Regulatory Commission
Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

Subject: Submittal of the 2006 Organizational Safety Culture, including Safety Conscious Work Environment, Independent Assessment Report and Accompanying Action Plan for the Davis-Besse Nuclear Power Station

Dear Mr. Caldwell:

The purpose of this letter is to submit the 2006 Organizational Safety Culture and Safety Conscious Work Environment (SC/SCWE) independent assessment report from SYNERGY Consulting Services Corporation and accompanying Action Plan for the Davis-Besse Nuclear Power Station (DBNPS). This submittal is in response to the Nuclear Regulatory Commission (NRC) letter dated March 8, 2004, "Approval to Restart the Davis-Besse Nuclear Power Station, Closure of Confirmatory Action Letter, and Issuance of Confirmatory Order."

The Assessment Plan was submitted to the NRC in letter Serial Number 1-1468, dated July 14, 2006. As discussed with the NRC staff during the assessment, the assessment schedule was modified from the schedule listed in the Assessment Plan. The final debrief marking the end of the assessment was conducted on December 21, 2006, by SYNERGY Consulting Services Corporation (SYNERGY). Enclosure 1 contains the results of the SC/SCWE independent assessment, including six (6) Areas for Improvement (AFI). Enclosure 2 contains the Action Plan to address these SC/SCWE AFIs.

As cited by SYNERGY in the enclosed report, "The numerically-rated survey results for the DBNPS Site Composite Organization are very positive. All Key Cultural Metric ratings are in the 'Highly Effective' range. These ratings place the DBNPS site well into the top quartile of the sites included in SYNERGY's current industry database. Most of these ratings, particularly the SCWE-related ratings, are amongst the highest that SYNERGY has ever encountered."

IE01
Add: Roger Doornbos

In addition to Organizational SC/SCWE, the 2006 independent assessment included an assessment of key elements of the General Culture and Work Environment (GCWE) of the DBNPS (Attachment 7), and cultural metrics related to Leadership, Management and Supervisory (LMS) Behaviors & Practices (Attachment 8). As discussed in Attachments 7 and 8, GCWE and LMS cultural metrics and attributes are not directly related to the SC/SCWE, but are included in an advisory nature.

If you have any questions or require additional information, please contact Mr. Dale R. Wuokko, Acting Manager - Regulatory Compliance at (419) 321-7120.

Sincerely yours,

LJS

Attachment 1 - Commitment List

Enclosure 1 - 2006 Independent Assessment of the Davis-Besse Nuclear Power Station Nuclear Safety Culture and Safety Conscious Work Environment

Enclosure 2 – Action Plan to Address Areas for Improvement - 2006 Independent Assessment of the Davis-Besse Nuclear Power Station Nuclear Safety Culture and Safety Conscious Work Environment

cc: USNRC Document Control Desk
DB-1 NRC/NRR Project Manager
DB-1 Senior Resident Inspector
Utility Radiological Safety Board

COMMITMENT LIST

The following list identifies those actions committed to by the Davis-Besse Nuclear Power Station (DBNPS) in this document. Any other actions discussed in the submittal represent intended or planned actions by the DBNPS. They are described only for information and are not regulatory commitments. Please notify the Acting Manager - Regulatory Compliance at (419) 321-7120 at the DBNPS with any questions regarding this document or associated regulatory commitments.

COMMITMENTS	DUE DATE
1. Initiated two Condition Reports (07-13593 and 07-13594) in the Corrective Action Program to address AFI COIA-SC-06-01, one specific to each section identified in the AFI.	Complete
The Condition Report (CR) evaluations and any resulting corrective actions will be reviewed by the Corrective Action Review Board.	April 30, 2007
Implement the corrective actions from the above two CRs in accordance with the FENOC Corrective Action Program.	As tracked by CR 07-13593 and CR 07-13594
2. Initiated Condition Report 07-13595 in the Corrective Action Program to address AFI COIA-SC-06-02.	Complete
The Condition Report (CR) evaluation and any resulting corrective actions will be reviewed by the Corrective Action Review Board.	April 30, 2007
Implement the corrective actions from the above CR in accordance with the FENOC Corrective Action Program.	As tracked by CR 07-13595

COMMITMENTS (Continued)	DUE DATE
3. Initiated Condition Report 07-13597 in the Corrective Action Program to address AFI COIA-SC-06-03.	Complete
The Condition Report (CR) evaluation and any resulting corrective actions will be reviewed by the Corrective Action Review Board.	April 30, 2007
Implement the corrective actions from the above CR in accordance with the FENOC Corrective Action Program.	As tracked by CR 07-13597
4. Initiated Condition Report 07-13600 in the Corrective Action Program to address COIA-SC-06-05.	Complete
The Condition Report (CR) evaluation and any resulting corrective actions will be reviewed by the Corrective Action Review Board.	April 30, 2007
Implement the corrective actions from the above CR in accordance with the FENOC Corrective Action Program.	As tracked by CR 07-13600
5. Initiated Condition Report 07-13601 in the Corrective Action Program to address COIA-SC-06-06.	Complete
The Condition Report (CR) evaluation and any resulting corrective actions will be reviewed by the Corrective Action Review Board.	April 30, 2007
Implement the corrective actions from the above CR in accordance with the FENOC Corrective Action Program.	As tracked by CR 07-13601
6. Complete Condition Report 06-01502 Corrective Action Number 5, regarding developing and implementing an effective contractor oversight plan, to address COIA-SC-06-04.	August 1, 2007

Docket Number 50-346
License Number NPF-3
Serial Number 1-1485
Enclosure 1

2006
INDEPENDENT ASSESSMENT OF THE DAVIS-BESSE NUCLEAR POWER STATION NUCLEAR SAFETY CULTURE AND SAFETY CONSCIOUS WORK ENVIRONMENT

(156 pages follow)

INDEPENDENT ASSESSMENT OF THE DAVIS-BESSE NUCLEAR POWER STATION NUCLEAR SAFETY CULTURE AND SAFETY CONSCIOUS WORK ENVIRONMENT

ASSESSMENT NUMBER: COIA-SC-2006

DECEMBER 28, 2006

Assessment Team Members:

John C. Guibert, Principal, SYNERGY Consulting Services Corporation – Team Leader
Timothy K. Snyder, Principal, SYNERGY Consulting Services Corporation
Howard A. Levin, Principal, SYNERGY Consulting Services Corporation
Dennis Winchester, Vice-President Nuclear Assessment, PSEG Nuclear – Industry Peer Reviewer

Submitted By:

John C. Guibert
Assessment Team Leader

Reviewed and Accepted By:

Mark B. Bezilla
DBNPS Vice President – Nuclear

Jeannie M. Rinckel
FENOC Vice President – Oversight

SYNERGY
CONSULTING SERVICES CORPORATION

COIA-SC-2006 FINAL REPORT

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY

I.A INTRODUCTION

Background

An organization's performance ultimately will be shaped, defined and driven by its culture – its values and attitudes as embodied and reinforced by its standards, expectations, behaviors and practices. Organizational culture is best viewed as an "enabler" or "disabler" of organizational performance, as opposed to an indicator of actual organizational performance.

An organization's culture at any given point in time, as measured by the widely-held beliefs of the organization, reflects both the organization's recent experience & performance and, more importantly, its belief and confidence in the direction that it is heading. Measurements of an organization's culture are generally reliable leading indicators of future performance. That is, measurements of actual organizational performance typically lag measurements of organizational culture – particularly in circumstances where the organizational culture may have changed (or is perceived to have changed) significantly.

Measurements of an organization's culture also frequently identify leading indicators of areas of perceived fragility in (or challenges to) the current organizational culture. If not addressed appropriately, such areas of fragility can result in deterioration of the organizational culture and, hence, either deterioration in its future performance or a stalling of continued improvement in its performance.

An organization's culture is rarely completely constant. It adapts, sometimes subtly and sometimes more dramatically, to changes in the organization's environment and to the organization's response to those changes. The role of leadership, management and supervision in establishing, improving, demonstrating, reinforcing and maintaining organizational standards and expectations is a key driver of the organization's culture.

The survey instrument utilized in the 2006 Independent Assessment of the Nuclear Safety Culture/Safety Conscious Work Environment at the Davis-Besse Nuclear Power Station (DBNPS) was designed to measure organizational culture by obtaining the workforce's current perspective on a comprehensive set of attributes (values, beliefs, behaviors and practices) that define and support a strong Nuclear Safety Culture (NSC) and a strong Safety Conscious Work Environment (SCWE). The survey instrument also presented the opportunity for participants to provide write-in comments, which provide additional insights into the underlying reasons for the cultural ratings and which also frequently provide insights into perceived areas of potential fragility in the organization's culture.

Overview of Survey Results

The numerically-rated survey results for the DBNPS Site Composite Organization are very positive. All Key Cultural Metric ratings are in the "Highly Effective" range. These ratings place the DBNPS Site well into the top quartile of the Sites included in SYNERGY's current industry database. Most of these ratings, particularly the SCWE-related ratings, are amongst the highest that SYNERGY has ever encountered.

For the DBNPS Site Composite Organization:

- There are only a few NSC-related cultural metrics with less than a "Highly Effective" rating.
- A few DBNPS individual Functional Organizations have been identified as significant "organizational outliers" based on the particularly low numerical survey ratings they provided for key NSC/SCWE cultural metrics.
- The cultural metric for the Overall General Culture & Work Environment (GCWE) was rated as "Highly Effective". There are several GCWE-related cultural sub-metrics with low ratings (e.g., Performance Appraisal and Performance Recognition & Reward).[1]
- Cultural metrics related to Leadership, Management and Supervisory Behaviors & Practices (LMS) were rated as "Highly Effective"[2].

Based upon a collective review of all sources of information, the Assessment Team has concluded that:

- Actual Nuclear Safety performance is currently lagging the survey-based ratings and, absent significant cultural changes, should continue to improve.
- Actual SCWE performance is generally consistent with the survey-based ratings.

Several leading indicators of potential fragility in the DBNPS organizational culture were identified. These are primarily related to:

- Concerns about changes (real or perceived) in organizational values and priorities associated with the ongoing transition from a "recovery while shutdown" phase to an "operational" phase in which operational and economic performance are important company priorities.
- Concerns (more strongly held in some Functional Organizations than others) related to workload, workload management, staffing levels, ability to fill position vacancies, overtime hours and workforce replenishment.
- Concerns about the potential adverse effects of fleet resource sharing on the organization's ability to continue to improve.
- Concerns related to compensation, particularly compensation for overtime, and the breakdown (real or perceived) of the performance appraisal process after RFO 14.
- Concerns related to degradation of trust and confidence in senior management, particularly the FENOC Executive Leadership Team, due to RFO 14.

Interpretation of Survey Results

Based on the survey results, it is clear that the DBNPS organization believes that both its organizational culture and its Nuclear Safety performance have improved very significantly since the time of the Reactor Vessel Head Event. The organization also believes that it has been heading in the right direction and that it is continuing to improve. The organization has seen tangible and substantive evidence of this based on the improvements (both physical and cultural) achieved during the extended shutdown period and beyond.

The very high ratings of organizational culture may be somewhat inflated either due to a frame of reference based on comparison with the perceived culture at the time of the Reactor Vessel Head event or due to a less than fully accurate frame of reference with respect to current industry standards of excellence. Nonetheless, the predominant factors underlying the very high ratings of

[1] Detailed GCWE results are provided in Attachment 7 to this Report.
[2] Detailed LMS results are provided in Attachment 8 to this Report.

organizational culture are the organization's belief that its current culture is based on strong principles, that the principles are being appropriately applied and reinforced, and that it is has been and continues to be headed in the right direction. SYNERGY has observed similar very high ratings of organizational culture and similar leading indicators of potential fragility under similar circumstances at another Site in the 1990s.

I.B ASSESSMENT PURPOSE & OBJECTIVES

By Confirmatory Order issued on March 8, 2004, the US Nuclear Regulatory Commission required FENOC to conduct independent assessments of the DBNPS Nuclear Safety Culture (including the Safety Conscious Work Environment) for a period of five years.

This report presents the results of the third annual independent assessment of the DBNPS NSC/SCWE. This assessment was conducted by SYNERGY Consulting Services Corporation using a cultural assessment methodology that has been previously applied in more than 100 assessments throughout the commercial nuclear power industry[3]. This is the first assessment of the DBNPS NSC/SCWE performed by SYNERGY.

The purposes of this Assessment were to:

- Provide an independent and comprehensive assessment of the status of the existing Organizational NSC, including the SCWE, at DBNPS.
- Identify areas for improvement requiring corrective actions with action plans and provide observations for other improvement opportunities.
- Evaluate the effectiveness of corrective actions taken to address the areas for improvement that were identified in the 2005 Independent Assessment.
- Assess the rigor, criticality, and overall quality of the DBNPS internal self-assessment activities related to the NSC/SCWE.

Additional objectives of this Assessment were to:

- Identify areas of strength
- Identify organizational outliers
- Provide trending information
- Provide industry benchmarking information

I.C OVERALL ASSESSMENT CONCLUSIONS

Based on the 2006 Independent Assessment survey results, the DBNPS Nuclear Safety Culture is considered to be Highly Effective.

Based on all sources of information available to the Assessment Team:

- Nuclear Safety performance at DBNPS is considered to be generally Effective.
- SCWE performance at DBNPS is considered to be Highly Effective.

[3] SYNERGY has extensive experience in conducting Nuclear Safety Cultural Assessments for the commercial nuclear industry, having performed more than 100 Nuclear Safety Cultural Assessments, including 48 nuclear power plant sites, 76 nuclear power plants and 2 gaseous diffusion plants.

I.D SUMMARY OF KEY RESULTS

I.D.1 NSC/SCWE Cultural Metric Ratings

Unless otherwise indicated, the ratings summarized below are based on the 2006 Independent Assessment survey results for the DBNPS Site Composite Organization.

The DBNPS Site Composite Organization ratings of NSC key cultural metrics are provided in Table 1 below.

Table 1
NSC KEY CULTURAL METRICS

KEY CULTURAL METRIC	DBNPS SITE COMPOSITE RATING
OVERALL NUCLEAR SAFETY CULURE	HIGHLY EFFECTIVE
Nuclear Safety Values, Behaviors & Practices	Highly Effective
Safety Conscious Work Environment	Highly Effective
Employee Concerns Program	Highly Effective

The Overall NSC was rated as Highly Effective. The survey results place DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database. Approximate trending information[4] for the Overall NSC rating indicates notable improvement over the past year.

- Nuclear Safety Values, Behaviors & Principles (NS VB&P) were collectively rated as Highly Effective. The survey results place DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database. Approximate trending information for the NS VB&P rating indicates notable improvement over the past year.
- The Overall SCWE was rated as Highly Effective. The survey results place DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database. Approximate trending information for the Overall SCWE rating indicates notable improvement over the past year.
- The Employee Concerns Program (ECP) was rated as Highly Effective. The survey results place DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database. Approximate trending information for the ECP rating indicates notable improvement over the past year.

[4] Approximate trends are best characterized as representing perceptions of current momentum.

The DBNPS Site Composite Organization ratings of the NS VB&P cultural sub-metrics are provided in Table 2 below.

Table 2
NS VB&P CULTURAL SUB-METRICS

CULTURAL METRIC	DBNPS SITE COMPOSITE RATING
Standards and Expectations for Nuclear Safety	Highly Effective
Nuclear Safety As Top Priority	Effective
Operational Nuclear Safety	Highly Effective
Identification of Potential Nuclear Safety Issues/Concerns	Highly Effective
Effective Resolution of Nuclear Safety Issues/Concerns	Highly Effective
Timely Resolution of Nuclear Safety Issues/Concerns	Highly Effective
Continuous Improvement of Nuclear Safety Performance	Effective

The DBNPS Site Composite Organization ratings of NS VB&P Topical Areas[5] are provided in Table 3 below.

Table 3
NS VB&P TOPICAL AREA METRICS

CULTURAL METRIC	DBNPS SITE COMPOSITE RATING
Confidence in the Effectiveness of the CAP for the Identification and Resolution of Nuclear Safety Issues	Highly Effective
Confidence in the Effectiveness of the CAP for the Identification and Resolution of Adverse Trends	Marginally Effective[6]
Use of Operating Experience	Effective
Self-Assessment and Independent Assessment	Effective
Adverse Effects of Workload on Nuclear Safety	Marginally Effective[7]
Change Management[8]	Marginally Effective

[5] A NS VB&P Topical Area is a cross-cutting set of related NS VB&P cultural attributes. The attributes included in a Topical Area are generally more focused on actual Nuclear Safety performance than on NSC per se. These attributes are also included in specific NS VB&P cultural sub-metric categories.

[6] The DBNPS Site Composite Organization survey rating was in the Effective range. However, the Assessment team rated this area as Marginally Effective based on (1) information obtained through personnel interviews and documentation reviews and (2) the less positive survey ratings provided by the DBNPS Nuclear Oversight organization.

[7] The DBNPS Site Composite Organization survey rating was in the Effective range. However, the Assessment team rated this area as Marginally Effective due to the number of individual DBNPS Functional Organizations that provided ratings of Not Effective or Marginally Effective.

[8] Change Management is a metric included in SYNERGY's cultural model of the General Culture & Work Environment. It has been included here for reporting purposes since it is identified as a component of the Nuclear Safety Culture in NRC RIS 2006-13.

The DBNPS Site Composite Organization ratings of the SCWE cultural sub-metrics are provided in Table 4 below.

Table 4
SCWE CULTURAL SUB-METRICS

CULTURAL METRIC	DBNPS SITE COMPOSITE RATING
INDICATORS & PRECURSORS OF A POTENTIALLY CHILLED WORK ENVIRONMENT	HIGHLY EFFECTIVE
Influence of General Site Environment on the SCWE	Highly Effective
Influence of Peers on the SCWE	Highly Effective
Influence of Supervision on the SCWE	Highly Effective
Influence of Management on the SCWE	Highly Effective
Influence of Site Senior Management on the SCWE	Highly Effective
DEMONSTRATED WILLINGNESS TO TAKE APPROPRIATE ACTION	HIGHLY EFFECTIVE
Willingness to Inform Supervision or Document a Potential Nuclear Safety Issue/Concern	Highly Effective
Willingness to Escalate a Potential Nuclear Safety Issue/Concern to Management	Highly Effective

The Assessment Team's rating of the SCWE-related Topical Area[9] is provided in Table 5 below.

Table 5
SCWE TOPICAL AREA

CULTURAL METRIC	ASSESSMENT TEAM RATING
Preventing, Detecting And Mitigating Perceptions of Retaliation	Effective[10]

[9] This SCWE-related Topical Area is included here for reporting purposes since it is identified as a component of the Nuclear Safety Culture in NRC RIS 2006-13. This component was assessed primarily through documentation reviews and personnel interviews.

[10] Based on documentation reviews and personnel interviews with the members of the DBNPS SCWE Review Team (SCWERT), the Assessment Team concluded that appropriate procedures and controls are in place for the review of personnel actions that could potentially involve retaliatory actions. In accordance with FENOC policy, detailed documentation of SCWERT reviews is not maintained. As a result, the Assessment Team was unable to independently reach a conclusion regarding the effectiveness of SCWERT reviews and associated actions taken based on a review of documented evidence. However, based on the very high DBNPS Site Composite survey ratings of SCWE-related cultural metrics and attributes, it can be reasonably inferred that SCWERT reviews and associated actions taken, including mitigating actions to prevent or minimize a potential chilling effect, have been Effective. The Assessment Team has provided six suggestions for continuous improvement of the SCWERT process. These suggestions are presented in Section IV.C.3.

The DBNPS Site Composite Organization ratings of the ECP cultural sub-metrics are provided in Table 6 below.

Table 6
ECP CULTURAL SUB-METRICS

CULTURAL METRIC	DBNPS SITE COMPOSITE RATING
ECP As An Acceptable Alternative Path	Highly Effective
Confidence in the ECP	Effective
Bases for Confidence in the ECP	Highly Effective

NSC/SCWE Areas of Strength

The DBNPS Site Composite Organization survey ratings resulted in the identification of numerous Areas of Strength. These are presented in Section IV of this Report and are not repeated in this Executive Summary (with three noteworthy exceptions).

The DBNPS Site Composite Organization survey ratings of three SCWE-related cultural attributes are particularly noteworthy:

1. The 2006 Independent Assessment survey included a "Yes/No" question related to an individual's knowledge of someone other than his/her self having received a negative reaction from supervision or management for raising an issue or concern related to Nuclear Safety during the past year. The percentage of survey respondents who provided a "Yes" response to this survey question was 4.9%. This is by far the lowest % in SYNERGY's industry database. The industry mean is 18.0%.
2. The 2006 Independent Assessment survey included a "Yes/No" question related to an individual having personally experienced, during the past year, a negative reaction from his/her supervisor for having raised or pursued an issue or concern related to Nuclear Safety. The percentage of survey respondents who provided a "Yes" response to this survey question was 1.7%. This is the lowest % in SYNERGY's industry database. The industry mean is 6.3%.
3. The 2006 Independent Assessment survey included a "Yes/No" question related to an individual having personally experienced, during the past year, a negative reaction from his/her management for having raised or pursued an issue or concern related to Nuclear Safety. The percentage of survey respondents who provided a "Yes" response to this survey question was 3.2%. This is the lowest % in SYNERGY's industry database. The industry mean is 8.1%.

NSC/SCWE Areas for Improvement (AFI)[11]

As indicated below, several of the identified AFIs are localized in nature; that is, they are based on low survey ratings provided by individual DBNPS Functional Organizations.

1. The Nuclear Plant Systems Engineering organization and the Nuclear Warehouse organization provided ratings of Not Effective for the Overall NSC, NS VB&P, SCWE and ECP key cultural metrics. These organizations represent localized Areas for Improvement.
2. The Engineering Programs organization provided ratings of Marginally Effective for the Overall NSC, NS VB&P and ECP key cultural metrics. The approximate trends for the ratings of the Overall NSC and the SCWE were Very Significantly Declined. This organization represents a localized Area for Improvement.
3. The DBNPS Site Composite Organization rating of the NS VB&P attribute "Functional Organization staffing levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations" was Not Effective. Thirteen individual DBNPS Functional Organizations also provided low ratings of the "Adverse Effects of Workload on Nuclear Safety" metric: eight were Not Effective and five were Marginally Effective. These organizations are identified in Section IV.B.12. These low ratings represent indicators of localized staffing, workload and/or workload management related issues that are perceived to be having an adverse impact on Nuclear Safety performance in those organizations.
4. The DBNPS Site Composite Organization rating of the NS VB&P attribute "Appropriate levels of oversight and control of contractor work activities are provided to ensure that Nuclear Safety is maintained" was Not Effective. Other sources of information available to the Assessment Team confirmed that oversight and control of contractor work activities during plant outages is perceived by many to be a significant area of concern.
5. The DBNPS Site Composite Organization rating of the NS VB&P attribute "Site funding levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations" was Not Effective. Other sources of information available to the Assessment Team indicate that this low rating represents, at a minimum, a significant communications issue.
6. The DBNPS Site Composite Organization rating of the SCWE attribute "Performance reviews, financial rewards, promotions, personnel recognition and personnel sanctions foster and reinforce attitudes and behaviors that are consistent with a strong Nuclear Safety Culture" was Not Effective. Other sources of information available to the Assessment Team indicate that the breakdown (real or perceived) of the DBNPS performance appraisal process after RFO 14 is likely to have significantly contributed to this low rating.

[11] Unless otherwise indicated, these AFIs have been identified based on the 2006 Independent Assessment survey results for the DBNPS Site Composite Organization.

NSC/SCWE Areas in Need of Attention (ANA)[12]

As indicated below, several of the identified ANAs are localized in nature; that is, they are based on low survey ratings provided by individual DBNPS Functional Organizations.

1. The Operations Training organization provided ratings of Marginally Effective for the Overall NSC and NS VB&P key cultural metrics. This organization represents a localized Area in Need of Attention.
2. The Reactor Engineering organization provided ratings of Marginally Effective for the NS VB&P and ECP key cultural metrics. This organization represents a localized Area in Need of Attention.
3. The DBNPS Site Composite Organization rating of the NS VB&P attribute "There is a proper balance of Nuclear Safety, production, schedule and cost priorities as demonstrated by decisions related to planning and execution of plant outages" was Marginally Effective. Other sources of information available to the Assessment Team indicate that most believe that, even though RFO 14 was poorly planned and executed, Nuclear Safety priorities were generally maintained. Many expressed concerns that the messages sent by management related to RFO 14 represent a potential indicator that Nuclear Safety priorities may not be as well balanced with economic priorities during future refueling outages.
4. The DBNPS Site Composite Organization rating of the NS VB&P attribute "Production, cost and schedule goals are developed, communicated and implemented in a manner that reinforces the importance of Nuclear Safety" was Marginally Effective. Other sources of information available to the Assessment Team indicate that the underlying reason for this low rating is similar to that noted for ANA 3.
5. Continued management attention to human performance issues (e.g., procedural place-keeping, errors in component positioning and maintenance rework) is needed.
6. Continued management attention to the timeliness and effectiveness of evaluations of industry operating experience is needed.
7. Current programs and processes have not shown a sustained ability to identify organizational/programmatic adverse trends. Trending of equipment problems across systems is also not currently being performed.
8. The DBNPS Site Composite Organization rating of the cultural metric "Change Management" was Marginally Effective. Other sources of information indicate that the development and rollout of common corporate procedures and processes are the areas most commonly cited as examples of inadequate change management.
9. The following organizations rated the ECP as Marginally Effective: Chemistry, Mechanical Maintenance, Shift Operations and Site Protection/Security. These ratings are considered to represent localized Areas in Need of Attention.

[12] Unless otherwise indicated, these ANAs have been identified based on the 2006 Independent Assessment survey results for the DBNPS Site Composite Organization.

I.D.2 Effectiveness of Self-Assessment Activities and Self-Identification of Performance Weaknesses (Organizational Self Criticalness)

Introduction

The evaluation of DBNPS self-assessment activities and self-identification of performance weaknesses included:

- Information obtained from the 2006 Independent Assessment survey
- Information obtained through documentation reviews and personnel interviews
- Observation of the conduct of the DBNPS 2006 Annual Assessment of the NSC

Assessment Team Conclusion

The Assessment Team considers this area as generally effective and improving. Additional details are provided in Section V of this Report.

Areas in Need of Attention

Four Areas in Need of Attention were identified:

1. Continuing management attention is needed to ensure continued improvement in the rigor, self-criticalness and quality of Section Integrated Performance Assessments.
2. Continuing management attention is needed to ensure that self-identified areas of organizational weakness are addressed and resolved in a timely manner.
3. Results of self-assessment activities should be communicated to the workforce in the assessed organizations.
4. Continued improvement of NOBP-LP-2501 is needed to address identified shortcomings in the process for conducting self-assessments of the NSC.

I.D.3 Effectiveness of Corrective Actions Taken to Address Previously Identified Areas for Improvement

Introduction

As characterized by DBNPS management, a "global approach" was taken to address most of the Areas for Improvement (AFIs) identified through the 2005 Independent Assessment of the DBNPS Nuclear Safety Culture/SCWE rather than specifically addressing each identified AFI.

In conducting the 2006 Independent Assessment of the DBNPS Nuclear Safety Culture/SCWE, the Assessment Team evaluated the effectiveness of the actions taken by DBNPS:

- From a global perspective, by evaluating the current ratings of the NSC and of the SCWE, as well as available trending information associated with those ratings.
- From a specific perspective, by evaluating available information related to each of the Areas for Improvement identified in the 2005 Independent Assessment.

Assessment Team Conclusions

The conclusions of the 2006 Assessment Team are summarized in Table 7 below. Additional details are provided in Section VI of this Report.

Table 7
Effectiveness of Corrective Actions Taken to Address Previously Identified AFIs

Previously Identified AFI	Assessment Team Conclusions
Global Perspective	**Effective**
AFI 1a: Management's actions concerning safety issues are generally being driven from the top-down, resulting in a lack of accountability and ownership.	Effective
AFI 1b: Activities are perceived to be initiated as reactions to externally driven requirements.	Effective
AFI 1c: Performance standards are largely externally driven and being imparted, not developed or internalized from all levels within the organization.	Generally Effective; Continued Attention Needed
AFI 2a: The large number of differences identified within and between groups in much of the data collected in this evaluation indicates that a consistent message with respect to desired behavioral changes is still not being effectively communicated, understood or accepted throughout several parts of the organization.	Effective
AFI 3a: The lack of self-criticality and the acceptance of low standards and expectations are generally believed to be behavioral indicators of a non-learning organization. Efforts at Davis-Besse are needed to increase the awareness of all levels of the organization as to the importance and value of these behaviors and to initiate efforts to develop more internally driven standards.	Generally Effective; Continued Attention Needed
AFI 4: The overall rating of White on the DBNPS Annual Safety Culture Assessment is noted to be a conservative one as their actual numerical calculation was equivalent to a Green rating. While this team recognizes this as a positive step, the results of the 2005 Independent Assessment are more critical of the current status of DBNPS Safety Culture and SCWE and have provided an overall assessment as Marginally Effective.	Generally Effective; Continued Procedural Enhancement Needed

II. ASSESSMENT SCOPE

Nuclear Safety Culture/SCWE

SYNERGY's Standard Cultural Model for the NSC

The following areas of the DBNPS NSC/SCWE were assessed using SYNERGY's standard cultural model for the NSC[13].

The Overall Nuclear Safety Culture, including the following key cultural elements, sub-elements and cross-cutting topical areas:

a. Nuclear Safety Values, Behaviors and Practices
   - Standards and Expectations for Nuclear Safety
   - Nuclear Safety as Top Priority
   - Operational Nuclear Safety
   - Identification of Potential Nuclear Safety Issues
   - Effective Resolution of Identified Nuclear Safety Issues
   - Timely Resolution of Identified Nuclear Safety Issues
   - Continuous Improvement of Nuclear Safety Performance
   - Confidence in the Effectiveness of the Corrective Action Program (CAP) for the Identification and Resolution of Nuclear Safety Issues
   - Confidence in the Effectiveness of the CAP for the Identification and Resolution of Adverse Trends
   - Use of Operating Experience
   - Self-Assessment and Independent Assessment
   - Adverse Effects of Workload on Nuclear Safety
   - Change Management

b. Safety Conscious Work Environment (SCWE)
   - Indicators and Precursors of a Potentially Chilled Work Environment, including personal experience of receiving negative reactions for having raised potential Nuclear Safety issues or concerns.
     - Influence of the General Site Environment on the SCWE
     - Influence of Peers on the SCWE
     - Influence of Supervision on the SCWE
     - Influence of Functional Organization Management on the SCWE
     - Influence of Site Senior Management on the SCWE
   - Demonstrated Willingness to Take Appropriate Action
     - Willingness to Inform Supervision or to Document a Potential Nuclear Safety Issue/Concern
     - Willingness to Escalate a Potential Nuclear Safety Issue/Concern to Management
   - Prevention, Detection and Mitigation of Perceptions of Retaliation

c. Employee Concerns Program (ECP) Effectiveness
   - ECP as an Acceptable Alternative Path for Reporting/Pursuing Potential Nuclear Safety Issues or Concerns
   - Overall Employee Confidence in the ECP
   - Bases for Employee Confidence in the ECP

[13] The detailed results of this assessment are provided in Section IV of this Report.

SYNERGY's Cultural Model for the INPO Principles

The following areas of the DBNPS NSC/SCWE were assessed using SYNERGY's cultural model for the eight INPO Principles for a Strong NSC[14] [15]:

The Overall Nuclear Safety Culture, including the following key cultural elements and sub-elements:

- Principle 1: Everyone is Personally Responsible for Nuclear Safety
  - Individual Worker Responsibility
  - Management Responsibility
  - Company Responsibility
- Principle 2: Leaders Demonstrate Commitment to Nuclear Safety
- Principle 3: Trust Permeates the Organization
  - General Environment
  - Nuclear Safety Environment
  - Safety Conscious Work Environment
- Principle 4: Decision-Making Reflects Safety First
- Principle 5: Nuclear Technology is Recognized as Special and Unique
- Principle 6: A Questioning Attitude is Cultivated
- Principle 7: Organizational Learning is Embraced
  - Operating Experience Related
  - CAP Related
  - General Continuing Learning Environment
- Principle 8: Nuclear Safety Undergoes Constant Examination

SYNERGY's Cultural Model for NRC RIS 2006-13

The following areas of the DBNPS NSC/SCWE were assessed using SYNERGY's cultural model for the NRC RIS 2006-13 NSC components and attributes[16]:

The Overall Nuclear Safety Culture, including the following key cultural elements and sub-elements:

- Human Performance Cross-Cutting Components
  - Decision-Making
  - Resources
  - Work Control
  - Work Practices
- Problem Identification and Resolution Cross-Cutting Components
  - General Problem Identification and Resolution
  - Problem Identification and Resolution – Identification of Issues
  - Corrective Action Program
  - Certain Elements of the ECP

[14] SYNERGY has developed a survey-based model for the INPO Principles and associated attributes to assist its clients in addressing INPO inquiries/evaluations. The NRC has also expressed interest in SYNERGY's coverage of the INPO Principles.

[15] The results of the assessment of the INPO Principles are provided in Attachment 5 to this Report.

[16] The results of the assessment of the NRC RIS 2006-13 NSC components and attributes are provided in Attachment 6 to this Report.

  - Operating Experience
  - Self and Independent Assessments
- Safety Conscious Work Environment Cross Cutting Components
  - Environment for Raising Concerns
  - Preventing, Detecting and Mitigating Perceptions of Retaliation
- Other Safety Culture Components
  - Accountability
  - Continuous Learning Environment
  - Organizational Change Management
  - Safety Policies

General Culture & Work Environment

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment of key elements of the General Culture and Work Environment (GCWE) at DBNPS, since industry experience indicates that low GCWE ratings are frequently precursors of potential future challenges to the NSC. The following areas of the DBNPS GCWE were assessed using SYNERGY's standard cultural model for the GCWE[17]:

The Overall GCWE including the following key cultural elements and cross-cutting topical areas:

- High Standards
- Accountability for Performance
- Continuous Improvement
- Conduct of Work
- Teamwork
- Employee Involvement
- Environment of Dignity, Trust and Respect
- General Communications (on topics of interest to the workforce)
- Change Management
- Personnel Development and Training
- Performance Recognition and Reward
- Performance Appraisal
- Overall Personal Satisfaction and Morale
- General Adverse Impacts of Workload

Leadership, Management and Supervisory Behaviors & Practices

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment of two key cultural metrics related to Leadership, Management and Supervisory Behaviors & Practices (LMS) because they are indirectly related to the SCWE. Low metric ratings may be leading indicators of potential future challenges to the SCWE. The following areas of DBNPS LMS were assessed using SYNERGY's standard cultural model for LMS[18]:

- Quality of Communications with the Workforce
- Environment of Trust and Mutual Respect

[17] The results of the assessment of the GCWE are provided in Attachment 7 to this Report.
[18] The results of the assessment of the LMS are provided in Attachment 8 to this Report.

