



AUG 31 2006

Mr. Jeffrey M. Allison, Manager
Savannah River Operations Office
P. O. Box A
Aiken, SC 29802

Dear Mr. Allison:

WSRC FY06 ANNUAL INTEGRATED SAFETY MANAGEMENT SYSTEM (ISM) DECLARATION

Ref: Letter, Mr. Jeffrey M. Allison to Mr. Robert A. Pedde, *Washington Savannah River Company (WSRC) Annual Declaration of the Implementation for the Integrated Safety Management system (ISMS)*, 07/18/2006

This letter and attachment serve as WSRC's FY06 declaration of the implementation for the WSRC Integrated Safety Management System in response to the criteria in the referenced letter.

This submittal was discussed with your designated DOE Point of Contact, Ms. S. J. Robinson, prior to this package being submitted. Any questions pertaining to this matter should be directed to Mr. H. T. Conner, Jr. (952-9265) or Mr. J. L. Click (952-9805) of my staff.

Sincerely,


Robert A. Pedde, President

HCW:msk

Att.

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WASHINGTON SAVANNAH RIVER COMPANY

Attachment

WSRC Integrated Safety Management System Declaration for Fiscal Year 2006

- 1. Changes that have been made to the ISMS since its approval or the last Declaration. Have these changes been effectively implemented, verified, and validated? Provide objective evidence (e.g., summary of results from an assessment).**

Updates to the WSRC ISMS Description are submitted to DOE-SR for approval by September 1 each year. Most of the changes in the FY06 ISMS Description update are minor clarifications and revisions to reflect such changes as the company name now being Washington Savannah River Company, organizational structure changes, etc.. Some descriptive information was updated for clarification and completeness purposes. One example is a description of the distinction between the use of the formal Stop Work process and the informal Time-Out process, both of which are tools available for workers to suspend work when there is any question that safety might be compromised if the work continues. Another change cites that the Apollo Root Cause Analysis methodology has been adopted for determining the causes of problems, including ORPS-reportable events.

The more significant changes include the addition of implementing mechanisms to satisfy new requirements of the new DOE Order 226.1, "Implementation of Department of Energy Oversight Policy," not addressed by existing WSRC Policies and Procedures. Those include a new Policy and Procedure for Differing Professional Opinions and reference to the WSRC Contractor Assurance System (CAS) Description that is incorporated into the WSRC Quality Assurance Management Plan (QAMP).

Another significant change was the reference to the new procedure for task-level Assisted Hazards Analysis (AHA) implemented by WSRC Procedure 8Q-122. The focus for the Assisted Hazard Analysis process roll out was to address overall programmatic changes needed to effectively implement the Integrated Safety Management System model. These changes extended beyond computer program modifications and encompassed tools and improvements in all five Core Functions of Integrated Safety Management, including the following:

- Developed a more disciplined and rigorous process captured by procedure and worker training
- Extended the range of the process to address mitigations for high risk activities
- Implemented a tool for developing a more well-defined scope of work
- Included revisions to hazard questions and controls to provide more clarity
- Developed a user-friendly output document for use in the field (Safe Work Permit)
- Developed a feedback module to capture worker and work group supervisor feedback

An effectiveness review, being conducted in 4QFY06, of the AHA improvements includes a cross-cutting review of the process structured around the ISM Core Functions as well as vertical slices associated with major functional program areas including Industrial Safety, Industrial Hygiene, Radiation Controls, Fire Protection, Waste Management and Environmental Compliance.

Additional revisions to the ISMS Description were made to describe continuous improvement initiatives begun in FY06. One initiative is an ISM Revitalization Task Team formed to take WSRC and SRS to the next level of ISM excellence by identifying and implementing a "critical few" strategic objectives for improving the overall WSRC ISM System and WSRC's implementation of its ISM

System. A second objective of that Task Team involves successful implementation of the DNFSB 2004-1 Implementation Plan actions associated with ISM Revitalization. Another improvement initiative was the formation of a Subcontract Technical Management Execution Council, using Six Sigma concepts to improve the technical management and oversight of subcontracts to ensure the flowdown of safety requirements as appropriate into contracts and implementation of the requirements by the subcontractors while performing work. A major result of this activity will be enhanced oversight of subcontract work by increased availability of and training for Subcontract Technical Representatives (STRs).

Effectiveness reviews were conducted in FY06, primarily of changes made in FY05. One significant effectiveness review, a Corrective Action Effectiveness Review was completed for the Judgments of Need (JON) identified in the Type A Accident Investigation, Subcontractor Fatality at the Pond B Dam Upgrade Project Report, that was issued in September 2004. The review team was comprised mostly of WSRC Independent Oversight Department, Facility Evaluation Board personnel. DOE-SR provided oversight of the review. The corrective actions identified and implemented for the Judgments of Need were, in general, effective. The flowdown of ISMS and safety requirements from contracts into subcontractor field activities had improved. The processes to identify subcontractor hazards and controls had been described in procedures and subcontractor oversight had improved. However, to further strengthen implementation, additional corrective actions were developed and implemented allowing DOE-SR to recommend closure of the Type A Accident Investigation.

