Erwin Citizens Awareness Network (ECAN)
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March 25, 2009

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Division of Fuel Facility Inspection
U. S. Nuclear Regulatory Commission - Region II
Sam Nunn Atlanta Federal Center, 23 T85
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SUBJECT: Status of Safety Culture Implementation at NFS - NRC Public Meeting Feedback

Dear Mr. Payne:

Thank you for the opportunity to attend the March 18, 2009 NRC meeting at Region II in Atlanta. Mrs. Kelley called in and I attended in person. We are providing comments on behalf of ECAN on that meeting since the attached NRC Form 659 has limited space.

One of the reasons I wanted to attend in person is because your audio teleconferencing system is challenged, as evidenced again in the March 18 meeting. Only the participants closest to the speakerphone can be heard by those who call in. If the NRC really wants to engage the public, this communication system needs to be improved.

The Category 1 meeting originally scheduled from 1-3 pm but lasting until 5 pm, could best be described as form over substance with regard to the NFS presentation, which contained 47 slides. I don't believe I have ever sat so long in a presentation that provided so little information -- perhaps by design.
At the break, Lindstrom approached me and I told him the presentation was way too long. He said the "NRC wanted a lot of detail." It appeared to me, however, that he was simply trying to run out the clock leaving little time for questions or discussions.

Your organization had a few good questions and appeared to have a bit better insight than at the previous meeting in Erwin on Oct. 1, 2008 chaired by David Ayres. However, it seems that Region II still may not be totally attuned to some of the details of the NFS Independent Third Party Assessment (SCUBA) report. It is a lengthy and complex report, and perhaps you have already done what we're suggesting -- if not, we believe someone at Region II needs to dissect the SCUBA report, identify the most important issues, and require NFS to focus on them, for example:

> The SCUBA report, stated "The current radiation protection program, and the associated ALARA principles, needs to be explained to the senior Radiation Technician (RT); the RTs should explain the program to the balance of the workforce. RTs should also take part in work planning and pre-job briefs. Details provided in Confidential Health Physics Monitoring & Nuclear Measurements Outlier Organization Report." (The public does not have access to this document; perhaps you do).

We believe safety culture training of the RTs is relatively important. Yet we find in the latest inspection report 70-143/2009-005 (ML090760109), March 16, 2009, that:

> "During interviews with RTs, the inspectors determined that they fully understood ALARA and their important role in implementing the ALARA program. However, some RTs expressed a lack of empowerment to halt operations that might be unsafe. These RTs did not believe they had the authority to initiate a stop in operations when conditions warranted. Nor did they feel empowered to correct inappropriate actions by operators or maintenance personnel due to the perceived lack of support and commitment to excellence when prior issues had been raised to management." (licensee told inspector that safety culture training of RTs would be conducted before summer).

This employee reaction is not surprising given the fact the SCUBA report stated "NFS does not have sufficient policy guidance or demonstrate a proactive approach to preventing, detecting and mitigating perceptions of retaliation." The workers have been intimidated for decades and gagged for three years during the Official Use Only policy. In 2006, they were forced on strike with unacceptable terms and faced drastic cuts in pensions, while NFS management gave themselves a 6 per cent pay raise. Rather than face prolonged unemployment, they gave in to management's demands. Given this history, it is highly unlikely that the workers will ever feel comfortable with the new openness for employee reporting in CAP or PIRCS especially since the same management mindset that sought to cut corners on safety and pollute the environment, also felt the need to pick the pockets of their hourly workers while they fattened up the company for a sale. And the workers are supposed to be cheerful and constructive? Until there is a complete change in management, especially in safety, and restoration of employee benefits, a bottom-up safety culture is highly unlikely at NFS. Industrial relations is linked to employee performance.

As I mentioned at the end of the meeting, I would like to see the priority for NFS safety culture training, the rationale, and the progress. You agreed. Lindstrom says he is 43% complete, but he presented no specifics on that 43%. How do you verify that number in real time with real actions? Lindstrom began his presentation by saying 2011 is achievable for full implementation of the safety culture, but toward the end begins to pull back saying things like "stable, but not improving" and "delayed," "resource challenged," and "the organization's capacity to absorb change is at its limit."

In the NFS presentation, the slide entitled "Resources" Facilities – structural, roofing, paving, HVAC, ventilation – are the exact same areas covered in the October 1, 2008 NRC Safety Culture meeting held here in Erwin. We were there and so were you. Our question is – what specifically has NFS done in these areas, if anything. It's one thing to talk and another to do. NFS has always been good at reorganizing, planning to do things, talking and thinking about them, but often does not follow through on implementation.

The lack of discussion on Configuration Management was disappointing, and NFS appeared to minimize it, saying it was labor intensive and they applied resources where they had to. Yet, it was mandated by the Region II Confirmatory Order, dated February 21, 2007, which stated "the apparent violations associated with EA-06-179 raise concerns about configuration management (CM) that should be within the scope of the safety culture improvement program." ECAN believes this should be a **special focus area** where NRC should require specific explanation from NFS. From our understanding, configuration management is very important because it integrates procedures and helps to identify problems.

Another concern is the UF6 processing in the new CD Line. The SCUBA report stated "there is an underlying concern that some of the pitfalls encountered during the design and installation of the BLEU Processing Facility **are still in existence** as the Reliable Fuel Supply and Commercial Development Line projects near the same point in their design lives."

We now see evidence of that astute prediction in Event Report 44890, "Glove box Overflow Drains May Be Inadequate To Perform Their Safety Function," which appeared to be viewed by Ms. Moore, NFS Safety Director, to be of moderate-level significance, which is even more disturbing. ER 44890 states "During the generation of set-point analyses for overflow drains **in a new process area** (which we learned at the meeting is the UF6/CD line), NFS performed field tests on the glove boxes 2/26/2009 and 2/27/2009. As a result of the Engineering evaluations, it was determined that in some instances a single drain alone was not capable of maintaining a solution depth to within design parameters in some localized areas within the glove box."

Mrs. Kelley, a member of ECAN, who called in to the meeting stated "there should not be a single glove box that has only one drain." It is our understanding that a single drain should allow discharge at a rate at least equal to inflow to prevent a critical mass accumulating in a given configuration, and that a single drain cannot be deemed an IROFS because material can easily block a drain if the glove box has a wet process. Mrs. Kelley asked if this was a **license condition**, but no one appeared to know. ECAN asks Region II to answer that question.