The Quality of Communications metric includes the following three cultural sub-metrics:

- Quality of Supervisor Communications with the Workforce
- Quality of Functional Organization Management Communications with the Workforce
- Quality of Site Senior Management Communications with the Workforce

The Environment of Trust and Mutual Respect metric includes the following three cultural sub-metrics:

- Trust and Mutual Respect Between Supervision and the Workforce
- Trust and Mutual Respect Between Functional Organization Management and the Workforce
- Trust and Mutual Respect Between Site Senior Management and the Workforce

DBNPS Self-Assessment Activities and Self-Identification of Performance Weaknesses

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment of the effectiveness of DBNPS self-assessment activities and self-identification of performance weaknesses to determine the extent to which the DBNPS organization is sufficiently self-critical[19].

Effectiveness of DBNPS Corrective Actions to Address Previously-Identified Areas for Improvement in the NSC/SCWE

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment of the effectiveness of DBNPS corrective actions to address the Areas for Improvement in the NSC/SCWE that were identified through the 2005 Independent Assessment[20].

[19] The detailed results of this assessment are provided in Section V of this Report.
[20] The detailed results of this assessment are provided in Section VI of this Report.

III. ASSESSMENT METHODOLOGY

III.A SOURCES OF INFORMATION

SYNERGY's cultural assessment approach relies heavily upon obtaining employee/workforce input as a measure of the values, behaviors and practices that shape organizational culture and performance.

In performing the 2006 Independent Assessment of the DBNPS NSC/SCWE, the Assessment Team used the following sources of information:

- Numerical ratings of NSC/SCWE cultural metrics and attributes based on data obtained through the use of a survey questionnaire.
- Confidential survey write-in comments
- Confidential personnel interviews
- Documentation reviews
- Observations of selected DBNPS activities

All sources of information were evaluated on an integrated basis by the Assessment Team.

2006 Independent Assessment Survey Questionnaire

A comprehensive questionnaire was used to confidentially survey the workforce's opinions and to solicit ideas for continuous improvement. The survey questionnaire included a total of 205 multiple-rating question sub-parts and 2 opportunities to provide write-in comments.

- 145 question sub-parts were related directly to the NSC:
  - 98 question sub-parts related to NS Values, Behaviors and Practices.
  - 36 question sub-parts related to the SCWE; and
  - 11 question sub-parts related to the effectiveness of the ECP
- 40 question sub-parts were related to the GCWE. Many of these were very closely linked to the NSC or the SCWE.
- 18 question sub-parts were related to the LMS.
- 2 question sub-parts were related to Industrial Safety

To assist SYNERGY in interpreting the response data, various demographic and organizational information was requested but not required; e.g. positions, worker categories, years of service and organizational affiliation. The representation of organizational affiliation provided the capability to isolate specific organizational strengths and weaknesses. The representation of the other demographic categories provided the ability to evaluate rating variations within those categories.

Participation in the survey was voluntary but strongly encouraged by FENOC/DBNPS. The survey administration period was from October 12, 2006 through October 30, 2006. The survey was administered by FENOC using administration guidance provided by SYNERGY. All FENOC/DBNPS employees and all long-term DBNPS contractors were afforded the opportunity to participate in the survey. Generally, the respondents completed the survey questionnaire anonymously during group meetings; however, opportunities were offered at an individual's discretion to take the survey at different times or locations. Completed surveys were mailed directly to ORI, Inc. – SYNERGY's independent data processor.

The DBNPS Site Composite Organization survey participation rate was 70%. While somewhat lower than the industry average of 77% for surveys conducted by SYNERGY, this participation rate is sufficient to obtain meaningful insights and to reach conclusions[21].

A few individual Functional Organizations were identified as "Low Responding" (LR) based on survey participation rates less than 50%[22]:

- Security/Site Protection – 22%
- FIN Maintenance – 30%
- Nuclear ALARA/Radiation Protection Services – 31%
- Nuclear Warehouse[23] – 40%
- Human Resources/Communications/L&OD – 45%
- Shift Operations – 47%

Confidential Survey Write-In Comments

In order to obtain additional insights into issues that may be contributing to the organizational culture at DBNPS or within individual DBNPS Functional Organizations, SYNERGY's assessment methodology included the use of two survey write-in comment opportunities.

Write-in comments were provided by 35% of the survey participants, which is slightly above industry norms based on SYNERGY's experience.

Information and insights obtained from the write-in comments were integrated with the results of the rated survey questions as part of the process for identifying areas of strength, areas for improvement, areas in need of attention and suggestions for continuous improvement.

Confidential Personnel Interviews

The Assessment Team conducted approximately 110 confidential interviews of FENOC/DBNPS personnel, including interviews with the FENOC Executive Leadership Team (ELT), the DBNPS Senior Leadership Team (SLT) and the DBNPS Corporate Nuclear Review Board (CNRB).

The personnel interviews were conducted with personnel selected by the Assessment Team for the following specific reasons:

- To obtain insights into the underlying reasons for the survey ratings provided by individual DBNPS Functional Organizations that were identified as "organizational outliers" based on having provided particularly low ratings.
- To obtain additional information on individual DBNPS Functional Organizations that were identified as "Low Responding" based on low survey participation rates.
- To obtain information related to DBNPS self-assessment activities and self-identification of performance weaknesses.
- To obtain information related to the corrective actions taken by DBNPS to address the Areas for Improvement in the NSC/SCWE identified through the 2005 Independent Assessment.
- To obtain information related to NRC RIS 2006-13 NSC attributes that were not amenable to being addressed through the survey questionnaire.

[21] Detailed information on survey participation is provided in Attachment 1 to this Report.

[22] Survey results for these organizations may be representative, but with reduced levels of confidence.

[23] It appears that essentially all Nuclear Warehouse personnel participated in the survey; however, it appears that several selected a different Functional Organization affiliation (i.e., DBNPS Supply Chain).

Documentation Reviews

The Assessment Team obtained and reviewed an extensive amount of documentation, including (but not limited to):

- FENOC/DBNPS Policies, Programs, Processes, Procedures and Business Practices related to the NSC/SCWE.
- 2005 and 2006 Confirmatory Order Independent Assessments and associated (selected) Condition Reports
- 2005 and 2006 Focused and Snapshot Self-Assessments and associated (selected) Condition Reports
- November 2005–April 2006 Section Integrated Performance Assessments and associated (selected) Condition Reports
- 2005 and 2006 Self-Assessments of the NSC and associated Condition Reports
- 2005 and 2006 DBNPS SCWE Survey Results and associated Condition Reports
- 2005 and 2006 FENOC/DBNPS Nuclear Oversight Quarterly Audit Reports
- 2005 and 2006 NRC Inspection Reports for DBNPS
- 2006 Employee Concerns Program Status Reports
- 2006 Operating Experience Program Status Reports
- 2006 Operational Decision Making Issue (ODMI) Reports
- 2006 Problem Solving and Decision Making (PSDM) Reports
- 2006 CNRB Meeting minutes and associated correspondence
- DBNPS RFO 14 Outage Execution Assessment Report
- September 2006 DBNPS Nuclear Oversight Report on Review of 2005 INPO Evaluation Areas for Improvement Actions.
- 2006 DBNPS Nuclear Oversight NSC/SCWE Survey & Interview Results
- FENOC/DBNPS Industry Benchmarking Database
- 2006 DBNPS 4Cs Meeting Minutes and Survey Results
- 2006 DBNPS Excellence Plan
- 2006-2010 FENOC Business Plan
- FENOC/DBNPS Management Incentives
- FENOC/DBNPS Key Performance Indicators
- 2006 DBNPS Monthly Performance Indicator Reports

Observations of Selected DBNPS Activities

The Assessment Team observed the following DBNPS activities:

- DBNPS Management Team meeting on October 10, 2006 to conduct the annual self-assessment of the DBNPS NSC/SCWE
- DBNPS CNRB Sub-Committee meetings on October 11-12, 2006
- DBNPS CNRB meeting on October 13, 2006
- DBNPS CARB meting on November 29, 2006
- DBNPS Industry Operating Experience presentation on November 30, 2006
- Management Alignment and Ownership Meetings (multiple)

III.B NUMERICAL RATING CONVENTIONS

Introduction

The survey questions were generally designed as "positive" statements to which the respondents rated their degree of agreement or disagreement. A number of questions asked for ratings of "adequacy" of an area of performance or the environment. A few questions requested a "yes" or "no" response.

The following response scales were generally utilized:

Fully agree (5)	Strongly agree (4)	Generally agree (3)	Disagree (2)	Strongly Disagree (1)
		and		
Excellent (5)	Very good (4)	Adequate (3)	Less-than-adequate (2)	Inadequate (1)

Thus, the response scales were asymmetric and anchored about a numerical mid-point of "3", with scores greater than 3.00 representing either a "positive or adequate" response and less than 3.00 representing either a "negative or less-than-adequate" response.

SYNERGY computed mean values and standard deviations for each survey question using the response distributions represented by the ordinal values associated with the above response scales. Weighted mean value scores were then developed for the "question sets" that constitute the key elements of SYNERGY's cultural models.

SYNERGY also computed negative response percentages for each individual survey question and for each of the key cultural metrics. While an organization's mean value rating may appear to be in an acceptable range, high percentages of negative responses provide an indication of stratification or negative "pockets". Such locales may require further validation or special attention to correct underlying weaknesses.

Rating Conventions

SYNERGY established correlations between survey numerical ratings of key cultural metrics/sub-metrics and the assessment category ratings set forth in DBBP-VP-0009. These correlations reflect industry norms based on SYNERGY's current industry database for commercial nuclear power plant Sites in the United States. These correlations vary for different cultural metrics depending on the nature of the cultural metric[24]. In general:

- A rating in the industry top quartile is characterized as "Highly Effective".
- A rating in the second or third quartile is characterized as "Effective".
- A rating in the fourth quartile is characterized as "Marginally Effective".
- A rating in the industry bottom decile is characterized as "Not Effective".

[24] For example, a survey numerical rating of 3.85 would represent a "Highly Effective" rating for an ECP-related metric, sub-metric or attribute, but would represent a "Not Effective" rating for a SCWE-related metric, sub-metric or attribute.

III.C INDUSTRY COMPARISONS

The 2006 Independent Assessment survey results were compared with the results from other cultural assessments recently conducted by SYNERGY for industry-benchmarking purposes. SYNERGY provides industry-benchmarking information for commercial nuclear power plant Sites.

The industry database used in this assessment includes 24 domestic Sites with current NSC assessment data (i.e., data obtained within the past 30 months). SYNERGY believes that the Sites included in this industry database reflect a reasonably representative spectrum of performance and culture within the commercial nuclear power industry.

III.D TRENDING INFORMATION

Potential Sources of Trending Information

Four potential sources of 2005-2006 trending information were evaluated for potential use in the 2006 Independent Assessment:

1. The written survey of DBNPS personnel used in the 2005 Independent Assessment performed by Human Performance Analysis Corporation.
2. The 2005/2006 DBNPS SCWE surveys of DBNPS personnel.
3. Approximate Trending methods used by SYNERGY
4. Inherent Trending methods used by SYNERGY

The Assessment Team determined that the first source of trending information was not appropriate for use in the 2006 Independent Assessment due to question structure differences and rating scale differences. The Assessment Team determined that the second source of trending information was not appropriate for use in the 2006 Independent Assessment due to rating scale differences.

Approximate Trending Information[25]

For cultural assessments where previous data does not exist to support direct trending information, SYNERGY employs an approximate trending methodology based on the use of several paired sets of survey questions for significant cultural attributes. These questions are designed to obtain ratings of the attributes both "today" and "a year ago". Approximate trends were determined based on the differences between these two ratings. SYNERGY's experience in using the trending information derived in this manner indicates that the "approximate trends" should best be considered as indicators of current momentum.

Inherent Trending Information[26]

The survey instrument used in the 2006 DBNPS Independent Assessment of the NSC/SCWE included seven questions that were designed to measure progress achieved in specific topical areas that had been identified as opportunities/needs for improvement in the 2005 Independent Assessment. These survey questions were structured to obtain inherent trending information using a question format along the lines of "During the past year, we have made progress in achieving improvement in the effectiveness of _____".

[25] Additional information on SYNERGY's Approximate Trend methodology is provided in Attachment 3 to this Report.

[26] Additional information on SYNERGY's Inherent Trend methodology is provided in Attachment 4 to this Report.

IV. NSC/SCWE CULTURAL METRIC RATINGS DETAILS

IV.A OVERALL NUCLEAR SAFETY CULTURE (NSC)

INTRODUCTION

This Key Cultural Metric is a measure of the Overall NSC based upon the integration of the cultural metric ratings of Nuclear Safety Values, Behaviors & Practices, the Safety Conscious Work Environment and the Effectiveness of the Employee Concerns Program.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of the Overall NSC

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of the Overall NSC is 4.11, which is characterized as Highly Effective. This rating places DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Approximate trending information[27] for the Overall NSC rating indicates Notable Improvement (+4%) over the past year. Approximate trends are best characterized as representing perceptions of current momentum.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

Overall NSC ratings vary amongst the individual DBNPS Functional Organizations. Information on these ratings is provided in Attachment 2 to this Report.

The following individual DBNPS Functional Organizations provided particularly low Overall NSC ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.31; Approximate trend – Notable Improvement (+5%)
- Nuclear Plant Systems Engineering: 3.35; Approximate trend – Significant Decline (-6%)

The following individual DBNPS Functional Organization provided a low Overall NSC rating, which is characterized as Marginally Effective and which, in and of itself, would represent a localized Area in Need of Attention. However, the approximate trend in the Overall NSC rating provided by this organization is characterized as a Very Significant decline, which represents a localized Area for Improvement.

- Engineering Programs: 3.67; Approximate trend – Very Significant Decline (-10%)

The following individual DBNPS Functional Organization provided a lower Overall NSC rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Operations Training: 3.72; Approximate trend – Nominal Improvement (+1%)

[27] Approximate trending information for the Overall NSC was based on ratings using a proprietary surrogate indicator, which used ratings of several key NSC-related attributes as perceived "today" and "approximately a year ago."

IV.B NUCLEAR SAFETY VALUES, BEHAVIORS AND PRACTICES (NS VB&P)

INTRODUCTION

This Key Cultural Metric is a measure of Nuclear Safety Values, Behaviors & Practices based upon the integration of the ratings of the following cultural sub-metrics:

- Expectations for Nuclear Safety
- Nuclear Safety as Top Priority
- Operational Nuclear Safety
- Identification of Potential Nuclear Safety Issues or Concerns
- Effectiveness of Resolution of Identified Nuclear Safety Issues or Concerns
- Timeliness of Resolution of Identified Nuclear Safety Issues or Concerns
- Continuous Improvement of Nuclear Safety Performance

The following NS VB&P-related Topical Areas were also assessed. A NS VB&P Topical Area is a cross-cutting set of related NS VB&P cultural attributes. The attributes included in a Topical Area are generally more focused on actual Nuclear Safety performance than on NSC per se. These attributes are also included in specific NS VB&P cultural sub-metric categories.

- Confidence in the effectiveness of the Corrective Action Program for identification, processing and resolution of Nuclear Safety Issues
- Confidence in the effectiveness of the Corrective Action Program for identification, processing and resolution of adverse trends
- Effectiveness of the use of Operating Experience
- Effectiveness of Self-Assessment and Independent Assessment
- Adverse effects of workload on Nuclear Safety
- Change Management

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS VB&P

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS VB&P is 4.00, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Approximate trending information[28] for the NS VB&P rating indicates Notable Improvement (+5%) over the past year. Approximate trends are best characterized as representing perceptions of current momentum.

[28] Approximate trending information for the NS VB&P was based on ratings of a proprietary surrogate indicator, which used ratings of several key NS VB&P-related attributes as perceived "today" and "approximately a year ago."

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS VB&P ratings vary amongst the individual DBNPS Functional Organizations. Information on these ratings is provided in Attachment 2 to this Report.

The following individual DBNPS Functional Organizations provided particularly low NS VB&P ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.16; Approximate trend – Significant Improvement (+7%)
- Nuclear Plant Systems Engineering: 3.22; Approximate trend – Notable Decline (-4%)

The following individual DBNPS Functional Organization provided a low and significantly declined NS VB&P rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Engineering Programs: 3.52; Approximate trend – Significant Decline (-8%)

The following individual DBNPS Functional Organizations provided low NS VB&P ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Operations Training: 3.55; Approximate trend – Nominal Improvement (+2%)
- Reactor Engineering: 3.63; Approximate trend – Steady

IV.B.1 Standards and Expectations for Nuclear Safety (NS EX)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of attributes related to the communication, understanding, internalization, reinforcement and modeling of standards and expectations for Nuclear Safety performance.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS EX

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS EX is 4.24, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following NS EX attributes have been identified as perceived Areas of Strength:

- Standards and expectations for Nuclear Safety performance are effectively communicated and well understood by the workforce. (4.24, 98.5% positive response)
- Individuals are expected and obligated to identify and pursue resolution of potential Nuclear Safety issues or concerns. (4.51, 98.6% positive response)
- Standards and expectations for Nuclear Safety performance are consistently adhered to by individual workers. (4.18, 99.1% positive response)
- Peers reinforce standards and expectations for Nuclear Safety performance. (4.17, 98.5% positive response)
- Standards and expectations for Nuclear Safety performance are consistently adhered to, demonstrated and reinforced by supervisors. (4.25, 97.4% positive response)
- Standards and expectations for Nuclear Safety performance are consistently adhered to, demonstrated and reinforced by Functional Organization management. (4.16, 96.4% positive response)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS EX ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low NS EX ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.22
- Nuclear Plant Systems Engineering: 3.36

IV.B.2 Nuclear Safety as Top Priority (NS TP)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of attributes related to attitudes, behaviors, practices and decisions that reflect Nuclear Safety as the organization's top priority.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS TP

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS TP is 3.82, which is characterized as Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following NS TP attributes have been identified as perceived Areas of Strength:

- The message that Nuclear Safety is the highest priority is frequently and consistently reinforced in communications from site senior management and corporate nuclear management. (4.24, 96.4% positive response)
- Our attitudes, behaviors and actions demonstrate that we consider Nuclear Safety and safe plant operations to be our primary responsibility and over-riding priority. (4.21, 98.1% positive response)
- The overall Nuclear Safety Culture at our Site, based upon our behaviors and practices, consistently reflects Nuclear Safety as our top priority.
  (4.03, 95.9% positive response) (Approximate trend – Notable Improvement, +4%)

Also noteworthy are improvements in the following attributes based upon approximate trending information:

- The influence of Functional Organization management in promoting Nuclear Safety priorities by "walking the talk" and leading by example. (Significant Improvement, +6%)
- The influence of Site senior management in promoting Nuclear Safety priorities by "walking the talk" and leading by example. (Significant Improvement, +6%)

Areas for Improvement

Based on the DBNPS Site Composite ratings, the following NS TP attributes have been identified as perceived Areas for Improvement:

- Within my Functional Organization, staffing levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations. (3.04, 67.1% positive response)
- At our Site, funding levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations. (3.10, 72.4% positive response)

Areas in Need of Attention

Based on the DBNPS Site Composite ratings, the following NS TP attributes have been identified as perceived Areas in Need of Attention:

- At our Site, we properly balance Nuclear Safety, production, schedule and cost priorities as demonstrated by decisions related to planning and execution of plant outages. (3.42, 80.0% positive response)

- Production, cost and schedule goals are developed, communicated and implemented in a manner that reinforces the importance of Nuclear Safety. (3.52, 88.2% positive response)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS TP ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low NS TP ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.05
- Nuclear Plant Systems Engineering: 3.06
- Operations Training: 3.23
- Engineering Programs: 3.29

The following individual DBNPS Functional Organizations provided low NS TP ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Chemistry: 3.36
- Reactor Engineering: 3.41
- Nuclear ALARA/RP Services: 3.42
- Shift Operations: 3.42

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

Adequacy of Staffing Levels

Based on the write-in comments and the personnel interviews, many have concerns related to workload, workload management, staffing levels, ability to fill position vacancies, overtime hours and workforce replenishment. (These concerns are more strongly held in some Functional Organizations than in others).

- Many organizations have position openings. Some have multiple openings.
- Some organizations have position openings at multiple levels (e.g., supervisor and staff).
- Some organizations have long-standing position openings, including a few key positions.
- Non-competitiveness of compensation packages is perceived to be a significant weakness in ability to successfully recruit to fill certain open positions.
- Some feel that the Human Resources organization is not providing sufficient support in the timely posting and filling of position vacancies.
- The impacts of attrition are being felt in certain key skill areas that require particular qualifications and/or experience. The time for new hires to acquire necessary skills appears to typically be in the 2-3 year range.
- Workload management and prioritization is perceived to be a significant problem inhibiting performance and frustrating workers in the Site Engineering organization. Interviews indicate that the workload/staffing balance in several engineering organizations is not sufficient to meet management's performance expectations for self-criticalness.
- Continuous overtime hours appear to be wearing down parts of the organization and to be having an adverse impact on quality of life/morale.

- Resource sharing to support other FENOC Sites is perceived to be having a significant adverse impact on the workload of those remaining at DBNPS.
- Actions to replenish the aging work force are perceived by many as barely keeping up with attrition. They feel that replenishment activities need to increase due to the number of personnel who will be eligible for retirement within 2-3 years.
- Personnel in the Training Organization, which has an aging work force itself, are particularly concerned about their capability to staff the increased number of training classes necessary to support workforce replenishment.
- Personnel in some organizations indicated that they are unwilling to seek promotion/advancement to supervisory/management positions due to concerns about (1) higher workload without sufficient additional compensation and (2) higher risk to their individual job security.

Adequacy of Funding Levels

Based on the write-in comments and the personnel interviews, many have concerns related to the adequacy of funding for DBNPS.

- Some noted the post-RFO 14 budget cuts for CY 2006, which were perceived to result in:
  - A decrease of $2 Million in funding for maintenance backlog reduction
  - A loss of funding to support Operations procedure upgrades
  - The deferral of plant modifications
- Some noted the lack of funding to address long-standing problems with obsolete or degraded equipment (e.g., the Integrated Control System).
- Some noted recurring equipment problems and emergent equipment problems as indicators of the need for increased attention to plant material condition.
- Some noted process difficulties/roadblocks to getting modifications approved by the Plant Health Committee.
- Only a few interviewees (management personnel) were aware of the projected budgets associated with the DBNPS asset improvement plan.

Issues Related to Plant Outages

Based on the write-in comments and the personnel interviews,

- Most believe that, even though RFO 14 was poorly planned and executed, Nuclear Safety priorities were generally maintained.
- Many expressed concerns that the messages sent by management after RFO 14 represent potential indicators that Nuclear Safety priorities may not be as well balanced with economic priorities during future refueling outages. They are concerned that, if cost and schedule return to the forefront, there is a possibility of another backslide/down cycle in DBNPS culture and performance.
- A few noted that they perceived mixed signals on human performance standards during RFO 14.
- Some noted that there was a significant decrease in management observations during the outage.
- Many indicated that the recent voluntary mini-outage to fix the relief and safety valves represented a good affirmation of Nuclear Safety as Top Priority. Some also appreciated that a number of operator workarounds and temporary modifications were addressed during the mini-outage.

ASSESSMENT TEAM SUGGESTIONS FOR CONTINUOUS IMPROVEMENT

In light of workforce concerns about changes (real, perceived or potential) in organizational values and priorities as DBNPS transitions from a "recovery while shutdown" phase to an "operational" phase, management should provide a high level of focus on ensuring effective communications to minimize workforce misperceptions:

- Continued and increased focus on communicating the bases for significant decisions related to Nuclear Safety and safe plant operations, particularly decisions that could be interpreted as not affording Nuclear Safety appropriate priority.
- Focus on communicating to the workforce about the short-term and long-term asset improvement plans for DBNPS to demonstrate FENOC's long-term commitment to the safe, secure, reliable and cost effective operation of DBNPS.

Workload/staffing issues are addressed in Section IV.B.12, "Adverse Effects of Workload on Nuclear Safety".

IV.B.3 Operational Nuclear Safety (ONS)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of a spectrum of attributes related to attitudes, behaviors, practices and actions that support Nuclear Safety and safe plant operations.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of ONS

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of ONS is 4.13, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following ONS attributes have been identified as perceived Areas of Strength:

- Individuals accept personal responsibility for identifying and pursuing the resolution of potential Nuclear Safety issues or concerns. (4.34, 98.5% positive response)
- The special characteristics of nuclear technology are appreciated and appropriately taken into consideration in our decisions and actions. (4.26, 99.0% positive response)
- Operations, maintenance and modifications are conducted in accordance with the licensing and design bases. (4.31, 99.1% positive response)
- High quality procedures and processes govern activities related to Nuclear Safety and safe plant operations. (4.04, 96.4% positive response)
- Thorough safety analyses, including plant operability and procedural change evaluations, are conducted. (4.11, 98.6% positive response)
- Insights from risk analyses are appropriately utilized in planning and decision making. (4.10, 98.6% positive response)
- Equipment important to Nuclear Safety and safe plant operations is rigorously maintained. (4.08, 96.5% positive response)

- Measures and controls to ensure the radiological safety of the workforce are effectively implemented. (4.09, 98.2% positive response)
- Decisions and actions taken to address issues affecting Nuclear Safety and safe plant operations are based on a determination that the actions taken (or not taken) will ensure that Nuclear Safety and safe plant operations will be maintained. (4.19, 98.8% positive response)
- Decisions and actions taken to address issues affecting Nuclear Safety and safe plant operations are appropriately conservative. (4.14, 97.9% positive response)
- Site management becomes sufficiently and appropriately involved in important issues or activities that could affect Nuclear Safety or safe plant operations. (4.11, 97.0% positive response)
- Training on matters related to Nuclear Safety performance is sufficient for our assigned roles and responsibilities. (4.08, 97.3% positive response)
- Healthy accountability is exercised for adherence to standards and expectations for Nuclear Safety performance. (4.16, 98.4% positive response)
- Individuals adhere strictly with procedural requirements as a means of assuring Nuclear Safety. (4.18, 98.6% positive response)
- Operational risks associated with planned work activities are anticipated and appropriate precautions are taken. (4.13, 99.0% positive response)
- Identifying and promptly addressing unanticipated situations or anomalous conditions that could adversely affect Nuclear Safety or safe plant operations is effective. (4.05, 97.7% positive response)
- We proceed with caution and conservatism in the face of uncertainty or unexpected conditions. (4.09, 97.0% positive response)

Areas for Improvement

- At our Site, we provide appropriate levels of oversight and control of contractor work activities to ensure that Nuclear Safety is maintained. (3.27, 78.4% positive response)

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

ONS ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low ONS ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.20
- Nuclear Plant Systems Engineering: 3.37

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The write-in comments, personnel interviews and documentation reviews indicate that:

- Oversight and control of contractor work activities during plant outages is perceived by many to be a significant area of concern. A snapshot self-assessment (DB-SA-06-02) of the DBNPS Projects section's performance in the area of contractor control was

conducted in mid-2006. Three areas for improvement were identified and three CRs were written.

- Continued management attention to human performance issues (e.g., procedural place-keeping, errors in component positioning and maintenance rework) is needed. The Assessment Team has identified this as an Area in Need of Attention.
- There is a large backlog of procedure change requests in Operations.
- The Duty Team approach has been used effectively to provide "real time" response to issues confronting the operating crews.
- Some in the Radiation Protection organization feel that radiological safety is not sufficiently embraced or supported by other Site organizations.

IV.B.4 Identification of Potential Nuclear Safety Issues or Concerns (NS ID)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of attributes related to attitudes, behaviors and practices that support the identification of potential Nuclear Safety issues or concerns.

Attributes with distinct elements of encouragement, receptivity, appreciation and support of raising potential Nuclear Safety issues/concerns are included in the evaluation of the Safety Conscious Work Environment (refer to Section IV.C).

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS ID

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS ID is 4.03, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following NS ID attributes have been identified as perceived Areas of Strength:

- I have received adequate training on the processes available (e.g., the Condition Report process and the Employee Concerns Program) for reporting and documenting potential Nuclear Safety issues or concerns. (4.49, 99.1% positive response)
- Individual confidence that the Corrective Action Program (i.e., the Condition Report process) will ensure that potential Nuclear Safety problems are identified. (4.25, 97.9% positive response)
- Lack of prior responsiveness by supervision is NOT currently having an adverse impact on individual willingness to identify and pursue resolution of potential Nuclear Safety issues/concerns. (4.17, 96.5% positive response)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

Based on the DBNPS Site Composite ratings, the following NS ID attribute has been identified as a perceived Area in Need of Attention:

- Workload is not having an adverse impact on our ability to identify potential Nuclear Safety issues or concerns. (3.65, 12.5% negative response)

This area is addressed further in Section IV.B.12, "Adverse Effects of Workload on Nuclear Safety."

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS ID ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low NS ID ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.19
- Nuclear Plant Systems Engineering: 3.24

The following individual DBNPS Functional Organizations provided low NS ID ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Engineering Programs: 3.54
- Operations Training: 3.63
- Technical Training: 3.73
- Chemistry: 3.74

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The threshold for identification of issues through Condition Reports is perceived to be appropriate. Most believe that the transition to two reporting systems (i.e., CREST and SAP) has helped to distinguish Conditions Adverse to Quality (CAQ) from other types of issues/concerns.

The Assessment Team for the 2006 Independent Assessment of the Corrective Action Program (CAP) rated the Identification, Classification, and Categorization of CAQ as Highly Effective.

The DBNPS Nuclear Oversight organization identified several instances during RFO 14 where a problem was identified and resolved without being processed through the CAP; these discrepancies were documented in Condition Reports (CRs).

A few write-in comments/personnel interviews referred to instances of individuals not reporting issues because they believed that the responsibility for responding to the issue would be assigned to the originators of the concern (themselves). This so called "boomerang effect", although currently not judged to be a pervasive issue at DBNPS, is typically encountered in situations where workload is perceived to be high and where workload management & prioritization is perceived to be insufficiently effective.

IV.B.5 Effectiveness of Resolution of Identified Nuclear Safety Issues or Concerns (NS ER)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of attributes related to attitudes, behaviors and practices that support the effective resolution of potential Nuclear Safety issues or concerns.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS ER

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS ER is 3.94, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following NS ER attributes have been identified as perceived Areas of Strength:

- Supervisors ensure that identified Nuclear Safety issues or concerns are evaluated thoroughly. (4.22, 97.7% positive response)
- Supervisors ensure that Nuclear Safety issues or concerns are resolved in an effective manner. (4.12, 96.1% positive response)
- Functional Organization managers ensure that identified Nuclear Safety issues or concerns are evaluated thoroughly. (4.13, 96.6% positive response)
- Functional Organization managers ensure that Nuclear Safety issues or concerns are resolved in an effective manner. (4.06, 95.7% positive response)
- Individual confidence that the Corrective Action Program (i.e., the Condition Report process) will ensure that potential Nuclear Safety problems are investigated sufficiently to define corrective actions that address the root cause. (3.92, 95.2% positive response)
- Overall, the identification and resolution of potential Nuclear Safety issues (through all mechanisms combined) is effective.
  (3.94, 98.4% positive response) (Approximate trend – Significant Improvement, +9%)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

Based on the DBNPS Site Composite ratings, the following NS ER attribute has been identified as a perceived Area in Need of Attention:

- Workload is NOT having an adverse impact on our ability to effectively resolve potential Nuclear Safety issues or concerns. (3.58, 12.7% negative response)

This area is addressed further in Section IV.B.12, "Adverse Effects of Workload on Nuclear Safety."

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS ER ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low NS ER ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 3.12
- Nuclear Warehouse: 3.26

The following individual DBNPS Functional Organizations provided low NS ER ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Operations Training: 3.36
- Engineering Programs: 3.40
- Reactor Engineering: 3.41

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The Assessment Team for the 2006 Independent Assessment of CAP Implementation identified Condition Report evaluation quality, thoroughness, and documentation to be an Area in Need of Attention based on the results of a review of approximately 126 CRs. They assigned the overall area of Evaluation and Resolution of Problems an Effective rating.

A few write-in comments/personnel interviews noted that recurring equipment problems are indicative of ineffective corrective actions.

IV.B.6 Timeliness of Resolution of Identified Nuclear Safety Issues or Concerns (NS TR)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of attributes related to attitudes, behaviors and practices that support the timely resolution of potential Nuclear Safety issues or concerns.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS TR

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS TR is 3.99, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following NS TR attributes have been identified as perceived Areas of Strength:

- Supervisors respond promptly to identified Nuclear Safety issues or concerns. (4.26, 97.7% positive response)
- Supervisors ensure that Nuclear Safety issues or concerns are resolved in a timely manner. (4.12, 96.1% positive response)
- Functional Organization managers respond promptly to identified Nuclear Safety issues or concerns. (4.16, 97.1% positive response)

- Functional Organization managers ensure that Nuclear Safety issues or concerns are resolved in a timely manner. (4.06, 95.7% positive response)
- Confidence that the Corrective Action Program (i.e., the Condition Report process) will ensure that potential Nuclear Safety problems are appropriately prioritized. (3.98, 95.9% positive response)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS TR ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a particularly low NS TR rating, which is characterized as Not Effective and which represents a localized Area for Improvement.

- Nuclear Plant Systems Engineering: 3.22

The following individual DBNPS Functional Organizations provided low NS TR ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Nuclear Warehouse: 3.30
- Operations Training: 3.49
- Engineering Programs: 3.50
- Reactor Engineering: 3.51

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

Write-in comments and personnel interviews indicated that:

- There are a significant number of CRs that remain open pending the completion of the associated corrective actions.
- Most concerns related to timeliness of resolution were associated with the prioritization of actions to address specific equipment problems of interest to particular organizations.

The Assessment Team for the 2006 Independent Assessment of CAP Implementation identified several Areas in Need of Attention related to the timely resolution of identified Nuclear Safety issues:

- Some Operating Experience reviews were not being completed within the 60-day expectation.
- A number of significant SCAQ items are open over 135 days.
- Corrective action implementation (CR 05-00738) was untimely and did not prevent additional issues/CRs.

IV.B.7 Continuous Improvement of Nuclear Safety Performance (NS CI)

INTRODUCTION

This NS VB&P cultural sub-metric is an integrated measure of attributes related to attitudes, behaviors and practices that support the continuous improvement of Nuclear Safety performance.