Another significant Effectiveness Review conducted in FY06 involved the Site Tracking, Analysis, and Reporting (STAR) system that is a part of WSRC's management system for corrective actions. This Effectiveness Review was not targeted at corrective actions for a specific problem, but rather was designed to determine the effectiveness of STAR in supporting WSRC's overall corrective actions program. In addition to personnel interviews, input to this review included a body of feedback from various sources such as the 2004 and 2006 reports of the DOE-HQ Office of Performance Assurance Independent Oversight Inspections of ES&H programs at SRS, a set of corrective actions identified by an earlier effectiveness review of STAR conducted in March 2005, self-assessments, independent assessments by the Facility Evaluation Boards), and the latest Annual ISMS Review. That review recommended conducting a follow-up effectiveness review of STAR following implementation of the earlier corrective actions. The Lines of Inquiry (LOIs) for this review were designed to meet the expectations of the Feedback/Improvement Criteria Review and Approach Documents (CRADs) associated with the SRS Action Plan for Commitment #25 of the DNFSB 2004-1 Implementation Plan. Although Opportunities for Improvement were identified, it was noted that consistent implementation of WSRC's corrective action program has shown significant improvement through the use of the STAR application. A package of training materials and training that was conducted in November 2005 has been credited with better user knowledge of the system and the process has continued to mature as more and more users have been immersed in the process. Software improvements made to lead users through required parts of the process depending on the Significance Category of the problem were found to be effective in preventing omissions of important steps in the corrective action process. All input sources agree that the use of STAR is a continuously improving contributor to the WSRC corrective action process.

2. Significant Occurrence Reporting and Processing System (ORPS) events and/or accidents that have occurred since the last Declaration. Did the event(s) investigation identify programmatic or systemic implementation problems with the approved ISMS? Were appropriate corrective actions developed? Have the corrective actions been effectively implemented, verified, and validated?

The total number of ORPS Reportable Events continues to decrease in FY06 as it has every year since 1999. The total number in FY06 through 8/28/06 is 155 events, compared with 240 events in FY05. The most significant event in FY06 has been a flash fire that occurred January 10, 2006 in the SRNL Main Laboratory Building, Laboratory D1169. The fire occurred as a first-line manager (FLM) was using wipes soaked in isopropyl alcohol to perform secondary cleaning of an attritor vessel that contained pyrophoric residues. The fire resulted in the FLM receiving first- and second-degree burns on his face, neck, the side of his head, and left hand. A principal investigator working with the FLM used MET-L-X extinguishing agent to smother the fire, and the area was evacuated. Emergency response personnel arrived on the scene and administered first aid to the burned employee before transporting him to a local hospital. The laboratory was barricaded and all work in that laboratory was suspended pending investigation of the incident. Additionally, the use of Class 1 solvents in SRNL was suspended with any exceptions requiring Laboratory Director or Associate Laboratory Director approval.

A DOE Type B Accident Investigation was conducted for this event. The direct cause of the accident and injury was the ignition of isopropyl alcohol vapors reacting with alanate during attritor vessel cleaning operations outside the inert atmosphere glovebox, provided for the cleaning of the vessel. As the vessel was being removed from the glovebox, where it had been cleaned, additional cleaning of residual material was attempted outside the glovebox. The root cause was determined to be failure to identify and mitigate the hazards of performing cleaning with isopropyl alcohol outside of the glovebox, and to include that in the scope of work.

A comprehensive list of corrective actions has been developed and those actions are being tracked in STAR (STAR No. 2006-CTS-000369). From a programmatic perspective, some of the more relevant corrective actions involve when and how "Skill of the Craft" is to be applied. Others involve defining the scope of work to include all phases of operations, including those tasks involving the cleanup or post-operation activities, and to ensure the hazards analyses extend to those post-operation tasks. Completion of the corrective actions is ongoing through the remainder of FY06 and into FY07.

During FY06 to date, there have been 13 events reported into the PAAA Noncompliance Tracking System (NTS). Two of those were voluntary reports of non-events to help DOE test some aspects of the NTS. Within the WSRC system, due to the importance WSRC assigns for PAAA non-compliances, all eleven NTS Reportable events are being treated as Significance Category 1 (most significant) regardless of the actual NTS Significance Category. Corrective actions have been completed for five of the eleven events and are ongoing for the remainder. All corrective actions are being tracked in STAR. A listing of the eleven NTS events and the STAR Tracking Numbers for FY06 follows:

| NTS Number | Title/Description | STAR Number |
|-------------------------------|---|-----------------|
| NTS-SR-WSRC-WVIT-2005-0002 | Positive USQ Declared Due to Use of Non-Conservative Hydrogen Generation Rate | 2005-CTS-008451 |
| NTS-SR-WSRC-KAREEA-2005-0001 | Np Oxide Moisture PISA (Upgraded to Positive USQ) | 2005-CTS-007411 |
| NTS-SR-WSRC-SW&I-2005-0004 | Improper TRU Drum Handling Controls Used | 2005-CTS-010538 |
| NTS-SRS-WSRC-LTA-2006-0002 | Flash Fire in SRNL | 2006-CTS-000369 |
| NTS-SRSO-WSRC-HCAN-2006-0001 | Inadequate E4-2 Low Level Setpoints (U) | 2005-CTS-010522 |
| NTS-SRSO-WSRC-HCAN-2006-0002 | Inoperable Fail-Safe Feature on the Safety Significant 9.1E High Temperature Steam Flow Interlock (U) | 2006-CTS-002996 |
| NTS-SRSO-WSRC-SW&I-2006-0001 | New Analysis of Aircraft Crash Frequency (Positive USQ) | 2006-CTS-002462 |
| NTS-SRSO-WSRC-SW&I-2006-0002 | Potential for Flammable Non-Drum Legacy TRU Waste Containers (Positive USQ) | 2005-CTS-010714 |
| NTS-SRSO-WSRC-HTANK-2006-0001 | 2H/2F Evaporator Feed Pump Priming Hazard | 2006-CTS-003766 |
| NTS-SRSO-WSRC-SW&I-2006-0003 | Failure to Wear PPE per JCO | 2006-CTS-004939 |
| NTS-SRSO-WSRC-CLAB-2006-0001 | Personal Injury, Left Thumb | 2006-CTS-004201 |

3. Recurring ORPS events that have been identified since the last Declaration. Did the causal analysis of the recurring events identify programmatic or system implementation problems with the approved ISMS? What were these? Were appropriate corrective actions developed? Have the corrective actions been effectively implemented, verified, and validated?