Mr. Lindstrom interrupted saying that all the glove boxes have two drains, although Mrs. Kelley's question was addressed to the NRC. However, we need to hear from Region II whether the NRC is now or has

ever allowed NFS to consider the second drain of a glove box as an IROFS. Since the SIT Report on the 37-liter HEU loss of containment on March 6, 2006 noted, there had been "two pieces of cheesecloth partially covering one of the drains" and that the "inspectors concluded that it was fortuitous that the drains worked." ECAN does not believe that Lady Luck should be held responsible for workplace or public safety at NFS. It's the NRC's job to defend in depth worker and public health and safety, and ensure that an IROFS (such as a second drain in a glove box) is, in fact, (not just on paper) a back-up safety measure to prevent a criticality.

Problems with glove boxes, IROFS and SREs such as overflow lines, as well as frequent losses of containment of SNM, have been ongoing issues at NFS for years. Here are just a few examples:

*June 28, 2004 - Incorrect assumptions concerning contamination in a dry glove box, the location of the material inside the dry glove box, the position of stationary air samplers around the dry glove boxes, and the height of the individual performing the operation, led to an individual exceeding the derived air concentration action levels in the area and unexpected contamination inside the dry glove box. Unusually high contamination ranging from 100,000 dpm to 300,000 dpm were documented inside the dry box enclosure. NRC Inspection Report (ML081440457). (**Note**: **Violation of License** SNM-124, Section 4.1.1.1. Neither Civil Penalty nor Notice of Violation was assessed or issued after consultation with Director, Office of Enforcement, Region II, ML081500427, EA-04-113, Oct. 6, 2004).

*April 28, 2005 - "Inadequately controlled or analyzed pathway for material accumulation. This event occurred at Building (deleted) in the Uranium-Aluminum Hydrogen dilution system area. The licensee observed a solution accumulated in a HEPA filter housing on the Building (deleted) roof. Analysis of the solution determined the liquid to be a caustic byproduct of the process. Further analysis indicated that approximately 3 grams of U-235 were in the HEPA housing and filter. Further reviews of the system design identified potential pathways from Uranium-Aluminum dissolution system that did not appear to be adequately controlled or analyzed. (Event Report 41651)." (**Note**: Inspection Report dated **Mar. 16, 2009**, **inspection conducted Jan. 26-30, 2009**, "A significant focus of the inspection was placed on operations in the uranium aluminum area (UAL) which had recently been experiencing operational upset conditions. The dissolvers for the UAL system had been clogging and causing material to back-up into the overflow columns. These operational upsets had occurred several times over the week prior to the inspection. Each of the overflow lines are safety related equipment. The level probes for the product column were replaced due to faulty readings. Despite this initiative, another overflow situation occurred during the week of the inspection." (**Same problems now -- 4 years later**).

*October 21, 2005 - Potential Degradation of Glove-box Overflow Drains Under Certain Vacuum Conditions (Loss or Degraded Safety Items). The degraded safety scenario would involve high uranium concentration solution entering the glove box. The vacuum on the glove box enclosure would have to exceed that which could result in the overflow drains being incapable of performing their functions. The solution in the enclosure would have to exceed the height necessary for criticality. NRC notified 11/10/05, 3 weeks later. (NRC Event Report #42133) (**Note**: 6 months before the 37-liter spill).

*December 16, 2005 - Inadequate design basis of process enclosure drains to a common cause failure. A poorly controlled modification of a process enclosure drain, such that the drain may not have functioned due to lack of control of the elevation of the drain. Vacuum was not accounted for in the design basis. The IROFS mentioned were the only IROFS in an accident sequence leading to a criticality, and since those IROFS were subject to common cause failure, the **potential consequences of this issue are severe**. NRC Inspection Report (ML081480307). (**Note**: 3 months before the 37-liter spill).

*March 1, 2006 - Pre-decisional enforcement conference. "Purpose of the meeting is to discuss the apparent violation associated with the failure to consider how credible abnormal process conditions could degrade or defeat the function of glove box drains (redacted). An additional issue associated with the apparent violation involves the failure to report the glove box vulnerability to the NRC under 10 CFR 70, Appendix A." The issue was not reported for approximately three weeks. (Letter, Jan. 26, 2006, EA-06-018, Event No. 42133, ML081500553) (**Note**: 5 days before the 37-liter spill and fitness-for-duty issue)

*March 6, 2006 - 37-liter spill of HEU and two near criticalities, not reported to the NRC within 24 hours, combined with a Senior Executive Fitness for Duty event on March 7, 8, and 9, not reported to the NRC until April 6, 2006, one month later. **This is clearly a breach of NRC rules**. NRC and DOE reps were present for a meeting with the Senior Executive on March 9, 2006, were subjected to angry outbursts from this Executive, must have known of his condition, yet continued to allow the alcohol-impaired NFS President access to Special Nuclear Material. What's the deal, and who's it with? ECAN would like Region II to answer the question, because the writing on the wall that we see is that DOE is calling the shots, expecting NRC to grease the skids for its programs at NFS -- despite the fact that the DOE itself stated in its October 2007 Supplement Analysis that the greatest exposure to offsite individuals would happen at NFS because of the close proximity of homes, schools, etc.

*December 21, 2006 - Failure to properly secure material prior to leaving it unattended. The inspectors noted a weakness during the Operation Readiness Review **for the newly installed LA process area,** which was placed in operation prior to verifying leak tightness. Problem report addressed a leak that developed at a flanged connection located with a glove box. This leak can be attributed to **inadequate verification of construction activities or startup testing**. All required fire protection features had not been completed prior to startup of this area," but this was not cited as a violation. (**Note**: NFS's response to the NOV considered sensitive, and NRC committed in writing in this IR that it **will not be made available to the public).** Inspection Dates 10/15/06-11/15/06, Inspection Report (ML073050171). (**Note**: 8 months after the spill).

We relate these safety issues to you so that you will understand why some members of the public seriously question Region II's ability and willingness to enforce the NRC's rules and regulations at NFS. We also question the Operation Readiness Reviews and ISAs as they have missed important safety issues before, for example, the elevator pit -- and the failure of Region II to require NFS to correct unsafe conditions immediately. A member of ECAN has compiled a list of events involving loss of containment since 1962. For the last five years (2004 to present), there have been 63 losses of containment. Therefore, we cannot rely on this haphazard approach to regulation and enforcement, or risk the loss of containment of the potentially dangerous and hazardous UF6 -- the cheapest process according to the 1996 DOE/EIS-0240 Record of Decision -- within the City Limits of Erwin, Tennessee, adjacent to private homes, schools, churches, shopping centers, and our only hospital.