The NS CI metric includes attributes related to (1) the effectiveness of the use of industry operating experience, and (2) the effectiveness of organizational self-assessments and external/independent assessments. These two areas are also evaluated separately in Sections IV.B.10 and IV.B.11 respectively.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of NS CI

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of NS CI is 3.88, which is characterized as Effective. This rating places the DBNPS in the second quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following NS CI attributes have been identified as perceived Areas of Strength:

- Importance is placed on improving our Nuclear Safety performance. (4.18, 97.8% positive response)
- The insights and perspectives provided by our Nuclear Oversight organization and by other independent reviewers are valued and utilized to strengthen Nuclear Safety and to improve our performance. (4.09, 96.8% positive response)
- Complete, accurate and forthright information is provided to oversight, audit, independent assessment and regulatory organizations. (4.44, 98.6% positive response)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

NS CI ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low NS CI ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.78
- Nuclear Plant Systems Engineering: 3.06
- Engineering Programs: 3.21

The following individual DBNPS Functional Organizations provided low NS CI ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Reactor Engineering: 3.33
- Chemistry: 3.54

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

With respect to continuous improvement in general, the most recurring theme from the write-in comments and the personnel interviews was that, with high levels of workload and necessary overtime hours, it is very difficult to spend much time or effort on continuous improvement.

With respect to industry benchmarking, the write-in comments/personnel interviews indicated that:

- There are a wide variety of opinions on whether DBNPS is sufficiently involved in industry benchmarking activities.
  - Some feel that benchmarking is conducted primarily at the FENOC Fleet level and that the individual Sites are not sufficiently involved.
  - Many noted that there is considerable interaction with the other FENOC sites in trying to develop common/best practices. Some believe that DBNPS benchmarking is too focused on the other FENOC plants.
  - Some point to DBNPS personnel visits to other nuclear plants, participation in INPO peer assessments, participation in industry organizations and various user groups.
  - Some indicated that there is little DBNPS interaction with the B&W Owner's Group.
- Examples of benefits from industry benchmarking cited include the use of Section Integrated Performance Assessments and the Chemical Labeling Program.

A review of the DBNPS industry benchmarking database resulted in the following observations:

- Very few of the benchmarking activities resulted in an "opportunity for improvement" entry in the SAP system.
- The database did not include any B&W Owner's Group activities.

One write-in comment included an allegation that a DBNPS manager had closed out a commitment to the NRC even though the associated program had not been fully implemented. Information on this allegation was turned over to the DBNPS Employee Concerns Program representative for further evaluation.

IV.B.8 Confidence in the Corrective Action Program for Nuclear Safety Issues (CAP NS)

INTRODUCTION

This NS VB&P Topical Area measures workforce confidence in the effectiveness of the Corrective Action Program for the identification, prioritization, evaluation, effective resolution and timely resolution of Nuclear Safety issues.

Several attributes included in this Topical Area were also included, as applicable, in the NS VB&P sub-metrics of NS ID, NS ER and NS TR.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of CAP NS

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of CAP NS is 3.94, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

DBNPS Site Composite Ratings of CAP NS Attributes

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with workforce confidence in the effectiveness of the Corrective Action Program for the identification, prioritization, evaluation, effective resolution and timely resolution of Nuclear Safety issues. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the ratings. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided. In this regard, ratings provided by the NOS organization were generally less positive than those provided by the DBNPS Site Composite organization and are likely to represent a better indicator of actual performance.

- I am confident that the CAP will ensure that potential Nuclear Safety problems are identified.
  (DBNPS Rating of 4.25 – Highly Effective/Area of Strength)
  (NOS Rating of 4.33 – Highly Effective/Area of Strength)
- I am confident that the CAP will ensure that potential Nuclear Safety problems are appropriately prioritized.
  (DBNPS Rating of 3.98 – Highly Effective/Area of Strength)
  (NOS Rating of 3.90 – Highly Effective/Area of Strength)
- I am confident that the CAP will ensure that potential Nuclear Safety problems are investigated sufficiently to define corrective actions that address the root cause of the problem.
  (DBNPS Rating of 3.92 – Highly Effective/Area of Strength)
  (NOS Rating of 3.71 – Effective)
- I am confident that the CAP will ensure that potential Nuclear Safety problems are addressed in a timely manner.
  (DBNPS Rating of 3.74 – Effective)
  (NOS Rating of 3.48 – Marginally Effective/Area in Need of Attention)
- I am confident that the CAP will ensure that potential Nuclear Safety problems are resolved in an effective manner.
  (DBNPS Rating of 3.76 – Effective)
  (NOS Rating of 3.67 – Effective)

- Lack of prior responsiveness by the CAP is NOT having an adverse impact on my willingness to identify and pursue resolution of potential Nuclear Safety issues or concerns.
  (DBNPS Rating of 4.03 – Highly Effective/Area of Strength)
  (NOS Rating of 4.30 – Highly Effective/Area of Strength)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

CAP NS ratings vary amongst the individual DBNPS Functional Organizations.

Low CAP NS ratings provided by individual DBNPS Functional Organizations may be indicators of:

- Dissatisfaction with the timely and effective resolution of issues that have been identified by those organizations.
- Workload-related issues within organizations that have a high level of participation in the evaluation and resolution of Condition Reports.

The following individual DBNPS Functional Organization provided a particularly low CAP NS rating, which is characterized as Not Effective and which represents a localized Area for Improvement.

- Nuclear Warehouse: 3.23

The following individual DBNPS Functional Organizations provided low CAP NS ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Operations Training: 3.39
- Nuclear Plant Systems Engineering: 3.31
- Engineering Programs: 3.44

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

Write-in comments/personnel interviews indicated that:

- The CAP is being effectively used for the complete, accurate, and timely identification of issues. The threshold for identification of issues is appropriately low.
- A few individuals noted some confusion about when to use the CREST system and when to use SAP system for the identification of an issue. Most are aware that there is a screening committee reviewing entries into SAP to ensure that CAQ are appropriately input into the CREST system.
- NOS routinely reviews classifications made by the MRB for appropriateness.
- The conduct of effectiveness reviews for corrective actions is a specified part of the CAP for CRs that include a root cause evaluation and for other CRs when requested by the CR owner or by the Corrective Action Review Board (CARB).
- Management and others with significant involvement in the CAP process indicated that effectiveness reviews are being performed as required by the program and that they are being performed effectively.
- Some feel that NOS should perform the CAP effectiveness reviews.

The Assessment Team for the 2006 Independent Assessment of CAP Implementation:

- Rated overall CAP Implementation as Effective.
- Rated the Identification, Classification, and Categorization of CAQ as Highly Effective.
- Rated all other CAP areas examined as Effective, including follow-up on prior independent assessment findings, evaluation and resolution of problems, corrective action implementation, program trending, backlogs, results of internal assessments, and response to NRC inspections.
- Noted significant improvement in the timeliness of CR evaluations.

The Assessment Team for the 2006 Independent Assessment of CAP Implementation identified several Areas in Need of Attention, including:

- Lack of attention to the completion of the backlog of old SCAQ corrective actions. (This is an item continuing from prior assessments.) They noted that the site continued to make progress, but that the backlogged and aging Corrective Actions creates the appearance of ineffectiveness.
- Tracking and trending of repeat events.
- CR evaluation quality, thoroughness, and documentation.

IV.B.9 Confidence in the Corrective Action Program for Trending (CAP TRND)

INTRODUCTION

This NS VB&P Topical Area measures workforce confidence in the effectiveness of the Corrective Action Program for the identification, communication, effective resolution and timely resolution of adverse trends.

Several attributes included in this Topical Area were also included in the NS VB&P sub-metrics of NS ID, NS ER and NS TR.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of CAP TRND

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of CAP TRND is 3.82, which is characterized as Effective.

DBNPS Site Composite Ratings of CAP TRND Attributes

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with workforce confidence in the effectiveness of the Corrective Action Program for the identification, communication, effective resolution and timely resolution of adverse trends. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the ratings. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided. In this regard, ratings provided by the NOS organization were significantly less positive than those provided by the DBNPS Site Composite organization and are likely to represent a better indicator of actual performance.

- I am confident that the CAP will ensure that adverse trends are identified.
  (DBNPS Rating of 3.86 – Effective)
  (NOS Rating of 3.29 – Not Effective/Area for Improvement)

- I am confident that the CAP will ensure that adverse trends are communicated to appropriate personnel, when identified.
  (DBNPS Rating of 3.89 – Effective)
  (NOS Rating of 3.57 – Marginally Effective/Area in Need of Attention)
- I am confident that the CAP will ensure that adverse trends are appropriately addressed, when identified.
  (DBNPS Rating of 3.83 – Effective)
  (NOS Rating of 3.57 – Marginally Effective/Area in Need of Attention)
- I am confident that the CAP will ensure that adverse trends are addressed in a timely manner, consistent with significance.
  (DBNPS Rating of 3.72 – Effective)
  (NOS Rating of 3.43 – Marginally Effective/Area in Need of Attention)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

CAP TRND ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low CAP TRND ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Engineering Programs: 3.00
- Nuclear Warehouse: 3.06
- Nuclear Plant Systems Engineering: 3.18

The following individual DBNPS Functional Organizations provided low CAP TRND ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Training Services: 3.38
- Document Control: 3.42
- Nuclear Oversight/QC/ECP: 3.46
- Operations Training: 3.53
- Technical Training: 3.55
- Reactor Engineering: 3.56
- Chemistry: 3.57

The low CAP TRND rating provided by the Nuclear Oversight/QC/ECP organization is particularly noteworthy. The perspective of that organization is likely to represent a better indicator of actual performance than the Site Composite rating.

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The survey write-in comments and the personnel interviews indicate that:

- Some feel that trending activities and products need to be more visible to the organization.
- Some feel that resources should be dedicated for CR trending.
- Trending of CAP CRs by the line organization is conducted as part of the section IAP process. These assessments are conducted every six months.

- The line organization does not trend CRs on a Site-wide basis.
- The only continuous trending of CRs on a Site-wide basis is being performed by the DBNPS NOS organization. This is a proactive action by NOS and is not required by Site or Fleet programs.
- Based on CR trending, NOS has identified adverse trends that the current line organization trending approach has failed to identify
- At the present time, trending of SAP Notifications is not required for the section IAPs.

Documentation reviews indicate that:

- The 2006 Independent Assessment of Engineering Programs Effectiveness noted that the Equipment Reliability program has not been implemented, and found the status in 2006 to be the same as it was in 2005.
- The 2006 Independent Assessment of CAP Implementation identified the trending of equipment problems across systems as an AFI, which is a repeat finding from the 2004 and 2005 Independent Assessments. (There is a FENOC Fleet procedure under development to address this area, but it has not yet been implemented.)
- With the exception of equipment trending, the 2006 Independent Assessment of CAP Implementation rated trending of organizational/programmatic issues as Effective, based on "significant programmatic improvements" in the last year. In this regard:
  - They noted the IPA program as an Area of Strength.
  - They noted Cognitive Binning of CRs, Plant Health Reports, Snapshot Self-Assessments and Outage Trend Summary Reports as additional contributing trending tools. They acknowledged that many of these tools were new and did not have a long track record of performance. They also noted some shortcomings in these tools and their implementation.
  - They noted that there was no direct method to trend repeat events in CREST and that identification of repeat problems was dependent on the collective memory of individuals involved in the CAP.

RATING OVERRIDE BY THE ASSESSMENT TEAM

The DBNPS Site Composite Organization survey rating of CAP TRND was in the Effective range. However, the Assessment Team rated this area as Marginally Effective based on (1) information obtained through the write-in comments, personnel interviews and documentation reviews and (2) the less positive survey ratings provided by the DBNPS Nuclear Oversight organization.

In this regard, the Assessment Team identified the following Area in Need of Attention:

1. Current programs and processes have not shown a sustained ability to identify organizational/programmatic adverse trends. Trending of equipment problems across systems is also not currently being performed.

ADDITIONAL SUGGESTION FOR CONTINUOUS IMPROVEMENT

In order to provide an additional capability to detect and address potential NSC issues at an early stage of development, FENOC/DBNPS should consider CAP root-cause trending based on the safety culture component categories set forth in NRC RIS 2006-13. Such trending should also be considered for NRC Notices of Violations and Findings.

IV.B.10 Effectiveness of the Use of Operating Experience (OE)

INTRODUCTION

This NS VB&P Topical Area measures attributes related to the effectiveness of the evaluation, communication and use of both DBNPS operating experience and industry operating experience.

Several attributes included in this Topical Area were also included in the NS VB&P sub-metrics of ONS and NS CI.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of OE

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of OE is 3.80, which is characterized as Effective.

DBNPS Site Composite Ratings of OE Attributes

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with the effectiveness of the evaluation, communication and use of both DBNPS and industry operating experience. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the rating. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided for survey questions related to Site performance. In this regard, ratings provided by the NOS organization were less positive than those provided by the DBNPS Site Composite organization and are likely to represent a better indicator of actual performance.

- At our Site, we effectively evaluate significant plant events and "near misses" to ensure that root causes are determined and appropriate corrective actions are implemented to prevent recurrence.
  (DBNPS Rating of 3.98 – Highly Effective/Area of Strength)
  (NOS Rating of 3.86 – Effective)
- At our Site, we effectively evaluate and act on the operating experience of other plants in the industry to prevent the occurrence of events at our plant.
  (DBNPS Rating of 3.70 – Effective)
  (NOS Rating of 3.33 – Marginally Effective/Area in Need of Attention)
- At our Site, we ensure that significant lessons learned from both our own and industry events are communicated in a timely manner to affected personnel.
  (DBNPS Rating of 3.80 – Effective)
  (NOS Rating of 3.62 – Effective)
- At our Site, we ensure that the lessons learned from both our own and industry events are addressed, as appropriate, through changes to programs, procedures, training and equipment.
  (DBNPS Rating of 3.73 – Effective)
  (NOS Rating of 3.52 – Marginally Effective/Area in Need of Attention)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

OE ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low OE ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.75
- Reactor Engineering: 3.07
- Nuclear Plant Systems Engineering: 3.15
- Engineering Programs: 3.18

The following individual DBNPS Functional Organizations provided low OE ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Chemistry: 3.44
- Technical Training: 3.46
- Operations Training: 3.50
- Nuclear Oversight/QC/ECP: 3.58

The lower OE rating provided by the Nuclear Oversight/QC/ECP organization is particularly noteworthy. The perspective of that organization is likely to represent a better indicator of actual performance than the Site Composite rating.

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

Subsequent to the 2005 Independent Assessment of the DBNPS NSC/SCWE:

- Management communications were issued reaffirming standards and expectations for the review of DBNPS and industry OE.
- A training session on standards and expectations was conducted for Section Operating Experience Coordinators.
- A weekly status review of open operating experience evaluations at the Management Alignment and Ownership Meeting (MAOM) was instituted.

Based on information obtained from the survey write-in comments and personnel interviews:

- The DBNPS OE Program is well designed.
- The effectiveness of OE Program implementation is generally perceived by the workforce to be effective and improving.
- The effectiveness of the OE Program implementation is generally perceived by DBNPS management personnel, NOS personnel and CNRB members to be improving but in need of further improvement.
- Most feel that operating experience is being effectively communicated to the workforce. Many gave examples of how operating experience is incorporated in staff meetings, shift turnovers, training, work packages, and pre-job briefs.
- There were mixed inputs on the quality/relevancy of the OE information that is included in maintenance work packages. A few indicated that work planners are expected to include OE in all work packages and that occasionally results in non-relevant OE being included.

- Less than 20% of OE evaluations have been completed by their originally scheduled due date. This reflects a workload or workload management issue. There are some individual overdue OE evaluations with significant age.
- A relatively recent plant trip due to loss of condenser vacuum involved two missed opportunities (inadequate evaluation) to effectively use industry operating experience. (Refer to CR 2006-6003)
- The critical link in the chain for the effective use of industry operating experience is the individual performing the evaluation. The quality of an evaluation is affected by the knowledge and experience of the evaluator, the supporting information/documentation available to the evaluator and the ability of the evaluator to spend sufficient time on the evaluation (oftentimes a workload-related issue). Some perceive that performance challenges exist at this critical link in the chain.

Based on documentation reviews:

- A snapshot self-assessment (DBSS 06-14) was conducted of the DBNPS OE Program. This self-assessment focused on (1) an evaluation of Duty Team management observations of the relevancy of the operating experience information used in pre-job briefs, and (2) benchmarking of the DBNPS process against processes used by other plants in the industry that had been identified by INPO as industry leaders.
- The snapshot self-assessment concluded that:
  - The operating experience being used in pre-job briefs is relevant to the task.
  - Benchmarking of INPO recommended OE programs identified that there were several areas of particular strength in the design of the DBNPS/FENOC OE program.
  - Benchmarking identified that the DBNPS OE program was lacking in the promptness of completing confirmatory screenings, follow-up actions and evaluations. This was identified as a noteworthy item. This issue is documented in CR 2005-05780, which still has an open corrective action, and in CR 2006-7798.
- The 2006 Independent Assessment Team for CAP Implementation identified that some Operating Experience reviews were not being completed within the 60-day expectation.
- A Focused Assessment of OE Program Implementation is scheduled for late 2007.

AREA IN NEED OF ATTENTION

As a result of the Assessment Team's review of all sources of information related to the use of industry operating experience, one Area in Need of Attention was identified:

1. Continued management attention to the timeliness and effectiveness of evaluations of industry operating experience is needed.

IV.B.11 Effectiveness of Self-Assessment and Independent Assessment (SA/IA)

INTRODUCTION

This NS VB&P Topical Area measures attributes related to the effectiveness of both the conduct of and the response to organizational self-assessments and external/independent assessments.

Several attributes included in this Topical Area were also included in the NS VB&P sub-metric NS CI.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of SA/IA

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of SA/IA is 3.83, which is characterized as Effective.

DBNPS Site Composite Ratings of SA/IA Attributes

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with the effectiveness of the conduct and use of organizational self-assessment and external/independent assessments. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the rating. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided for survey questions related to Site performance. In this regard, ratings provided by the NOS organization were less positive than those provided by the DBNPS Site Composite organization and are likely to represent a better indicator of actual performance.

- At our Site, we have effective processes in place to self-identify organizational weaknesses related to Nuclear Safety performance.
  (DBNPS Rating of 3.78 – Effective)
  (NOS Rating of 3.57 – Marginally Effective/Area in Need of Attention)
- At our Site, we are effective at addressing and resolving self-identified areas of organizational weakness related to Nuclear Safety performance.
  (DBNPS Rating of 3.72 – Effective)
  (NOS Rating of 3.48 – Marginally Effective/Area in Need of Attention)
- During the past year, we have improved our effectiveness in identifying and resolving problems affecting Nuclear Safety or safe plant operations before the problems become self-revealing or are identified to us by others.
  (DBNPS Rating of 3.64, 92% Positive Response – Significant Improvement)
  (NOS Rating of 3.62, 95% Positive Response – Significant Improvement)
- Within my Functional Organization, we perform line organization self-assessments that are effective in improving our Nuclear Safety performance.
  (DBNPS Rating of 3.62 – Effective)
- Within my Functional Organization, we implement self-assessment recommendations in a timely manner, consistent with their significance. (DBNPS Rating of 3.63 – Effective)
- During the past year, the quality and value of our self-assessments and Section Integrated Performance Assessments have improved through the use of increased rigor and criticalness in the conduct of those assessments.
  (DBNPS Rating of 3.61, 90% Positive Response – Significant Improvement)
  (NOS Rating of 3.33, 81% Positive Response – Notable Improvement)

- Within my Functional Organization, we value and use the insights and perspectives provided by our Nuclear Oversight organization and by other independent reviewers to strengthen Nuclear Safety and to improve performance.
  (DBNPS Rating of 4.09 – Highly Effective/Area of Strength)
- At our Site, we are effective at addressing and resolving areas of organizational weakness related to Nuclear Safety performance that have been identified by the DBNPS/FENOC Nuclear Oversight organizations.
  (DBNPS Rating of 3.76 – Effective)
  (NOS Rating of 3.75 – Effective)
- At our Site, we are effective at addressing and resolving areas of organizational weakness related to Nuclear Safety performance that have been identified by independent reviewers.
  (DBNPS Rating of 3.77 – Effective)
  (NOS Rating of 3.75 – Effective)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

SA/IA ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low SA/IA ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.85
- Nuclear Plant Systems Engineering: 2.93
- Engineering Programs: 3.04
- Reactor Engineering: 3.20

The following individual DBNPS Functional Organizations provided low SA/IA ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Chemistry: 3.40
- Operations Training: 3.50

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

Subsequent to the 2005 Independent Assessment of the DBNPS NSC/SCWE:

- Management communications were issued reaffirming standards and expectations for the conduct of section Integrated Performance Assessments (IPAs).

Based on the write-in comments and the personnel interviews:

- The quality of section IPAs are seen by most to be improving.
- SAP Notifications are not required to be reviewed as part of the section IPAs.
- The timeliness of resolving issues identified in IPAs is seen to be in need of improvement.
- Communication of the results of IPAs and of other self-assessments to the workforce in the assessed organizations is perceived to be generally lacking.
- There are currently no Performance Indicators (PIs) being used to measure the criticalness of self-assessments.
- FENOC Fleet personnel indicated that:

  - PIs which would measure self assessments for issues identified and for timeliness in resolving the identified issues are in the process of being developed.
  - They also indicated that the DBNPS Performance Improvement supervisor would be assigned responsibility for grading snapshot assessments starting in 2007.
- There are multiple indications (INPO, NOS, and 4Cs surveys) that the Management Observation program is not sufficiently effective. There is no apparent owner of this program to champion its effectiveness and continued improvement.
- Design Engineering is apparently not scheduled for a focused assessment until January 2008; some feel that it should be looked at sooner than that.

Based on documentation reviews:

- Reviews of the adequacy and self-criticalness of section IPAs were conducted in group sessions by the DNBPS management team. This approach was intended to ensure alignment of the management team on standards and expectations. In this regard, a few of the assessments performed for the November 2005 to April 2006 time period were initially determined by the management team to not meet standards and expectations. Those assessments were augmented, resubmitted, reviewed and subsequently approved by the management team.
- Section IPAs were reviewed for the purpose of identifying potential cross-cutting issues.
- The 2006 Independent Assessment Team for CAP Implementation:
  - Concluded that the internal assessments of the CAP, including oversight audits, self-assessments, and CNRB meetings were effective in identifying and correcting most of the CAP weaknesses internally.
  - Identified a few Areas in Need of Attention related to the organization's responses to issues identified through internal assessments.
  - Noted that there was no "master" topic list from which to judge the comprehensiveness of self-assessment coverage over the long term.
  - Noted that an effectiveness review of the self-assessment process had not been conducted during the past two years – something they considered to be an industry best practice.
- The 2006 Independent Assessment Team for Engineering Programs Effectiveness:
  - Noted that there were no focused self-assessments directly related to engineering scheduled in 2006.
  - Concluded that other types of self-assessments (snapshots, IPAs, and Fleet Oversight) appeared to be critical, resulting in the identification of areas to improve.
  - Noted that a number of items identified by assessments are either still open with no due dates or are overdue.

IV.B.12 Adverse Impacts of Workload on Nuclear Safety (WKLD NS)[29]

INTRODUCTION

This NS VB&P Topical Area measures potential adverse impacts of workload on ability and willingness to identify potential Nuclear Safety issues and on ability to effectively resolve identified Nuclear Safety issues.

Survey ratings of WKLD NS are primarily used to identify perceived workload-related issues in individual Functional Organizations.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

Overall DBNPS Site Composite Ratings

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of WKLD NS is 3.68, which is characterized as Effective. This rating places DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

The DBNPS Site Composite ratings of the WKLD NS sub-metrics are:

- Adverse impact of workload on willingness to identify a potential Nuclear Safety issue or concern – 3.81, which is characterized as Effective.
- Adverse impact of workload on ability to identify a potential Nuclear Safety issue or concern – 3.65, which is characterized as Marginally Effective/Area in Need of Attention.
- Adverse impact of workload on ability to effectively resolve identified Nuclear Safety issues or concerns – 3.58, which is characterized as Marginally Effective/Area in Need of Attention.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

WKLD NS ratings vary amongst the individual DBNPS Functional Organizations.

Low WKLD NS ratings provided by individual DBNPS Functional Organizations are considered to be indicators of workload-related issues within those organizations.

The following individual DBNPS Functional Organizations provided particularly low WKLD NS ratings, which are characterized as Not Effective and localized Areas for Improvement.

- Nuclear Warehouse: 2.70
- Reactor Engineering: 2.92
- Operations Training: 3.04
- Nuclear Plant Systems Engineering: 3.06
- Technical Training: 3.25
- Rapid Response Engineering: 3.27
- Chemistry: 3.27
- Nuclear ALARA/RP Services: 3.28

[29] Information of adverse impacts of workload not directly related to Nuclear Safety is provided in Attachment __ to this Report, "Evaluation of the DBNPS General Culture & Work Environment".

The following individual DBNPS Functional Organizations provided low WKLD NS ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Engineering Programs: 3.31
- Maintenance Work Planning: 3.31
- Electrical/I&C Design Engineering: 3.41
- Shift Operations: 3.44
- Emergency Response: 3.45

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The survey write-in comments and personnel interviews indicated that:

- Issues related to the adequacy of staffing levels are a significant contributor to perceptions about the adverse effects of workload on Nuclear Safety and on quality of work. Staffing-related issues, which are more strongly held in some Functional Organizations than in others, are identified in Section IV.B.2 and are not repeated here.
- Work management and prioritization issues are a significant contributor to perceptions related to the adverse effects of workload on Nuclear Safety and quality of work, particularly within the Site Engineering organization.
- Resource sharing with other plants in the FENOC Fleet is perceived by many to be having a significant adverse impact on the workload of those remaining at DBNPS.
- The influx of new programs, processes and associated administrative requirements has resulted in additional workload.
- Some feel that their organization is overwhelmed with all that they need to do and that they lack the resources to consistently perform to the new level of standards and expectations.

Documentation reviews indicated that:

- The Independent Assessment of Engineering Programs Effectiveness (COIA-ENG-2006) noted that Engineering was transitioning form using EWMS to SAP, and that this left them with no viable means for scheduling workload. Management of Engineering Workload was identified as an Area in Need of Attention.

RATING OVERRIDE BY THE ASSESSMENT TEAM

The DBNPS Site Composite Organization survey rating of WKLD NS was in the Effective range. However, the Assessment Team rated this area as Marginally Effective due to the number of individual DBNPS Functional Organizations that provided ratings of Not Effective or Marginally Effective. In this regard, the Assessment Team identified the following Area for Improvement:

1. The DBNPS Site Composite Organization rating of the NS VB&P attribute "Functional Organization staffing levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations" was Not Effective. Thirteen individual DBNPS Functional Organizations provided low ratings of the "Adverse Effects of Workload on Nuclear Safety" metric: eight were Not Effective and five were Marginally Effective. These organizations are identified in Section IV.B.12. These low ratings represent indicators of localized staffing, workload and/or workload management related issues that are perceived to be having an adverse impact on Nuclear Safety performance in those organizations.

IV.B.13 Change Management (CM)

INTRODUCTION

This cultural metric measures attributes related to the effectiveness of change management.

Change Management is a metric included in SYNERGY's cultural model of the General Culture & Work Environment. For reporting purposes, it has been included under NS VB&P cultural metrics since Change Management is identified as a NSC component in NRC RIS 2006-13.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of CM

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of CM is 3.37, which is characterized as Marginally Effective and which represents an Area in Need of Attention.

DBNPS Site Composite Ratings of CM Attributes

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with the effectiveness of the change management. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the rating.

- Within my Functional Organization, we are effective in planning and implementing changes in the way we do business.
  (DBNPS Rating of 3.37 – Marginally Effective/Area in Need of Attention).
- Supervisors and managers in my Functional Organization obtain workforce input before implementing significant changes.
  (DBNPS Rating of 3.34 – Marginally Effective/Area in Need of Attention)
- At our Site, management effectively communicates the bases for changes in programs, policies and procedures.
  (DBNPS Rating of 3.37 – Marginally Effective/Area in Need of Attention)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

CM ratings vary amongst the individual DBNPS Functional Organizations.

Ten individual DBNPS Functional Organizations provided particularly low CM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.31
- Reactor Engineering: 2.34
- Nuclear Warehouse: 2.63
- Operations Training: 2.65
- Engineering Programs: 2.70
- Technical Training: 2.89
- Shift Operations: 2.99
- Document Control: 3.03
- Electrical Systems Engineering: 3.09
- Chemistry: 3.11

Eight individual DBNPS Functional Organizations provided low CM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Mechanical Maintenance: 3.24
- Engineering Analysis: 3.29
- Supply Systems Engineering: 3.29
- Nuclear ALARA/RP Services: 3.32
- Electrical/I&C Design Engineering: 3.33
- Maintenance Services: 3.33
- Electrical Maintenance: 3.36
- Site Protection/Security: 3.38

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The write-in comments related to Change Management included the following recurring themes. The majority of these comments were directed at the efforts to implement common fleet procedure and processes.

- There is inadequate assessment of resource requirements associated with procedural/process changes leading to more work with insufficient resources.
- There is inadequate involvement and input from working level individuals to properly review the impact of changes at the worker level.
- There is insufficient training and communication related to the rollout of procedural/process changes to ensure an understanding of the changes and to facilitate effective implementation.
- The rate of change of procedures/processes (and organizational changes) is too rapid to allow effective implementation.
- The lack of common positions/responsibilities at all fleet sites and common timing for rollout is inhibiting the effectiveness of implementing common fleet processes.
- There is a lack of "complete" engagement on the part of the workforce in embracing changes.

Information obtained from personnel interviews included the following insights:

- The majority of the interviewees indicated that change management is often not implemented well. The development and rollout of common corporate procedures and processes were the areas most commonly cited as not being performed well.
- One manager characterized the situation as "we are in a catch-up mode with respect to change management".
- Change management plans do not sufficiently address the workload impacts associated with implementing the changes. In some cases, the change management plans have not been effectively implemented. In other cases, such as the transfer of trending program responsibilities to the FENOC Fleet organization, the changes resulted in a significant setback to the effectiveness the Site program.
- The pace of change has been high over the past few years, primarily due to FENOC Fleet initiatives to develop and implement processes and programs that are common across the Fleet.
- Some major changes were perceived to have been implemented without a Change Management plan (e.g., the NOS organization's change in approach for performance assessment and audits).

- Some changes are currently being evaluated and developed at the Fleet level without awareness at the Site level; for example, changes to Self-Assessment Programs:
  - Change management issue with the revision to NOB- LP- 2001. Site personnel are not aware of an associated change management plan and are not sure of the intent of several changed areas (e.g., Fleet benchmarking).
  - A FENOC Fleet performance assessment group has been created and will be conducting site assessments. Individuals responsible for site self-assessments were not aware of the group or areas to be assessed at their site.
  - FENOC Fleet group is in the process of developing (1) performance indicators which would measure self assessments for issues identified and timeliness of resolving the issues, and (2) a process for grading Snap Shot assessments. Cognizant Site individuals interviewed were not aware of the corporate initiatives for performance indicators.

Based on a review of documentation related to Change Management:

- The governing Fleet procedure for Change Management appears to be appropriate.
- The Assessment Team was unable to make a determination on the appropriateness of the resulting Change Management Plans due to the fact that only one Plan was provided in response to the Team's request for documents.
- There has not been a recent assessment of the effectiveness of Change Management.

IV.C SAFETY CONSCIOUS WORK ENVIRONMENT (SCWE)

INTRODUCTION

SCWE Cultural Metrics

This Key Cultural Metric is a measure of the Safety Conscious Work Environment based upon the integration of the ratings of the following cultural sub-metrics:

- SCWE Indicators & Precursors of a Potentially Chilled Work Environment
- SCWE Demonstrated Willingness to Take Appropriate Action

The following additional cultural metrics, while reported separately, are also embedded in the SCWE sub-metrics:

- SCWE Indicators & Precursors of a Potentially Chilled Work Environment
  - The influence of the general Site environment on the SCWE
  - The influence of peers on the SCWE
  - The influence of supervision on the SCWE
  - The influence of Functional Organization management on the SCWE
  - The influence of Site senior management on the SCWE
- SCWE Demonstrated Willingness to Take Appropriate Action
  - Willingness to inform supervision and/or document potential Nuclear Safety issues or concerns
  - Willingness to escalate a potential Nuclear Safety issue or concern to management

Other SCWE-Related Information

DBNPS processes and activities for preventing, detecting and mitigating perceptions of retaliation were included as a SCWE-related Topical Area in this assessment. This area is identified as a component of the Nuclear Safety Culture in NRC RIS 2006-13. The assessment of this SCWE-related Topical Area focused on the processes and activities of the DBNPS SCWE Review Team (SCWERT). This area was primarily evaluated through personnel interviews and documentation reviews.

The following selected areas of leadership, management and supervisory behaviors and practices that are considered to be indirectly related to the SCWE were evaluated through the 2006 Independent Assessment survey. The results of this evaluation are presented in Attachment 8 to this Report.

- Quality of Communications with the Workforce
  - By supervision
  - By Functional Organization management
  - By Site senior management
- Environment of Trust & Mutual Respect
  - Between supervision and the workforce
  - Between Functional Organization management and the workforce
  - Between Site senior management and the workforce

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of the SCWE

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of the SCWE is 4.48, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Approximate trending information[30] for the SCWE rating indicates Notable Improvement (+4%) over the past year. Approximate trends are best characterized as representing perceptions of current momentum.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

Overall SCWE ratings vary amongst the individual DBNPS Functional Organizations. Information on these ratings is provided in Attachment 2 to this Report.

The following individual DBNPS Functional Organizations provided particularly low SCWE ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.80; Approximate trend – Steady
- Nuclear Plant Systems Engineering: 3.84; Approximate trend – Notable Decline (-4%)

The following individual DBNPS Functional Organization provided a low SCWE rating, which is characterized as Effective. However, the approximate trend in the SCWE rating provided by this organization is characterized as a very significant decline, which represents a localized Area in Need of Attention

- Engineering Programs: 4.10; Approximate trend – Very Significant Decline (-11%)

ADDITIONAL INFORMATION FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

There were twenty-three survey write-in comments related to the SCWE:

- Three were positive in nature and referred to a good environment for identification, discussion and pursuit of potential Nuclear Safety issues or concerns.
- Four referred to perceptions of inappropriate SCWE-related behaviors of previous supervisors or managers who are no longer at DBNPS. (legacy issues)
- Two referred to perceptions of retaliation associated with decisions made during the 2004 Reorganization. (legacy issues)
- One referred to perceptions of retaliation associated with a reassignment/demotion.
- Two referred to SCWE-related concerns associated with the promotion of an individual.
- Eleven described situations that were perceived as not being fully supportive of a SCWE. These ranged from perceived negative reactions for having written CRs to perceived monetary-based group retaliation in the form of the loss of "ad hoc" bonuses (to compensate for significant overtime hours in support of RFO 14) due to the failure to meet RFO 14 cost and schedule goals.

[30] Approximate trending information for the SCWE was based on differences in ratings of "the overall Site environment as it affects individual willingness and likelihood of reporting potential Nuclear Safety issues" as perceived "today" and "approximately a year ago."