The DOE Occurrence Reporting and Processing System (ORPS) as prescribed in DOE M 231.1-2, *Occurrence Reporting and Processing of Operations Information*, requires WSRC to complete a quarterly analysis of events (both ORPS Reportable and Non-Reportable) examining data from the past 12 months to identify any recurring (“R”) events, problems, and trends. Determinations of “R” problems are reportable to DOE. WSRC also implements, as part of the Performance Analysis (PA) process, a “Watch List,” of issues and problem areas that are below the “R” threshold. Watch List issues could be precursors of “R” events and may warrant additional management attention and early intervention. The data in this ISMS Declaration address both “R” and Watch List performance issues for the first three quarters of FY06, including the background information for “R” and Watch List corrective actions carried from FY05 into FY06..

The FY06 data to date compared with the FY05 data are summarized as follows:

- During the first three quarters of FY06, no new “R” events were identified and reported to DOE, compared to FY05 when two “R” events were identified and reported.
- One new issue was placed on the Watch List during FY06 to date, compared with five new Watch List issues in FY05.
- During the first three quarters of FY06, one “R” event and two Watch List issues were closed, compared with FY05 when three “R” events and four Watch List issues were closed.
- At the end of 3QFY06, two “R” events and three Watch List issues remain open, compared with three “R” events and five Watch List issues open at the end of FY05.

The specific performance issues being addressed during FY06 to date are discussed below.

Recurring “R” Events

No new “R” events have been reported in FY06 to date. The status of “R” corrective actions in progress during FY06 follows:

1) Multiple PISA/USQ Events – TRU Waste Drums (identified in the 1QFY05 PA Report)

The underlying concern was determined to be weakness in the management of the Safety Basis in the areas of storage and handling of TRU Waste materials. Data leading to that conclusion was collected from three sources: 1) an independent assessment team report of 1/14/05; 2) a DOE independent investigation report of 1/28/05; and 3) the WSRC Root Cause Analysis reported 1/27/05. These studies revealed that incremental changes had been made to the Safety Basis over time without a full review of the cumulative impact on the Safety Basis. Additionally, the facility management did not respond appropriately to some indicators and events that should have illuminated the Safety Basis issues. With this knowledge, a TRU Waste Corrective Action Plan was developed focusing on an upgrade of the Safety Basis (scheduled for submittal to DOE in September 2006) to be followed by implementation of additional controls identified in the upgraded Safety Basis (scheduled to be completed by March 31, 2007). This “R” will remain OPEN pending implementation of the new Safety Basis controls followed by an Effectiveness Review.

2) TSR Violations (identified in the 2QFY04 PA Report)

The initial declaration of TSR violations as “R,” was based on twelve violations in a twelve-month period with seven of those occurring in one facility. A set of corrective actions was developed from the causal analysis. During the completion of the corrective actions, an additional 16 TSR violations were reported, resulting in additional corrective actions. All of the corrective actions were completed in July 2005. An Effectiveness Review of the corrective actions that was conducted in November 2005 recommended closure of this “R” based on a reduction of the 12-month moving average for these events from 1.25 to 0.42 events per month. This “R” was closed.

3) Electrical Safety Performance (identified in 3QFY05 PA Report)

The background for this issue started in early FY05 with an increase in the number of Hazardous Energy Control (HEC) events, some of which were electrical. That increase was noted and placed on the Watch List in 1QFY05. The 2QFY05 PA Report identified an increase in electrical HEC and Near Miss events during the previous two quarterly reporting periods. A formal Apollo Causal Analysis was already underway for HEC events in general. This analysis concluded that the corrective actions developed from an earlier Electrical Safety Plan (2004) were not having the expected results. Additionally, a letter from DOE-SR (6/15/05) expressing concern about the increase in electrical events was received by the WSRC President. On 6/20/05, Electrical Safety Performance was declared to be a “R” problem and the WSRC President ordered a site-wide stand-down and designated the week of 6/27/05 as Electrical Safety Awareness Week. All WSRC personnel received electrical safety awareness training focusing on hazard recognition skills. The general HEC issue would continue as a Watch List issue and is addressed below in the Watch List Issues section. A site Committee on Electrical Safety was formed to specifically address the electrical issues that were focused on five areas:

- Lockout/Tagout,
- D&D work,

- Equipment Abandonment,
- Drilling and Penetration, and
- Excavation.

Corrective actions were developed and implemented that resulted in enabling Lockout/Tagout work to be released from the stand-down in 1QFY06. Equipment Abandonment and Excavation were released in 2QFY06. Drilling and Penetration is expected to be released in 4QFY06. The WSRC Senior Electrical Review Board (SERB) reviews events, metrics, and corrective action progress with senior WSRC management. This “R” will remain open pending improved performance and an Effectiveness Review scheduled for 4QFY06.

Watch List Issues

One new issue was added to the Watch List in 3QFY06 based on an increasing incidence of events relating to the improper operation of industrial equipment. In response to a 5/18/06 DOE-SR letter expressing concern over this issue, WSRC, on 6/2/06, returned a letter sharing DOE-SR’s concern with the potential for a negative trend and stated that WSRC is treating these events as precursors of potentially more serious events. A team of nationally-recognized experts completed a site-wide review of WSRC industrial equipment operating practices and controls. The DOE Complex Lessons Learned and ORPS data was reviewed to identify similar events for which the corrective actions could be useful at SRS. After the evaluation of the SRS events is completed, SRS will publish a Lessons Learned to share with the rest of the DOE Complex.

A discussion of Watch List corrective actions in progress during FY06 follows:

1) HEC Events (identified in 1QFY05 PA Report)

As described above in Electrical Safety Performance “R” HEC events were added to the Watch List in 1QFY05. This was based on seven events in that quarter, compared with the historical average of about one per month. In the next four quarters, there were 23 additional events (ten ORPS and thirteen Non-ORPS) spread across thirteen organizations. In 1QFY06, it was determined that the corrective actions developed for the individual events were helping the general trend with additional improvement noted through 2QFY06. In 2QFY06 and 3QFY06, six HEC events were reported, back in line with the historical average of one per month. This issue will remain on the Watch List pending sustained improvement.