We appreciate your phone call on Thursday March 19 regarding a Special Inspection Team who will come to Erwin this week to inspect and assess the NFS glove box drains. That was a good decision. Hopefully Region II will issue a press release with the results of the week-long inspection.

Realizing that Region II may be outside its comfort zone in enforcing the NFS Safety Culture initiative -- for a 51-year-old company that you have allowed to be in serial noncompliance for decades -- please remember, you wanted ADR and this safety culture program is the result. You will have to live with it, with us watching, for a long time. If this program is worth doing, it's worth doing right, otherwise it's a waste of time and money. If Region II is truly in charge, then take charge. Don't be a Paper Tiger. Put some real teeth in this safety culture provision of the Confirmatory Order, as well as all future enforcements and regulatory actions. Hold NFS management's feet to the fire. If you do, we believe it will be a first. We would suggest that:

(1) NRC needs to know the SCUBA report better than NFS does, and better than ECAN does.

(2) NRC should take control of the meeting agenda, provide NFS with a list of **specific** areas and questions you want them to address and discuss, and hold them to it.

(3) NRC should limit NFS to a maximum of 12-15 slides, and one hour to cover your questions and concerns. Don't allow them to ramble and waste everybody's time.

(4) NRC questions, clarification, and dialogue for the next half hour, or more.

(5) Members of the public and press - whatever amount of time remains. If NRC Region II does it's job right, in the end, most of the public and press questions should already be answered.

We also believe Mr. Lindstrom is not the best one to give this presentation. Perhaps the new person hired to birddog the SCUBA initiative will be more concise, IF you provide the parameters. We applaud your efforts in trying to pin him down "as the go-to guy for the NFS safety culture initiative," but not sure you were successful. He seemed to dodge his role as the responsible person on more than one occasion.

ECAN requests that this letter be included in the March 18, 2009 Region II meeting file.

Respectfully,

Wanda S. Kelley John Kelley

Barbara A. O'Neal

Barbara O'Neal and Wanda Kelley
f/Erwin Citizens Awareness Network

Note:
* = loss of containment of Special Nuclear Material (SNM) or potential loss of containment

Enclosure:
In July 2008, a member of ECAN assembled a 15-page excerpt from the SCUBA report on just a *few* of the most egregious faults found by the safety experts. While it is far from comprehensive, with ECAN's permission, we are enclosing a copy in the event it might be helpful to you. This document is also on NRC ADAMS (ML082400107) the last enclosure.

Copies furnished to NRC Commissioners:
Honorable Dale E. Klein
Honorable Gregory B. Jaczko
Honorable Peter B. Lyons
Honorable Kristine L. Svinicki

NFS – Erwin Site

2007 Independent Safety Culture Assessment

RESULTS REPORT—February 16, 2008

EXCERPTS

Decision Making: The site does not consistently meet regulatory expectations with respect to conservatism in decision making. In this regard the SCUBA Team has concluded that:

- Examples exist where the process was hurried or shortcuts were taken—particularly when continued production was at stake.
- NFS does not have a systematic, rigorous and formalized system for making operational decisions when risk-significant or safety-significant issues arise.
- Decisions are not consistently developed with the requisite degree of conservatism, particularly when a potential for personal injury is involved.
- **Communication of the bases for key decisions affecting safety is in many instances untimely, insufficient or lacking**. (p.24)
- **NFS lacks an appropriate focus on conservatism when making decisions. Too frequently, operations focus has come to be interpreted as production focus. The basic premise for going forward with any safety-significant or risk- significant activity should be that it has been shown it is safe to proceed as planned, rather than it is acceptable to proceed unless it can be proven it is unsafe to do so.** (p. 25) Reasons for significant decisions related to nuclear safety and safe facility operations are not effectively communicated to the workforce by management.

Personnel Interviews, Behavioral Observations, and Documentation Reviews: Some examples include—

- The site lacks a procedure that defines the operational decision-making process when risk-significant or safety-significant issues arise.
- **There are occasions when non-conservative decisions are made in the field in order to allow continued production.**
- **A recent decision, made on the part of a fuel area supervisor, was to continue a production run although he knew there was uncertainty as to whether there was a violation of operating procedures.** The motivation was to avoid jeopardizing the production run and the resultant loss of production.
- Information obtained from employee interviews indicates that employees rarely understand the basis for decisions involving risk-significant or safety-significant situations. This is due to the lack

of a communication tool for informing employees about key decisions. Information flows down the chain of authority with varying degrees of effectiveness.

- **Effectiveness reviews of safety-related decisions to verify validity of underlying assumptions, identify unintended consequences, and improve future decisions are not typically performed.** (p. 26)

Resources: This Safety Culture Component does not meet regulatory expectations. **The NFS organization has become accustomed to tolerating recurring equipment problems, operational burdens & workarounds, degraded equipment conditions and degraded infrastructure issues.** There are a number of situations that represent challenges to industrial/personnel safety. Organizational tolerance of such degraded conditions and the corresponding message that is sent with respect to management values and standards represents a deficiency with respect to industry standards and norms and the potential for adverse carryover effects on the organization's nuclear safety culture. **The SCUBA Team concluded that an embedded tolerance of degraded conditions raised significant concerns regarding the current general safety culture and the potential for carryover effects on nuclear safety.** Weaknesses or fragilities exists in the effectiveness of key supporting functions, programs and processes, the most notable of which are the shortage of project and process engineering expertise, and the inadequate support personnel for the Corrective Action, Quality Assurance/Self Assessment and Configuration Management Programs. (p. 28) In some cases, this additional staffing is needed to ensure that regulatory commitments and/or regulatory expectations are met. In the past, insufficient financial resources have been applied to meet NFS's facility infrastructure needs. **The current physical condition of the facility is considered to be deficient when compared to industry standards and norms.**

While it appears NFS has sufficient engineering resources to support safe operations of its nuclear facilities, these resources are frequently diverted to support new business opportunities. This has contributed to significant engineering work backlogs, tolerance of degraded equipment conditions, delays in resolving recurring equipment problems and delays in addressing facility infrastructure improvement needs. (p. 29)

Personnel Interviews, Behavioral Observations and Documentation Reviews: "The SCUBA Team has observed that NFS has historically provided sufficient resources to assure safe operations of its primary production facilities, particularly with respect to nuclear criticality considerations, but that such assurance has generally been at the "meet minimum regulatory requirements" level. Over the past few years, **rather than consistently focusing resources on pursuing improvements in its safety culture and its safety-related performance, NFS has been in a position of diverting its relatively scarce resources to address immediate situational challenges** (e.g., the workforce strike and the operational problems at the BPF facility) **and/or to pursuing and responding to new business opportunities. Among other things, this has fostered a culture that tolerated degraded conditions.** Some examples are as follows:"

- ✓ A significant number of operator burdens/workarounds (some of which involve the use of administrative controls in lieu of engineering controls) as a response to degraded equipment conditions.