A few of these write-in comments were considered to potentially represent an ongoing situation adversely affecting the SCWE. These situations were discussed in confidence with DBNPS ECP personnel and turned over to them for further evaluation.

Personnel interviewed indicated that individuals would raise and pursue a potential Nuclear Safety if they identified one.

In the course of conducting the personnel interviews, the Assessment Team learned of five situations that had potential SCWE-related implications. These situations were discussed in confidence with DBNPS ECP personnel and turned over to them for further evaluation.

- Four of these situations were related to personnel actions and associated perceptions of potential retaliation. Two of these situations occurred several years ago; two were more recent. DBNPS ECP personnel reviewed the SCWERT files related to three of these situations and informed the Assessment Team that they had concluded that (1) the personnel actions taken were thoroughly reviewed by the SCWERT and (2) the bases for the actions were identified and well supported. The DBNPS ECP personnel were previously aware of the fourth situation, which involved a failure to follow appropriate procedures, and indicated that both corrective and remedial actions had been taken.
- The fifth situation involved an allegation of improper Nuclear Safety related behavior by a manager several years ago. After a review of their files, DBNPS ECP personnel informed the Assessment Team that an independent investigation of the allegation had been conducted and that the allegation was determined to be unsubstantiated.

Based on interviews with personnel within the organizations potentially affected by these five situations, the Assessment Team has concluded that:

- There appear to be some lingering trust issues associated with several of these situations.
- All of those interviewed indicated that this would not affect their willingness to identify a potential Nuclear Safety issue or concern.

IV.C.1 SCWE Indicators & Precursors of a Potentially Chilled Work Environment (SCWE I&P)

INTRODUCTION

This key cultural sub-metric is a measure of Indicators & Precursors of a Potentially Chilled Work Environment based upon the integration of the ratings of the following cultural metrics:

- The influence of the general Site environment on the SCWE
- The influence of peers on the SCWE
- The influence of supervision on the SCWE
- The influence of Functional Organization management on the SCWE
- The influence of Site senior management on the SCWE

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of SCWE I&P

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of SCWE I&P is 4.33, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

SCWE I&P ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a particularly low SCWE I&P rating, which is characterized as Not Effective and which represents a localized Area for Improvement.

- Nuclear Plant Systems Engineering: 3.69

The following individual DBNPS Functional Organizations provided lower SCWE I&P ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Nuclear Warehouse: 3.92
- Engineering Programs: 3.93

IV.C.1.a Influence of the General Site Environment on the SCWE (I&P SITE)

INTRODUCTION

This cultural metric is a measure of Indicators & Precursors of a Potentially Chilled Work Environment associated with the General Site Environment. SCWE I&P attributes that are not directly associated with the influence of peers, supervision or management are included in this metric.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of I&P SITE

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of I&P SITE is 4.18, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following I&P SITE attributes have been identified as perceived Areas of Strength:

- I have received adequate training on the FENOC Safety Conscious Work Environment Policy. (4.54, 99.7% positive response)
- Raising and pursuing resolution of potential Nuclear Safety issues or concerns is favorably received at our Site. (4.23, 98.6% positive response)
- Retaliation against individuals for raising or pursuing potential Nuclear Safety issues or concerns is not tolerated at our Site. (4.18, 95.7% positive response)
- The overall Site environment as it affects my willingness and likelihood of reporting potential Nuclear Safety issues. (4.17, 97.1% positive response)
- Within my Functional Organization, we are willing to self-identify our own errors. (4.16, 98.0% positive response)
- At our Site, we encourage open, candid discussion and debate when Nuclear Safety matters are being evaluated. (4.06, 95.5% positive response)
- The 2006 Independent Assessment survey included a "Yes/No" question related to knowledge of someone else having received a negative reaction for raising an issue or concern related to Nuclear Safety during the past year. The percentage of survey respondents who provided a "Yes" response to this survey question was 4.9%. This is by far the lowest % in SYNERGY's industry database[31].

Areas for Improvement

Based on the DBNPS Site Composite ratings, the following I&P SITE attribute has been identified as a perceived Area for Improvement:

- Performance reviews, financial rewards, promotions, personnel recognition and personnel sanctions foster and reinforce attitudes and behaviors that are consistent with a strong Nuclear Safety Culture. (2.81, 38.5% negative response)

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

[31] The industry mean is 18.0%.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

I&P SITE ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low I&P SITE ratings, which are characterized as Not Effective and which represent localized Areas for Improvement:

- Nuclear Plant Systems Engineering: 3.36
- Engineering Programs: 3.49
- Reactor Engineering: 3.58
- Nuclear Warehouse: 3.60

The following individual DBNPS Functional Organization provided a lower I&P SITE rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Nuclear ALARA/RP Services: 3.82

The 2006 Independent Assessment survey included a "Yes/No" question related to knowledge of someone else having received a negative reaction for raising an issue or concern related to Nuclear Safety during the past year. The following individual DBNPS Functional Organizations had a high percentage[32] of survey respondents who provided a "Yes" response to this survey question[33]:

- Engineering Programs: 29%
- Nuclear ALARA/RP Services: 25%
- Reactor Engineering: 20%

It is suggested that DBNPS management consider this information in the context of the other SCWE-related information provided in this Report.

[32] It should be noted that, in some cases, due to the size of an organization a high negative response percentage may equate to a small number of individuals. This should be taken into consideration when determining appropriate management action. Nonetheless, when it comes to the SCWE, even a small number of personnel providing negative responses may be an indicator of a potential problem.

[33] Having knowledge of someone who has received a negative response from supervision or management for raising an issue or concern related to Nuclear Safety does not necessarily imply that the recipient of the negative reaction is within the organization that has such knowledge.

IV.C.1.b Influence of Peers on the SCWE (I&P PEERS)

INTRODUCTION

This cultural metric is a measure of Indicators & Precursors of a Potentially Chilled Work Environment that are associated with the influence of peers.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of I&P PEERS

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of I&P PEERS is 4.61, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following I&P PEERS attributes have been identified as perceived Areas of Strength:

- Concerns about receiving a negative reaction from my peers are NOT currently having an adverse impact on my willingness to raise or pursue a potential Nuclear Safety issue or concern. (4.26, 97.7% positive response)
- The 2006 Independent Assessment survey included a "Yes/No" question related to personal experience of receiving, during the past year, a negative reaction from peers for having raised or pursued an issue or concern related to Nuclear Safety. The percentage of survey respondents who provided a "Yes" response to this survey question was 1.0%. This is the lowest % in SYNERGY's industry database[34].

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

I&P PEERS ratings vary amongst the individual DBNPS Functional Organizations.

The 2006 Independent Assessment survey included a "Yes/No" question related to personal experience of receiving, during the past year, a negative reaction from peers for having raised or pursued an issue or concern related to Nuclear Safety. The following individual DBNPS Functional Organizations had a high percentage of survey respondents who provided a "Yes" response to this survey question:

- None

[34] The industry mean is 5.1%.

IV.C.1.c Influence of Supervision on the SCWE (I&P SPVN)

INTRODUCTION

This cultural metric is a measure of Indicators & Precursors of a Potentially Chilled Work Environment that are associated with the influence of supervision.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of I&P SPVN

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of I&P SPVN is 4.56, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following I&P SPVN attributes have been identified as perceived Areas of Strength:

- Individuals in my Functional Organization are genuinely encouraged by supervision and management to identify and pursue resolution of potential Nuclear Safety issues or concerns. (4.35, 98.0% positive response)
- Raising and pursuing resolution of potential Nuclear Safety issues or concerns is favorably received by my immediate supervisor. (4.46, 98.6% positive response)
- Supervisors within my Functional Organization value individuals who identify and pursue resolution of potential Nuclear Safety issues or concerns. (4.16, 96.6% positive response)
- Supervisors and managers in my Functional Organization are supportive of individuals who feel the need to pursue resolution of potential Nuclear Safety issues or concerns by taking the matter further up the management chain. (4.20, 96.9% positive response)
- Concerns about receiving a negative reaction from my supervision are NOT currently having an adverse impact on my willingness to raise or pursue a potential Nuclear Safety issue or concern. (4.18, 96.0% positive response)
- The 2006 Independent Assessment survey included a "Yes/No" question related to having personally experienced, during the past year, a negative reaction from his/her supervisor for having raised or pursued an issue or concern related to Nuclear Safety. The percentage of survey respondents who provided a "Yes" response to this survey question was 1.7%. This is the lowest % in SYNERGY's industry database[35].

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

[35] The industry mean is 6.3%.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

I&P SPVN ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a low I&P SPVN rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Nuclear Plant Systems Engineering: 3.83

The 2006 Independent Assessment survey included a "Yes/No" question related to personal experience of receiving, during the past year, a negative reaction from his/her supervisor for having raised or pursued an issue or concern related to Nuclear Safety. The following individual DBNPS Functional Organizations had a high percentage[36] of survey respondents who provided a "Yes" response to this survey question:

- Reactor Engineering: 20%
- Nuclear Plant Systems Engineering: 14%

It is suggested that DBNPS management consider this information in the context of the other SCWE-related information provided in this Report.

[36] It should be noted that, in some cases, due to the size of an organization a high negative response percentage may equate to a small number of individuals (in many cases, a single individual). This should be taken into consideration when determining appropriate management action. Nonetheless, when it comes to the SCWE, even a small number of personnel providing negative responses may be an indicator of a potential problem.

IV.C.1.d Influence of Functional Organization Management on the SCWE (I&P FO MGMT)

INTRODUCTION

This cultural metric is a measure of Indicators & Precursors of a Potentially Chilled Work Environment that are associated with the influence of Functional Organization management.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of I&P FO MGMT

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of I&P FO MGMT is 4.44, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following I&P FO MGMT attributes have been identified as perceived Areas of Strength:

- Individuals in my Functional Organization are genuinely encouraged by supervision and management to identify and pursue resolution of potential Nuclear Safety issues or concerns. (4.35, 98.0% positive response)
- Raising and pursuing resolution of potential Nuclear Safety issues or concerns is favorably received by management in my Functional Organization. (4.30, 97.8% positive response)
- There is an open door to pursue resolution of potential Nuclear Safety issues or concerns through the management chain, if necessary. (4.21, 96.2% positive response)
- Supervisors and managers in my Functional Organization are supportive of individuals who feel the need to pursue resolution of potential Nuclear Safety issues or concerns by taking the matter further up the management chain. (4.20, 96.9% positive response)
- The 2006 Independent Assessment survey included a "Yes/No" question related to having personally experienced, during the past year, a negative reaction from his/her management for having raised or pursued an issue or concern related to Nuclear Safety. The percentage of survey respondents who provided a "Yes" response to this survey question was 3.2%. This is the lowest % in SYNERGY's industry database[37].

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

[37] The industry mean is 8.1%.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

I&P FO MGMT ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a particularly low I&P FO MGMT rating, which is characterized as Not Effective and which represents a localized Area for Improvement:

- Nuclear Plant Systems Engineering: 3.66

The following individual DBNPS Functional Organizations provided low I&P FO MGMT ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Nuclear Warehouse: 3.82
- Engineering Programs: 3.90

The 2006 Independent Assessment survey included a "Yes/No" question related to personal experience of receiving, during the past year, a negative reaction from his/her management for having raised or pursued an issue or concern related to Nuclear Safety. The following individual DBNPS Functional Organizations had a high percentage[38] of survey respondents who provided a "Yes" response to this survey question:

- Nuclear Plant Systems Engineering: 14%
- Engineering Programs: 14%
- Nuclear Supply Systems Engineering: 14%

It is suggested that DBNPS management consider this information in the context of the other SCWE-related information provided in this Report.

[38] It should be noted that, in some cases, due to the size of an organization a high negative response percentage may equate to a small number of individuals (in many cases, a single individual). This should be taken into consideration when determining appropriate management action. Nonetheless, when it comes to the SCWE, even a small number of personnel providing negative responses may be an indicator of a potential problem.

IV.C.1.e Influence of Site Senior Management on the SCWE (I&P SR MGMT)

INTRODUCTION

This cultural metric is a measure of Indicators & Precursors of a Potentially Chilled Work Environment that are associated with the influence Site senior management.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of I&P SR MGMT

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of I&P SR MGMT is 4.41, which is characterized as Highly Effective.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following I&P SR MGMT attributes have been identified as perceived Areas of Strength:

- There is an open door to pursue resolution of potential Nuclear Safety issues or concerns through the management chain, if necessary. (4.21, 96.2% positive response)
- Raising and pursuing resolution of potential Nuclear Safety issues or concerns is favorably received by Site senior management. (4.20, 96.3% positive response)
- The 2006 Independent Assessment survey included a "Yes/No" question related to having personally experienced, during the past year, a negative reaction from his/her management for having raised or pursued an issue or concern related to Nuclear Safety. The percentage of survey respondents who provided a "Yes" response to this survey question was 2.4%.

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

I&P SR MGMT ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low I&P SR MGMT ratings, which are characterized as Not Effective and which represent localized Areas for Improvement:

- Nuclear Plant Systems Engineering: 3.60
- Nuclear Warehouse: 3.75
- Engineering Programs: 3.78

The following individual DBNPS Functional Organizations provided low I&P SR MGMT ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Nuclear ALARA/RP Services: 3.80
- Operations Training: 3.92

The 2006 Independent Assessment survey included a "Yes/No" question related to personal experience of receiving, during the past year, a negative reaction from his/her management for having raised or pursued an issue or concern related to Nuclear Safety. The following individual DBNPS Functional Organizations had a high percentage[39] of survey respondents who provided a "Yes" response to this survey question:

- Nuclear ALARA/RP Services: 25%
- Nuclear Plant Systems Engineering: 14%
- Engineering Programs: 14%
- Nuclear Supply Systems Engineering: 14%

It is suggested that DBNPS management consider this information in the context of the other SCWE-related information provided in this Report.

[39] It should be noted that, in some cases, due to the size of an organization a high negative response percentage may equate to a small number of individuals (in many cases, a single individual). This should be taken into consideration when determining appropriate management action. Nonetheless, when it comes to the SCWE, even a small number of personnel providing negative responses may be an indicator of a potential problem.

IV.C.2 SCWE Demonstrated Willingness to Take Appropriate Action (SCWE DWTA)

INTRODUCTION

This key cultural sub-metric is a measure of Demonstrated Willingness to Take Appropriate Action based upon the integration of the ratings of the following cultural metrics:

- Willingness to inform supervision and/or document potential Nuclear Safety issues or concerns
- Willingness to escalate a potential Nuclear Safety issue or concern to management

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of SCWE DWTA

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of SCWE DWTA is 4.53, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

SCWE DWTA ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low SCWE DWTA ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 3.69
- Nuclear Plant Systems Engineering: 3.99

The following individual DBNPS Functional Organization provided a low SCWE DWTA rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Operations Training: 4.16

IV.C.2.a Willingness to Inform (DWTA INF)

INTRODUCTION

This cultural metric is a measure of individual willingness to inform supervision or to document a potential Nuclear Safety issue or concern.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of DWTA INF

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of DWTA INF is 4.62, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following DWTA INF attribute has been identified as a perceived Area of Strength:

- If I identified a potential Nuclear Safety issue or concern, I would inform my supervisor and/or document the issue or concern by initiating a Condition Report. (4.62, 99.0% positive response)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

DWTA INF ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a particularly low DWTA INF rating, which is characterized as Not Effective and which represents a localized Area for Improvement:

- Nuclear Warehouse: 3.75

IV.C.2.b Willingness to Escalate (DWTA ESC)

INTRODUCTION

This cultural metric is a measure of individual willingness to escalate a potential Nuclear Safety issue or concern further up the management chain.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of DWTA ESC

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of DWTA ESC is 4.27, which is characterized as Highly Effective. This rating places the DBNPS near the top of the second quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following DWTA ESC attribute has been identified as a perceived Area of Strength:

- If I identified a potential Nuclear Safety issue or concern and was not satisfied with my supervisor's response, I would take the matter further up the management chain. (4.26, 95.4% positive response)
- If I identified a degraded condition that could adversely affect Nuclear Safety or safe plant operations and was not satisfied that the condition was being corrected in a timely or effective manner, I would take my concern further up the management chain. (4.34, 95.4% positive response)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

DWTA ESC ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low DWTA ESC ratings, which are characterized as Not Effective and which represent localized Areas for Improvement:

- Nuclear Plant Systems Engineering: 3.11
- Nuclear Warehouse: 3.50
- Engineering Programs: 3.76
- Operations Training: 3.85
- Shift Operations: 3.85

Low DWTA ESC ratings may be indicators of lack of trust in supervision and/or management. Shift Operations personnel frequently provide lower ratings of DWTA ESC because they believe that their Shift Supervision and Management are highly knowledgeable of the significance of identified issues or concerns.

IV.C.3: Preventing, Detecting and Mitigating Perceptions of Retaliation (SCWE PDM)[40]

INTRODUCTION

The assessment of this SCWE-related Topical Area focused primarily on the processes and activities of the DBNPS SCWE Review Team (SCWERT), which are intended to prevent, detect and mitigate perceptions of retaliation. This area evaluated primarily through personnel interviews and documentation reviews.

RELATED SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Ratings of SCWE PDM Attributes

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with workforce confidence in the effectiveness of the DBNPS processes and activities for preventing, detecting and mitigating perceptions of retaliation. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the ratings.

- I am confident that I can raise or pursue potential Nuclear Safety issues or concerns without fear of retaliation. (4.22, 94.7% positive response – Effective)
- I am confident that effective methods are in place at our Site to detect and prevent retaliation against individuals for raising or pursuing potential Nuclear Safety issues or concerns. (3.91, 93.1% positive response – Effective)
- I believe that, if someone in management made a non-conservative decision, I could challenge that decision without fear of retaliation.
  (3.87, 90.4% positive response – Effective)

INFORMATION FROM DOCUMENTATION REVIEWS AND PERSONNEL INTERVIEWS

SCWERT

The charter, procedures and controls governing the activities of the SCWERT were reviewed and then discussed in detail with SCWERT members. These procedures and controls were determined to be appropriate for the review of personnel actions that could potentially involve or be perceived as retaliatory actions.

SCWERT members indicated that they very thorough in conducting reviews to ensure that appropriate personnel actions were taken, including ensuring that mitigating actions were taken to prevent or minimize a potential chilling effect resulting from any personnel actions being taken. However, due to the unavailability of requested documentation[41], the Assessment Team

[40] This SCWE-related Topical Area is not typically assessed separately in SYNERGY's cultural assessments. It has been assessed separately in the 2006 DBNPS cultural assessment because SCWE PDM is identified as a separate component of the NSC in NRC RIS 2006-13.

[41] When the Assessment Team requested to review SCWERT/personnel action files in order to conduct an independent evaluation of the comprehensiveness of SCWERT reviews and of examples of mitigating actions that had been taken, it was informed that FENOC does not maintain detailed documentation associated with the SCWERT reviews. The documentation that is maintained for SCWERT files consists of a SCWERT log maintained by ECP personnel. This log identifies the following information: Date on which the SCWERT review was performed, Action, Result, Subject, Chairman, Members, Presenters and a code type for the action taken. The SCWERT members identified that information related to personnel performance is maintained by supervisors/managers in individual personnel working files and by Human Resources in personnel files.

was unable to conduct an independent assessment of documented evidence supporting the effectiveness of SCWERT reviews and associated actions taken.

The Assessment Team was provided information on a new, recently-implemented FENOC process designed to detect, analyze and address any potential adverse trends in employee and contractor issues. This process is implemented by the Workforce Advisory Committee (WAC). The Vice-President of FENOC Nuclear Oversight is the WAC chair and the committee includes representatives from the following organizations: Fleet Personal Safety, Nuclear Oversight, FirstEnergy Legal Services, Human Resources, Fleet Security and Industrial Relations. A meeting is held monthly and a summary report is prepared. The report is a communication tool to executive management and identifies recommended actions to address significant issues or trends. This process (WAC) is seen as a valuable method for recognizing Fleet or site-specific employee issues and should provide a tool for early detection and mitigation of adverse trends.

Other

As indicated in Section IV.C:

- There were six SCWE-related survey write-in comments that referred to instances of perceived retaliation through personnel actions.
  - Three of these were clearly "legacy issues" associated with the 2004 reorganization.
  - Three of these were apparently more recent situations associated with promotions/demotions.
- During the conduct of personnel interviews, the Assessment Team learned of four personnel actions that were perceived by some as retaliatory in nature.
  - Two of these were clearly "legacy issues" associated with the 2004 reorganization.
  - One of these was a more recent situation associated with promotion/demotion.
  - One of these was a more recent situation associated with letters of reprimand.
  - At least three of these personnel actions had been reviewed by the SCWERT.

Information on each of these situations has been provided, on a confidential information basis, to DBNPS Employee Concerns Program personnel for further review.

ASSESSMENT TEAM CONCLUSIONS

Based on documentation reviews and personnel interviews with the members of the DBNPS SCWERT, the Assessment Team concluded that appropriate procedures and controls are in place for the review of personnel actions that could potentially involve retaliatory actions.

In accordance with FENOC policy, detailed documentation of SCWERT reviews is not maintained. As a result, the Assessment Team was unable to independently reach a conclusion regarding the effectiveness of SCWERT reviews and associated actions taken based on documented evidence. However, based on the very high DBNPS Site Composite survey ratings of SCWE-related cultural metrics and attributes, it can be reasonably inferred that SCWERT reviews and associated actions taken, including mitigating actions to prevent or minimize a potential chilling effect, have been Effective.

ASSESSMENT TEAM SUGGESTIONS FOR CONTINUOUS IMPROVEMENT

Based on reviews of the SCWERT charter, procedures and controls, the Assessment Team provides the following six suggestions for improvement:

1. Since the position of SCWERT Chairman is not a permanent position, but rather a position that can be filled by any Director-level manager, FENOC should consider establishing a formal orientation program to ensure that the role and expectations of the SCWERT Chairman position are clearly identified and understood by new Directors who may potentially serve in that position.
2. The threshold for conducting a SCWERT review at DBNPS is any personnel action above an oral reprimand. The FENOC Fleet threshold is anything more severe than a written reprimand. While the SCWERT charter does provide for this difference in thresholds for SCWERT reviews, FENOC should reevaluate the overall effectiveness of having different thresholds. The threshold at DBNPS provides a higher degree of protection.
3. Discussions with the SCWERT members identified that not all actions involving personnel reassignments are reviewed by the SCWERT. That is, only reassignments involving a pay change are required to be reviewed by the SCWERT. FENOC should consider requiring all reassignments to be reviewed by the SCWERT to ensure that are no potential issues associated with retaliation that could be a factor in the reassignment.
4. Currently, personnel actions involving personnel promotions are not being reviewed by the SCWERT. FENOC should consider having SCWERT review promotions to ensure that there are no potential issues associated with retaliation involved in the selection/promotion process.
5. Currently, only end-of-year performance evaluations that result in Partially Effective or Ineffective ratings are reviewed by the SCWERT. FENOC should consider extending this practice to include mid-year performance appraisals.
6. FENOC should reevaluate its practice of not retaining documentation of the bases for decisions and actions taken through SCWERT reviews. The current practice does not facilitate the conduct of independent SCWERT effectiveness reviews.

IV.D: EFFECTIVENESS OF THE EMPLOYEE CONCERNS PROGRAM (ECP)

INTRODUCTION

This Key Cultural Metric is a measure of the effectiveness of the Employee Concern Program based upon the integration of the ratings of the following cultural sub-metrics:

- ECP as an Acceptable Alternative Path
- Overall Confidence in the ECP
- Bases for Confidence in the ECP

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of the ECP

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of the ECP is 3.85, which is characterized as Highly Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

Approximate trending information[42] for the ECP rating indicates Notable Improvement (+3%) over the past year. Approximate trends are best characterized as representing perceptions of current momentum.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

ECP ratings vary amongst the individual DBNPS Functional Organizations. Information on these ratings is provided in Attachment 2 to this Report.

Based on SYNERGY's experience, union and craft/plant staff demographic categories typically provide ratings of the ECP that are lower (i.e., an industry average of 9% lower) than the Site Composite rating. This was found to be the case at DBNPS as well. Accordingly, organizations with high concentrations of union or craft/plant staff personnel typically provide lower ratings of the ECP.

The reasons for this variation typically include (1) trust-related factors associated with perceptions of the independence of the Employee Concerns Program from management, (2) trust-related factors associated with the extent of familiarity with and confidence in the Employee Concerns Program representatives (oftentimes a factor of contact time with in-plant personnel) and (3) legacy issues related to past dissatisfaction (or rumors of dissatisfaction) with the resolution of issues brought to the Employee Concerns Program that were associated with human resources or personnel concerns.

The following individual DBNPS Functional Organizations provided particularly low ECP ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.70; Significant Improvement (+6%)
- Nuclear Warehouse: 2.91; Steady

[42] Approximate trending information for the ECP was based on differences in ratings of "overall confidence in the ECP" as perceived "today" and "approximately a year ago."

The following individual DBNPS Functional Organizations provided low ECP ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention

- Reactor Engineering: 3.31; Steady
- Chemistry: 3.37; Nominal Decline (-2%)
- Mechanical Maintenance: 3.52; Nominal Improvement (+1%)
- Engineering Programs: 3.52; Significant Decline (-6%)
- Shift Operations: 3.54; Nominal Decline (-2%)
- Security/Site Protection: 3.54; Notable Improvement (+5%)

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

There were fourteen survey write-in comments related to the Employee Concerns Program:

- Two were positive in nature, which expressed confidence in the ECP personnel and indicated that the ECP is above reproach.
- One was neutral in nature indicating that, since the ECP personnel operate in secrecy and report in secrecy, it is impossible to have an opinion as to their effectiveness.
- Eleven were negative in nature and expressed the following concerns or suggestions:
  - A commenter indicated that workers in his/her organization (an in-plant organization) rate the "confidentiality" part of ECP as less than adequate due to the physical location of ECP office. The commenter suggested that the ECP office location be moved to reduce likelihood of "being seen" taking an issue or complaint.
  - A commenter indicated that (1) the ECP organization needs to grow to handle the influx of personnel and problems, (2) they appear to be stagnated, and (3) if they were to get out into the field a little more, this would assist them in getting the message to the people.
  - A commenter indicated there needs to be better closure on issues that are brought to the ECP's attention. Not just to the individual making the concern but also for individuals interviewed during the process.
  - A commenter indicated that the ECP should limit its focus to nuclear safety, environmental safety, and SCWE concerns and should not be an avenue for those that are being held accountable for their actions to go to.
  - One commenter indicated that the ECP should be staffed with professionals who have investigative experience. Another commenter indicated that the ECP should be handled by an outside company
  - One commenter indicated that it is difficult to trust the ECP when they are FENOC management and only in the position for 1-2 years before moving on. Another commenter indicated that, since the ECP personnel are company paid and managed, they tell all to all and cannot be trusted.
  - One commenter indicated that the ECP is not working and should be disbanded.
  - One commenter identified concerns with how the ECP handled an issue in the past (a legacy issue), which has led some workers to question the effectiveness of ECP.
  - One commenter expressed dissatisfaction with the effectiveness of the ECP in resolving a current/ongoing concern related to personnel performance.

Insights related to the ECP that were obtained through personnel interviews include:

- Dissatisfaction with the effectiveness of the ECP in resolving a concern related to personnel performance (a legacy issue) is contributing to low ECP ratings provided by the affected organization.
- Dissatisfaction with the effectiveness of the ECP in resolving a concern related to personnel performance (a current issue) is contributing to low ECP ratings provided by the affected organization.
- Dissatisfaction with the effectiveness of the ECP in resolving concerns that appear to be primarily related to trust and respect in localized management (both a legacy and a current issue) is contributing to low ECP ratings provided by the affected organization.
- Some feel that there needs to be better closure with the individuals interviewed during the process of investigating issues that are brought to the ECP's attention.
- No issues regarding the maintenance of confidentiality by the ECP were identified.

In the course of interactions with ECP personnel during the conduct of this assessment, the Assessment Team found ECP personnel to be very protective of the confidentiality of information related to its activities.

ASSESSMENT TEAM SUGGESTIONS FOR CONTINUOUS IMPROVEMENT

The Assessment Team suggests the following as opportunities for continuous improvement:

- Consider establishing an additional ECP office of convenience location inside the protected area to be manned by ECP personnel on specified days/hours that are communicated to the in-plant organizations.
- Consider alternative methods for communications on the closure of closure of ECP cases.

IV.D.1 ECP as an Acceptable Alternative Path (ECP AAP)

INTRODUCTION

This cultural metric measures the acceptability of the Employee Concerns Program as an alternative path for raising and pursuing the resolution of potential Nuclear Safety issues or concerns.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of ECP AAP

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of ECP AAP is 3.90, which is characterized as Highly Effective.

DBNPS Site Composite Attribute Ratings Representing ECP AAP Areas of Strength

Based on the DBNPS Site Composite ratings, the following ECP AAP attributes have been identified as perceived Areas of Strength:

- The Employee Concerns Program is an acceptable, alternative path to pursue resolution of potential Nuclear Safety issues or concerns. (91.5% of survey respondents provided positive responses.)
- Supervisors and managers are supportive of individuals who feel the need to raise and pursue resolution of potential Nuclear Safety issues or concerns through the ECP. (96.9% of survey respondents provided positive responses.)
- If I identified a potential Nuclear Safety issue or concern and was not comfortable raising it through the Condition Report process or through my management chain, I would raise it through the Employee Concerns Program. (90.4% of survey respondents provided positive responses.)

Areas for Improvement

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

ECP AAP ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low ECP AAP ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.71
- Reactor Engineering: 3.00
- Nuclear Warehouse: 3.25

The following individual DBNPS Functional Organizations provided low ECP AAP ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Chemistry: 3.39
- Mechanical Maintenance: 3.46

- Maintenance Work Planning: 3.55
- Security/Site Protection: 3.58

IV.D.2 Overall Confidence in the ECP (ECP CONF)

INTRODUCTION

This cultural metric is based on a single survey question on overall confidence in the Employee Concerns Program at the present time[43].

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of ECP CONF

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of ECP CONF is 3.62, which is characterized as Effective.

Areas of Strength
- None based on the DBNPS Site Composite survey ratings

Areas for Improvement
- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention
- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

ECP CONF ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low ECP CONF ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.
- Nuclear Plant Systems Engineering: 2.71
- Nuclear Warehouse: 2.75
- Reactor Engineering: 3.00
- Engineering Programs: 3.14
- Chemistry: 3.16
- Security/Site Protection: 3.19
- Nuclear ALARA/RP Services: 3.20
- Shift Operations: 3.21

The following individual DBNPS Functional Organizations provided low ECP CONF ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:
- Mechanical Maintenance: 3.30

[43] The structure of this survey question, unlike most survey questions related to the Employee Concerns Program, does not specifically refer to Nuclear Safety issues or concerns. Based on SYNERGY's experience, ratings of this survey question are typically notably lower than ratings of survey questions/attributes that are used to measure the Bases for Confidence in the Employee Concerns Program (Refer to Section IV.4.3 below).

- Maintenance Services: 3.31
- Electrical Maintenance: 3.38
- Maintenance Work Planning: 3.41

IV.D. 3 Bases for Confidence in the ECP (ECP BFC)

INTRODUCTION

This cultural metric collectively measures attributes that are essential for personnel to have confidence in the Employee Concerns Program.

SURVEY RESULTS – DBNPS SITE COMPOSITE ORGANIZATION

DBNPS Site Composite Rating of ECP BFC

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of ECP BFC is 3.98, which is characterized as Highly Effective.

Areas of Strength:

Based on the DBNPS Site Composite ratings, the following ECP BFC attributes have been identified as perceived Areas of Strength:

- The Employee Concerns Program is sufficiently visible and known to the workforce.
- The Employee Concerns Program is staffed with competent and trustworthy personnel.
- The Employee Concerns Program has a high degree of management support.
- Confidence that Nuclear Safety issues or concerns reported through the Employee Concerns Program will be thoroughly investigated.
- Confidence that Nuclear Safety issues or concerns reported through the Employee Concerns Program will be appropriately resolved.

Areas for Improvement:

- None based on the DBNPS Site Composite survey ratings

Areas in Need of Attention:

- None based on the DBNPS Site Composite survey ratings

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

ECP BFC ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low ECP BFC ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.67
- Nuclear Warehouse: 2.77

V. EFFECTIVENESS OF SELF-ASSESSMENT ACTIVITIES AND SELF-IDENTIFICATION OF PERFORMANCE WEAKNESSES – DETAILS

V.A INTRODUCTION

The evaluation of DBNPS self-assessment activities and self-identification of performance weaknesses included;

- Information obtained through the 2006 Independent Assessment survey
- Information obtained through documentation reviews
- Information obtained through personnel interviews
- Observation of the conduct of the DBNPS 2006 Annual Assessment of the NSC

V.B SURVEY RESULTS

A number of survey questions were used to obtain the perspective of the entire Site organization on the subject of organizational self-assessment and organizational self-criticalness. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the ratings. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided for those survey questions/attributes related to overall Site performance. In this regard, ratings provided by the NOS organization were less positive than those provided by the DBNPS Site Composite organization and are likely to represent a better indicator of actual performance.

- At our Site, we effectively use performance indicators and metrics to monitor and improve our Nuclear Safety performance.
  (DBNPS Rating of 3.86 – Effective)
  (NOS Rating of 3.67 – Effective)
- At our Site, we have effective processes in place to self-identify organizational weaknesses related to Nuclear Safety performance.
  (DBNPS Rating of 3.78 – Effective)
  (NOS Rating of 3.57 – Marginally Effective/Area in Need of Attention)
- At our Site, we are effective at addressing and resolving self-identified areas of organizational weakness related to Nuclear Safety performance.
  (Rating of 3.72 – Effective)
  (NOS Rating of 3.48 – Marginally Effective/Area in Need of Attention)
- Within my Functional Organization, we perform line organization self-assessments that are effective in improving our Nuclear Safety performance.
  (DBNPS Rating of 3.62 – Effective)
- Within my Functional Organization, we implement self-assessment recommendations in a timely manner (consistent with their significance).
  (DBNPS Rating of 3.63 – Effective)
- Within my Functional Organization, we value the insights and perspectives provided by our Nuclear Oversight organization and by other independent reviewers to strengthen Nuclear Safety and to improve our performance.
  (DBNPS Rating of 4.09 – Highly Effective)
- At our Site, we are effective at addressing and resolving areas of organizational weakness related to Nuclear Safety performance that have been identified by the DBNPS and FENOC Nuclear Oversight organizations.
  (DBNPS Rating of 3.76 – Effective)

- At our Site, we are effective at addressing and resolving areas of organizational weakness related to Nuclear Safety performance that have been identified by Independent reviewers.
  (DBNPS Rating of 3.77 – Effective)
- "During the past year, the quality and value of our self-assessments and Section Integrated Performance Assessments have improved through the use of increased rigor and criticalness in the conduct of those assessments."
  (DBNPS Rating of 3.61, 90% Positive Response – Significant Improvement)
  (NOS Rating of 3.33, 81% Positive Response – Notable Improvement)
- "During the past year, the quality and value of assessments performed by the DBNPS/FENOC Nuclear Oversight organizations have improved through the use of increased rigor and criticalness in the conduct of those assessments."
  (DBNPS Rating of 3.57, 89% Positive Response – Significant Improvement)
- "During the past year, we have improved our effectiveness in identifying and resolving problems affecting Nuclear Safety or safe plant operations before the problems become self-revealing or are identified to us by others."
  (DBNPS Rating of 3.64, 92% Positive Response – Significant Improvement)
  (NOS Rating of 3.62, 95% Positive Response – Significant Improvement)

V.C PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The vast majority of those interviewed by the Assessment Team indicated that DBNPS self-assessment performance has improved. Almost all felt that there was considerable room for continued improvement. They believe that processes and programs are well designed, but that implementation is not yet as complete or effective as desired. They felt that desired improvements have been identified, that there are mechanisms in place to continue to identify additional opportunities for improvement and that the organization is making progress in achieving improvements. In this regard, the DBNPS Senior Leadership Team and the DBNPS management team appear to be well aligned.