2) Lab Practices and Safety (identified in 3Q FY04 PA Report)

This issue began with a July 9, 2004 event involving personnel skin contamination and chemical exposure. Another event the next month and the results of a Laboratories Project Chemical Process Team Report, facility walk-downs, and critiques reported in the 3QFY04 PA Report led the WSRC Management Council to recommend adding this issue to the Watch List for monitoring. The Laboratories Project developed an extensive Corrective Action Plan (CAP). The 49 CAP actions were completed by the end of CY2005. There was one event in January 2006 where an SRNL employee suffered burns from an isopropyl alcohol flash fire in a laboratory. The employee was hospitalized with second degree burns over a small area of the neck, face, and ear. A DOE Type B Investigation and the causal analysis have been completed and corrective actions identified and implementation in progress. In the 23 months since the July 9, 2004 event, there have been no similar incidents. This issue will remain on the Watch List until completion of the Effectiveness Review in September 2006 and successful implementation of the corrective actions for the SRNL flash fire event.

3) H-Canyon Criticality Safety (identified in 3QFY05 PA Report)

On May 26, 2005, a double-contingency principle criticality safety violation occurred when a dissolver was charged with fissile material before the required criticality safety calculations were completed. WSRC received a letter of concern from DOE-SR on June 8, 2005. On June 10, 2005, WSRC outlined the actions to further strengthen the criticality safety program.

H-Canyon experienced an ORPS Reportable event on July 1, 2005 that involved a noncompliance with a credited criticality control for operation of another evaporator. In response, a 7/5/05 letter from DOE-SR expressed concern for the seriousness of the July 1 event. The critique for this event identified numerous procedural issues and questioned the implementation of the controls specified in the Double Contingency Analysis for the facility. As a result, WSRC elected to temporarily stand down all fissile material operations in H Area. The facility's response to recent potential precursor criticality safety performance issues is appropriate and warranted inclusion of H-Canyon Criticality Safety as a Watch List issue in 3QFY05. A causal analysis looking at ten events was conducted by an independent team at the request of the H Completion Project (HCP) Chief Engineer, and that analysis concluded that a potential "R" event exists. A review of that causal analysis by the HCP Corrective Action Review Board (CARB) concluded that H-Canyon Criticality Safety events are not an "R" issue, but warranted inclusion as a Watch List issue. The CARB review resulted in development of a normalized and weighted metric to view H-Canyon performance from January 2002 to the present. The causes of this issue were determined to be twofold:

- Less than adequate disciplined operations (procedure compliance and communication issues)
- Less than adequate shift management engagement in the work

Correcting these less than adequate situations became the highest priority for the facility. As a result of actions taken, the facility has experienced dramatic performance improvement. In the first two quarters of FY06, only one error was reported, compared with eight new events in the previous ten-month period. That improvement was short-lived however with three events reported in April 2006. As a result, H-Canyon management temporarily suspended most operations. A letter of concern from DOE-SR was issued to WSRC expressing extreme concern over these breaches in criticality safety control and asked to be advised of corrective actions being taken. In response, a 4/26/06 letter from M & O outlined actions to address the events which resulted from inadequate attention to detail and to further strengthen the criticality safety program. There was one new event during 3QFY06. This issue remains open on the Watch List pending improved performance and completion of an Effectiveness Review in 4QFY06.

4) Inadvertent Transfers (identified in 2QFY05 PA Report)

A letter was issued by DOE-SR to WSRC on 3/16/05 expressing concern over the continuing issues related to inadvertent transfers. The WSRC response letter on 3/30/05 indicated that the corrective actions taken from earlier inadvertent transfer events in 2004 had been effective. That "R" issue was subsequently closed in 4QFY05. But, in 2QFY05 a different causal mode for inadvertent transfers was discovered to be emerging. There were eight inadvertent transfer events in 2005 in four facilities. The causal analysis results determined them to be primarily associated with human performance issues and not engineered controls or management systems, as was the case with the "R" issues from 2004. The WSRC letter to DOE-SR listed several aggressive actions to be taken to reduce the number

of inadvertent transfers caused by human performance issues. Several of these actions related to determining the underlying causes of the human performance issues and the pursuit of the application of Human Performance Improvement techniques such as those identified through attendance of an INPO Human Performance Workshop. A WSRC Senior Management Review Team was convened to review the overall plan of action. The human performance related inadvertent transfer issue was to remain on the Watch List until improved performance and an Effectiveness Review warrant removal. By 1QFY06, performance had improved significantly. The frequency of inadvertent transfers for the past year was very low (less than one per month on average), and there were none having adverse safety consequences. The frequency is trending downward and evaluation of individual events showed that the more common historical causes of inadvertent transfers have been corrected. Based on the Effectiveness Review, causal analysis, and management reviews, the corrective actions were deemed effective and this issue was closed and removed from the Watch List in 1QFY06.

5) Subcontractor Safety (identified in 3QFY04 PA Report)

This issue was placed on the Watch List as a result of several events involving subcontractors, culminating with the unfortunate fatality of a subcontractor's vendor in 4QFY04. The significant corrective actions from the Type A DOE accident investigation have been tracked not only through the Site Tracking, Analysis and Reporting (STAR) system but also by the subsequent PA reports. An independent Effectiveness Review (with DOE-SR oversight) of those corrective actions conducted in 1QFY06 determined that the corrective actions for three of the Judgments of Need (JONs) were only partially effective. An Apollo causal analysis was conducted to determine the reasons for the less-than-expected effectiveness. Additional corrective actions were developed and implemented, and a completion report was sent to DOE-SR on 4/24/06. Based on that report that outlined resolution of the remaining open issues, DOE-SR recommended closure of the Type A accident investigation. Subsequently, Subcontractor Safety was removed from the Watch List in 3QFY06.