A specific example is the venture scrubber in the fuel area that requires operators to make manual caustic additions for pH control because the automated system is not functional. This situation has existed so long the operating procedure has been modified to make the manual addition process the standard mode of operation. The original operating procedure only allowed manual additions for "off-normal" conditions." **This is clearly a case where industrial safety margin has been sacrificed in that operators must manually handle hazardous chemicals, and administrative controls have replaced engineered controls.**

✓ **The SCUBA Team has observed degraded conditions, some of which create industrial/personnel safety risk and some of which create risk to continued productions. An example of the former is the catastrophic failure of the waste water filter press, while an example of the latter is the HVAC fan system that services the MAA. In all cases, tolerance of these degraded conditions reinforce slower than desired management standards and contributes to a poor value system that has the potential to carry over into the nuclear safety culture.** The SCUBA Team has observed:

- Recurring equipment problems that have not been corrected in a timely manner, such as the false alarms that have plagued the criticality alarm system.
- Equipment problems that have become accepted on the basis of a **"run to failure" philosophy**, such as the frequent calciner high pressure interlock shutdowns in the fuel recycle area (approximately one week.)
- Numerous plant infrastructure needs include roof replacements, HVAC system component replacements, selective process equipment replacements, paving, etc. (p.32)

NFS developed an infrastructure Improvement Plan in August 2007 to aid in the development of capital budgets. The plan identified a long list of problems that need to be fixed. A key issue is prioritizing this list so that degraded conditions including security, nuclear safety, personnel safety, and production capability are addressed in a timely manner commensurate with risk. It will also be necessary to ensure that engineering resources are available to execute this plan. This will require a planned approach that will likely include:

- Increasing the project engineering and processing staffs
- Freeing up process engineers to focus on operations-related activities
- Establishing relationships with larger contractors and constructors to facilitate execution of major projects

Based on the integration of all sources of assessment input, the SCUBA Team concluded that several other key NFS program, processes and functions needed to support a strong safety culture are not sufficiently staffed for success or to meet regulatory expectations. Additional resources will be needed to effectively implement several new programs, processes or functions designed to improve both safety culture and safety performance. **NFS has a reactive approach to preventive maintenance and tends to operate equipment until it fails.** (p. 33)

Work Control: The SCUBA Team has concluded that: **NFS does not have a comprehensive work management process/system to identify, prioritize, plan, schedule, manage risks and execute work.** The preventive maintenance program needs to be expanded. It is more reactive than proactive. **There is little or no equipment performance monitoring or equipment life-cycle management; and reliability-centered maintenance is not a focal point for the organization.** Industrial Safety oversight of site activities needs to be improved for the specific purpose of providing enhanced reinforcement of safety requirements. This is particularly important for contractor activities performed outside the Material Access Area (MAA). (p. 36) Industrial Safety oversight of maintenance, project, and contractor activities needs to be increased. **There is little or no Industrial Safety presence in these areas; thus, there is little reinforcement of safety requirements.** (p. 37)

Personnel Interviews, Behavioral Observations and Documentation Reviews: Reviews of the Work Order systems revealed there is typically a two to three week backlog of maintenance work orders, most of which are reactive and corrective action focused. This backlog does not include equipment issues where a Work Order has not yet been generated. Examples include work requests that are in queue for engineering support, and equipment that is in a degraded condition, but for which no corrective action request has been documented (that is, no Work Order, engineering work request, or PIRCS corrective action system entry has been generated.) It is not clear how many systems or how much equipment requires corrective action that has not been documented, but **there are multiple examples where degraded conditions have become a way of life and operations personnel have learned to live with and accommodate these degraded conditions**. Items Relied on For Safety (IROFS) and Safety Related Equipment (SRE) are identified along with any functional testing requirements. There is no systematic effort to identify other critical plant components, manage critical spare parts, or perform contingency planning. There is little or no effort expended in the area of equipment performance monitoring, equipment reliability improvement, or equipment life-cycle management. The overall system and equipment maintenance effort is much more reactive than proactive. The preventive maintenance program for SRE and IROFS is also reactive in that **functional testing failure determines when SRE and IROFS receive maintenance attention.** (p. 38-39)

Work Practices: The SCUBA Team has concluded that: **Organizational standards are principally focused on getting tasks completed to support production**. There is a strong supervisory presence in place in the field, but its primary focus is to respond to production and quality issues. Observations and interviews indicate very little supervisory time is spent on establishing, coaching and reinforcing safety performance standards, including procedural compliance. There is generally little management reinforcement of safety performance standards in the field, including procedural compliance. Human error prevention methods are currently being used sparingly, inconsistently and ineffectively. When faced with uncertainty, employee decisions in the field are not always conservative. A recurring theme of procedural non-compliance problems has been identified and is supported by interviews, behavioral observations and documentation reviews. Contributing factors appear to include:

- A lack of awareness of desired standards and expectations.
- A value system that encourages putting production ahead of procedural compliance.
- Failure to reinforce desired behaviors.

- Occasional peer and/or supervisor pressure to operate outside of procedures.
- Failure to establish individual accountability and ownership for procedural compliance. (p.41)

Procedural compliance is a significant problem at NFS-Erwin. The site has a history of NRC violations associated with procedural adherence deficiencies, and procedural non-compliance continues to be an area for improvement. An immediate intervention with a proactive approach is necessary to address and correct this continuing problem. (p. 42)

Personnel Interviews, Behavioral Observation and Documentation Reviews: Supervisory oversight is focused on production, resolving technical issues, and ensuring product quality. **Safety (nuclear and industrial) is not emphasized in work practices or in work orders.** Material issues and procedural violations were observed without supervisory intervention or corrective action. Interviews indicated employees are skeptical that supervisors and management take industrial and personal safety seriously. This perception is reinforced by a sense of compartmentalization. When production is discussed, only production is discussed. When safety is discussed, only safety is discussed. The independence of these discussions creates a perception of production being more important, since the primary briefing focus is production. (p. 44)

The SCUBA Team observed that workarounds are often implemented and sometimes become permanent solutions. **The workforce often describes the environment as a production-oriented environment where workarounds are rewarded if they can "save a run."** Workarounds undermine conservative approaches to uncertainty, procedure compliance and the seriousness of industrial and personal safety. (p.45)

The Lock-Out/Tag-Out process requires attention. **The practice of utilizing common keyed locks for system isolations is not consistent with industry standard.** It has the potential to compromise the integrity of an isolated system. The practice of an "Arm's Reach Rule" (locks not required if in an arm's reach during work) for system isolation is not in agreement with industry norms for lock-out/tag-out programs and is a precursor for an accident or event (human error "trap".) A work practice to manage the custody (and control) of keys for isolation devises is not deployed at NFS-Erwin.