Management has established high standards and expectations for self-criticalness, and has been doing a good job of communicating and pushing them down into the organization. Personnel interviews indicate that DBNPS personnel want to do the right thing; however, the survey write-in comments and the personnel interviews indicate that workload/resource imbalances in some DBNPS organizations may be adversely affecting individual ability to fully meet self-critical performance expectations. This issue should be evaluated and addressed in conjunction with the response to AFI 3 (identified in Section I.4.1).

Documentation reviews and personnel interviews indicated that:

- Appropriate processes and programs for effective self-assessment are in place.
- Section IPAs are receiving appropriate levels of management attention to ensure continued improvement in rigor, self-criticalness and overall quality.
- A process for evaluation/grading of the effectiveness of snapshot self-assessments is scheduled to be implemented in 2007.

Documentation reviews indicated that:

- The Assessment Team for the 2006 Independent Assessment of the CAP Implementation concluded that the internal assessments of the CAP, including oversight audits, self-assessments, and CNRB meetings were effective in identifying and correcting most of the CAP weaknesses internally. They identified a few Areas in Need of Attention related to the organization's responses to issues identified in internal assessments.

Documentation reviews and personnel interviews indicate that the DBNPS NOS organization:

- Effectively identifies needs and opportunities for improvement to Site management and to the line organization.
- Promotes high standards and organizational self-criticalness.
- Is highly respected by Site management and the line organization.

Documentation reviews, personnel interviews and observations of CNRB activities indicate that the DBNPS CNRB:

- Is constituted of senior independent consultants who collectively represent a wealth of experience in operational nuclear safety from both an industry and a regulatory perspective.
- Effectively identifies needs and opportunities for improvement to Site management.
- Promotes high standards and organizational self-criticalness.

Personnel interviews indicated that the results of organizational self-assessments are not being uniformly communicated to the workforce.

V.D ACTIVITY OBSERVATIONS

The Assessment Team leader reviewed Rev. 3 of NOBP-LP-2501 prior to the DBNPS management team meeting on October 10, 2006, which was held for the purpose of conducting the 2006 Self-Assessment of the DBNPS NSC. The Assessment Team leader observed the conduct of the 2006 Assessment of the DBNPS Nuclear Safety Culture and reviewed the associated results report.

Observations Related to the Rev. 3 of NOBP-LP-2501.

- This was the first time that an assessment was conducted using Rev. 3 of NOBP-LP-2501.
  - This is a FENOC Fleet procedure not a DBNPS procedure.
  - This revision reflects the change to an assessment structure based on the INPO Principles for a strong NSC.
  - This revision was issued only a few days before the DBNPS assessment was conducted.
- While Rev. 3 of NOBP-LP-2501 is structured around the INPO Principles, the inputs (performance indicator data, SCWE survey results, NOS interview results, 4C's meeting survey results, Functional Organization qualitative inputs) to the assessment were basically the same as utilized for the conduct of NSC assessments in previous years using a different assessment structure.
- The inputs used to perform the assessment included a mix of performance measures and measures of cultural attributes.

- Many of the inputs used to perform the assessment were not well aligned with the intent of the corresponding attributes of the INPO Principles.
- Numerical ratings were determined for each attribute of an INPO Principle using pre-established formulas. Numerical ratings for each INPO Principle were then calculated based on the combination of the numerical ratings for the associated individual attributes. This process lent an air of high precision to the calculation of the numerical ratings for each INPO Principle. Overall ratings of Green, White, Yellow or Red were then assigned to each of the eight INPO Principles, based on the where the numerical ratings fit within pre-established numerical ranges that correlated to each color assignment.
- An overall rating of the NSC was then determined based on the color ratings for each of the eight INPO Principles. In this part of the process, precision was abandoned as a pre-defined numerical rating was assigned to each of the possible color ratings. This pre-defined rating did not reflect differences in the "quality" of the color ratings of the individual INPO Principles. That is, a "white" color rating was given the same weighting factor whether it was a marginal "white" or whether it was a high "white".
- Based on the manner in which the overall rating is determined, an overall "green" rating (which correlates to a Highly Effective rating) could be achieved based upon six of the eight INPO Principles being rated as "white" and the other two principles being rated as "green".

Observations Related to the Conduct of the Assessment

- The meeting was led by the Site Vice-President and was conducted in a collegial manner.
- Meeting participants demonstrated willingness to express concerns with ratings that they felt were too high or too low.
- Constructive discussions took place when concerns were expressed.
- On a few occasions, a participant raised a question regarding the consistency of the data used to rate an attribute with the intent of the attribute. This did not occur as frequently as one might have expected given the number of inconsistencies that exist.
- As a result of the structure of the procedure, the assessment was conducted in a somewhat mechanical, follow-the-steps manner that seemed to result in less discussion than one might have expected.

Observations related to the Assessment Results Report

- Six of the individual INPO Principles were assigned a "white" rating and two were assigned a "green" rating.
- Based on a decision made by the DBNPS Senior Leadership Team, the overall NSC was assigned a "white" rating (which correlates to an Effective rating) despite the fact that that the procedure would have called for a "green" rating.

Activity Observation Conclusions

Irrespective of the above-mentioned shortcomings in the procedure, the Assessment Team commends FENOC/DBNPS for its efforts to conduct a meaningful self-assessment of the Nuclear Safety Culture at DBNPS.

The overall result approved by the DBNPS Senior Leadership Team (i.e., a rating of Effective), while more conservative than the Highly Effective Overall Nuclear Safety Culture rating based on the 2006 Independent Assessment survey results, is likely to be an accurate indicator of the current actual Nuclear Safety performance at DBNPS.

V.E OVERALL ASSESSMENT TEAM CONCLUSION

Based on the information presented above, the Assessment Team rates this area as generally effective and improving.

V.F AREAS IN NEED OF ATTENTION

Four Areas in Need of Attention have been identified:

1. Continuing management attention is needed to ensure continued improvement in the rigor, self-criticalness and quality of Section Integrated Performance Assessments.
2. Continuing management attention is needed to ensure that self-identified areas of organizational weakness are addressed and resolved in a timely manner.
3. Results of self-assessment activities should be more uniformly communicated to the workforce in the assessed organizations.
4. Continued improvement of NOBP-LP-2501 is needed to address shortcomings identified by the Assessment Team.

VI. EFFECTIVENESS OF CORRECTIVE ACTIONS TAKEN TO ADDRESS AREAS FOR IMPROVEMENT IDENTIFIED IN THE 2005 INDEPENDENT ASSESSMENT OF THE DBNPS NSC/SCWE – DETAILS

VI.A INTRODUCTION

As characterized by DBNPS management, a "global approach" was taken to address most of the Areas for Improvement (AFIs) identified through the 2005 Independent Assessment of the DBNPS NSC/SCWE rather than specifically addressing each identified AFI.

The Assessment Team learned of and evaluated a number of specific actions and initiatives taken by DBNPS management related to the previously identified AFIs.

In conducting the 2006 Independent Assessment of the DBNPS NSC/SCWE, the Assessment Team evaluated the effectiveness of the actions taken by DBNPS management:

- From a global perspective, by evaluating the current survey ratings of the NSC and the SCWE and the available trending information associated with those ratings.
- From a specific perspective, by evaluating available information related to each of the AFIs identified in the 2005 Independent Assessment.

VI.B GLOBAL PERSPECTIVE

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

The following information was provided to the Assessment Team:

> DBNPS participates in FENOC peer groups, each of which develops an individual excellence plan that comprises the FENOC Excellence Plan under the FENOC Business Plan. In addition, DBNPS has developed both short-term and long-term site-specific initiatives, which are incorporated into the excellence plans to focus on specific site objectives. The DBNPS Site Excellence Plan is a combination of both the peer group and site-specific initiatives and is designed to continue the Site's pursuit of operational excellence in operational performance, reliability, and nuclear safety.

HIGH LEVEL NSC/SCWE SURVEY RESULTS

The current DBNPS Site Composite Organization rating of the Overall NSC is 4.11, which is considered to be Highly Effective. Approximate trending information indicates Notable Improvement (+4%), which is best characterized as notable positive momentum.

The current DBNPS Site Composite Organization rating of the Overall SCWE is 4.48, which is considered to be Highly Effective. Approximate trending information indicates Notable Improvement (+4%), which is best characterized as notable positive momentum.

ASSESSMENT TEAM CONCLUSION – GLOBAL PERSPECTIVE

The 2006 Independent Assessment survey ratings and trends indicate that, from a global perspective, the corrective actions taken by DBNPS management to improve the NSC and the SCWE have been effective.

VI.C SPECIFIC PREVIOUSLY IDENTIFIED AREAS FOR IMPROVEMENT

The Assessment Team evaluated the AFIs previously identified in the 2005 Independent Assessment of the DBNPS NSC/SCWE by evaluating available information related to each AFI. The 2005 AFI statements are provided below.

1. A long-term strategy to ensure the organization's continued and sustainable commitment to safety still needs additional focus and development.
   a. Management's actions concerning safety issues are generally being driven from the top-down, resulting in a lack of accountability and ownership. (AFI 1a)
   b. Activities are perceived to be initiated as reactions to externally driven requirements. (AFI 1b)
   c. Performance standards are largely externally driven and being imparted, not developed or internalized from all levels within the organization. (AFI 1c)

2. While improvements in values and attitudes have been observed since the 2004 Independent Assessment, they are generally back to the levels obtained in the 2003 Independent Assessment during the long outage. Davis-Besse leadership behaviors need to demonstrate continuing improvement and sustainability across all levels of the organization to ensure the desired outcomes. The top down style of management previously identified, while effective for short term results, will not result in long-term sustained success.
   a. The large number of differences identified within and between groups in much of the data collected in this evaluation indicates that a consistent message with respect to desired behavioral changes is still not being effectively communicated, understood or accepted throughout several parts of the organization. (AFI 2a)

3. Efforts to improve Davis-Besse's performance -- by learning from its past performance, from industry performance, from internal and external assessments, and from day-to-day implementation of its own programs and processes – still are not effectively implemented or recognized to be of high value to the organization.
   a. The lack of self-criticality and the acceptance of low standards and expectations are generally believed to be behavioral indicators of a non-learning organization. Efforts at Davis-Besse are needed to increase the awareness of all levels of the organization as to the importance and value of these behaviors and to initiate efforts to develop more internally driven standards. (AFI 3a)

4. The overall rating of White on Davis-Besse's Annual Safety Culture Assessment is noted to be a conservative one as their actual numerical calculation was equivalent to a Green rating. While this team recognizes this as a positive step, the results of the 2005 Independent Assessment are more critical of the current status of Davis-Besse's Safety Culture and SCWE and have provided an overall assessment as Marginally Effective. (AFI 4)

VI.C.1 "Actions are generally driven from the top down, limiting accountability and ownership at lower organizational levels." (2005 AFI 1a)

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

The following information was provided to the Assessment Team:

The DBNPS Senior Leadership Team (SLT) has embraced a more collaborative approach to managing the organization and conducting its business, including engagement of the entire DBNPS management team in the process. Specific activities to promote this approach include:

- SLT team building and long-term strategic planning meetings starting June 13, 2006 (contractor facilitated)
- SLT appointed an individual to administer the strategic meetings and monitor actions
- Site priorities were identified and communicated via calendars, table tents and posters
- "Managers and Supervisors" off-site meetings were held with key talking points
- SLT/Manager team building meetings
- Managers surveyed to respond to the following two questions: "What does a high performing team look like at DB?" and "Suggestions for behavior changes to improve the MAOM"
- Weekly managers meetings with alternating transactional and transformational focus
- Supervisor Training Program (Leadership Academy)

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE

Survey Questions Related to AFI 1a.

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with the effectiveness of actions taken to address this previously identified AFI. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the rating. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided.

- During the past year, we have improved Nuclear Safety and safe plant operations by establishing authority, accountability and ownership at the appropriate levels of the DBNPS organization.
  (DBNPS Rating of 3.67, 91% Positive Response – Significant Improvement)
  (NOS Rating of 3.95, 95% Positive Response – Very Significant Improvement)
- At our Site, managers, supervisors and workers understand and respect each other's roles in decision-making related to Nuclear Safety and safe plant operations.
  (DBNPS Rating of 3.86 – Effective)
  (NOS Rating of 4.05 – Highly Effective)
- At our Site, decisions related to Nuclear Safety and safe plant operations are made at the appropriate organizational level.
  (DBNPS Rating of 3.92 – Highly Effective)
  (NOS Rating of 3.90 – Highly Effective)
- With respect to important issues or activities that could affect Nuclear Safety or safe plant operations, management at our Site becomes sufficiently and appropriately involved.
  (Rating of 4.11 – Highly Effective)
  (NOS Rating of 4.43 – Highly Effective)

- During the past year, we have improved decision making related to Nuclear Safety and safe plant operations by ensuring an appropriate level of involvement by and input from knowledgeable personnel.
  (DBNPS Rating of 3.76, 94% Positive Response – Significant Improvement)
  (NOS Rating of 3.90, 95% Positive Response – Very Significant Improvement)
- With respect to important issues or activities that could affect Nuclear Safety or safe plant operations, management at our Site ensures that interdisciplinary input and review is obtained, when appropriate.
  (DBNPS Rating of 3.96 – Highly Effective)
  (NOS Rating of 4.33 – Highly Effective)
- With respect to important issues or activities that could affect Nuclear Safety or safe plant operations, management at our Site ensures effective ownership and accountability for planned actions.
  (DBNPS Rating of 3.89 – Effective)
  (NOS Rating of 4.05 – Highly Effective)

Additional Information Related to AFI 1a.

There were only three write-in comments related to this AFI. Since survey write-in comments typically emphasize areas of concern or perceived needs for improvement, this is a positive indicator.

- Two comments related to over controlling behaviors by the Site VP.
- One commenter indicated that: "We have to get better at "managing down". We as management have to stop shouldering all the responsibility and manage down to the craft level. We are all responsible for nuclear safety. Where there is no accountability there is lack of understanding. Though we have improved, change at Davis Besse seems to be painful. Senior management has exhibited great ownership, but at the middle management level it seems to fall off."

Personnel interviews indicated that the Site SLT has improved in this area.

Observations of selected Site activities indicated that a collaborative approach was being used.

ASSESSMENT TEAM CONCLUSION – AFI 1a

Based on survey ratings that indicate significant improvement in this area and on other sources of information that support the survey ratings, the corrective actions taken by DBNPS management are considered to have been effective.

VI.C.2 "Activities are often perceived to be initiated as reactions to external requirements" (2005 AFI 1b)

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

No specific information was provided to the Assessment Team. DBNPS management apparently addressed AFI 1b through the "global" response noted above.

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE

DBNPS has been and continues to be subject to significantly higher than normal external evaluation and input on standards, expectations and effectiveness of performance. This is evidenced by the four annual Independent Assessments conducted in accordance with an NRC Confirmatory Order and higher than normal attention provided by both INPO and the NRC. The DBNPS CNRB is also actively engaged in evaluating organizational performance and in providing suggestions for improvement. At the same time, FENOC management has been and continues to be active in pursuing Fleet-wide improvements in programs and processes. All of these "external" activities and organizations are promoting high standards of excellence.

Under these circumstances, one would expect DBNPS to be sensitive and responsive to the opportunities for improvement identified by all of the above-mentioned "external" sources.

Opportunities for performance improvement and reinforcement of high standards are also being pursued and promoted internally through:

- DBNPS self-assessment activities, which include semi-annual Section Integrated Performance Assessments, Focused Assessments and Snapshot Assessments.
- DBNPS/FENOC Nuclear Oversight organization activities.
- DBNPS/FENOC Employee Concerns Program activities, which include the annual DBNPS SCWE survey.
- The DBNPS annual self-assessment of the Nuclear Safety Culture.
- Benchmarking, participation in industry groups and participation in assessments of other nuclear power plants.
- Causal analyses conducted through the implementation of the DBNPS Corrective Action Program.
- Management review of Performance Indicators.

Concerns that activities are being initiated as reactions to external requirements from sources outside of FENOC were not identified through personnel interviews or in the survey write-in comments[44]. Since survey write-in comments typically emphasize areas of concern or perceived needs for improvement, this is a positive indicator.

ASSESSMENT TEAM CONCLUSION – AFI 1b

No indications of a problem in this area were identified through the 2006 Independent Assessment. Accordingly, the actions taken to address AFI 1b are considered to have been effective.

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[44] There were numerous write-in comments expressing concerns that the FENOC ELT established schedule-related expectations for RFO 14 that were perceived by many DBNPS personnel as having been unachievable.

VI.C.3 "Performance standards are largely externally driven and being imparted, not developed or internalized from all levels within the organization." (2005 AFI 1c)

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

No specific information was provided to the Assessment Team. DBNPS management apparently addressed AFI 1c through the "global" response noted above.

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE

Survey Questions Related to AFI 1c.

The following survey questions were used to obtain the perspective of the entire Site organization on attributes associated with the effectiveness of actions taken to address this previously identified AFI. The DBNPS Site Composite organization ratings of these questions are presented below, along with SYNERGY's characterization of the rating. For the purpose of providing additional perspective, the ratings by the DBNPS Nuclear Oversight organization are also provided for questions/attributes related to Site performance.

- Within my Functional organization, standards and expectations for Nuclear Safety performance are effectively communicated and well understood by the workforce. (DBNPS Rating of 4.24 – Highly Effective)
- At our Site, individuals are expected and obligated to identify and pursue resolution of potential Nuclear Safety issues or concerns.
  (DBNPS Rating of 4.51—Highly Effective)
  (NOS Rating of 4.81 – Highly Effective)
- Within my Functional Organization, standards and expectations for Nuclear Safety performance are consistently adhered to by individual workers. (4.18 – Highly Effective)
- Within my Functional Organization, we exercise healthy accountability for adherence to standards and expectations for Nuclear Safety performance. (4.18 – Highly Effective)
- Within my Functional Organization, we adhere with procedural requirements as a means of assuring Nuclear Safety. (4.18 – Highly Effective)
- Within my Functional Organization, peers reinforce standards and expectations for Nuclear Safety performance. (4.17 – Highly Effective)
- Within my Functional Organization, we are willing to self-identify our own errors. (4.16 – Highly Effective)
- Standards and expectations for Nuclear Safety performance are consistently adhered to, demonstrated and reinforced by my supervision. (4.25 – Highly Effective)
- Standards and expectations for Nuclear Safety performance are consistently adhered to, demonstrated and reinforced by management in my Functional Organization. (4.16 – Highly Effective)
- Standards and expectations for Nuclear Safety performance are consistently adhered to, demonstrated and reinforced by Site senior management.
  (DBNPS Rating of 4.08 – Effective)
  (NOS Rating of 4.43 – Highly Effective)

Based on available information (i.e., the survey results, personnel interviews, documentation reviews and observations), the Assessment Team has determined that:

- The DBNPS management team has high standards and expectations for NSC/SCWE performance.
- The DBNPS management team has made good progress in ensuring that high standards and expectations for NSC/SCWE performance are being internalized by the organization.
- The DBNPS management team acknowledges that establishment, reinforcement, maintenance and continuous improvement of high standards and expectations are continuing "works in progress".
- The DBNPS management team acknowledges that the organization is not yet consistently meeting the high standards and expectations for Nuclear Safety performance.
- The DBNPS management team acknowledges that there is need for continued reinforcement of high standards and expectations for Nuclear Safety performance.
- Appropriate processes are in place to monitor and to identify needs for reinforcement of and improvement in standards and expectations for NSC/SCWE performance.
- The performance appraisal process, as implemented for mid-year evaluations, was not effectively used to reinforce standards and expectations for NSC/SCWE performance.

ASSESSMENT TEAM CONCLUSION – AFI 1c

The survey results indicate that improvement has been achieved in organizational internalization of high standards and expectations for performance. Based on these results, the corrective actions taken in this area are considered to have been generally effective. However, since the organization is not yet consistently meeting management's high standards and expectations for performance, continued management attention is needed.

VI.C.4 "The large number of differences identified within and between groups in much of the data collected in this evaluation indicates that a consistent message with respect to desired behavioral changes is still not being effectively communicated, understood or accepted throughout several parts of the organization." (2005 AFI 2a)

ADDITIONAL BACKGROUND

The 2005 Independent Assessment Team identified the Operations and Security organizations as the two specific organizations of primary concern, with Chemistry, Maintenance, Training and Plant & Equipment Reliability Engineering also specifically mentioned.

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

The following information was provided to the Assessment Team:

The DBNPS Senior Leadership Team has taken action to improve the alignment of the management team. Specific activities to promote this approach include:

- Initiated SLT team building and long-term strategic planning meetings with a contract facilitator, starting June 13, 2006
- SLT appointed an individual to administer the strategic meetings and monitor actions
- Site Priorities were identified and communicated via calendars, table tents, posters
- Managers and Supervisors off-site meetings were held with key talking points

- Commenced SLT/Manager team building meetings
- Managers were surveyed to respond to the following two questions: "What does a high performing team look like at DB?" and "Suggestions for behavior changes to improve the MAOM".
- Weekly managers meetings commenced with alternating transactional and transformational focus

Through background interviews and documentation reviews, the Assessment Team also learned of the following additional activities:

- A DBNPS Transformation Team, consisting of a representative spectrum of the workforce, was formed to work in conjunction with the DBNPS management team to improve the quality and flow of information between management and the workforce and to promote workforce understanding and alignment with station goals and priorities.
- As a result of the 2005 DBNPS SCWE survey results, Condition Reports were written that required evaluation of the underlying reasons for lower ratings provided by the Operations, Security, Chemistry and Regulatory Compliance organizations. These evaluations were conducted and actions to address the identified issues were implemented. Some of these actions are of an ongoing nature.

PERSPECTIVE OF THE 2006 INDEPENDENT ASSESSMENT TEAM

SYNERGY has yet to conduct a cultural assessment that did not identify organizational outliers with respect to ratings of key cultural metrics. SYNERGY's experience in this regard indicates that, while issues related to management/supervisory alignment and/or behavior are occasionally a significant contributor to low cultural metric ratings, the underlying reasons for low ratings are most frequently related to other issues of concern, such as staffing levels, workload, work management, working hours, compensation for overtime work, reward & recognition, industrial safety issues and issues related to the priority placed on meeting the affected organization's needs.

Based on SYNERGY's experience:

- Lower survey ratings are typically provided by personnel in the union employee "worker category" demographic category. These lower survey ratings typically correlate closely to the survey ratings provided by personnel in the craft/plant staff "organizational position" demographic category.
- Organizations with a high concentration of union employees or craft/plant personnel typically provide lower ratings of key cultural metrics.
- The highest survey ratings are typically provided by personnel in the Manager "organizational position" demographic category, followed by personnel in the Superintendent/Supervisor/Foreman "organizational position" demographic category.
- Organizations with a high concentration of salaried/exempt employees or supervisory/management personnel typically provide higher ratings of key cultural metrics.
- Deviations from these generally observed patterns require management attention.
- Individual Functional Organizations that provide ratings of key cultural metrics that are below industry norms require management attention.

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE

Survey Results

2006 Independent Assessment survey-based cultural metric ratings varied amongst the individual DBNPS Functional Organizations. As noted above, this was to be expected.

The following individual DBNPS Functional Organizations have been identified as significant outliers based on having provided ratings of key cultural metrics that are below industry norms for the NSC and the SCWE.

- Nuclear Plant Systems Engineering
- Nuclear Warehouse

The following additional individual DBNPS Functional Organizations have been identified as organizational outliers due to low or significantly declined key cultural metric ratings:

- Engineering Programs
- Operations Training
- Reactor Engineering

It is noteworthy that all but one of the above-mentioned organizations have a high concentration of salaried/exempt employees.

Insights on the underlying reasons for these low ratings, based on information obtained through the confidential survey write-in comments and confidential personnel interviews, have been provided to the DBNPS Site Vice-President and the DBNPS ECP representative for use on a "confidential/need to know" basis. For the most part, the underlying reasons appear to be consistent with those most typically found, as discussed above.

As expected, 2006 Independent Assessment survey-based cultural metric ratings varied amongst demographic categories.

The following table presents DBNPS and industry information on the variations in key cultural metric survey ratings provided by union employees.

Table 8

Key Cultural Metric	Union Employee Rating Differential From Site Rating (DBNPS)	Union Employee Rating Differential From Site Rating (Industry Average)
Overall Nuclear Safety Culture	-4%	-7%
NS Values, Behaviors & Practices	-3%	-7%
Overall SCWE	-3%	-5%
ECP Effectiveness	-9%	-9%
General Culture & Work Envnmt.	-3%	-7%

It is particularly noteworthy that, based on the information presented in Table 8, there is a significantly higher degree of alignment between ratings provided by DBNPS union employees and ratings provided by the DBNPS Site Composite organization than SYNERGY typically finds in the course of performing cultural assessments. The one exception is the rating of ECP effectiveness.

Based on the 2006 Independent Assessment survey results for Operations, Maintenance and Site Protection/Security, the corrective actions taken in response to the 2005 DBNPS SCWE survey results appear to been generally effective

ASSESSMENT TEAM CONCLUSION – AFI 2a

Based on the survey results, the corrective actions taken in this area are considered to have been effective.

VI.C.5 "The lack of self-criticality and the acceptance of low standards and expectations are generally believed to be behavioral indicators of a non-learning organization. Efforts at Davis-Besse are needed to increase the awareness of all levels of the organization as to the importance and value of these behaviors and to initiate efforts to develop more internally driven standards". (2005 AFI 3a)

INTRODUCTION

DBNPS management responded to this AFI by taking actions to improve performance in two areas: (1) section Integrated Performance Assessments and (2) use of industry Operating Experience. Each of these two areas was assessed independently, and then the results of the two assessments were integrated to reach an overall conclusion on the effectiveness of the corrective actions to address this AFI.

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

The following information was provided to the Assessment Team:

- The DBNPS Director of Performance Improvement issued a memorandum to site superintendents and above on April 28, 2006 reinforcing expectations and standards in performance of self-assessments and Section Integrated Performance Assessments, including identification and follow-up on assessment results.
- The Operating Experience program owner met with the Section Operating Experience coordinators and the Performance Improvement supervisor on January 23 and 26, 2006 in a lesson class-style format with presentation and discussion on expectations and responsibilities for Section Operating Experience coordinators.
- Operating Experience was made an agenda item at the MAOM every Thursday.

Through background interviews and documentation reviews, the Assessment Team also learned of the following additional activities:

- Reviews of the adequacy and self-criticalness of Section Integrated Performance Assessments were conducted in group sessions by the DNBPS management team. This approach was intended to ensure alignment of the management team on standards and expectations. In this regard, a few of the assessments performed for the November 2005 to April 2006 time period were initially determined by the management team to not meet standards and expectations. Those assessments were augmented, resubmitted, reviewed and subsequently approved by the management team.
- A snapshot self-assessment (DBSS 06-14) was conducted of the DBNPS OE Program. This self-assessment focused on (1) an evaluation of Duty Team management observations of the relevancy of the operating experience information used in pre-job briefs, and (2) benchmarking of the DBNPS process against processes used by other plants in the industry that had been identified by INPO as industry leaders in the area of OE.

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE – SELF-ASSESSMENT

This information is provided in Section IV.B.11 of this Report.

ASSESSMENT TEAM CONCLUSION – SELF-ASSESSMENT

Corrective actions have resulted in improvements. Overall performance is considered to be generally effective. Continued management attention is needed to ensure (1) continued improvement in the rigor, self-criticalness and quality of Section Integrated Performance Assessments and (2) that self-identified areas of organizational weakness are addressed and resolved in a timely manner.

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE – OPERATING EXPEREINCE

This information is provided in Section IV.B.10 of this Report.

ASSESSMENT TEAM CONCLUSION – OPERATING EXPERIENCE

Corrective actions have resulted in improvements. Overall performance is considered to be generally effective. Continued management attention to the timeliness and effectiveness of evaluations of industry operating experience is needed.

OVERALL ASSESSMENT TEAM CONCLUSION – AFI 3a

Corrective actions have resulted in improvements. Overall DBNPS performance in the use of operating experience and in self-assessment activities is considered to be generally effective. However, since the organization is not yet consistently meeting management's high standards and expectations for performance, continued management attention is needed.

VI.C.6 "The overall rating of White on Davis-Besse's Annual Safety Culture Assessment is noted to be a conservative one as their actual numerical calculation was equivalent to a Green rating. While this team recognizes this as a positive step, the results of the 2005 Independent Assessment are more critical of the current status of Davis-Besse's Safety Culture and SCWE and have provided an overall assessment as Marginally Effective". (2005 AFI 4)

INTRODUCTION

The issues identified in this AFI are: (1) the process used by FENOC/DBNPS for assessing the DBNPS NSC in 2005 did not yield sufficiently accurate or conservative results, and (2) the FENOC/DBNPS NSC assessment process requires improvement.

CORRECTIVE ACTIONS TAKEN BY DBNPS MANAGEMENT

The following information was provided to the Assessment Team:

- Both of the FENOC Business practices for assessing Nuclear Safety Culture were revised to incorporate the INPO Principles for a Strong Nuclear Safety Culture as the framework for conducting the assessments:

  - NOBP-LP-2501 Safety Culture Assessment (annual)
  - NOBP-LP-2502 Safety Culture Monitoring (quarterly)
- NOBP-LP-2501, Rev. 3, was made effective in late September 2006 and was used for the 2006 Annual Assessment of the DBNPS Nuclear Safety Culture conducted on October 10, 2006.
- NOBP-LP-2502, Rev 1, was made effective on October 11, 2006.

INFORMATION OBTAINED THROUGH THE 2006 INDEPENDENT ASSESSMENT OF THE NSC/SCWE

The Assessment Team leader reviewed Rev. 3 of NOBP-LP-2501 prior to the DBNPS management team meeting on October 10, 2006, which was held for the purpose of conducting the 2006 Self-Assessment of the DBNPS NSC. The Assessment Team leader observed the conduct of the 2006 Assessment of the DBNPS Nuclear Safety Culture and reviewed the associated results report.

The Assessment Team's observations related to Rev. 3 of NOBP-LP-2501, the conduct of the self-assessment and the self-assessment results report are provided in Section V.D of this Report and are not repeated here.

ASSESSMENT TEAM CONCLUSION – AFI 4

The Assessment Team concluded that the overall result approved by the DBNPS Senior Leadership Team (i.e., a rating of Effective):

- Was more conservative than the Overall NSC rating of Highly Effective based on the 2006 Independent Assessment survey results; and
- Is likely to be an accurate indicator of the current actual Nuclear Safety performance at DBNPS.

The Assessment Team considers the actions taken to respond to this AFI to have been generally effective. Continued improvement of NOBP-LP-2501 is needed to address shortcomings identified by the Assessment Team.

VII. ASSESSMENT TEAM MEMBER BIOGRAPHIES

Biographies for the Assessment Team members are provided below:

- John C. Guibert, Principal, SYNERGY Consulting Services Corporation – Team Leader
- Timothy K. Snyder, Principal, SYNERGY Consulting Services Corporation
- Howard A. Levin, Principal, SYNERGY Consulting Services Corporation
- Dennis Winchester, Vice-President Nuclear Assessment, PSEG Nuclear – Industry Peer Reviewer

John C. Guibert

Mr. Guibert served as the Assessment Team leader for the 2006 Independent Assessment of the DBNPS NSC/SCWE. He previously served as Project Manager for more than fifty similar cultural assessments performed by SYNERGY.

Mr. Guibert has over 35 years of nuclear experience. He is a graduate of the United States Naval Academy and Catholic University (MSNE). Currently, he is a principal and founder of SYNERGY Consulting Services Corporation (founded in 1992). He co-developed SYNERGY's Comprehensive Cultural Assessment methodology - a process that establishes objective measures of nuclear safety and general culture based upon models of high performing enterprises.

He was formerly Senior Vice President and Chief Operating Officer of a major technical and management consulting firm serving the commercial nuclear power industry. Prior to that, he was responsible for the development and management of a nuclear consulting practice focused on improving the performance of operating nuclear power plants. His other previous experience included management positions with another major nuclear consulting firm, technical and management positions with the Nuclear Regulatory Commission and service as an officer in the Navy's nuclear power program.

Timothy K. Snyder

Mr. Snyder has over 35 years of experience in providing management and engineering consulting services to the nuclear power and other industries. He is a graduate of the University of California – Berkeley. In January of 2006, he became a principal of SYNERGY Consulting Services Corporation.

During the preceding eight years, Mr. Snyder worked as an Associate of SYNERGY, participating in the performance of comprehensive cultural assessments and improvement projects at more than twenty nuclear power and fuel processing facilities. In his consulting practice, he has specialized in management consulting focused on producing significant organizational performance improvements. His areas of management expertise include operational performance, safety and workplace culture, effective management practices, work process analysis and design, information system management, and procedure effectiveness. Mr. Snyder has also worked as an Associate of Little Harbor Consultants in the performance of safety culture assessment and improvement projects for a nuclear facility, a major oil pipeline, and a DOE nuclear waste management contractor. In his early career, he held positions with two major nuclear consulting firms.

Howard A. Levin

Mr. Levin has over 30 years of commercial nuclear experience. He is a graduate of Massachusetts Institute of Technology. Currently, he is a principal & founder of SYNERGY Consulting Services Corporation (founded in 1992) where he is involved providing organizational development, cultural and leadership assessment services including diagnostic, remedial and performance enhancement consultation. He co-developed SYNERGY's Comprehensive Cultural Assessment methodology - a process that establishes objective measures of nuclear safety and general culture based upon models of high performing enterprises. SYNERGY has applied this methodology in more than a hundred assessments covering the majority of the U.S. commercial nuclear power plants and several others worldwide.