4. Lessons learned that have been identified since the last Declaration. Did the lessons learned, either positive or negative, result in changes to the approved ISMS? What were these? If so, were the changes effectively implemented, verified, and validated?

For the period 8/1/2005 to 8/10/2006, 84 Lessons Learned Reports were issued including the following types:

- 6 Bulletins
- 62 Special Information Notices
- 11 First Alerts
- 2 Best Practices
- 3 Product Information Notices

Among the 84 Lessons Learned Reports were 60 that originated from events at SRS and 24 that originated from events at other locations. One of the latter Lessons Learned Reports was a Special Information Notice (SIN) that was reported by WSRC's parent, Washington Group International (WGI) corporate Lessons Learned system. That SIN described serious injuries a worker from another company received while operating a hand-held grinder when the drawstring from the worker's hooded weatherproof jacket became entangled in the rotating grinder. This caused the grinder to be rapidly pulled toward the worker's head resulting in cuts to the worker's neck and head. The WSRC Lessons Learned SIN reminded the readers of an existing section of a WSRC safety procedure that warns against wearing any loose clothing, jewelry or other items that could become entangled when operating portable power tools and other machinery.

Other examples of significant Lessons Learned reports follow:

2005-LL-0060, DOE ESH Safety and Health Bulletin - Vertical-Rail Fall Protection, received from DOE HQ regarding an Idaho pipefitter that was near the top of a 40-foot fixed ladder attached to the side of a million-gallon tank. A 4-foot section of the rail separated from the main vertical rail. The employee was able to descend without injury. In response, WSRC issued 2005-LL-0060, directing SRS facilities to determine if such vertical-rail fall protections systems exist, if they are inspected, etc. The actions were tracked using the Site Tracking, Analysis and Reporting (STAR) database.

2006-LL-0001, Near Miss, Inappropriate Use of Electrical Safety Personal Protective Equipment and Use of Unapproved Electrical Multi-Meter Results in Minor Face Burns to Fernald Electrician. In response, WSRC issued 2006-LL-0001, directing SRS facilities to verify that they do not have any Cen-Tech multi-meters in use. None were found.

2006-LL-0018, Special Lessons Learned to Communicate Requirements for WSRC 8Q, 15 Compliance (High and Medium Hazard Subcontract Activities) - Actions Required for Facility/Line Management. WSRC issued 2006-LL-0018 specifically to SRS Level 2 managers with response required for understanding WSRC Manual 8Q, Procedure 15, reviewing their high and medium hazard subcontracts to ensure proper oversight, STR compliance, etc. Briefings were developed and delivered to the Subcontract Technical Representatives (STRs) and Assigned Competent Persons (ACPs).

The WSRC Lessons Learned Program organization issued 51 Lessons Learned Reports to the DOE Lessons Learned System for the period.

Lessons learned in a generic sense from events, assessments, and other feedback mechanisms are discussed in Sections 2 & 3 above.

- 5. Environment, Safety and Health (ES&H) Goal-Setting and Performance Analysis. Describe your site and contractor performance against your fiscal year (FY) 2006 ES&H goals. Did the analysis of safety performance data and results, or trends that were identified over the past year, result in the identification of any programmatic or systemic implementation problems with the approved ISMS? What were these? Were appropriate corrective actions developed? Have the corrective actions been effectively implemented, verified, and validated? Do you have confidence that FY 2006 injury and illness safety performance data is being accurately reported into the DOE Computerized Accident/Incident Reporting System?**

WSRC's progress/status with regard to the Performance Objectives, Measures and Commitments for FY06 is described in the section.

Safety Performance Objectives:

The top Safety Performance Objective of WSRC is to achieve **zero injuries**. WSRC has a corporate belief that zero injuries is an achievable goal, but one that requires continuous improvement in all aspects of safety performance to achieve. To that end, WSRC has established a number of Safety Performance Objectives, Measures and Commitments that support the top objective of zero injuries.

Additional Safety Performance Objectives pursued for FY06 include the following:

- Be recognized as a leader in overall safety performance within the DOE Complex and the local community.
- Build and improve on an existing excellent safety culture
- Be recognized as a leader in ISM

Safety Performance Measures:

The Safety Performance Measures used by WSRC are based on a “Safety Subset” of the WSRC Key Performance Indicators, as well as Annual Safety Goals (managed on a Calendar Year basis) transmitted to DOE-SR in January each year, and comparisons of WSRC employee injury statistics with other DOE contractor organizations. Past external independent audits of WSRC’s safety reporting have found the reporting to be accurate. The key safety performance indicator charts are attached at the end of this document. The Annual Safety Goals letter transmitted to DOE-SR for CY06 addresses eight areas as follows:

- Total Recordable Case (TRC) Rate – The TRC goal has been set at 0.56, based on a 5% reduction of the CY05 value of 0.59.
 - See Figure 5 at the end of this report for performance through July 2006
- Days Away Transferred Restricted (DART) Rate – The DART goal has been set at 0.26, based on a 5% reduction of the CY05 rate of 0.27.
 - See Figure 5 at the end of this report for performance through July 2006
- Transportation Events – The WSRC goal for reportable off-site transportation events is zero.
 - See Figure 13 at the end of this report for performance through July 2006
- Personnel Contaminations – The goal for personnel contaminations, including skin and personal effects, as well as intakes, is set at no more than nine events.
 - See Figure 8 at the end of this report for performance through July 2006
- Employee Radiation Dose – The WSRC goal for cumulative employee radiation dose is no more than 124 rem.
 - The cumulative dose through 2QCY06 is 47 rem (24.1% below the prorated goal of 62 rem)
- Electrical Safety Index – The goal for the Electrical Safety Index has been set at 0.35 (based on 200,000 hours).
 - The Electrical Safety Index through July 2006 is 0.27.