- Specific Examples from Field Observations:

  - **Operators have occasionally been instructed to operate outside of procedure scope by supervisors.** At least two situations were identified to SCUBA Team members
  - Weekly plant shutdown and restart procedures are not followed precisely. Additional steps are frequently involved as well as altered sequencing The omission of other requirements also occurs. None of these procedural challenges are the subject of a revision request (p.45)
  - Known procedural deficiencies and equipment problems (e.g., instrument plugging) are common knowledge to operators and supervision. Action is taken to deal with the situation without requesting a procedural change
  - Supervisors are often present when procedural violations occur yet violations go unreported or undetected

- During maintenance of a scrubber assembly, several procedural violations, procedural omissions, and lapses in safety behavior were observed involving radiological safety and industrial safety
- After a scrubber chemical addition system failed, the chemicals were added manually via an open panel in the scrubber as a long term alternative to correcting the deficiencies of the addition system. These types of workarounds undermine procedural compliance. (46)

Based on the information presented above, it is the SCUBA Team's conclusion that organizational standards are principally focused on getting tasks completed to support production. There is inconsistent ownership and accountability for and reinforcement of procedural compliance in comparison to the focus on production. These behaviors reinforce the organizational perception that the current procedural compliance performance level is acceptable. Interim compensatory measures are needed to effect an immediate change in organizational focus and performance related to procedural adherence. **Sufficient and appropriate resources, with adequate time and focus, will be required to change the existing culture**. (p. 46)

Corrective Action Program: The Corrective Action Program (CAP) execution lacks rigor and insufficient management oversight and control. The effectiveness and timeliness of CAP investigations, corrective actions, and common cause analyses is lacking.

Problem Identification Reporting and Correction System (PIRCS) is not utilized as the only method and central repository for issue identification and resolution, a practice which is inconsistent with most nuclear industry corrective action programs. NFS needs to clearly define the types of issues that are required to be processed through the CAP using PIRCS. PIRCS is not currently being used to record every issue or problem that is identified at the NFS-Erwin site. (p. 49)

NFS needs to fully convert the commitment tracking process to the PIRCS system as intended. There are currently multiple processes, and unclear ownership for effectiveness of corrective actions. This diffusion of responsibility provides the opportunity for administrative error and could lead to an inadvertent lapse in regulatory compliance. The current commitment approval process does not systematically evaluate the effectiveness of corrective actions taken and allows commitments to be closed when work is merely scheduled, not completed. (p. 51)

Personnel Interviews, Behavioral Observations and Documentation Reviews: PIRCS Quality and Timeliness Issues: The Vice-President of Safety and Regulatory is responsible for assigning all Investigation Team Leaders, and Vice-Presidents must approve non-QA root cause analyses in their area of responsibility, per NFS-GH-922. **Root cause analysis training has not been systematically administered in the past ten years; and there are no annual or bi-annual re-qualification requirements for analysts or reviewers. No formal training is offered relative to the conduct of apparent cause evaluations.** The lack of periodic training on root cause analysis techniques limits effectiveness of this management oversight.

The CAP has not been effective in applying the corrective action needed to reverse adverse trends associated with safety-related issues. There are recurring issues associated with production-related components, involving business risk and the potential for personal injury.

- ✓ The failure to fix the automated caustic addition system on the MAA venture scrubber requires operators to manually handle hazardous materials on a regular basis – a practice that a number of members of management consider unnecessarily hazardous.
- ✓ A second example is the decision to cancel installation of a new wastewater filter press because an alternative solidification process supposedly made component replacement unnecessary. **The old press was run to catastrophic failure, and could have resulted in a serious, if not fatal, injury**. Again, there were members of management who considered the operation hazardous enough to warn operations personnel to stay away from the press when in operation.
- ✓ The site lacks a comprehensive self assessment tool, and the CAP has not received a self-assessment that would meet industry standards.
- ✓ Two commitments made to the NRC were overdue for completion until the due dates were successfully re-negotiated. The centrifuge U-Al bowl wash procedure and the U-Metal process were scheduled as pilots for full incorporation into the Configuration Management (CM) Program in the second and third quarters of 2007, respectively. The CM Specialist is actively working on both, but the site has taken the position that scheduled dates for these written commitments were only targets. Neither is yet complete although the NRC has subsequently agreed to extend the due dates into 2008.
- ✓ There are occasions when PIRCS commitments are closed to other commitments, with neither resulting in definitive action . (Problem Reports 3246, 4716, and 4865) This practice is considered to be unacceptable and is inconsistent with industry practice.
- ✓ Some PIRCS items that should be quality records (e.g., those pertaining to corrective actions following the BPF spill) were resolved by using informal memoranda or recorded in e-mail traffic. (Problem Reports 3237, 3292 and 3293.) (p.55-56)

Issue Trending: Trend data is available in paper form, but is not correlated in any systematic fashion to allow for intervention prior to a system fault. Procedure NFS-GH-56 refers. **Stated another way, Safety Related Equipment (SRE) and Items Relied on for Safety (IROFS) are run to failure. (p. 57)**

Operating Experience: The SCUBA Team has concluded that NFS does not meet regulatory expectations related to this Safety Component. NFS has no formal written internal or external Operating Experience (OE) program. With respect to use of internal operating experience, there have been ad hoc responses to significant or recurring events, but these tend to be narrowly focused. Examples include repetitive Radiation Work Permit (RWP) violations in 2005, a design problem relating to Nuclear Criticality Safety (NCS) in 2005, the March 6, 2006 spill, and the filter press event in 2007. NFS currently does not have a systematic, thorough and formal program/process in place for obtaining, evaluating and acting upon external operating experience. (p. 58)

Personnel Interviews, Behavioral Observations and Documentation Reviews: SCUBA interviews and procedure reviews indicate there is no formal written Operating Experience program at NFS, which at least partially explains why this Safety Component is not well understood throughout the organization. Some of the following information provides additional insights into NFS-Erwin processes related to OE:

- There is no systematic review of NRC inspection reports to identify trends other than numbers of violations.
- NFS uses the PIRCS system to collect internal operating experience from incidents and events. This process is neither systematic nor consistently used; events tend to be documented in isolation. "Similar Events" shown in PIRCS are rarely related. Until recently, looking for root causes did not consistently receive a high priority. Common cause investigations are inconsistent and not available yet in PIRCS options (p. 60)
- **Pre-job briefings are often cursory and provide little opportunity to communicate operating experience. By virtue of the recent initiation of human performance skills training, it is reasonable to presume this practice does not currently exist at NFS.**
- There has been no apparent attempt to incorporate Operating Experience (OE) into pre-job briefings, as is the standard in commercial nuclear power.
- **There is an underlying concern that some of the pitfalls encountered during the design and installation of the BLEU Processing Facility are still in existence as the Reliable Fuel Supply and Commercial Development Line projects near the same point in their design lives.** There has not been an effectiveness review conducted or a significant effort made to advertise lessons learned and conservatism applied from previous projects. The discussion at some planning sessions infers this doubt exists among senior managers. (p. 61)

Environment for Raising Concerns: In this regard, the SCUBA Team has concluded that: **The SCUBA assessment identified significant gaps between current NFS standards and practices and those in the nuclear power industry.** The trend seemed to rest on an absence of negative trend information instead of the presence of positive indicators. (p. 74)

Personnel Interviews, Behavioral Observation and Documentation Reviews:

- Offers of the opportunity for truly open and honest debate are viewed with skepticism by some employees.
- **In particular, reporting issues that pose a threat to continued operations or production are viewed as probable triggers for a negative management response. Some employees report signs of management anger or irritation when production is jeopardized. They cited examples of raising issues that affect production and a negative consequence (e.g., assignment of unpleasant work, lack of opportunity or promotion, etc.) for the individual viewed as "stopping production" and view this as an example of management saying one thing (safety over production), but signaling through their behaviors the real priority is different.**
- Alternate reporting processes are available at NFS. However, an **employee seeking confidentiality must contact the company's General Counsel. Interviewees said they would**

be willing to use that avenue if it was important enough, but expressed reluctance to go that high with a minor problem; they would just let it go. There have been only two instances of employees using that venue in the last two years. That is a statistical anomaly, compared to the number of confidential concerns received by the average Employee Concerns Program (ECP) in the nuclear power industry.

- The lack of a truly independent reporting process (like the industry standard ECP model) may be a barrier to reporting certain kinds of relationship-based concerns, because the current reporting methods and alternatives are perceived as too public, too slow, or not sufficiently independent.
- Interviews with NRC Residents indicate the regulator has a high level of confidence in employee willingness to bring issues and concerns to their attention and attribute the low numbers of NRC allegations to the fact that NFS management responds well to informal discussion on employee concerns relayed by the Resident Inspectors. Resident Inspectors report no signs of reluctance or need for confidentiality on the part of NFS employees when it comes to speaking with the NRC. It is their view that employees clearly understand their rights and protections under the Whistleblower Act and employee interviews confirm this. (72-74)

Preventing, Detecting and Mitigating Perceptions of Retaliation: The SCUBA Team concluded this Safety Culture Components meets minimum regulatory expectations. NFS does not have sufficient policy guidance or demonstrate a proactive approach to preventing, detecting, and mitigating perceptions of retaliation. Employees receive some training on company expectations and available reporting processes. Discrimination claims are investigated, primarily by Human Resources (HR).) Union leadership participates in discipline decisions (above a certain level) affecting bargaining unit employees. Management administrative actions (adverse performance evaluations, demotions, transfers, promotions) are not routinely reviewed for potential chilling effects. The company does not have processes in place to evaluate and mitigate other actions and decisions (work assignments, changes to work or holiday routine, contractor decisions, etc) that have the potential to create the perception of retaliation. (p. 75)

Personnel Interviews, Behavioral Observations and Documentation Reviews: The SCUBA Team gained significant insights during interviews, observations, and documentation reviews: Responsibility for retaliation claims resides in HR. Some employees view this as a potential conflict of interest. Employees who lack confidence in HR's investigative performance may use the site General Counsel instead. This option is not widely understood, nor is it used with any frequency. Investigations do not always take place in a timely manner; there is no target time frame for investigations to be completed, as is the industry norm. Investigator training requirements are not established and investigative report quality is inconsistent. Guidance on specific investigation requirements (e.g., investigation plan, expert assistance, interview outlines) is non-existent. Feedback to employees is inconsistent and there is no process for tracking corrective actions or verifying their effectiveness. (p. 77) Interviews indicate a low level of management self-awareness when it comes to behaviors that could have a potentially chilling effect. Interviews also indicate employees have very low recognition/recall of attempts by management to mitigate chilling events. Some employees perceive that negative management reactions (and, in some instances, retaliation) have occurred when issues or concerns that had the potential to interrupt production were raised. (p. 77-78)

Accountability: Performance is considered to be deficient with respect to commercial nuclear power plant industry best practices. It does not meet regulatory expectations in that accountability has not been systematically and consistently reinforced at the workforce, supervisor, or management levels. This conclusion is based on a number of significant deficiencies noted in NFS's accountability-related management practices. Historically, NFS management has not consistently demonstrated and promoted a questioning attitude. As a result, there is an embedded reluctance to raise issues or concerns that could potentially impact production or key organizational objectives that must be overcome and reversed. *A key factor seems to be the continuing perception that the burden of proof rests with the individual raising a concern or issue.* **Management ownership and accountability for regulatory commitments is deficient.** Follow-through to assure effectiveness of corrective actions occurs infrequently. Management does not consistently model high-accountability behaviors. Assignment of single point ownership and accountability is not an institutionalized organizational practice. (p. 79) This cultural attribute received one of the five lowest NFS-Erwin Site Composite numerical survey ratings. (p. 81)