Over the last several years, Mr. Levin developed enhanced 360 degree leadership evaluation models for use in mentoring and equipping leaders. He was formerly, Chief Operating Officer of a large technical and management consulting firm. He was with the Nuclear Regulatory Commission in the1970's where he was involved in both operating reactors and new plant licensing. In the 1980's, he was involved in providing services to management including independent technical reviews, organizational and programmatic consultation, business process enhancement, and other advisory and analytical services. In his early career, he held positions with an architect-engineering firm where he was involved in the analysis, design and construction of nuclear power plants.

Dennis A. Winchester

Mr. Winchester joined PSEG Nuclear as the Vice President of Nuclear Assessment in May of 2005. He is responsible for providing leadership and oversight for nuclear assessment activities at the Salem and Hope Creek Generating Stations. In addition, he has executive responsibilities for implementation of the work environment improvement initiatives associated with the safety conscious work environment and employee concerns program improvements.

Mr. Winchester has 24 years of nuclear power plant experience. Prior to joining PSEG Nuclear, he served as the acting Nuclear Oversight Vice President and Director of Nuclear Oversight Programs and the Ombudsman for Exelon Corporation. Mr. Winchester has worked in a quality assessment management capacity for Exelon Corporation and Commonwealth Edison (merged to form Exelon) in successively increasing levels of responsibility since 1982. In these roles, he made important contributions for performance assessment and improvement of the nuclear facilities owned and operated by Exelon and Commonwealth Edison.

Mr. Winchester is actively involved in Industry Quality leadership forums. He participates as a working committee member in the ANS 3.2 Operating Quality Standard and sits on the Main Committee of the ASME Quality Standard, NQA-1. He is Chairman of the Nuclear Quality Management Leadership forum.

Mr. Winchester completed a company sponsored Bachelor of Arts Management program at Aurora University and a Northwestern, J.L. Kellogg Nuclear Leadership program.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

Introduction

The targeted population for the survey included all FENOC employees at DBNPS and all long-term contractors supporting DBNPS. Therefore, the surveying strategy did not include reliance on random sampling techniques. Ideally, the objective was to obtain 100% participation (versus setting statistical criteria for selecting a sample).

Participation in the survey was voluntary but strongly encouraged by FENOC. The survey administration period was from October 12, 2006 through October 30, 2006. The survey was administered by FENOC using administration guidance provided by SYNERGY. Completed surveys were mailed directly to ORI, Inc. – SYNERGY's independent data processor.

Since the actual survey participation rates were lower than 100%, the survey yielded an implicit "sample' of the targeted population. The degree of randomness of this sample is unknown. Given this uncertainty, the objective was to assure that the survey participation and response was sufficiently representative to draw conclusions at various DBNPS organizational levels and for key demographic categories. It is generally true that with higher response rates, the confidence level in the results is higher and the margin of error is lower.

There are a variety of factors that could potentially impact survey participation rates including both random factors (e.g. absence from work due to vacations or sickness) and systematic factors (e.g. apathy, inadequate survey administration practices or specific circumstances that could adversely affect the opportunity of a subset of the targeted population to participate in the survey).

SYNERGY interviewed both the FENOC personnel responsible for administering the survey and approximately 90 individuals from within the targeted population to obtain information on the manner in which the survey was administered and on any systematic factors that may have affected survey participation.

With respect to survey administration, information obtained from discussions with the manager of each DBNPS Functional Organization indicates that targeted population personnel were given the opportunity to participate in the survey. In many cases, a group session was scheduled during normal working hours for personnel to take the survey. Personnel interviews confirmed that the targeted population was provided ample opportunity to take the survey and was encouraged to do so.

The DBNPS Site Composite Organization survey participation rate was 70%[1]. While somewhat lower than the industry average of 77% for surveys conducted by SYNERGY, this participation rate is sufficient to obtain meaningful insights and to reach conclusions.

[1] This participation rate is almost identical to the participation rate (69%) for the annual DBNPS SCWE survey that was administered in September 2006. The Site protection/Security organization had a significantly higher level of participation in the DBNPS SCWE survey (97 participants versus 31 participants). The following DBNPS Functional Organizations had a much higher level of participation in the SYNERGY survey (Maintenance, Operations and Chemistry).

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

The following systematic factors contributed to less than 100% participation:

1. Participation in the survey was voluntary.
2. DBNPS personnel have been requested to participate in quite a few other surveys, including two surveys that were administered during September 2006 (i.e., the annual DBNPS SCWE Survey and the annual FENOC Corporate Engagement Survey). A number of individuals, both management and workforce, have expressed concern that the organization has been "surveyed out".
3. A few individuals interviewed and a few write-in comments indicated some level of dissatisfaction with management's response (or lack thereof) to previous surveys.
4. 57 DBNPS personnel were on loan supporting an outage at Beaver Valley during the time that the survey was administered. The vast majority of these individuals were working 12 hour shifts during this time period.
5. Based on personnel interviews with Shift Operations personnel, there is indication that some union personnel did not participate in the SYNERGY survey due to the fact that they had received a survey with bar coding, which they perceived as an attempt to identify them. Based on SYNERGY's investigation into this matter, it was confirmed that (1) no SYNERGY surveys had been bar-coded and (2) the hard-copy version of the FENOC Corporate Engagement survey provided to union personnel did have bar coding[2]. The fact that a recent survey was bar-coded contributed to some degree (extent unknown) to non-participation in the SYNERGY survey by union personnel.

Personnel interviews confirmed that opportunity was provided for the personnel on-loan to Beaver Valley to participate in the SYNERGY survey. Interviews with personnel from within this sub-set of the targeted population indicated that many (particularly personnel from the Radiation Protection organization) did not participate in the survey due to 1 and 2 above.

Interviews with personnel from Functional Organizations that had low participation rates for the SYNERGY survey indicated that lack of participation was primarily due to 1 and 2 above.

The DBNPS Composite Site Organization survey participation rate was most significantly affected by the low participation rate (22%) of Security/Site Protection personnel. Low participation rates by Security organizations frequently are encountered in surveys conducted by SYNERGY. Personnel interviews with Security/Site Protection personnel indicate that the primary reasons for low participation were 1, 2 and 3 above. A few also indicated that they felt that the SYNERGY survey focused heavily on areas that were perceived to be non-applicable to Security/Site Protection personnel, thereby affecting their interest in participating. Based on personnel interviews, the Assessment Team has concluded that the survey results for Security/Site Protection are sufficiently representative of that organization.

[2] SYNERGY was advised that hard-copy versions of this survey were provided to union personnel because there had been concern expressed that they might not have ready access to computers for the purpose of taking the FENOC Corporate Engagement survey on-line. SYNERGY was advised that the hard copies of this survey were bar-coded to detect indications that union personnel had taken both versions of the survey. SYNERGY has communicated to DBNPS project management for the 2006 Independent Assessment of the NSC/SCWE that bar-coding of any survey is a bad practice and that it can affect participation not only in the bar-coded survey but also in any other surveys.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

DBNPS Major Functional Organizations

The survey participation rate for the Site Operations Organization was 70%, which is sufficient to obtain meaningful insights and to reach conclusions.

- This participation rate was most significantly affected by the relatively low participation rate (47%) of Shift Operations personnel. Interviews were conducted with Shift Operations personnel to confirm that the survey results (based on those who had participated in the survey) were representative of the entire Shift Operations organization and to augment information obtained through the survey. Based on these interviews, the Assessment Team has concluded that the survey results for Shift Operations are sufficiently representative of that organization.
- The Site Operations Organization also had 15 individuals who were on loan supporting the outage at Beaver Valley. Interviews were conducted with Nuclear ALARA/RP Services and Chemistry personnel who supported the Beaver Valley outage to confirm that the survey results (based on those who had participated in the survey) were representative for these organizations and to augment information obtained through the survey. Based on these interviews, the Assessment Team has concluded that the survey results for the ALARA/RP Services and Chemistry organizations are sufficiently representative of those organizations.

The survey participation rate for the Site Maintenance Organization was 74%, which is sufficient to obtain meaningful insights and to reach conclusions.

- The Site Maintenance Organization had 29 individuals who were on loan supporting the outage at Beaver Valley. Maintenance management indicated that these individuals were provided additional opportunity to participate in the survey when they returned to DBNPS. There is evidence that some of these individuals took the survey after they had returned to DBNPS.
- FIN Maintenance had a low survey participation rate (30%). FIN Maintenance management indicated that they had provided ample opportunity for personnel to participate in the survey. Interviews were conducted with FIN Maintenance personnel, including personnel who supported the Beaver Valley outage, to confirm that the survey results (based on those who had participated in the survey) were representative of the entire organization and to augment information obtained through the survey. These interviews indicated that some FIN personnel are very tired of taking surveys, which they believe to be the primary cause of low participation. Based on these interviews, the Assessment Team has concluded that the survey results for FIN Maintenance are likely to be representative of that organization.

The survey participation rate for the Site Engineering Organization was 87%, which is sufficient to obtain meaningful insights and to reach conclusions.

The survey participation rate for the Site Performance Improvement Organization was 85%, which is sufficient to obtain meaningful insights and to reach conclusions.

- The survey participation rate for Janitorial & Food Services, which reports through the Projects Organization, is unknown because that Functional Organization selection choice was not included in the survey demographics question page.
- Excluding Janitorial & Food Services, the survey participation rate for the Site Performance Improvement Organization was greater than 100%.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

Excluding the Security/Site Protection organization, the survey participation rate for the Site VP Organizations was 70%, which is sufficient to obtain meaningful insights and to reach conclusions.

- The survey participation rate for Other Corporate & FENOC Support personnel stationed at DBNPS is unknown because that Functional Organization selection choice was not included in the survey demographics question page.

DBNPS Individual Functional Organizations

A few individual Functional Organizations were identified as "Low Responding" (LR) based on survey participation rates less than 50%:

- Security/Site Protection – 22%
- FIN Maintenance – 30%
- Nuclear ALARA/Radiation Protection Services – 31%
- Nuclear Warehouse[3] – 40%
- Human Resources/Communications/L&OD – 45%
- Shift Operations – 47%

Survey results for these organizations may be representative, but with reduced levels of confidence.

Participation rates for two of these organizations (i.e., Nuclear ALARA/Radiation Protection Services and FIN Maintenance) were affected by low participation by personnel who supported the Beaver Valley outage.

Interviews were conducted with personnel from these organizations to augment information obtained through the survey to confirm that the survey results (based on those who had participated in the survey) were representative for these organizations. Based on these interviews, Based on these interviews, the Assessment Team has concluded that the survey results for these organizations are sufficiently representative.

Non-Designated Functional Organizational Affiliation

24 of the survey participants either did not provide their organizational affiliation or masked their organizational affiliation by selecting multiple organizational affiliation choices. This represents 4% of the survey participants, which is slightly higher than the industry average of 3% for surveys conducted by SYNERGY.

17 of these 24 were identified as FENOC employees. This represents 3% of the FENOC employees that participated in the survey.

7 of these 24 were identified as contractors, which represents 19% of the contractors that participated in the survey. In this regard:

- There are relatively few (37) long-term contractors at DBNPS.

[3] It appears that essentially all Nuclear Warehouse personnel participated in the survey; however, it appears that several selected a different Functional Organization affiliation (i.e., DBNPS Supply Chain).

- 20 of these are in Janitorial & Food Services, which did not have a Functional Organization selection choice included in the survey demographics question page.
- The remaining 17 are dispersed throughout the organization, typically in groups of 1 or 2. Accordingly, these individuals may have had particular concerns about confidentiality/protection of their identity.

The survey demographic page provides selection choices of "Other" (e.g., Other Maintenance Organization). These selection choices are provided with a specific targeted population in mind (e.g., the Maintenance Manager and his/her staff). When survey participation rates for these "Other" categories are higher than the targeted population/headcount, it indicates that some survey participants were willing to identify that they were part of the larger organization (e.g., Maintenance), but unwilling to identify themselves as part of a sub-organization (e.g., FIN Maintenance).

There were two notable situations where the survey participation rates for the "Other" categories exceeded the targeted population/headcount – Other Maintenance (7 versus 3) and Other Performance Improvement (9 versus 5). In the latter case, the lack of a selection choice for Janitorial & Food Services may have contributed to the difference.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

Survey Participation Details

Survey participation rate details are presented in Table 1-1 below. Low Responding (LR) organizations, based on survey participation rates less than 50%, are highlighted.

Table 1-1

ORGANIZATION	SURVEY PARTICIPANTS	ORG HEADCOUNT	RESPONSE PERCENT
DBNPS TOTAL	**591**	**843**	**70%**
Employees	571	806	71%
Contractors	20	37	54%
Site Operations	**160**	**228**	**70%**
Operations	68	109	62%
Shift Operations (LR)	36	77	47%
Operations Services	22	23	96%
Reactor Engineering	5	4	>100%
Other Operations Org	5	5	100%
Radiation Protection	26	39	67%
Nuclear Radiation Protection	20	21	95%
Nuclear ALARA/Rad. Protection Services (LR)	5	16	31%
Other Radiation Protection	1	2	50%
Chemistry	19	25	76%
Work Management	14	12	>100%
Outage Management	5	6	83%
Supply Chain	21	26	81%
Davis-Besse Supply Chain	16	10	>100%
Nuclear Warehousing (LR)	4	10	40%
Other Supply Chain[4]	1	6	17%
Nuclear Procurement Eng	7	9	78%
Other Director of Site Operations	0	2	0%
Site Maintenance	**136**	**184**	**74%**
I&C Maintenance	20	30	67%
Electrical Maintenance	25	28	89%
Mechanical Maintenance	26	30	87%
FIN Maintenance (LR)	8	27	30%
Other Maintenance Org	7	3	>100%
Work Planning	22	31	71%
Maintenance Services	26	33	79%
Other Director of Site Maintenance Org	2	2	>100%

[4] SYNERGY has been informed that there was confusion on the part of "Other Supply Chain" personnel as to whether to select "Davis Besse Supply Chain" of "Other Supply Chain" as their Functional Organization affiliation. The survey response for both of these organizations combined was 17 of an anticipated 16. Accordingly, "Other Supply Chain" is not considered as a Low Responding organization.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

ORGANIZATION	SURVEY PARTICIPANTS	ORG HEADCOUNT	RESPONSE PERCENT
Site Engineering	**98**	**113**	**87%**
Plant Engineering	28	31	90%
Nuclear Electrical Systems	11	14	79%
Nuclear Plant Systems	7	8	88%
Nuclear Supply Systems	7	7	100%
Other Plant Engineering Org	3	2	>100%
Design Engineering	33	38	87%
Nuclear Mechanical/Structural	10	13	77%
Nuclear Electrical/I&C	7	9	78%
Engineering Analysis	7	6	>100%
Nuclear Configuration Control	7	7	100%
Other Design Engineering Org	2	3	67%
Technical Services Engineering	34	44	77%
Nuclear Document Control	6	8	75%
Nuclear Engineering Programs	14	13	>100%
Nuclear Rapid Response Eng.	10	12	83%
Other Tech Services Eng Org	4	8	50%
Other Director of Site Engineering Org	3	3	100%
Site Performance Improvement	**105**	**123**	**85%**
Training	36	39	92%
Operations Training	15	14	>100%
Nuclear Technical Training	11	13	85%
Training Services	9	10	90%
Other Training Organization, including HP/IS	1	2	50%
Regulatory Compliance	20	16	>100%
Projects	16	17	94%
Janitorial & Food Services	UNKN	20	UNKN
Nuclear Procedures Control	9	11	82%
Emergency Response	8	7	>100%
Records Management	7	8	88%
Other Performance Improvement Org, including IT	9	5	>100%
Site VP Organizations	**68**	**195**	**35%**
Nuclear Oversight/Quality Control/ECP	21	21	100%
Business Services	8	8	100%
Site Protection/Security	31	142	22%
Human Resources/Communications/L&OD	5	11	45%
Other Site VP Org	3	2	>100%
Other Corp & FENOC Support	UNKN	11	UNKN
Organizational Affiliation Not Provided/Indeterminate	**24**	**N/A**	**N/A**

COIA-SC-2006 FINAL REPORT
ATTACHMENT 1
SURVEY PARTICIPATION

Demographic Category Survey Participation Rates

Survey participation rates by Worker Category were as follows:

- Exempt/Salaried Employees – 78%
- Non-Exempt/Non-Union Employees – 89%
- Union Employees – 44%
- Contractors – 54%

The participation rate by Union Employees is lower than typically observed by SYNERGY (55% to 60%). It is likely that the number of Union Employees on loan to support the outage at Beaver Valley was a significant contributor to this differential.

As indicated in Table 1-2, it is noteworthy that DBNPS Union Employee provided ratings of almost all key cultural metrics that were significantly closer to the DBNPS Site Composite ratings than is typically observed by SYNERGY.

Table 1-2

Key Cultural Metric	Union Employee Rating Differential From Site Rating (DBNPS)	Union Employee Rating Differential From Site Rating (Industry Average)
Overall Nuclear Safety Culture	-4%	-7%
NS Values, Behaviors & Practices	-3%	-7%
Overall SCWE	-3%	-5%
ECP Effectiveness	-9%	-9%
General Culture & Work Environment	-3%	-7%

A sensitivity analysis was performed to determine the effect on DBNPS Site Composite key cultural metric ratings of 60% survey participation by the Union Employee worker category – assuming that the ratings actually provided in this worker category were representative of all other individuals in this worker category. As indicated in Table 1-3, the effects on Site Composite key cultural metric ratings are very small.

Table 1-3

Key Cultural Metric	Actual Site Rating	60% Union Participation Site Rating	Percent Differential
Overall Nuclear Safety Culture	4.11	4.07	0.97%
NS Values, Behaviors & Practices	4.00	3.97	0.75%
Overall SCWE	4.48	4.43	1.11%
ECP Effectiveness	3.85	3.79	1.56%
General Culture & Work Environment	3.68	3.65	0.82%

A sensitivity analysis was also performed to determine the effect on Site Composite key cultural metrics ratings of 100% survey participation by all worker categories – assuming that the ratings actually provided by each worker category were representative of all other individuals within

each worker category. As indicated in Table 1-4, the effects on Site Composite key cultural metric ratings are very small.

Table 1-4

Key Cultural Metric	Actual Site Rating	100% Participation Site Rating	Percent Differential
Overall Nuclear Safety Culture	4.11	4.08	0.73%
NS Values, Behaviors & Practices	4.00	3.97	0.75%
Overall SCWE	4.48	4.44	0.89%
ECP Effectiveness	3.85	3.78	1.82%
General Culture & Work Environment	3.68	3.65	0.82%

Write-In Comments

The survey provided the opportunity to provide write-in comments.

Write-in comments were provided by 35% of the survey participants, which is slightly above industry norms based on SYNERGY's experience.

The percentage of survey participants that provided write-in comments was significantly higher than the percentage (11%) for the annual DBNPS SCWE survey that was administered in September 2006.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 2
KEY NSC CULTURAL METRIC RATINGS

Introduction

Key NSC cultural metric ratings are provided in Table 2-1 for:

- The DBNPS Site Composite Organization
- DBNPS Site Major Functional Organizations
- Individual DBNPS Site Functional Organizations
- DBNPS Site Demographic Categories

These ratings are color-coded. Four colors are used to characterize specific metric ratings. These have been established to meet characterizations specified by DBNPS. They are:

Turquoise:	"Highly Effective"
Green:	"Effective"
Yellow:	"Marginally Effective"
Red:	"Not Effective"

The following abbreviations are used in Table 2-1:

NSC:	Nuclear Safety Culture
NSVBP:	Nuclear Safety Values, Behaviors & Practices
SCWE:	Safety Conscious Work Environment
ECP:	Employee Concerns Program

COIA-SC-2006 FINAL REPORT
ATTACHMENT 2
KEY NSC CULTURAL METRIC RATINGS

Table 2-1

	OVERALL NSC		NSVBP	SCWE	ECP
DBNPS	4.11		4.00	4.48	3.85
Site Operations	4.10		3.98	4.48	3.78
Operations	4.08		3.97	4.48	3.75
Shift Operations	3.90		3.76	4.36	3.54
Operations Services	4.31		4.23	4.62	3.93
Reactor Engineering	3.79		3.63	4.34	3.31
Other Operations Organization	4.56		4.49	4.76	4.59
Radiation Protection	4.13		4.03	4.51	3.71
Nuclear Radiation Protection	4.20		4.11	4.56	3.76
Nuclear ALARA/RP Services	3.99		3.87	4.39	3.62
Chemistry	3.83		3.67	4.38	3.37
Work Management	4.21		4.11	4.53	4.03
Outage Management	4.41		4.33	4.62	4.48
Supply Chain	4.08		3.99	4.36	3.94
Davis Besse Supply Chain	4.26		4.19	4.49	4.17
Nuclear Warehouse	3.31		3.16	3.80	2.91
Nuclear Procurement Engineering	4.36		4.26	4.74	3.83
Site Maintenance	4.09		3.98	4.47	3.68
I&C Maintenance	4.20		4.10	4.52	3.88
Electrical Maintenance	4.11		4.01	4.46	3.62
Mechanical Maintenance	4.00		3.89	4.42	3.52
FIN Maintenance	4.24		4.12	4.63	3.94
Other Maintenance Organization	4.12		3.99	4.51	3.95
Work Planning	4.11		3.97	4.58	3.64
Maintenance Services	4.00		3.92	4.30	3.61
Site Performance Improvement	4.21		4.09	4.56	4.16
Training	3.93		3.77	4.39	3.97
Operations Training	3.72		3.55	4.16	3.87
Technical Training	4.01		3.85	4.48	3.88
Training Services	4.18		4.02	4.62	4.21
Regulatory Compliance	4.42		4.32	4.71	4.29
Projects	4.29		4.18	4.60	4.25
Procedures Control	4.17		4.08	4.46	4.00
Emergency Response	4.33		4.21	4.70	4.10
Records Management	4.60		4.60	4.64	4.28
Other Perf. Improvement Org	4.45		4.34	4.74	4.57

COIA-SC-2006 FINAL REPORT
ATTACHMENT 2
KEY NSC CULTURAL METRIC RATINGS

	OVERALL NSC		NSVBP	SCWE	ECP
Site Engineering	4.12		4.00	4.51	3.87
Plant Engineering	4.01		3.90	4.39	3.51
Electrical Systems Engineering	4.19		4.09	4.54	3.94
Plant Systems Engineering	3.35		3.22	3.84	2.70
Supply Systems Engineering	4.35		4.24	4.75	3.91
Other Plant Engineering Org	4.03		4.01	4.29	3.11
Design Engineering	4.39		4.26	4.76	4.23
Mechanical/Structural Engineering	4.40		4.31	4.73	4.00
Electrical/I&C Engineering	4.30		4.17	4.68	4.32
Engineering Analysis	4.31		4.15	4.76	4.47
Configuration Control	4.54		4.44	4.89	4.23
Technical Services Engineering	3.96		3.83	4.36	3.78
Document Control	4.21		4.10	4.59	3.76
Engineering Programs	3.67		3.52	4.10	3.52
Rapid Response Engineering	4.01		3.89	4.39	3.84
Other Technical Services Eng Org	4.55		4.42	4.90	4.56
Other DSE Organization	4.11		3.94	4.56	4.23
Site VP Organizations	4.18		4.07	4.51	4.00
Nuclear Oversight/QC/ECP	4.33		4.20	4.72	4.31
Business Services	4.51		4.43	4.75	4.43
Site Protection/Security	3.96		3.88	4.27	3.54
Human Resources/Comm./L&O	4.20		4.05	4.57	4.54
Other Site VP Organization	4.33		4.17	4.75	4.46
Non-Designated Org	3.72		3.64	4.00	3.44
Worker Category					
Salaried/Exempt Employee	4.20		4.08	4.57	4.03
Non-Union/Non-Exempt Employee	4.26		4.16	4.62	3.96
Union Employee	3.97		3.87	4.34	3.52
Contractor	3.79		3.68	4.13	3.70
Position					
Director/Manager	4.42		4.28	4.78	4.48
Superintendent/Supervisor/Foreman	4.23		4.12	4.57	4.00
Technical Staff	4.14		4.02	4.52	3.95
Craft/Plant Staff	3.95		3.84	4.34	3.52
Office/Administrative Staff	4.31		4.25	4.55	3.99
Years of Service					
<1 Year	4.29		4.20	4.56	4.09
1-5 Years	4.09		3.99	4.44	3.82
6-10 Years	3.94		3.82	4.39	3.40
>10 Years	4.14		4.03	4.50	3.91

COIA-SC-2006 FINAL REPORT
ATTACHMENT 3
APPROXIMATE TRENDS

Introduction

For cultural assessments where previous data does not exist to support direct trending information, SYNERGY employs an approximate trending methodology based on the use of several paired sets of survey questions for significant cultural attributes. These questions are designed to obtain ratings of the attributes both "today" and "a year ago". Approximate trends are determined based on the differences between these two ratings.

Overall NSC Rating Trends

SYNERGY uses a surrogate indicator rating for the Overall Nuclear Safety Culture based on a proprietary weighted calculation of ratings provided for several sets of "approximate trend" survey questions. A surrogate indicator rating of the Overall Nuclear Safety Culture is determined for "today" and "a year ago". The approximate trend for the Overall Nuclear Safety Culture rating is determined based on the difference reflected in these two surrogate indicator ratings.

Surrogate indicator ratings do not exactly replicate the actual Overall NSC ratings. However, statistical analysis over the course of more than 100 cultural assessments indicates that the surrogate indicator "today" rating is sufficiently highly correlated to the current Overall NSC rating to use the difference in the surrogate indicator ratings as a reasonable approximate indicator of trends in the Overall NSC rating.

SYNERGY's experience in using the trending information derived in this manner indicates that the "approximate trends" should best be considered as indicators of current momentum.

Overall Nuclear Safety Values, Behaviors & Practices Rating Trends

SYNERGY uses a surrogate indicator rating for NS VB&P based on a proprietary weighted calculation of ratings provided for several sets of "approximate trend" survey questions. A surrogate indicator rating of the NS VB&P is determined for "today" and "a year ago". The approximate trend for the NS VB&P rating is determined based on the difference reflected in these two surrogate indicator ratings.

Surrogate indicator ratings do not exactly replicate the actual NS VBB&P ratings. However, statistical analysis over the course of more than 100 cultural assessments indicates that the surrogate indicator "today" rating is sufficiently highly correlated to the current NS VB&P rating to use the difference in the surrogate indicator ratings as a reasonable approximate indicator of trends in the NS VB&P rating.

SYNERGY's experience in using the trending information derived in this manner indicates that the "approximate trends" should best be considered as indicators of current momentum.

Safety Conscious Work Environment Rating Trends

A survey question pair associated with "the environment at our Site as it affects my willingness and likelihood of reporting potential Nuclear Safety issues" can be used as a reasonable approximation of trends related to the SCWE.

SYNERGY's experience in using the trending information derived in this manner indicates that the "approximate trends" should best be considered as indicators of current momentum.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 3
APPROXIMATE TRENDS

Effectiveness of the Employee Concerns Program Rating Trends

A survey question pair associated with "Overall, my confidence in the Employee Concerns Program" can be used as a reasonable approximation of trends related to the Overall Effectiveness of the Employee Concerns Program Rating.

SYNERGY's experience in using the trending information derived in this manner indicates that the "approximate trends" should best be considered as indicators of current momentum.

Characterization of Approximate Trends

The following criteria are used to characterize the nature and magnitude of the trends associated with "approximate trending".

ABBREV	CHARACTERIZATION	CRITERIA
VS IMP	Very Significant Improvement	Improving Trend ≥10%
S IMP	Significant Improvement	Improving Trend ≥6% and < 10%
NOT IMP	Notable Improvement	Improving Trend ≥3% and < 6%
NOM IMP	Nominal Improvement	Improving Trend > 0% and < 3%
NOM DEC	Nominal Decline	Declining Trend < 0% and < 3%
NOT DEC	Notable Decline	Declining Trend ≥3% and < 6%
S DEC	Significant Decline	Declining Trend ≥6% and < 10%
VS DEC	Very Significant Decline	Declining Trend ≥10%

Based on SYNERGY's experience, "significant" trends are generally equivalent to an improvement or decline of one quartile in terms of industry standing at the Site Composite Organization level. "Very significant" trends are generally equivalent to improvement or decline of two quartiles or more in terms of industry standing at the Site Composite Organization level.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 4
INHERENT TREND INFORMATION

Introduction

The survey instrument used in the 2006 DBNPS Independent Assessment of the NSC/SCWE included seven questions that were designed to measure progress achieved in specific topical areas that had been identified as opportunities/needs for improvement in the 2005 Independent Assessment.

These survey questions were structured to obtain inherent trending information using a question format along the lines of "During the past year, we have made progress in achieving improvement in the effectiveness of _____".

Inherent Trend Survey Questions

The following "inherent trend" questions were included in the DBNPS NSC/SCWE survey:

67. During the past year, my understanding of how the concepts of Nuclear Safety Culture and the Safety Conscious Work Environment apply to our day-to-day work activities has improved.

68. During the past year, we have improved Nuclear Safety and safe plant operations by establishing authority, accountability and ownership at the appropriate levels of the DBNPS organization.

69. During the past year, we have improved decision making related to Nuclear Safety and safe plant operations by ensuring an appropriate level of involvement by and input from knowledgeable personnel.

70. During the past year, the quality and value of our self-assessments and Section Integrated Performance Assessments have improved through the use of increased rigor and criticalness in the conduct of those assessments.

71. During the past year, the quality and value of assessments performed by the DBNPS/FENOC Nuclear Oversight organizations have improved through the use of increased rigor and criticalness in the conduct of those assessments.

72. During the past year, we have improved our effectiveness in identifying and resolving problems affecting Nuclear Safety or safe plant operations before the problems become self-revealing or are identified to us by others.

73. During the past year, we have improved our organizational learning process through more effective communication and use of operating experience information.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 4
INHERENT TREND INFORMATION

Characterization of Inherent Trends

The rating scale for these questions was as follows:

5 = "Fully Agree"
4 = "Strongly Agree"
3 = "Generally Agree"
2 = "Disagree"
1 = "Strongly Disagree"

Accordingly, a rating of 3.00 or greater indicates some level of agreement that improvement has been achieved in the area of interest. A rating of less than 3.00 indicates some level of disagreement that improvement has been achieved.

A rating of 3.00 generally requires a positive response percentage (i.e., the percentage of respondents that rated the survey question as "3", "4" or "5") of 67%.

Based on its experience in using inherent trend survey questions, SYNERGY has determined that:

- The mean value rating of an inherent trending survey question is usually highly correlated to the positive response percentage associated with the survey question.
- High positive response percentages with lower than expected mean value ratings indicate a lack of strength in the positive response percentages.

The following criteria were used to characterize the nature and magnitude of the trends derived from the "inherent trending" survey questions.

ABBREV	CHARACTERIZATION	CRITERIA
VS IMP	Very Significant Improvement	Mean Value Rating ≥3.80 AND Positive Response Percentage ≥95%
S IMP	Significant Improvement	Mean Value Rating ≥3.50 AND Positive Response Percentage ≥85%
NOT IMP	Notable Improvement	Mean Value Rating ≥3.20 AND Positive Response Percentage ≥75%
NOM IMP	Nominal Improvement	Mean Value Rating ≥3.00 and < 3.20
NOM DEC	Nominal Lack of Improvement	Mean Value Rating ≥2.80 and < 3.00
NOT DEC	Notable Lack of Improvement	Mean Value Rating ≥2.50 and < 2.80 OR Positive Response Percentage < 60%
S DEC	Significant Lack of Improvement	Mean Value Rating ≥2.20 and < 2.50 OR Positive Response Percentage < 50%
VS DEC	Very Significant Lack of Improvement	Mean Value Rating < 2.20 OR Positive Response Percentage < 40%

COIA-SC-2006 FINAL REPORT
ATTACHMENT 5
INPO PRINCIPLES FOR A STRONG NSC

Introduction

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment based on the eight INPO Principles for a Strong Nuclear Safety Culture.

SYNERGY has developed a survey-based model for the INPO Principles and associated attributes to assist its clients in addressing INPO inquiries/evaluations. The NRC has also expressed interest in SYNERGY's coverage of the INPO Principles.

In developing the model for the INPO Principles, it became clear that:

- Some of the specific INPO Principles attributes were not amenable to being addressed through an all-hands employee survey. For example, "Relationships among utilities, operating companies and owners are not allowed to obscure or diminish the line of responsibility for nuclear safety". Such attributes would need to be addressed through other means.
- A few of the Principles (particularly Principles 1, 3 and 7) include a number of diverse attributes that are best placed into sub-groupings. As indicated below, SYNERGY's model for the INPO Principles includes such sub-groupings.
- The INPO Principles do not include specific coverage of the ECP, and do not include detailed coverage of the SCWE.
- With a few exceptions, the survey questions/attributes used to exercise SYNERGY's standard cultural models for the NSC/SCWE were well aligned with and provided good coverage of the attributes identified in the INPO Principles. The exceptions were generally associated with the specificity of certain attributes. In some of these cases, additional survey questions were included.

The model structure utilized by SYNERGY for the INPO Principles is presented below.

- Principle 1: Personal Responsibility for Nuclear Safety
  - Individual Worker Responsibility (1A)
  - Management Responsibility (1B)
  - Company Responsibility (1C)
- Principle 2: Leaders Demonstrate Their Commitment to Nuclear Safety
- Principle 3: Trust Permeates the Organization
  - General Environment (3A)
  - Nuclear Safety Environment (3B)
  - Safety Conscious Work Environment (3C)
- Principle 4: Decision-Making Reflects Safety First
- Principle 5: Nuclear Technology is Recognized as Special and Unique
- Principle 6: A Questioning Attitude is Cultivated
- Principle 7: Organizational Learning is Embraced
  - Operating Experience Related (7A)
  - CAP Related (7B)
  - General Continuing Learning Environment (7C)
- Principle 8: Nuclear Safety Undergoes Constant Examination

Since the SCWE is a relatively minor component of this model for the INPO Principles, the Overall Rating for the INPO Principles using this model is expected to be somewhat lower than the Overall Rating of the NSC using SYNERGY's standard cultural assessment model. Based on SYNERGY's experience, the Overall Rating of the INPO Principles correlates more closely with the Nuclear Safety Values, Behaviors and Practices component of SYNERGY's standard cultural model for the NSC.

For informational purposes, ratings of the cultural metrics for the INPO Principles have been characterized using the protocol set forth in DBNPS Business Practice DBBP-VP- 0009:

- Highly Effective
- Effective
- Marginally Effective
- Not Effective

Areas of Strength, Areas for Improvement and Areas in Need of Attention were not identified for the INPO Principles since they have been identified using SYNERGY's standard cultural model for the NSC.

Summary of DBNPS Site Composite Organization Results

The DBNPS Site Composite Organization ratings of the INPO Principles-related cultural metrics are provided in Table 5-1 below.