- Notice of Violation (NOV) Index – The goal for the weighted NOV Index will be no more than 3.0.
 - The NOV Index through July 2006 is 0.5
- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) Reportable Quantity (RQ) Releases – The WSRC goal for CERCLA RQ Releases will be no more than three.
 - There have been no CERCLA RQ Releases through July 2006.

In addition to the safety goals, WSRC uses a Key Performance Indicators (KPIs) system (described in *Savannah River Site Performance Metric Manual*, WSRC-RP-2006-00418) that measures performance across the company in the following Focus Areas: Safety and Security; Technical Capability and Performance; Community, State and Regulatory Relationships; Cost Effectiveness; and Contract Performance. Under the Safety and Security Focus Area the specific performance measures are:

- Industrial Safety and Health
- Emergency Services
- Radiological Safety
- Nuclear Safety
- Physical Security

In addition to the Safety and Security Focus Area, there are safety-related Key Performance Indicators in the Technical Capability and Performance, and the Community, State and Regulatory Relationships Focus Areas that are included in the “Safety Subset” listed below

The format for the KPIs is an annunciator-type system of Key Performance Indicators (KPIs) with a color rollup scheme, established by the commercial nuclear industry. It provides a quick status overall summary of key operational, safety, and business performance. The underlying principle behind each metric is the use of objectivity to assess performance. This system provides not only key information at a glance but also provides WSRC and DOE-SR Program and Project Managers the ability to “drill down” through the Focus Area Level 1 metrics to help identify the sources and effects of issues and actions. Instead of focusing only on individual events, it provides a view of emerging trends over the past twelve months. Each KPI chart includes a brief analysis of the performance.

The WSRC Key Safety Performance Indicators and comparative indicators for the period ending 7/31/06 (Figures 1-19) are included at the end of this attachment.

Safety Performance Commitments and Progress To Date

- Senior WSRC Management will lead development of the vision and implementation strategy for a progressive Human Performance Improvement (HPI) initiative.
 - A Senior WSRC Vice President is leading a WSRC ISM Re-Vitalization Task Force that has an HPI Improvement Task Team engaged in the study and implementation of contemporary HPI methods.

- WSRC will evaluate the extent to which the Time-Out (informal stop-work) process is being used and the benefits derived from its use.
 - Data was collected over a two-month period from two WSRC facilities. Analysis of the data and development of a report is in progress.
- WSRC will improve its DART Case Management to ensure that sound and necessary medical treatment is provided to injured employees in a way that includes occupational considerations.
 - The WSRC DART Rate performance for 2006, as illustrated in Figure 5 at the end of this report, is significantly improved from last year. Part of that improvement is likely a result of better collaboration between Site Medical and employees' managers about appropriate work scope assignments for employees with chronic conditions or minor injuries. This improved collaboration is intended to avoid aggravating minor injuries and chronic conditions with inappropriate work assignments that might later result in time away from work.
- Institutionalize "Two-Barrier Control" for heavy equipment work near power lines.
 - This control was added to WSRC 8Q-10, the procedure that addresses operating heavy equipment around power lines.
- Implement actions to increase participation of non-exempt employees in BBS processes.
 - A survey was taken by non-exempt employee to identify improvements that would increase BBS participation. The results of the survey were presented to the WSRC President along with recommended improvement actions that are scheduled to be implemented in 4QCY06.
- Emphasize Electrical Safety and BBS at the 2006 Site Safety Conference.
 - Separate breakout sessions focused on BBS and Electrical were conducted at the 2006 Site Safety Conference.
- Continue using a wide variety of safety communications venues to convey important safety messages and information; i.e., Spectrum, monthly safety meetings, structured safety stand-downs.
 - Use of these communications vehicles continues to be an essential component of employee awareness of important safety topics. Additionally, in FY06, WSRC began a series of quarterly "WSRC State of Safety" messages to inform employees of current safety program information, injury updates and trends, and the status of ongoing safety initiatives.
- Continue to make improvements to the Point-of-Entry process for visitors, vendors, and subcontractors by enhancing the accountability of employees engaged in the process.
 - Significant revisions were made to the Point-of-Entry process procedure in WSRC 8Q-15 in February 2006.