Personnel Interviews, Behavioral Observations and Documentation: There are several specific concerns regarding (1) roles and responsibilities, and (2) management's reinforcement of safety standards and safety-related behaviors as an overriding priority. Management does not consistently exhibit or reinforce a questioning attitude. Most employees indicated they would always raise a concern if they felt they were dealing with an issue that presented an "imminent danger" to an individual or the organization. **Many employees, including members of management, expressed reluctance to raise a concern when confronted with an issue that presented the "potential for a safety problem."** This reluctance arose from the concern they might not be able to defend their position. **This perspective is reinforced by the observation that management will frequently proceed with a course of action unless it can be proven to be unsafe, as opposed to proceeding only if it can be proven that it is safe.** Management ownership and accountability for regulatory commitments is deficient. **There is minimal management oversight and control to assure corrective actions are completed in a high quality and timely manner, and effectiveness reviews are not systematically performed.** First line supervision and the training organization have a significant presence on the shop floor-particularly in the HEU areas. Their presence provides some reinforcement for the message that safety is an important priority. **However, most supervisors are much more production focused than safety focused. This leads to the perception held by some employees that production is more important than safety and undermines individual safety focus and accountability for same. (p. 82)**

Examples can be found where supervisors and/or managers proceed without understanding procedural requirements in response to perceived production pressures. There are also examples where management does not consistently follow administrative procedures. **The organization is extremely tolerant of degraded equipment/conditions and frequently develops workarounds to deal with them.** Many of these workarounds become formalized (via changes in operating procedures) in order to avoid procedural non-compliance. The inconsistency between these practices and management statements that safety is the organization's overriding priority is not lost on the work force. **The message is that**

management does not hold itself accountable for fixing equipment problems. Vertical communication within the organization is poor. There is a tendency to communicate an issue once or twice and assume that communication will cascade throughout the organization without any loss of content or impact. As a result, many employees do not understand where the organization is headed from a safety perspective or why, thus undermining individual employee ownership and accountability. NFS does not have an active formal performance management system for salaried or hourly employees. Performance objectives and reviews, and the associated rewards and sanctions, are not utilized to reinforce safety objectives or requirements. (p. 83) Accountability has not been systematically and consistently reinforced at the workforce, supervisor, or management levels. (p. 84)

Continuous Learning Environment: The Site does not meet regulatory expectations in that the organization is insular and has a poor frame of reference with regard to industry standards and best practices. NFS management does not sufficiently value opinions and suggestions from the workforce (particularly from shop-floor workers) to resolve problems and improve performance. There is variability between the work practice taught in the classroom and those observed at the work site once the technicians are qualified and comfortable with their job. On the job experience is allowed to replace procedural reference and this practice goes uncorrected by supervisors. The site administers an adequate "just in time" training program. There is essentially no professional development program for soft skills and leadership training. (p. 85) **NFS has developed a frame of reference that is based primarily upon its own experience as opposed to one based upon current nuclear industry standards and best practices**. This is largely due to organizational insularity, which appears to have developed as a result of the organizations sense of the uniqueness of its operations. (p. 86) Leadership skills at NFS have been suborned to technical competence and there is no current training program to address this gap. (p. 87)

Personnel Interviews, Behavioral Observations and Documentation Reviews: The SCUBA Team intended to monitor management meetings held to review progress against established standards and performance indicators. Such meetings are not held and performance indicators, though available within each functional area, are not used strategically to improve long-term performance against industry standards or close gaps to excellence as defined by NFS. The available tools are used to track production progress instead. Survey results and personnel interviews reveal a sense of frustration, particularly among the craftsmen, that opinions and suggestions to resolve problems have been neither solicited nor entertained by NFS-Erwin leadership. (p. 89)

Organizational Change Management: The SCUBA Team has concluded that Organizational Change Management does not meet regulatory expectations. NFS does not have a formal process to pre-identify and manage the safety impact of major change in organizational structures, organizational functions, leadership, policies, programs, and resources. No documents, standards/expectations, tools, or training are available with respect to Organizational Change Management; thus, there is no guidance as to what changes should be evaluated, or how these evaluations should be performed. Failure to manage the safety-related impacts associated with organizational change can pose a risk to regulatory compliance, several examples of which were observed by the SCUBA Team. NFS does not have a formal

organizational change management program. **Changes are not formally reviewed for potential safety or resource implications**. Major changes are not consistently or effectively communicated throughout the organization. **This safety culture component does not meet regulatory expectations, and is considered to be deficient when compared to industry standards. (p. 91)**

Safety Policies: *Personnel Interviews, Behavioral Observations and Documentation Reviews*: As discussed in other Safety Culture Component Sections of this Report, the SCUBA Team determined that:

The NFS organization has a number of weaknesses in its safety culture that, unless effectively addressed, serve to undercut the values, standards and expectations set forth in "Safety Strong." Findings related to acceptance of a "meet minimal regulatory requirements" approach, tolerance of degraded conditions, weaknesses in procedural compliance, lack of thoroughness of Corrective Action Program evaluations and insufficient focus on self-assessment and the continuous improvement of organizational culture and performance are particularly important in this regard, as the underlying cultural weaknesses do not reflect or reinforce desired organizational values, standards and expectations. Effective implementation of programs, processes and functions that support the "Safety Strong" concept are adversely affected by, lack of sufficient accountability and ownership (both individual and organizational), lack of effective management oversight and lack of effective organizational change management. The key programs, processes and functions in need of particular attention are:

- Corrective Action Program
- Nuclear Oversight
- Safety Conscious Work Environment (Alternate Reporting Channels)
- Industrial/Personnel Safety. (p. 97-98)

ASSESSMENT RESULTS—ADDITIONAL SCOPE: Notices of Violation (NRC Confirmatory Order-2/21/2007) SCUBA Team Conclusion--Area for Improvement (AFI) NFS provided minimally adequate responses to the specifics identified in the NRC violations, but did not adequately address the underlying causes and associated cultural issues. This represents a deficiency when compared to commercial nuclear power plant industry best practices. This also is indicative of an organization that is satisfied with minimum regulatory compliance. (p. 99)

NFS COMMITMENTS OF 9/18/2006: (NRC Confirmatory Order-2/21/2007) At a management meeting with the NRC on Sept., 18, 2006, NFS committed to completing 14 action items designed to improve the Corrective Action Program (CAP). Most have been met. A few have not. The SCUBA Team concluded that NFS standards and practices for regulatory commitment closure do not meet industry best practices or regulatory expectations. In this regard: (a) Commitments should not be closed unless the action has actually been completed (that is, it is not appropriate to close a regulatory commitment to a work request.) (b) Oversight requirements are not sufficiently formalized. (c) A formal or systematic approach for reviewing the effectiveness of corrective actions taken to meet commitments does not currently exist. (d) Accountability and ownership for the regulatory commitment control process is unclear; there is evidence of multiple procedures, some of which are inactive. (p. 100)