Table 5-1

CULTURAL METRIC	DBNPS SITE COMPOSITE METRIC RATING
OVERALL RATING	**HIGHLY EFFECTIVE**
Principle #1: Personal Responsibility for Nuclear Safety	**Effective**
Principle #1A: Individual Worker Responsibility	Highly Effective
Principle #1B: Management Responsibility	Effective
Principle #1C: Company Responsibility (Resources)	Marginally Effective
Principle #2: Leaders Demonstrate Their Commitment to Nuclear Safety	**Effective**
Principle #3: Trust Permeates the Organization	**Highly Effective**
Principle #4: Decision-Making Reflects Safety First	**Highly Effective**
Principle #5: Nuclear Technology is Recognized as Special and Unique	**Highly Effective**
Principle #6: A Questioning Attitude is Cultivated	**Highly Effective**
Principle #7: Organizational Learning is Embraced	**Effective**
Principle #7A: Operating Experience Related	Effective
Principle #7B: CAP Related	Effective
Principle #7C: General Continuing Learning Environment	Effective
Principle #8: Nuclear Safety Undergoes Constant Examination	**Effective**

COIA-SC-2006 FINAL REPORT
ATTACHMENT 5
INPO PRINCIPLES FOR A STRONG NSC

Individual DBNPS Functional Organizations

Based on the Overall Rating for the INPO Principles, the following individual DBNPS Functional Organizations provided ratings that are characterized as Not Effective:

- Nuclear Warehouse
- Plant Systems Engineering

Based on the Overall Rating for the INPO Principles, the following individual DBNPS Functional Organizations provided ratings that are characterized as Marginally Effective:

- Engineering Programs
- Reactor Engineering
- Operations Training
- Chemistry

COIA-SC-2006 FINAL REPORT
ATTACHMENT 6
NRC RIS 2006-13 NUCLEAR SAFETY CULTURE COMPONENTS

Introduction

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment based on the Nuclear Safety Culture components and attributes identified in NRC RIS 2006-13.

SYNERGY has developed a survey-based model for the RIS 2006-13 NSC components and associated attributes.

In developing the model for the RIS 2006-13 components and attributes, it became clear that:

- Some of the specific attributes were not amenable to being addressed through an all-hands employee survey. These attributes were addressed through documentation reviews and personnel interviews to the extent practicable.
- With a few exceptions, the survey questions/attributes used to exercise SYNERGY's standard cultural models for the NSC/SCWE were well aligned with and provided good coverage of the Nuclear Safety components and attributes identified in RIS 2006-13. The exceptions were generally associated with the specificity of certain attributes. In some of these cases, additional survey questions were included.

The model structure utilized by SYNERGY for the RIS 2006-13 NSC components and associated attributes is presented below.

- Human Performance Cross-Cutting Components
  - Decision-Making
  - Resources
  - Work Control
  - Work Practices
- Problem Identification and Resolution Cross-Cutting Components
  - General Problem Identification and Resolution[1]
  - Problem Identification and Resolution – Identification of Issues[2]
  - Corrective Action Program
  - Certain Elements of the ECP[3]
  - Operating Experience
  - Self and Independent Assessments
- Safety Conscious Work Environment Cross Cutting Components
  - Environment for Raising Concerns[4]
  - Preventing, Detecting and Mitigating Perceptions of Retaliation
- Other Safety Culture Components
  - Accountability
  - Continuous Learning Environment
  - Organizational Change Management
  - Safety Policies[5]

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[1] This composite component was added by SYNERGY due the fact that there are some P&IR-related survey attributes not specifically linked to the CAP.

[2] This composite component was added by SYNERGY due to the fact that there are some survey attributes related to issue-identification that are not specifically linked to the CAP per se.

[3] This component was added by SYNERGY due to the fact that certain ECP attributes were included by the NRC under the CAP component.

[4] Note that the NRC includes many ECP attributes in this component.

SCWE is a major component within this model and as a sub-metric of the Overall NSC is weighted approximately the same as the SCWE is weighted in SYNERGY's standard cultural models. However, in this model the SCWE "Demonstrated Willingness to Take Appropriate Action" attributes are not as highly weighted as in SYNERGY's cultural model for the SCWE. Accordingly, the numerical ratings for the Overall SCWE and for the Overall NSC obtained using this model are expected to be somewhat lower than those obtained using SYNERGY's models.

Other factors that create differences between the numerical ratings of the Overall NSC using SYNERGY's cultural models and the numerical rating of the Overall NSC using this model are:

- The inclusion of some GCWE-related attributes in certain components of this model (e.g., Change Management, Work Control and Work Practices).
- The inclusion of a few LMS-related attributes in the Continuous Learning Environment component of this model.

As a result, it should be expected that a few additional individual Functional Organizations may be identified as organizational outliers using this model, particularly organizations that had strong SCWE/DWTA ratings to offset lower ratings elsewhere and organizations that had low ratings of the GCWE & LMS attributes that are included in the this model (e.g., low ratings of Change Management).

For informational purposes, ratings of the cultural metrics for the RIS 2006-13 NSC components and associated attributes have been characterized using the protocol set forth in DBNPS Business Practice DBBP-VP- 0009:

- Highly Effective
- Effective
- Marginally Effective
- Not Effective

Areas of Strength, Areas for Improvement and Areas in Need of Attention were not identified for the RIS 2006-13 NSC components and associated attributes since they have been identified using SYNERGY's cultural model for the NSC.

[5] Note that the SYNERGY NSCA survey includes some NSC-related questions that are not specifically included in the RIS 2006-13 Safety Culture Components. These primarily relate to certain NSC-related attributes that SYNERGY categorizes as being part of "Operational Nuclear Safety". SYNERGY has concluded that the best fit for these questions within the RIS 2006-13 Safety Culture Components structure is under the "Safety Policies" component.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 6
NRC RIS 2006-13 NUCLEAR SAFETY CULTURE COMPONENTS

Summary of DBNPS Site Composite Organization Results

The DBNPS Site Composite Organization ratings of the Nuclear Safety Culture components and attributes identified in NRC RIS 2006-13 are provided in Table 1 below. These ratings are based on the survey results.

Table 1

CULTURAL METRIC	DBNPS SITE COMPOSITE METRIC RATING
OVERALL NSC RATING	**HIGHLY EFFECTIVE**
Human Performance Cross-Cutting Components	**Effective**
Decision Making	Highly Effective
Resources	Effective
Work Control	Effective
Work Practices	Highly Effective
Problem Identification and Resolution Cross-Cutting Components	**Highly Effective**
General Problem Identification and Resolution	Highly Effective
Problem Identification and Resolution – Identification of Issues	Highly Effective
Corrective Action Program	Effective
Certain Elements of the ECP	Highly Effective
Operating Experience	Effective
Self and Independent Assessments	Effective
Safety Conscious Work Environment Cross Cutting Components	**Highly Effective**
Environment for Raising Concerns	Highly Effective
• ECP Related	Highly Effective
• Not ECP Related	Highly Effective
Preventing, Detecting and Mitigating Perceptions of Retaliation	Highly Effective
Other Safety Culture Components	**Effective**
Accountability	Highly Effective
Continuous Learning Environment	Effective
Organizational Change Management	Marginally Effective
Safety Policies	Highly Effective

Individual DBNPS Functional Organizations

Based on the Overall Rating of the NSC using the model for the RIS 2006-13 Nuclear Safety Culture components and attributes, the following individual DBNPS Functional Organizations provided ratings that are characterized as Not Effective:

- Nuclear Warehouse
- Plant Systems Engineering

Based on the Overall Rating of the NSC using the model for the RIS 2006-13 Nuclear Safety Culture components and attributes, the following individual DBNPS Functional Organizations provided ratings that are characterized as Marginally Effective:

- Engineering Programs
- Reactor Engineering
- Operations Training
- Chemistry

RIS 2006-13 Survey Coverage Gaps

As indicated above, in developing the model for the RIS 2006-13 components and attributes, some of the specific attributes were not amenable to being addressed through an all-hands employee survey. These attributes were addressed through documentation reviews and personnel interviews to the extent practicable.

Most of the information obtained through these documentation reviews and personnel interviews is reported in the applicable Sections of the COIA-SC-2006 Final Report. Additional information is provided below.

Decision-Making

1. *The licensee makes safety-significant or risk significant decisions using a systematic process, including formally defining the authority and roles for decisions affecting nuclear safety, communicating these roles to applicable personnel, implementing these roles and authorities as designed.*

   Each year, the DBNPS Site Vice President issues a "Command Responsibilities" letter to Operations Shift Managers outlining expectations of that key position.

   The following relevant procedures and Business Practices are in place:
   - NOP-OP-1010 Operational Decision-Making (ODMI)
   - NOP-ER-3001 Problem Solving and Decision Making (PSDM)
   - NG-DB-00001 – On-line Risk Process
   - NG-DB-0800 – Risk Determination
   - NOP-OP-1007 – Risk Determination
   - DBBP-OPS-0003 – On-line Risk Management Process

For day-to-day work activities:

- Work Planners evaluate the risk of each job using a Risk Evaluation Form.
- The Work Implementation Schedule identifies the risk code associated with work activities.
- The MAOM package includes a Daily Risk Summary and Key Work Activities schedule that also identifies the associated risk code.

The Assessment team reviewed the five most recent ODMI Reports and the twelve most recent PSDM Reports.

The ODMI process is relatively new. Personnel interviews indicate a general consensus that:

- DBNPS experienced some initial difficulties in determining when to use the process and in the timeliness of use of the process.
- Current performance in the use (and timeliness of use) of ODMI is good, but is still in the early stages of implementation.

2. *The licensee conducts effectiveness reviews of safety-significant decisions to verify the validity of underlying assumptions, to identify possible unintended consequences and to determine how to improve future decisions.*

The Assessment team was unable to obtain or identify information regarding a formalized effectiveness review process. The Team was advised that the FENOC Fleet Operations Management peer group was scheduled to meet on December 13/14, 2006 to evaluate the adequacy of ODMIs that have been developed across the Fleet in 2006 and to identify recommendations for improvement.

Resources

1. *Resources necessary for training of personnel and for ensuring that there are sufficient qualified personnel to maintain work hours within working hour guidelines.*

The Assessment Team conducted interviews with Operations Training and Shift Operations personnel.

The Operations Training organization has two long-standing position vacancies. Another key individual had just left the company, resulting in a perturbation of the training schedule and the need to hire several contractor personnel. Most Operations Training personnel indicated that they have needed and continue to need to work about 10 hours of overtime per week. They also indicated concern regarding the aging workforce within the Operations Training organization and the difficulty in recruiting experienced replacements from outside of the company.

Interviews with Shift Operations personnel did not identify any concerns regarding the adequacy of staffing levels. They indicated that the training pipeline has been active and continues to be so.

2. *Resources necessary for complete, accurate and up to date ...work packages and correct labeling of components.*

   Information obtained through the survey write-in comments and personnel interviews did not identify any concerns in this area.

3. *Resources for adequate and available facilities and equipment – including physical improvements, simulator fidelity and emergency facilities & equipment.*

   Based on interviews with Operations Training and Shift Operations personnel:
   - There is a high degree of fidelity between the simulator and the actual plant.
   - The backlog of simulator changes is manageable.
   - The Operations organization routinely uses the simulator to pre-evaluate operating conditions under proposed changes to the physical plant.

Corrective Action Program

1. *The licensee implements a corrective action program with a low threshold level for identifying issues. The licensee identifies such issues completely, accurately and in a timely manner commensurate with their safety significance.*

   All interviewees indicated that they thought the CAP process was being effectively used for the complete, accurate, and timely identification of issues. The majority felt that the threshold was appropriately low, with one interviewee feeling that the threshold was too low and one feeling that the threshold was too high. A few individuals noted some confusion about when to use the CREST system and when to use SAP for the identification of an issue. Most of the interviewees knew that there was a screening committee reviewing entries into SAP to ensure that conditions adverse to quality were appropriately included in the CREST system.

   The Report of the 2006 Independent Assessment of CAP Implementation was reviewed and found to be a very comprehensive assessment of the CAP. This report also concluded that the CAP was being effectively used for the identification of issues.

   The DBNPS NOS organization identified that, during RFO 14, several issues were identified and resolved without writing Condition Reports (CRs). NOS wrote CRs in those instances.

2. *For significant problems, the licensee conducts effectiveness reviews of corrective actions to ensure that the problems are resolved.*

   The conduct of effectiveness reviews for corrective actions is a specified part of the CAP for CRs involving a root cause evaluation and for other CRs when requested by the CR owner or by the Corrective Action Review Board (CARB).

   Management and other interviewees with significant involvement with the CAP process indicated that effectiveness reviews are being performed as required by the program and that they are being performed effectively.

   This subject was more thoroughly evaluated through the 2006 Independent Assessment of CAP Implementation.

Self-Assessment

1. *The licensee periodically assesses the effectiveness of oversight groups and programs (such as the CAP) and policies.*

   The Nuclear Industry Evaluation Program provides for teams that evaluate the effectiveness of the oversight programs once every two years. The most recent NIEP evaluation of DBNPS was conducted in January 2006. A self-assessment of Fleet Focused Assessments is scheduled in mid-2007.

   The Engineering, Operations, and Corrective Action Programs are assessed annually under the Confirmatory Order independent assessments. Programs and policies are also assessed through the Company Nuclear Review Board and its subcommittees and through internal self-assessments performed under NOBP-LP-2001.

COIA-SC-2006
ATTACHMENT 7
GENERAL CULTURE & WORK ENVIRONMENT RESULTS

I. EXECUTIVE SUMMARY

Introduction

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment of key elements of the General Culture and Work Environment at DBNPS, since industry experience indicates that low GCWE ratings are frequently precursors of potential future challenges to the NSC. In this regard, the Independent Assessment addressed environmental and programmatic areas that are important to overall performance and morale and that may have an inter-dependent relationship with the NSC.

The Overall GCWE cultural metric is a measure of the GCWE based upon the integration of the cultural metric ratings of the following thirteen cultural sub-metrics:

- High Standards
- Accountability for Performance
- Continuous Improvement
- Conduct of Work
- Teamwork
- Employee Involvement
- Environment of Dignity, Trust and Respect
- General Communications (on topics of interest to the workforce)
- Change Management
- Personnel Development and Training
- Performance Recognition and Reward
- Performance Appraisal
- Overall Personal Satisfaction and Morale

The GCWE-related Topical Area of "General Adverse Impacts of Workload" was also evaluated separately.

Ratings of these cultural metrics have been characterized using the protocol set forth in DBNPS Business Practice DBBP-VP- 0009:

- Highly Effective
- Effective
- Marginally Effective
- Not Effective

Similarly, based on the ratings of cultural metrics and individual cultural attributes, areas have been identified as:

- Areas of Strength
- Areas for Improvement (AFI)
- Areas in Need of Attention (ANA)

In light of the fact that the GCWE cultural metrics and attributes are not directly related to the NSC/SCWE, the identified AFIs and ANAs should be considered as advisory in nature[1].

[1] The one exception is the ANA related to Change Management, which has been identified in NRC RIS 2006-13 as a component of the Nuclear Safety Culture.

COIA-SC-2006
ATTACHMENT 7
GENERAL CULTURE & WORK ENVIRONMENT RESULTS

Summary of Results

The DBNPS Site Composite Organization ratings of the GCWE cultural metrics are provided in Table 7-1 below[2].

The Overall GCWE was rated as Highly Effective. The survey results place DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

As shown in Table 7-1, there are several GCWE-related cultural sub-metrics with ratings that represent either needs or opportunities for improvement.

Table 7-1

CULTURAL METRIC	DBNPS SITE COMPOSITE METRIC RATING
Overall GCWE	**HIGHLY EFFECTIVE**
High Standards	Highly Effective
Accountability for Performance	Highly Effective
Continuous Improvement	Highly Effective
Conduct of Work	Highly Effective
Teamwork	Highly Effective
Employee Involvement	Highly Effective
Environment of Dignity, Trust and Respect	Highly Effective
General Communications	Effective
Change Management	Marginally Effective
Personnel Development & Training	Marginally Effective
Performance Recognition & Reward	Not Effective
Performance Appraisal	Not Effective
Overall Personnel Satisfaction & Morale	Effective, but declining
General Adverse Impacts of Workload	Marginally Effective[3]

[2] Overall GCWE ratings vary amongst the individual DBNPS Functional Organizations. Information on these ratings is provided in Attachment 9.

[3] The DBNPS Site Composite Organization survey rating was in the Effective range. However, the Assessment Team rated this area as Marginally Effective due to the number of individual DBNPS Functional Organizations that provided ratings of Not Effective or Marginally Effective.

Areas of Strength

The DBNPS Site Composite Organization ratings resulted in the identification of numerous Areas of Strength, which are presented in Section II of this Attachment and are not repeated in this Executive Summary.

Areas for Improvement

- The following individual DBNPS Functional Organizations provided particularly low ratings of the Overall GCWE and represent localized Areas for Improvement: Nuclear Warehouse, Nuclear Plant Systems Engineering, Nuclear Engineering Programs and Reactor Engineering.
- The DBNPS Site Composite Organization rating of "Effectiveness in Developing People" was Not Effective, which represents an Area for Improvement. Additional details are provided in Section II.J.
- The DBNPS Site Composite Organization rating of "Performance Recognition and Reward" was Not Effective, which represents an Area for Improvement. Additional details are provided in Section II.K.
- The DBNPS Site Composite Organization rating of "Performance Appraisal" was Not Effective, which represents an Area for Improvement. Additional details are provided in Section II.L.

Areas in Need of Attention

- The following individual DBNPS Functional Organizations provided low ratings of the Overall GCWE and represent localized Areas in Need of Attention: Operations Training, Chemistry and Document Control.
- Sixteen individual DBNPS Functional Organizations provided low ratings of "General Adverse Impacts of Workload[4]", which represent localized Areas in Need of Attention. These organizations are identified in Section II.N.
- The DBNPS Site Composite Organization rating of "Change Management" was Marginally Effective, which represents an Area in Need of Attention. Additional details are provided in Section II.I.

[4] "General Adverse Impacts of Workload" include adverse impact on ability to (1) assure the quality of work products, and (2) maintain plant material condition or reliability.

II. GCWE DETAILS

II.A High Standards (GCWE HS)

This GCWE cultural sub-metric measures cultural attributes related to high standards for performance.

DBNPS Site Composite Rating of GCWE HS
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE HS is 3.81, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following GCWE HS attributes have been identified as perceived Areas of Strength:

- Within my Functional Organization, we have high standards. (4.25, 98.1% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
Based on the DBNPS Site Composite ratings, the following GCWE HS attributes have been identified as perceived Areas in Need of Attention:

- Workload is NOT having an adverse impact on our ability to assure the quality of our work products. (3.36, 80.8% positive response)
- Workload is NOT having an adverse impact on our ability to maintain plant material condition or reliability. (3.39, 81.5% positive response)

The GCWE-related topical area of "General Adverse Impacts of Workload" is discussed in Section II.N of this Attachment. Individual DBNPS Functional Organizations that provided particularly low ratings, which represent localized Areas for Improvement or Areas in Need of Attention, are identified in that Section.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE HS ratings vary amongst the individual DBNPS Functional Organizations.

II.B Accountability for Performance (GCWE ACCT)

This GCWE cultural sub-metric measures cultural attributes related to appropriate accountability for performance.

DBNPS Site Composite Rating of GCWE ACCT
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE ACCT is 3.84, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following GCWE ACCT attributes have been identified as perceived Areas of Strength:

- Supervisors and managers in my Functional Organization practice visible leadership in the field by observing the conduct of work, coaching, mentoring, reinforcing good behaviors and correcting deficient behaviors. (3.75, 90.6% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE ACCT ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low GCWE ACCT ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.25
- Document Control: 2.67
- Nuclear Plant Systems Engineering: 2.86
- Engineering Programs: 2.93
- Chemistry: 2.95

The following individual DBNPS Functional Organizations provided low GCWE ACCT ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Nuclear ALARA/RP Services: 3.20
- Mechanical/Structural Design Engineering: 3.20

Based on the survey write-in comments and personnel interviews:

- Many feel that DBNPS personnel were held accountable for aspects of RFO 14 performance that were beyond their control.
- Some, particularly personnel in the above-mentioned Engineering organizations, feel that they have been held accountable for performance without fair consideration of the workload and workload management issues within their organizations.
- A few, particularly in the Chemistry organization, feel the management has not effectively held an individual accountable for performance.

II.C Continuous Improvement (GCWE CI)

This GCWE cultural sub-metric measures cultural attributes related to continuous improvement for performance.

DBNPS Site Composite Rating of GCWE CI
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE CI is 3.93, which is characterized as Highly Effective.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following GCWE CI attributes have been identified as perceived Areas of Strength:

- Within my Functional Organization, we place importance on improving our performance. (4.08, 96.2% positive response)
- Within my Functional Organization, we constructively learn from our mistakes. (3.94, 94.2% positive response)
- Supervisors and managers in my Functional Organization encourage and support continuous improvement of our organizational systems and processes. (3.88, 93.7% positive response)
- Within my Functional Organization, we encourage constructive criticism. (3.86, 90.9% positive response)
- Within my Functional Organization, we effectively utilize individual and group performance goals to achieve improvements. (3.76, 91.4% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE CI ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a particularly low GCWE CI rating, which is characterized as Not Effective and which represents a localized Area for Improvement.

- Nuclear Warehouse: 2.93

The following individual DBNPS Functional Organizations provided low GCWE CI ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Nuclear Plant Systems Engineering: 3.22
- Engineering Programs: 3.25
- Reactor Engineering: 3.27

Based on the survey write-in comments and personnel interviews, some feel that high workload levels leave little, if any, time to pursue continuous improvement.

II.D Conduct of Work (GCWE COW)

This GCWE cultural sub-metric measures cultural attributes related to the conduct of work.

DBNPS Site Composite Rating of GCWE COW
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE COW is 3.89, which is characterized as Highly Effective.

COIA-SC-2006
ATTACHMENT 7
GENERAL CULTURE & WORK ENVIRONMENT RESULTS

Areas of Strength

Based on the DBNPS Site Composite ratings, the following GCWE COW attributes have been identified as perceived Areas of Strength:

- Supervisors and managers within my Functional Organization take industrial/personnel safety requirements seriously. (4.31, 98.3% positive response)
- Within my Functional Organization, we adhere strictly with industrial/personnel safety requirements. (4.30, 99.0% positive response)
- Within my Functional Organization, we obtain supervisory/management approval before taking action on matters beyond our normal work procedures and processes. (4.19, 99.3% positive response)
- Within my Functional Organization, we are quality conscious and pay attention to details. (4.19, 97.8% positive response)
- Within my Functional Organization, we are self-critical and have questioning attitudes. (4.15, 98.3% positive response)
- Supervisors and managers in my Functional Organization ensure that individuals are appropriately qualified for assigned work and are fit for duty. (4.06, 94.7% positive response)
- Within my Functional Organization, we effectively use human error prevention techniques (e.g., self-checking, peer checking and pre-job briefs). (4.01, 97.4% positive response)
- Within my Functional Organizations, we make conservative, well-balanced decisions. (3.99, 97.4% positive response)
- Within my Functional Organization, we are effective at foreseeing and resolving potential problems, including (if applicable) establishing contingency plans, compensatory actions or abort criteria. (3.81, 94.8% positive response)

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE COW ratings vary amongst the individual DBNPS Functional Organizations.
The following individual DBNPS Functional Organizations provided particularly low GCWE COW ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.99
- Nuclear Plant Systems Engineering: 3.19

The following individual DBNPS Functional Organization provided a low GCWE COW rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Reactor Engineering: 3.32

Based on the survey write-in comments and personnel interviews, some, particularly personnel in the above-mentioned Engineering organizations, feel that workload management issues exist within their organizations.

II.E Teamwork (GCWE TW)

This GCWE cultural sub-metric measures cultural attributes related to teamwork.

DBNPS Site Composite Rating of GCWE TW
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE TW is 3.88, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following GCWE TW attributes have been identified as perceived Areas of Strength:

- Within my Functional Organization, we place importance on collaboration and teamwork. (3.88, 94.7% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE TW ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low GCWE TW ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.25
- Engineering Programs: 2.93

The following individual DBNPS Functional Organization provided a low GCWE TW rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Nuclear Plant Systems Engineering: 3.29

II.F Employee Involvement (GCWE EI)

This GCWE cultural sub-metric measures cultural attributes related to employee involvement.

DBNPS Site Composite Rating of GCWE EI
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE EI is 3.87, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following GCWE EI attributes have been identified as perceived Areas of Strength:

- Within my Functional Organization, we place importance on employee involvement and contribution. (3.87, 94.0% positive response)
- Supervisors and managers in my Functional Organization solicit feedback from the workforce to identify problems, impediments to work and opportunities to improve. (3.78, 91.1% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE EI ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low GCWE EI ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.86
- Engineering Programs: 2.93
- Nuclear Warehouse: 3.00

The following individual DBNPS Functional Organization provided a low GCWE EI rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Operations Training: 3.33

II.G Dignity, Trust and Respect (GCWE DTR)

This GCWE cultural sub-metric measures cultural attributes related to an environment of dignity, trust and respect.

DBNPS Site Composite Rating of GCWE DTR
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE DTR is 3.88, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following GCWE DTR attributes have been identified as perceived Areas of Strength:

- Within my Functional Organization, we have an environment where individuals feel safe to voice their opinions and ideas. (4.10, 95.0% positive response)
- Within my Functional Organization, we have open communications and provide feedback. (4.06, 93.1% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE DTR ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low GCWE DTR ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Warehouse: 2.58
- Nuclear Plant Systems Engineering: 2.86

The following individual DBNPS Functional Organizations provided low GCWE DTR ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Engineering Programs: 3.25
- Document Control: 3.33

II.H General Communications (GCWE GC)

This GCWE cultural sub-metric measures cultural attributes related to general communications on key topics of interest to the workforce.

DBNPS Site Composite Rating of GCWE GC
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE GC is 3.55, which is characterized as Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following GCWE GC attributes have been identified as perceived Areas of Strength:

- I am satisfied with general communications regarding annual goals and performance objectives for the Site. (3.66, 91.7% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE GC ratings vary amongst the individual DBNPS Functional Organizations.

Seven individual DBNPS Functional Organizations provided particularly low GCWE GC ratings, which are characterized as Not Effective and which represent localized Areas for Improvement. Five individual DBNPS Functional Organizations provided low GCWE GC ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention.

Based on the survey write-in comments and personnel interviews, many feel that general communications have been good and are improving.

II.I Change Management (GCWE CM)

This GCWE cultural sub-metric measures cultural attributes related to the management of change.

DBNPS Site Composite Rating of GCWE CM

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE CM is 3.37, which is characterized as Marginally Effective.

Areas of Strength

None based on the DBNPS Site Composite survey ratings.

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

Based on the DBNPS Site Composite ratings, the following GCWE CM attributes have been identified as perceived Areas in Need of Attention:

- Supervisors and managers in my Functional Organization obtain workforce input before implementing significant changes. (3.34, 79.8% positive response)
- Within my Functional Organization, we are effective in planning and implementing changes in the way we do business. (3.37, 81.2% positive response)
- At our Site, management effectively communicates the bases for changes in programs, policies and procedures. (3.37, 84.9% positive response)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE CM ratings vary amongst the DBNPS Major Functional Organizations and individual DBNPS Functional Organizations.

The following individual DBNPS Major Functional Organizations provided particularly low GCWE CM ratings, which are characterized as Not Effective and which represent Areas for Improvement.

- Site Engineering: 3.19

The following individual DBNPS Major Functional Organizations provided low GCWE CM ratings, which are characterized as Marginally Effective and which represent Areas in Need of Attention:

- Site Operations: 3.37
- Site Maintenance: 3.38

Ten individual DBNPS Functional Organizations provided particularly low GCWE CM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.31
- Reactor Engineering: 2.34
- Nuclear Warehouse: 2.63
- Operations Training: 2.65

- Engineering Programs: 2.70
- Technical Training: 2.89
- Shift Operations: 2.99
- Document Control: 3.03
- Electrical Systems Engineering: 3.09
- Chemistry: 3.11

Eight individual DBNPS Functional Organizations provided low GCWE CM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Mechanical Maintenance: 3.24
- Engineering Analysis: 3.29
- Supply Systems Engineering: 3.29
- Nuclear ALARA/RP Services: 3.32
- Electrical/I&C Design Engineering: 3.33
- Maintenance Services: 3.33
- Electrical Maintenance: 3.36
- Site Protection/Security: 3.38

ADDITIONAL INSIGHTS FROM WRITE-IN COMMENTS, PERSONNEL INTERVIEWS AND DOCUMENTATION REVIEWS

The write-in comments related to Change Management included the following recurring themes. The majority of these comments were directed at the efforts to implement common fleet procedure and processes.

- There is inadequate assessment of resource requirements associated with procedural/process changes leading to more work with insufficient resources.
- There is inadequate involvement and input from working level individuals to properly review the impact of changes at the worker level.
- There is insufficient training and communication related to the rollout of procedural/process changes to ensure an understanding of the changes and to facilitate effective implementation.
- The rate of change of procedures/processes (and organizational changes) is too rapid to allow effective implementation.
- The lack of common positions/responsibilities at all fleet sites and common timing for rollout is inhibiting the effectiveness of implementing common fleet processes.
- There is a lack of "complete" engagement on the part of the workforce in embracing changes.

Information obtained from personnel interviews included the following insights:

- The majority of the interviewees indicated that change management is often not implemented well. The development and rollout of common corporate procedures and processes were the areas most commonly cited as not being performed well.
- One manager characterized the situation as "we are in a catch-up mode with respect to change management".
- Change management plans do not sufficiently address the workload impacts associated with implementing the changes. In some cases, the change management plans have not been effectively implemented. In other cases, such as the transfer of trending program

responsibilities to the FENOC Fleet organization, the changes resulted in a significant setback to the effectiveness the Site program.

- The pace of change has been high over the past few years, primarily due to FENOC Fleet initiatives to develop and implement processes and programs that are common across the Fleet.
- Some major changes were perceived to have been implemented without a Change Management plan (e.g., the NOS organization's change in approach for performance assessment and audits).
- Some changes are currently being evaluated and developed at the Fleet level without awareness at the Site level; for example, changes to Self-Assessment Programs:
  - Change management issue with the revision to NOB- LP- 2001. Site personnel are not aware of an associated change management plan and are not sure of the intent of several changed areas (e.g., Fleet benchmarking).
  - A FENOC Fleet performance assessment group has been created and will be conducting site assessments. Individuals responsible for site self-assessments were not aware of the group or areas to be assessed at their site.
  - FENOC Fleet group is in the process of developing (1) performance indicators which would measure self assessments for issues identified and timeliness of resolving the issues, and (2) a process for grading Snap Shot assessments. Cognizant Site individuals interviewed were not aware of the corporate initiatives for performance indicators.

Based on a review of documentation related to Change Management:

- The governing Fleet procedure for Change Management appears to be appropriate.
- The Assessment Team was unable to make a determination on the appropriateness of the resulting Change Management Plans due to the fact that only one Plan was provided in response to the Team's request for documents.
- There has not been a recent assessment of the effectiveness of Change Management.

II.J Personnel Development & Training (GCWE PDT)

This GCWE cultural sub-metric measures cultural attributes related to personnel development and training.

DBNPS Site Composite Rating of GCWE PDT

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE PDT is 3.31, which is characterized as Marginally Effective.

Areas of Strength

None based on the DBNPS Site Composite survey ratings.

Areas for Improvement

Based on the DBNPS Site Composite ratings, the following GCWE PDT attributes have been identified as perceived Areas in Need of Attention:

- Within my Functional Organization, we are effective in developing people. (3.16, 74.7% positive response)

Areas in Need of Attention

None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE PDT ratings vary amongst the DBNPS Major Functional Organizations and individual DBNPS Functional Organizations.

The following individual DBNPS Major Functional Organizations provided particularly low GCWE PDT ratings, which are characterized as Not Effective and which represent Areas for Improvement:

- Site Maintenance: 3.19

The following individual DBNPS Major Functional Organizations provided low GCWE PDT ratings, which are characterized as Marginally Effective and which represent Areas in Need of Attention:

- Site Engineering: 3.21
- Site Performance Improvement: 3.28

Twelve individual DBNPS Functional Organizations provided particularly low GCWE PDT ratings, which are characterized as Not Effective and which represent localized Areas for Improvement. Eight individual DBNPS Functional Organizations provided low GCWE PDT ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention.

Based on the survey write-in comments and personnel interviews:

- Many feel that, with current levels of workload, there is little time available for personnel development.
- Some indicated concern that, in light of general attrition and loss of skilled personnel, workforce replenishment efforts were not sufficient to get ahead of aging workforce issues.
- Some specifically indicated concern regarding current levels of personnel with key maintenance task qualifications.

II.K Performance Recognition & Reward (GCWE PRR)

This GCWE cultural sub-metric measures cultural attributes related to recognition and reward of performance.

DBNPS Site Composite Rating of GCWE PRR

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE PRR is 2.99, which is characterized as Not Effective.

Areas of Strength

None based on the DBNPS Site Composite survey ratings.

Areas for Improvement

Based on the DBNPS Site Composite ratings, the following GCWE PRR attributes have been identified as perceived Areas in Need of Attention:

- Within my Functional Organization, we are effective in recognizing and rewarding performance and accomplishments. (2.99, 66.9% positive response)

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE PRR ratings vary amongst the DBNPS Major Functional Organizations and individual DBNPS Functional Organizations.

The following individual DBNPS Major Functional Organizations provided particularly low GCWE PRR ratings, which are characterized as Not Effective and which represent Areas for Improvement.

- Site Maintenance: 2.85
- Site Engineering: 2.87
- Site Operations: 2.92
- Site Performance Improvement: 3.03

Twenty-five individual DBNPS Functional Organizations provided particularly low GCWE PRR ratings, which are characterized as Not Effective and which represent localized Areas for Improvement. Eight individual DBNPS Functional Organizations provided low GCWE PRR ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention.

Based on the survey write-in comments and personnel interviews:

- Many feel that compensation for overtime, particularly the high levels of overtime to support refueling outages, is inadequate.

II.L Performance Appraisal (GCWE PA)

This GCWE cultural sub-metric measures cultural attributes related to personnel performance appraisals.

DBNPS Site Composite Rating of GCWE PA
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE PA is 2.95, which is characterized as Not Effective.

Areas of Strength
None based on the DBNPS Site Composite survey ratings.

Areas for Improvement
Based on the DBNPS Site Composite ratings, the following GCWE PA attributes have been identified as perceived Areas in Need of Attention:

- Within my Functional Organization, we conduct timely and effective performance appraisals. (2.95, 67.1% positive response)

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE PA ratings vary amongst the DBNPS Major Functional Organizations and individual DBNPS Functional Organizations.

The following individual DBNPS Major Functional Organizations provided particularly low GCWE PA ratings, which are characterized as Not Effective and which represent Areas for Improvement.