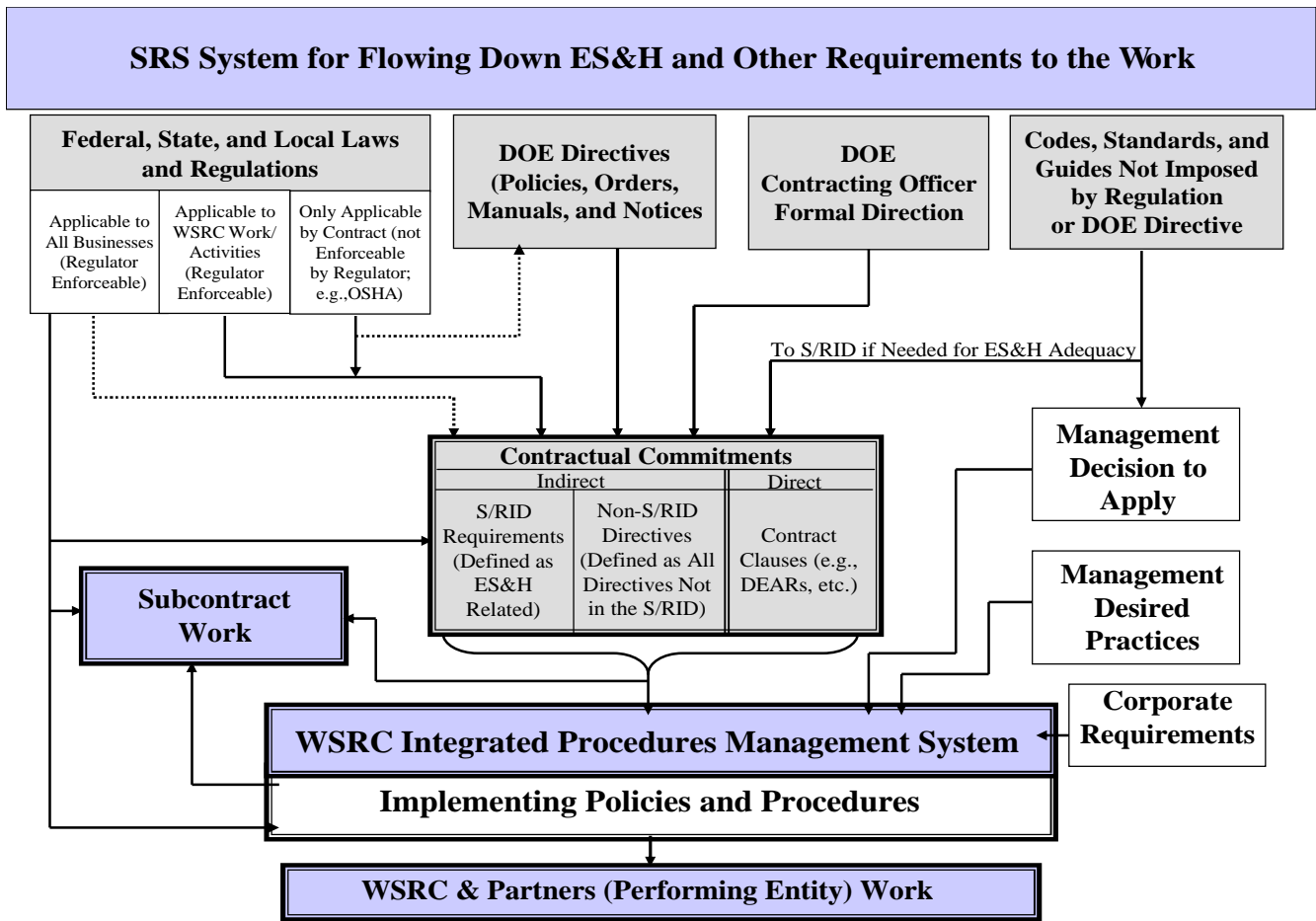
- Expand the Savannah River Safety Forum to include increased participation from local industry in the Central Savannah River Area.
 - A list was developed to identify local industries having more than 100 employees. Those companies are now being invited to attend the quarterly Savannah River Safety Forums.
- The President, WSRC, will continue the emphasis on management accountability by tracking line managers and organizations where recordable injuries occur. Additionally, recordable injuries indicative of shortcomings in work planning, organization, or execution, will be personally investigated by the WSRC President in a meeting with the management team associated with the activity.
 - The WSRC President's focus of attention and accountability on the management teams experiencing recordable injuries continues.
- Implement the Visual Survey Data System (VSIDS) which was developed by the commercial nuclear industry to record radiological surveys and associated data, including photos, diagrams, forms and electronic signatures. This will be a cost-effective way to improve recordkeeping for radiological monitoring.
 - The VSIDS facility implementation, which includes software development, testing, and training is nearly complete with rollout of twelve facility/areas finished through July 2006 and three remaining rollouts scheduled to be complete by the end of CY 2006.
- Post-Training Evaluation Processes will be used to assess the long-term retention of information provided in the biennial Radiological Worker Training program. This will focus attention on areas of the training course material that may potentially be revised to enhance its retention by workers.
 - Approximately 50 radiation workers are randomly selected each month to take a 20-question test to evaluate their retention of key training points. The retention rate is averaging approximately 91 percent. Additionally, radiation workers are observed in the field to evaluate how well they remember key points for performing tasks such as donning and doffing Personal Protective Equipment. The retention rate has been found to be acceptable at this time.
- Obtain NVLAP accreditation for the site's radiological instrumentation calibration facility. This can enable the calibration facility to calibrate radiological instruments for other government agencies, such as the Department of Homeland Security and the Federal Bureau of Investigation.
 - After WSRC submitted material for NVLAP accreditation, three NVLAP examiners came in June 2006 to assess the WSRC Radiation Instrument Calibration program. Their outbrief and report described nine opportunities for improvement, of which eight were relatively minor administrative issues. The one technical issue is being pursued with resolution in progress. WSRC anticipates achieving accreditation soon.

- The Radiological Protection Services (RPS) Section will improve the utility of the PRORAD system that is used to electronically control access to radiological facilities at SRS. An example improvement area is to enhance customer satisfaction by adding features that integrate more of the essential information needed for the development and enforcement of Radiological Work Permits.
 - RPS, working with the software designers, has developed features designed to improve customer satisfaction that will be contained in a revision to PRORAD scheduled to be issued in November 2006. One of these features will provide a listing of all RWP sign-ins for an individual employee.
- To provide adequate support for facility demands for Radiological Control Technicians (RCTs), WSRC will continue to be responsive to the ebb and flow of RCT demand by the use of subcontracted RCTs to maintain a high-quality mobile and flexible work force. WSRC will seek to hire experienced design and field health physicist engineers to replace professional staff lost to attrition.
 - WSRC continues to utilize the services of subcontracted RCTs of which 20 are currently in place. The process for hiring two experienced design and field health physicist engineers is in place. Three candidate interviews were very recently conducted, and offers are in the preparation process for two of those.
- The Industrial Hygiene organization will refine the electronic forms database to integrate qualitative risk assessment data (exposure probability and health consequence factors) into decisions regarding work prioritization and the targeting of appropriate sampling.
 - While some improvements have been made to the electronic forms database, the effort to integrate the risk assessment data has been delayed pending completion of near-term actions related to 10 CFR 851 rule compliance.
- A Technical Basis Manual for Industrial Hygiene will be developed to outline the foundation of WSRC's Industrial Hygiene program and decision processes. A similar manual concept, developed approximately ten years ago for Health Physics program and decision processes, has proven to be very useful.
 - A draft of the Technical Basis Manual is scheduled to be issued for initial review by 9/1/06. In addition to WSRC review, the document will receive external review by WGI Industrial Hygiene staff personnel as well as by the EFCOG Industrial Hygiene/Industrial Safety Task Group. The manual is targeted for publication as part of 10 CFR 851 implementation plans on 10/30/06.
- The Environmental Services Section will implement an "Environmental Knowledge Portal" (EKP) to provide all WSRC projects and other DOE-SRS contractors and organizations with access to the latest Environmental Management System information, regulatory guidance for all aspects of environmental operations, and extensive linkage to external resources. The EKP is designed to enable users to reach all information on any environmental topic within three mouse clicks from a workstation.