CONFIGURATION MANAGEMENT: (NRC Confirmatory Order-2/21/2007) The SCUBA Team has concluded the CM Program improvement initiatives are not adequately resourced to ensure that regulatory commitments will be met. This situation represents an Area for Improvement. There is sufficient document evidence to confirm the programmatic elements necessary to comply with the stated objectives of the CM program are planned and that some are in place in final form. Draft guidance document (NFS-GH-901, Configuration Management), if appropriately augmented by supporting procedures that have been concurrently developed, should support effective implementation. The governing document must be finally reviewed, approved and tested. Significant milestone events still need to be completed in an expeditious manner in order to comply with the Confirmatory Order (and attendant commitments.) The timetable for some of these commitments, specifically those associated with data entry for selected components and systems, has been eased by obtaining the NRC's concurrence to extend deadlines from 2007 to 2008. It is imperative to train and dedicate the additional personnel needed to complete the work on time. The BPF Project is scheduled for full implementation in 2008, HEU in 2009 and the entire site in 2010; **the CM Manager estimates the workload at 26 man years.**

The SCUBA Team reviewed the status of existing documentation designed to ensure it would support development of the *new Reliable Fuel Supply (RFS) facility*, pending full software automation, *it became apparent that program implementation is currently facing schedule challenges and requires corrective action.* (p. 101)

NFS-ERWIN SELF-ASSESSMENT OF SAFETY CULTURE (June/July 2007) The overall accuracy of the NFS SCSA was affected by the lack of an adequate frame of reference for excellence in the nuclear industry. This fact became more evident during the SCUBA Team's review of individual Safety Culture Components. It is noteworthy that the NFS SCSA was considered as not being sufficiently self-critical for the three safety components that constitute Problem Identification and Resolution (Corrective Action Program, Operating Experience, and Self and Independent Assessments.) (p. 102)

OUTLIER ORGANIZATIONS BASED ON WORKFORCE SURVEY NUMERICAL RATINGS: Based on the workforce survey results, seven individual NFS Functional Organizations were identified by SYNERGY as Priority Level 1 or 2 "organizational outliers" due to having provided low numerical ratings for key cultural metrics (i.e., Overall NSC and Overall SCWE ratings.) These organizations are:

- BLEU Complex Operations (NFS Only) – Priority Level 1
- Analytical Services – Priority Level 1
- Health Physics (including Radiation Monitoring & Nuclear Measurements) – Priority Level 1
- Transportation & Waste Management – Priority Level 1
- HEU Fuel Fuel Production – Priority Level 1
- BPF Operations – Priority Level 2
- Other Operations Support – Priority Level 2

SYNERGY indicated Priority Level 1 and 2 designations correlate to the following recommended action levels:

- ✓ Priority 1= There is a potential need to take remedial action in the immediate future.
- ✓ Priority 2= There is a potential need to take remedial action in the near – term.

The SCUBA Team conducted confidential interviews with personnel from the Priority Level 1 and 2 "outlier organizations" to determine the underlying reasons for the lower ratings provided by those organizations. These interviews revealed the following:

- Survey results and interview results were in alignment.
- There are on-going communication problems between management and employees in several of the organizations.
- There are legacy issues, e. g. the strike, that continue to influence the relationship between management and some employees.
- Excessive overtime is a concern to some employees. (NFS has implemented interim compensatory measures to address overtime issues.)
- No NSC or SCWE problems or concerns were identified as a result of the focused interviews.

Based on the above results, the SCUBA Team has concluded that no independent corrective action is required for three of the outlier organizations. The SCUBA Team recommends management take remedial action with four of these organizations to proactively surface and resolve the issues identified through the workforce survey and the personnel interviews conducted by SCUBA. (p. 103)

SCUBA TEAM FINDINGS AND RECOMMENDATIONS: The workforce survey identified a number of organizations which were outliers from either a Nuclear Safety Culture (NSC) or Safety Conscious Working Environment (SCWE) perspective, indicating a potential need for management to take action in either the near-term or immediate future. These prompted the need for the SCUBA Team to conduct personnel interviews to identify the underlying issues which led to the low survey ratings. In this regard, the SCUBA Team recommends the following.

- BLEU Complex Operations (NFS Only): **NFS and AREVA Management should meet and develop solutions to the communication problems that currently exist between AREVA management and the NFS employees at the BLEU Complex.** Details are provided in the Confidential BLEU Complex Outlier Organization Report.
- Analytical Services: Near term management intervention is required to resolve work-related and strike-related environmental issues in the Analytical Services organization. Details are provided in the Confidential Analytical Services Outlier Organizational Report.
- Health Physics Monitoring & Nuclear Measurements: **The current radiation protection program, and the associated ALARA principles, needs to be explained to the senior Radiation Technicians (RT); the RTs should explain the program to the balance of the workforce.** RTs should also take part in work planning and pre-job briefs. Details are provided in the Confidential Health Physics Monitoring & Nuclear Measurements Outlier Organization Report.

- Transportation & Waste Management: An overtime policy needs to be developed that ensures worker hours are reasonable. **The material condition of the Waste Water facility needs to be improved and workarounds corrected.** Details are provided in the Confidential Transportation & Waste Management Outlier Organization Report.

Management should ensure that the specific concerns of the remaining outlier organizations, as identified in the workforce survey, are successfully addressed as NFS progresses in implementing its Safety Culture improvement program. (p. 104)

-end-

(Note: This is a product of the Erwin Citizens Awareness Network, P. O. Box 1151, Erwin, TN 37650)

NRC FORM 659
(4-2008)

U.S. NUCLEAR REGULATORY COMMISSION

NRC PUBLIC MEETING FEEDBACK

Category 1

Meeting Date: 03/18/2009

Meeting Title: STATUS OF SAFETY CULTURE IMPLEMENTATION AT NFS

In order to better serve the public, we need to hear from the meeting participants. Please take a few minutes to fill out this feedback form and return it to NRC.

1. How did you hear about this meeting?

☑ NRC Web Page ☐ NRC Mailing List ☑ Newspaper
☐ Radio/TV ☐ Other _____

	Yes	No (Please explain below)	Somewhat
2. Were you able to find supporting information prior to the meeting?	☑	☐	☐
3. Did the meeting achieve its stated purpose?	☐	☑	☐
4. Has this meeting helped you with your understanding of the topic?	☑	☑	☐
5. Were the meeting starting time, duration, and location reasonably convenient?	☐	☑	☐
6. Were you given sufficient opportunity to ask questions or express your views?	☐	☐	☑
7. Are you satisfied overall with the NRC staff who participated in the meeting?	☐	☐	☑

COMMENTS OR SUGGESTIONS:

Thank you for answering these questions.

(See attached)

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