- Site Engineering: 2.73
- Site Maintenance: 2.77
- Site Operations: 2.78

The following individual DBNPS Major Functional Organizations provided low GCWE PA ratings, which are characterized as Marginally Effective and which represent Areas in Need of Attention:

- Site Performance Improvement: 3.20

Twenty-four individual DBNPS Functional Organizations provided particularly low GCWE PA ratings, which are characterized as Not Effective and which represent localized Areas for Improvement. Five individual DBNPS Functional Organizations provided low GCWE PA ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention.

Based on the survey write-in comments and personnel interviews:

- Most feel that the Site suffered a major breakdown in the performance appraisal process after RFO 14.

II.M Overall Personal Satisfaction and Morale (GCWE PSM)

This GCWE cultural sub-metric measures cultural attributes related to personal satisfaction and morale.

DBNPS Site Composite Rating of GCWE PSM

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE PSM is 3.37, which is characterized as Effective.

Approximate trending information indicates that this rating has declined nominally (-2%) during the past year.

Areas of Strength

None based on the DBNPS Site Composite survey ratings.

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE PSM ratings vary amongst the DBNPS Major Functional Organizations and individual DBNPS Functional Organizations.

The following individual DBNPS Major Functional Organizations provided low GCWE PSM ratings, which are characterized as Marginally Effective and which represent Areas in Need of Attention:

- Site Engineering: 3.16

Twelve individual DBNPS Functional Organizations provided particularly low GCWE PSM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement. Three individual DBNPS Functional Organizations provided low GCWE PSM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention.

Based on the survey write-in comments and personnel interviews:

- Most morale-related issues are associated with high levels of workload, continuous overtime work, compensation for overtime work, staffing levels (in specific organizations) and the perceived breakdown of the performance appraisal process after RFO 14.

II.N General Adverse Impacts of Workload (GCWE WKLD)

This GCWE-related Topical Area measures cultural attributes related to the adverse impacts of workload.

DBNPS Site Composite Rating of GCWE WKLD

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of GCWE WKLD is 3.38, which is characterized as Effective.

Areas of Strength

None based on the DBNPS Site Composite survey ratings.

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

Based on the DBNPS Site Composite ratings, the following GCWE WKLD attributes have been identified as perceived Areas in Need of Attention:

- Workload is NOT having an adverse impact on our ability to assure the quality of our work products. (3.36, 80.8% positive response)
- Workload is NOT having an adverse impact on our ability to maintain plant material condition or reliability. (3.39, 81.5% positive response)

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

GCWE WKLD ratings vary amongst the DBNPS Major Functional Organizations and individual DBNPS Functional Organizations.

The following individual DBNPS Major Functional Organizations provided low GCWE WKLD ratings, which are characterized as Marginally Effective and which represent Areas in Need of Attention:

- Site Engineering: 3.24; Site Operations: 3.24

COIA-SC-2006
ATTACHMENT 7
GENERAL CULTURE & WORK ENVIRONMENT RESULTS

Twelve individual DBNPS Functional Organizations provided particularly low GCWE WKLD ratings, which are characterized as Not Effective and which represent localized Areas for Improvement:

- Reactor Engineering: 2.20
- Operations Training: 2.45
- Nuclear Warehouse: 2.63
- Technical Training: 2.68
- Electrical Systems Engineering: 2.77
- Nuclear Plant Systems Engineering: 2.79
- Chemistry: 2.81
- Rapid Response Engineering: 2.89
- Electrical/I&C Design Engineering: 2.93
- Engineering Programs: 2.96
- Nuclear ALARA/RP Services: 3.00
- Work Planning: 3.05

Four individual DBNPS Functional Organizations provided low GCWE WKLD ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Shift Operations: 3.12
- Emergency Response: 3.17
- Operations Services: 3.20
- Projects: 3.22

Based on the survey write-in comments and personnel interviews:

- Many feel that workload and work management issues exist within their organizations.
- Some feel that staffing level issues exist within their organizations.
- Some feel that inadequate management of change (implementation phase) is adversely affecting their organizations.

The Assessment team rated this area as Marginally Effective due to the number of individual DBNPS Functional Organizations that provided ratings of Not Effective or Marginally Effective.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 8
LEADERSHIP, MANAGEMENT AND SUPERVISORY BEHAVIORS & PRACTICES

I. EXECUTIVE SUMMARY

Introduction

The 2006 Independent Assessment of the DBNPS NSC/SCWE included an assessment of the following two cultural metrics related to Leadership, Management and Supervisory Behaviors & Practices (LMS)[1]. These cultural metrics were included because they are indirectly related to the SCWE. Low metric ratings may be leading indicators of potential future challenges to the SCWE.

- Quality of Communications with the Workforce
- Environment of Trust and Mutual Respect

The Quality of Communications metric includes the following three cultural sub-metrics:

- Quality of Supervisor Communications with the Workforce
- Quality of Functional Organization Management Communications with the Workforce
- Quality of Site Senior Management Communications with the Workforce

The Environment of Trust and Mutual Respect metric includes the following three cultural sub-metrics:

- Trust and Mutual Respect Between Supervision and the Workforce
- Trust and Mutual Respect Between Functional Organization Management and the Workforce
- Trust and Mutual Respect Between Site Senior Management and the Workforce

Ratings of these cultural metrics have been characterized using the protocol set forth in DBNPS Business Practice DBBP-VP- 0009:

- Highly Effective
- Effective
- Marginally Effective
- Not Effective

Similarly, based on the ratings of cultural metrics and individual cultural attributes, areas have been identified as:

- Areas of Strength
- Areas for Improvement (AFI)
- Areas in Need of Attention (ANA)

In light of the fact that these LMS-related cultural metrics and their associated attributes are not directly related to the NSC/SCWE, the identified AFIs and ANAs should be considered as advisory in nature.

[1] Such coverage was not sufficient to fully exercise SYNERGY's LMS Cultural Model or to provide industry-benchmarking information.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 8
LEADERSHIP, MANAGEMENT AND SUPERVISORY BEHAVIORS & PRACTICES

Summary of Results

The DBNPS Site Composite Organization ratings of the LMS-related cultural metrics are provided in Table 8-1 below[2].

Table 8-1

CULTURAL METRIC	DBNPS SITE COMPOSITE METRIC RATING
QUALITY OF COMMUNICATIONS WITH THE WORKFORCE	**HIGHLY EFFECTIVE**
Supervisor Communications with the Workforce	Highly Effective
Functional Organization (FO) Management Communications with the Workforce	Effective
Site Senior Management Communications with the Workforce	Highly Effective
ENVIRONMENT OF TRUST AND MUTUAL RESPECT	**HIGHLY EFFECTIVE**
Between Supervision and the Workforce	Highly Effective
Between FO Management and the Workforce	Highly Effective
Between Site Senior Management and the Workforce	Effective

The DBNPS Site Composite overall rating of "Quality of Communications with the Workforce" places DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

The DBNPS Site Composite overall rating of "Environment of Trust and Mutual Respect" places DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database.

[2] Metric ratings vary amongst the individual DBNPS Functional Organizations. Information on the overall Quality of Communications rating and the overall Environment of Trust and Mutual Respect rating is provided in Attachment 9.

Areas of Strength

The DBNPS Site Composite Organization ratings resulted in the identification of several Areas of Strength, which are presented in Section II of this Attachment and are not repeated in this Executive Summary.

Areas for Improvement

- The following individual DBNPS Functional Organizations provided particularly low overall ratings of one or both of the "Quality of Communications" and "Environment of Trust and Mutual Respect" cultural metrics. These organizations represent localized Areas for Improvement: Nuclear Plant Systems Engineering, Nuclear Warehouse and Reactor Engineering.

Areas in Need of Attention

- The following additional individual DBNPS Functional Organization provided low ratings of both of the "Quality of Communications" and "Environment of Trust and Mutual Respect" cultural metrics. This organization represents a localized Area in Need Attention: Engineering Programs.

- The following additional individual DBNPS Functional Organizations provided particularly low ratings of both "Quality of Communications" and "Environment of Trust and Mutual Respect" cultural metrics related to Functional Organization Management. These organizations represent localized Areas in Need of Attention: Operations Training and Business Services.

II. QUALITY OF COMMUNICATIONS (QOC) DETAILS

II.A Quality of Supervisor Communications with the Workforce (QOC SPV)

DBNPS Site Composite Rating of QOC SPV
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of QOC SPV is 4.10, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following QOC SPV attributes have been identified as perceived Areas of Strength:

- My immediate supervisor is straightforward, open and honest in his/her communications and interactions with the workforce. (4.15, 95.6% positive response)
- My immediate supervisor communicates sufficiently with the workforce and keeps workers adequately informed. (4.05, 93.0% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

QOC SPV ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organization provided a low QOC SPV rating, which is characterized as Marginally Effective and which represents a localized Area in Need of Attention:

- Nuclear Plant Systems Engineering: 3.25

II.B Quality of Functional Organization Management Communications with the Workforce (QOC FOM)

DBNPS Site Composite Rating of QOC FOM
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of QOC FOM is 3.63, which is characterized as Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following QOC FOM attributes have been identified as perceived Areas of Strength:

- Management in my Functional Organization is straightforward, open and honest in their communications and interactions with the workforce. (3.72, 91.1% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

QOC FOM ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low QOC FOM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.52
- Nuclear Warehouse: 2.54
- Reactor Engineering: 2.64
- Business Services: 2.71
- Operations Training: 2.90

The following individual DBNPS Functional Organizations provided low QOC FOM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Engineering Programs: 3.10
- Procedures Control: 3.15
- Security/Site Protection: 3.26

II.C Quality of Site Senior Management Communications with the Workforce (QOC SSM)

DBNPS Site Composite Rating of QOC SSM

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of QOC SSM is 3.67, which is characterized as Highly Effective.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following QOC SSM attributes have been identified as perceived Areas of Strength:

- Site senior management communicates sufficiently with the workforce and keeps workers adequately informed. (3.76, 91.7% positive response)

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

QOC SSM ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low QOC SSM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.65
- Engineering Programs: 2.87
- Reactor Engineering: 2.91
- Nuclear Warehouse: 2.96

The following individual DBNPS Functional Organizations provided low QOC SSM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Operations Training: 3.06
- Nuclear ALARA/RP Services: 3.06
- Rapid Response Engineering: 3.27
- Shift Operations: 3.28

III. ENVIRONMENT OF TRUST AND MUTUAL RESPECT (TMR) DETAILS

III.A Environment of Trust & Mutual Respect Between Supervision and the Workforce (TMR SPV)

DBNPS Site Composite Rating of TMR SPV
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of TMR SPV is 4.12, which is characterized as Highly Effective.

Areas of Strength
Based on the DBNPS Site Composite ratings, the following TMR SPV attributes have been identified as perceived Areas of Strength:

- My immediate supervisor is sufficiently visible and accessible. (4.16, 91.1% positive response)
- My immediate supervisor treats me with dignity and respect. (4.16, 93.2% positive response)
- My immediate supervisor is receptive to input and feedback. (4.08, 93.5% positive response)
- My immediate supervisor has earned my trust. (4.08, 91.6% positive response)

Areas for Improvement
None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention
None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

TMR SPV ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided low TMR SPV ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- FIN Maintenance: 3.16

III.B Environment of Trust & Mutual Respect Between Functional Organization Management and the Workforce (TMR FOM)

DBNPS Site Composite Rating of TMR FOM
Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of TMR FOM is 3.67, which is characterized as Highly Effective.

Areas of Strength

Based on the DBNPS Site Composite ratings, the following TMR FOM attributes have been identified as perceived Areas of Strength:

- Management in my Functional Organization treats the workforce with dignity and respect. (3.76, 90.5% positive response)

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

TMR FOM ratings vary amongst the individual DBNPS Functional Organizations.

The following individual DBNPS Functional Organizations provided particularly low TMR FOM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.71
- Business Services: 2.75
- Operations Training: 2.77
- Nuclear Warehouse: 2.81

The following individual DBNPS Functional Organizations provided low TMR FOM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Security/Site Protection: 3.10
- Engineering Programs: 3.13
- Procedures Control: 3.14

III.C Environment of Trust & Mutual Respect Between Site Senior Management and the Workforce (TMR SSM)

DBNPS Site Composite Rating of TMR SSM

Based on the 2006 Independent Assessment survey results, the DBNPS Site Composite rating of TMR SSM is 3.59, which is characterized as Effective.

Areas of Strength

None based on the DBNPS Site Composite survey ratings.

Areas for Improvement

None based on the DBNPS Site Composite survey ratings.

Areas in Need of Attention

None based on the DBNPS Site Composite survey ratings.

SURVEY RESULTS – INDIVIDUAL DBNPS FUNCTIONAL ORGANIZATIONS

TMR SSM ratings vary amongst the individual DBNPS Functional Organizations.

COIA-SC-2006 FINAL REPORT
ATTACHMENT 8
LEADERSHIP, MANAGEMENT AND SUPERVISORY BEHAVIORS & PRACTICES

The following individual DBNPS Functional Organizations provided particularly low TMR SSM ratings, which are characterized as Not Effective and which represent localized Areas for Improvement.

- Nuclear Plant Systems Engineering: 2.71
- Engineering Programs: 2.88
- Nuclear Warehouse: 2.88
- Operations Training: 2.93

The following individual DBNPS Functional Organizations provided low TMR SSM ratings, which are characterized as Marginally Effective and which represent localized Areas in Need of Attention:

- Shift Operations: 3.11
- Nuclear ALARA/RP Services: 3.15
- Chemistry: 3.15
- Rapid Response Engineering: 3.17
- Nuclear Radiation Protection: 3.20
- Reactor Engineering: 3.26

COIA-SC-2006 FINAL REPORT
ATTACHMENT 9
KEY GCWE AND LMS CULTURAL METRIC RATINGS

Introduction

Key GCWE and LMS cultural metric ratings are provided in Table 9-1 for:

- The DBNPS Site Composite Organization
- DBNPS Site Major Functional Organizations
- Individual DBNPS Site Functional Organizations
- DBNPS Site Demographic Categories

These ratings are color-coded. Four colors are used to characterize specific metric ratings. These have been established to meet characterizations specified by DBNPS. They are:

Turquoise:	"Highly Effective"
Green:	"Effective"
Yellow:	"Marginally Effective"
Red:	"Not Effective"

The following abbreviations are used in Table 9-1:

GCWE:	General Culture & Work Environment
LMS:	Leadership, Managerial and Supervisory Behaviors & Practices
QOC:	Quality of Communications with the Workforce
MT&R:	Environment of Mutual Trust & Respect

COIA-SC-2006 FINAL REPORT
ATTACHMENT 9
KEY GCWE AND LMS CULTURAL METRIC RATINGS

Table 9-1

	GCWE	LMS (partial)	QOC	T&MR
DBNPS	3.68	3.80	3.81	3.78
Site Operations	3.67	3.88	3.90	3.85
Operations	3.65	3.91	3.92	3.89
Shift Operations	3.50	3.74	3.78	3.70
Operations Services	3.86	4.19	4.19	4.18
Reactor Engineering	3.06	3.10	2.98	3.23
Other Operations Organization	4.23	4.59	4.62	4.56
Radiation Protection	3.68	3.77	3.79	3.76
Nuclear Radiation Protection	3.74	3.84	3.88	3.79
Nuclear ALARA/RP Services	3.49	3.55	3.42	3.67
Chemistry	3.30	3.53	3.57	3.49
Work Management	3.83	3.93	3.96	3.91
Outage Management	4.14	4.41	4.49	4.32
Supply Chain	3.71	3.93	3.96	3.90
Davis Besse Supply Chain	3.95	4.14	4.16	4.12
Nuclear Warehouse	2.69	3.05	3.10	3.00
Nuclear Procurement Engineering	4.05	4.22	4.28	4.16
Site Maintenance	3.63	3.70	3.72	3.67
I&C Maintenance	4.01	4.03	4.02	4.04
Electrical Maintenance	3.60	3.61	3.61	3.61
Mechanical Maintenance	3.61	3.60	3.62	3.58
FIN Maintenance	3.74	3.56	3.59	3.52
Other Maintenance Organization	3.42	3.95	4.06	3.84
Work Planning	3.64	3.80	3.84	3.76
Maintenance Services	3.43	3.53	3.57	3.50

COIA-SC-2006 FINAL REPORT
ATTACHMENT 9
KEY GCWE AND LMS CULTURAL METRIC RATINGS

	GCWE	LMS (partial)	QOC	T&MR
Site Performance Improvement	3.74	3.90	3.91	3.89
Training	3.44	3.57	3.57	3.57
Operations Training	3.22	3.42	3.45	3.40
Technical Training	3.41	3.50	3.49	3.51
Training Services	3.78	3.89	3.86	3.91
Regulatory Compliance	4.05	4.24	4.21	4.28
Procedures Control	3.79	3.74	4.00	3.85
Projects	3.72	3.92	3.69	3.79
Emergency Response	3.85	3.91	3.96	3.86
Records Management	4.11	4.43	4.46	4.40
Other Perf. Improvement Org	3.94	4.07	4.09	4.06
Site Engineering	3.58	3.76	3.77	3.74
Plant Engineering	3.51	3.72	3.72	3.71
Electrical Systems Engineering	3.72	4.08	4.13	4.03
Plant Systems Engineering	2.87	2.87	2.82	2.92
Supply Systems Engineering	3.70	3.92	3.95	3.89
Other Plant Engineering Org	3.75	3.85	3.76	3.93
Design Engineering	3.83	4.04	4.04	4.04
Mechanical/Structural Engineering	3.71	3.96	3.96	3.97
Electrical/I&C Engineering	3.65	3.83	3.83	3.82
Engineering Analysis	3.87	3.98	4.03	3.94
Configuration Control	4.12	4.38	4.37	4.40
Technical Services Engineering	3.41	3.52	3.56	3.48
Document Control	3.37	3.66	3.83	3.50
Engineering Programs	3.06	3.11	3.16	3.05
Rapid Response Engineering	3.66	3.71	3.68	3.75
Other Technical Services Eng Org	4.28	4.30	4.22	4.38
Other DSE Organization	3.40	3.72	3.80	3.63

COIA-SC-2006 FINAL REPORT
ATTACHMENT 9
KEY GCWE AND LMS CULTURAL METRIC RATINGS

	GCWE	LMS (partial)	QOC	T&MR
Site VP Organizations	3.94	3.91	3.89	3.92
Nuclear Oversight/QC/ECP	4.18	4.32	4.35	4.29
Business Services	4.21	3.91	3.76	4.06
Site Protection/Security	3.66	3.55	3.54	3.56
Human Resources/Comm./L&O	4.23	4.24	4.24	4.24
Other Site VP Organization	4.01	4.22	4.20	4.25
Non-Designated Org	3.36	3.27	3.22	3.31
Worker Category				
Salaried/Exempt Employee	3.72	3.88	3.88	3.87
Non-Union/Non-Exempt Employee	3.86	3.94	3.96	3.92
Union Employee	3.58	3.67	3.71	3.63
Contractor	3.51	3.60	3.61	3.60
Position				
Director/Manager	4.02	4.16	4.18	4.15
Superintendent/Supervisor/Foreman	3.73	3.86	3.87	3.84
Technical Staff	3.66	3.82	3.83	3.82
Craft/Plant Staff	3.56	3.63	3.67	3.59
Office/Administrative Staff	3.99	4.12	4.14	4.10
Years of Service				
<1 Year	4.08	4.17	4.18	4.17
1-5 Years	3.78	3.85	3.86	3.84
6-10 Years	3.52	3.71	3.76	3.65
>10 Years	3.65	3.79	3.80	3.78

Docket Number 50-346
License Number NPF-3
Serial Number 1-1485
Enclosure 2

ACTION PLAN TO ADDRESS AREAS FOR IMPROVEMENT

2006 INDEPENDENT ASSESSMENT OF THE DAVIS-BESSE NUCLEAR POWER STATION NUCLEAR SAFETY CULTURE AND SAFETY CONSCIOUS WORK ENVIRONMENT

(9 pages follow)

ACTION PLAN TO ADDRESS AREAS FOR IMPROVEMENT

2006 Independent Assessment of the
Davis-Besse Nuclear Power Station
Nuclear Safety Culture and Safety
Conscious Work Environment

Assessment Number COIA-SC-2006

Action Plan Reviewed and Approved by:

DBNPS Vice President - Nuclear

ACTION PLAN TO ADDRESS AREAS FOR IMPROVEMENT

This Action Plan has been developed by the Davis-Besse Nuclear Power Station (DBNPS) to address the Areas for Improvement (AFIs) identified in the 2006 Confirmatory Order Independent Assessment (COIA) of Safety Culture, including Safety Conscious Work Environment (SCWE).

Background:

The purpose of the assessment was to provide an independent and comprehensive assessment of the status of the existing Organizational Safety Culture, including the Safety Conscious Work Environment (SCWE), at the Davis-Besse Nuclear Power Station. The Assessment was performed in accordance with the requirements of the March 8, 2004, Confirmatory Order Modifying License No. NPF-3 and identified six (6) AFIs.

As part of the NRC Inspection Manual Chapter 0350 recovery efforts, Davis-Besse developed the Management and Human Performance Improvement Plan. Under that Plan, initiatives were implemented that focused on the common categories of:

- Nuclear Safety Culture
- Management/Personnel Development
- Standards and Decision-Making
- Oversight and Assessments
- Programs / Corrective Action / Procedure Compliance

Key actions taken during that period included increased safety culture/SCWE training at all levels of the organization, establishing a new Employee Concerns Program (ECP), conducting annual employee SCWE and safety culture surveys, initiating a process to internally monitor and assess safety culture, and forming a Safety Conscious Work Environment Review Team.

Subsequently, as a result of the March 8, 2004, Confirmatory Order Modifying License No. NPF-3, independent assessments were conducted in 2004 and 2005. The 2005 COIA concluded that Safety Culture and SCWE had improved since the 2004 assessment. Although initiatives to facilitate and promote behaviors important to a positive safety culture and SCWE were found to be in place in both 2004 and 2005, not all the characteristics utilized by the assessor were yet fully developed in the behavior and attitudes of site personnel. Because each assessment observed initiatives in place that were designed to facilitate the desired improvements, and improvements were confirmed by the 2005 assessment, the DBNPS believed that the previous actions taken were effective; and, as noted by the assessor during the 2004 COIA, "cultural beliefs and assumptions do not change quickly." Integrated Action Plans were developed in response to the 2004 and 2005 assessment. The 2004 Action Plans included short and longer-term actions to address the AFIs and also areas of focus to address cross-cutting issues. The

2005 Action Plans categorized the AFIs identified during the assessment according to the three safety culture characteristics the assessor determined were marginally effective.

2006 Safety Culture COIA:

The 2006 COIA of Safety Culture, including SCWE, concluded overall that:

- *The numerically-rated survey results for the DBNPS Site Composite Organization are very positive. All Key Cultural Metric ratings are in the "Highly Effective" range. These ratings place the DBNPS Site well into the top quartile of the Sites included in SYNERGY's current industry database. Most of these ratings, particularly the SCWE-related ratings, are amongst the highest that SYNERGY has ever encountered.*

- *The Overall Nuclear Safety Culture (NSC) was rated as Highly Effective. The survey results place DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database. Approximate trending information for the Overall NSC rating indicates notable improvement over the past year.*

Based on the overall conclusions of the 2006 independent assessment, the DBNPS believes that the actions taken from the 2004 and 2005 Integrated Action Plans were an effective approach in improving the Nuclear Safety Culture and SCWE at the site. Utilizing the conclusions of the 2006 independent assessment, the corrective actions developed will focus beyond the "global approach" taken to address most of the 2005 AFIs and address the specific issues identified in the 2006 independent assessment. To determine the cause(s) for the conditions and appropriate corrective actions that focus on these specific issues, the appropriate investigatory tool is required. The 2006 COIA of the Corrective Action Program (CAP) concluded that implementation of the Corrective Action Program was effective and the NRC Problem Identification and Resolution inspection rated the CAP as overall effective/acceptable. Therefore, the tool that will be utilized to address these AFIs is the CAP under the requirements of DBNPS procedure NOP-LP-2001, Corrective Action Program.

Action Plan to Address Areas for Improvement:

The five AFIs discussed below have been entered into the CAP as Condition Reports to investigate and correct the condition, develop corrective actions to improve performance, and document the condition for future trending. The evaluation and any corrective actions associated with these Condition Reports will be reviewed by the Davis-Besse Corrective Action Review Board (CARB) under Business Practice NOBP-LP-2008, FENOC Corrective Action Review Board. The CARB is a multi-disciplined management-level team that provides oversight to the CAP.

A sixth AFI described on page 9 of this Action Plan was also entered into the CAP. A previously-identified, similar issue is documented in the CAP and was determined to be sufficient to address this AFI.

- **AFI COIA-SC-06-01**

  The Nuclear Plant Systems Engineering organization and the Nuclear Warehouse organization provided ratings of Not Effective for the Overall NSC (Nuclear Safety Culture), *NS VB&P* (Nuclear Safety Values, Behaviors & Principles), *SCWE and ECP* (Employee Concerns Program) *key cultural metrics. These organizations represent localized Areas for Improvement.*

FENOC's Preliminary Assessment of the AFI

The DBNPS Site Composite ratings of the NSC, NS VB&P, SCWE and ECP are characterized as Highly Effective in the independent assessment report placing the DBNPS in the top quartile of nuclear power plant sites in SYNERGY'S industry database. However, the Plant Systems Engineering and Warehouse work units' ratings of these areas are Not Effective. SYNERGY has found in their experience that while issues related to management/supervisory alignment and/or behavior are occasionally a significant contributor to low cultural metric ratings, the underlying reasons for low ratings are most frequently related to other issues of concern, such as staffing levels, workload, work management, working hours, compensation for overtime work, reward and recognition, industrial safety issues and issues related to the priority placed on meeting the affected organization's needs. Insights obtained through the DBNPS independent assessment on the underlying reasons for the low ratings in the two organizations listed in this AFI appear to be consistent with previous findings. These organizations are localized areas that may functionally have diverse and unique conditions that impact their ratings.

Performance improvement focus areas in the FENOC Excellence Plans for 2007 – 2011 include utilizing the engineering work management system to balance engineering workload, and improving efficiency of the workforce and managing its commitments. Evaluation of the performance appraisal process implementation is being discussed for recommended changes. Initiatives at the DBNPS, such as weekly monitoring of workload backlog items, staffing initiatives of Vital Hires and Workforce Replenishment, and a staffing/resource study conducted by an external consultant may have a positive impact in this area.

The action steps below are designed to further investigate the reasons for these ratings and establish corrective actions.

Actions for AFI COIA-SC-06-01:

1. Initiated two Condition Reports (07-13593 and 07-13594) in the Corrective Action Program to address AFI COIA-SC-06-01, one specific to each section identified in the AFI.

2. Investigate the conditions, document the evaluations, and determine corrective actions to improve performance.

3. Obtain Corrective Action Review Board (CARB) review of the CR evaluations and any resulting corrective actions.

4. Implement the corrective actions from CR 07-13593 and 07-13594 in accordance with the FENOC Corrective Action Program.

- **AFI COIA-SC-06-02**

  The Engineering Programs organization provided ratings of Marginally Effective for the Overall NSC, NS VB&P and ECP key cultural metrics. The approximate trends for the ratings of the Overall NSC and the SCWE were Very Significantly Declined. This organization represents a localized Area for Improvement.

FENOC's Preliminary Assessment of the AFI

The DBNPS Site Composite ratings of the NSC, NS VB&P, and ECP are characterized as Highly Effective in the independent assessment report placing the DBNPS in the top quartile of nuclear power plant sites in SYNERGY'S industry database. However, the Engineering Programs work unit ratings of these areas are less than the Site Composite Ratings. The DBNPS believes the reasons for the lower ratings of NSC and NS VB&P may be a result of the 2006 refueling outage duration which ran longer than originally planned, the effect of the refueling outage and its duration on individuals' workload, the mid-year individual performance appraisals that reflected the refueling outage performance challenges, or changes in organizational leadership that occurred in 2006.

Performance improvement focus areas in the FENOC Excellence Plans for 2007 – 2011 include utilizing the engineering work management system to balance engineering workload, improving efficiency of the workforce and managing its commitments, and improving outage processes to reduce outage duration. Evaluation of the performance appraisal process implementation is being discussed for recommended changes. The action steps below are designed to further investigate the reasons for these ratings and establish corrective actions.

Actions for AFI COIA-SC-06-02:

1. Initiated Condition Report 07-13595 in the Corrective Action Program to address AFI COIA-SC-06-02.

2. Investigate the condition, document the evaluation, and determine corrective actions to improve performance.

3. Obtain Corrective Action Review Board (CARB) review of the CR evaluation and any resulting corrective actions.

4. Implement the corrective actions from CR 07-13595 in accordance with the FENOC Corrective Action Program.

- **AFI COIA-SC-06-03**

  The DBNPS Site Composite Organization rating of the NS VB&P attribute "Functional Organization staffing levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations" was Not Effective. Thirteen individual DBNPS Functional Organizations also provided low ratings of the "Adverse Effects of Workload on Nuclear Safety" metric: eight were Not Effective and five were Marginally Effective. These organizations are identified in Section IV.B.12. These low ratings represent indicators of localized staffing, workload and/or workload management related issues that are perceived to be having an adverse impact on Nuclear Safety performance in those organizations.

FENOC's Preliminary Assessment of the AFI:

The overall site composite survey rating in this area was in the Effective range. However, the Assessment Team overrode this rating and rated this area as Marginally Effective due to the number of individual DBNPS Functional Organizations that provided ratings of Not Effective or Marginally Effective. As discussed in the assessment report, these ratings "represent indicators of localized staffing, workload and/or workload management related issues that are perceived to be having an adverse impact on Nuclear Safety performance in these organizations." Initiatives at the DBNPS, such as weekly monitoring of workload backlog items, staffing initiatives of Vital Hires and Workforce Replenishment, and a staffing/resource study conducted by an external consultant may have a positive impact in this area. The actions steps below will further investigate the localized issues identified in this AFI and identify corrective actions.

Actions for AFI COIA-SC-06-03:

1. Initiated Condition Report 07-13597 in the Corrective Action Program to address AFI COIA-SC-06-03.

2. Investigate the condition, document the evaluation, and determine corrective actions to improve performance.

3. Obtain Corrective Action Review Board (CARB) review of the CR evaluation and any resulting corrective actions.

4. Implement the corrective actions from CR 07-13597 in accordance with the FENOC Corrective Action Program.

- **AFI COIA-SC-06-05**

  The DBNPS Site Composite Organization rating of the NS VB&P attribute "Site funding levels are consistent with the demands of maintaining Nuclear Safety and safe plant operations" was Not Effective. Other sources of information available to the Assessment Team indicate that this low rating represents, at a minimum, a significant communications issue.

FENOC's Preliminary Assessment of the AFI:

The DBNPS site composite rating of this NS VB&P sub-metric of Nuclear Safety as Top Priority was characterized as Effective. This rating places the DBNPS in the top quartile of the commercial nuclear power plant Sites in SYNERGY's industry database. However, the attribute of this AFI was determined to be a perceived Area for Improvement. The DBNPS has a Plant Health Committee (PHC) that is tasked with ensuring alignment across the site on issues affecting plant safety and system health. This committee is responsible for maintaining Management level awareness and alignment on matters affecting plant safety and equipment reliability, prioritization of issues affecting safety and equipment reliability, and oversight of the progression and execution of high priority issue resolution. The PHC makes recommendations for investments that will improve plant health through a project approval and resource allocation process. The project approval and resource allocation process ensures resources are allocated by placing the highest priority on nuclear safety while maintaining or increasing the value of FirstEnergy nuclear sites. The DBNPS believes that these programs provide focus toward Nuclear Safety and safe plant operations; however, as stated in the AFI above, communications may be a consideration in this issue. The action steps below will further investigate the AFI and identify corrective actions to address the issues.

Actions for AFI COIA-SC-06-05:

1. Initiated Condition Report 07-13600 in the Corrective Action Program to address AFI COIA-SC-06-05.

2. Investigate the condition, document the evaluation, and determine corrective actions to improve performance.

3. Obtain Corrective Action Review Board (CARB) review of the CR evaluation and any resulting corrective actions.

4. Implement the corrective actions from CR 07-13600 in accordance with the FENOC Corrective Action Program..

- **AFI COIA-SC-06-06**

  The DBNPS Site Composite Organization rating of the SCWE attribute "Performance reviews, financial rewards, promotions, personnel recognition and personnel sanctions foster and reinforce attitudes and behaviors that are consistent with a strong Nuclear Safety Culture" was Not Effective. Other sources of information available to the Assessment Team indicate that the breakdown (real or perceived) of the DBNPS performance appraisal process after RFO 14 (fourteenth refueling outage) *is likely to have significantly contributed to this low rating.*

FENOC's Preliminary Assessment of the AFI:

The DBNPS Site Composite rating of the SCWE is characterized as Highly Effective in the independent assessment report. This rating places the DBNPS in the top quartile of the nuclear power sites in SYNERGY's industry database. The report notes approximate trending information for the SCWE rating indicates Notable Improvement over the past year. The SCWE attribute listed above has been identified as a perceived Area for Improvement. As stated in the AFI, the assessment team concluded that a (real or perceived) breakdown of the performance appraisal process after the fourteenth refueling outage (14RFO) is likely to have significantly contributed to the low rating of this attribute. The assessment team further suggested that the performance appraisal process, as implemented for mid-year evaluations (after 14RFO), was not effectively used to reinforce standards and expectations for NSC/SCWE performance. Evaluation of the performance appraisal process implementation is being discussed for recommended changes. The action steps below will further investigate the issues identified in this AFI and identify corrective actions.

Actions for AFI COIA-SC-06-06:

1. Initiated Condition Report 07-13601in the Corrective Action Program to address AFI COIA-SC-06-06.

2. Investigate the condition, document the evaluation, and determine corrective actions to improve performance.

3. Obtain Corrective Action Review Board (CARB) review of the CR evaluation and any resulting corrective actions.

4. Implement the corrective actions from CR 07-13601 in accordance with the FENOC Corrective Action Program.

- **AFI COIA-SC-06-04**

  The DBNPS Site Composite Organization rating of the NS VB&P attribute "Appropriate levels of oversight and control of contractor work activities are provided to ensure that Nuclear Safety is maintained" was Not Effective. Other sources of information available to the Assessment Team confirmed that oversight and control of contractor work activities during plant outages is perceived by many to be a significant area of concern.

This AFI, identified by the assessment team, was previously self-identified by the DBNPS and documented through Condition Report 06-01502 in the Corrective Action Program. The CR evaluation is complete and corrective actions have been identified. One of the corrective actions is to develop and implement an effective contractor oversight plan prior to the fifteenth refueling outage at the DBNPS. Because there is a direct correlation between the CR and the above AFI, no additional actions will be initiated. Condition Report 07-13602 was initiated to document this AFI, and the associated Corrective Action will be tracked under CR 06-01502.