- The Environmental Knowledge Portal (EKP) is now available on ShRINE with a wealth of Environmental Management System information easily accessible by typing “EKP” in the ShRINE search engine.
- WSRC will designate and observe an Electrical Safety Awareness Week. The emphasis will be on renewal of employee awareness of electrical hazards and safe electrical practices. Employees will walk down their own work areas to identify any electrical hazards. Corrective actions from the walk downs will be tracked to completion.
 - The WSRC President declared the week of June 26-30 as Electrical Safety Awareness Week. Briefing modules were tailored and made available for four types of work:
 - § Administrative/Office Work
 - § Field Work
 - § Electrical Work
 - § Electrical Engineers
 Employees were required to attend one of the briefings, to walk their own work spaces, and to report any electrical hazards to their management for correction.
- Personal electrical safety focus cards will be provided to electrical workers. The cards include key electrical safety contacts and identify key procedures covering electrical workers’ activities.
 - Electrical Safety Focus cards were initially distributed by managers of current electrical workers with future workers being given these cards as part of their electrical training courses.
- WSRC will provide contractor leadership for overall management of a joint DOE/EFCOG Electrical Safety Improvement Project.
 - WSRC personnel are involved in all aspects of the DOE/EFCOG Electrical Safety Project Areas and are leading three of the seven Project Areas.

6. Evidence of flow down of requirements from DOE to the contractor to the subcontractors (Quality Assurance and Safety). Describe the method of DOE and contractor oversight of the flow down of requirements, and how DOE and the contractor ensure proper implementation of these flowed down requirements (including to the subcontractor). Present objective evidence.

WSRC has a mature system shown in the diagram below for the flowdown of requirements (List B and all applicable Federal, state and local laws and regulations) into work performed by the WSRC team, and to work and materials obtained through subcontracts and vendors. As detailed in the WSRC ISMS Description, the primary mechanism for the flowdown of DOE ES&H-related requirements is the WSRC Standards/Requirements Identification Document (S/RID) feeding requirements in 20 Functional Areas (two of which are Environmental Management and Quality Assurance) into the WSRC system of company-level policies and procedures used in the performance of work. That process is governed by WSRC company-level procedures.



The flowdown of requirements for all work performed under the WSRC team contract, regardless of the performer of the work is further satisfied by specific company-level procedures for management of construction and services subcontracts. Those procedures are a well-coordinated set including Requirement Specifications, Purchase Requisitioning, and Workplace Safety and Health Program for SRS Visitors, Vendors, and WSRC/BSRI Subcontracts. Company-level procedures, programmatic tools, and subject matter experts in the 20 S/RID Functional Areas are available to assist the requester in defining the statement of work to include performance of the work to an appropriate set of requirements from the WSRC S/RID that are specifically cited in the subcontracts. Depending on the level of hazard and other considerations, the subcontractor will be required to either develop a task specific worker protection plan or work to the subcontractor’s existing safety plans if they are relevant and approved by WSRC. Likewise, the company-level procedures for the procurement process ensure that those and other regulatory requirements are placed as General (and/or Special) Provisions into the subcontracts. A set of General Provisions in subcontracts requires integration of environment, safety and health requirements into the work. All quality requirements associated with the performance of work and the procurement of services and materials are driven by the company-level Quality Assurance Manual and specific roles and responsibilities and controls for quality are specified in each company-level procedure and in the subcontract. After the award of subcontracts, during the conduct of work (delivery of service) phase, monitoring of the subcontractor’s performance of work is performed by the appropriately trained WSRC Subcontract Technical Representative (STR) assigned to the subcontract. The STR keeps detailed records of actions and issues associated with the subcontract. Additionally, Focused Safety Observations are conducted by WSRC ES&H staff personnel as defined by the procedures. Subcontractor safety performance data is kept for evaluation

of any future bid for work by that subcontractor. At the completion of the subcontract, all records are kept by the procurement organization.

Substantial improvements have been made to the WSRC Subcontract management process over the past two years. Some of the features of the subcontract management process were enhanced during FY05 as a result of an accident that occurred in FY04 that involved a fatality of a subcontractor's vendor. Most notable among those programmatic improvements are:

- Finalization and incorporation of a WSRC Site Requirements for Services Subcontracted Scope (SR3S) database that, in concert with assistance from ES&H and other program personnel, assists the requester of subcontracted services in specifying the appropriate S/RID requirements to be made part of the subcontract.
- Improvements to the site point-of-entry process that now requires all non-DOE photo-badged visitors, vendors and subcontractors to receive a Safety/Radiological/Security briefing before having access to the site.
- Increased oversight of subcontractor activities
- Better definition of hazard levels as a basis for tailoring the requirements

In FY06, a Subcontract Technical Management Execution Council was chartered to provide oversight, guidance and feedback to line organizations for the purpose of assisting Management in the effective implementation of the WSRC Subcontract Management Program. A major result of this activity will be enhanced oversight of subcontract work by increased availability of and training for Subcontract Technical Representatives (STRs).

7. How do you know your DOE line management oversight of contractor activities is sufficient to provide you independent assurance that the contractor ISMS is effective?

(DOE Only)

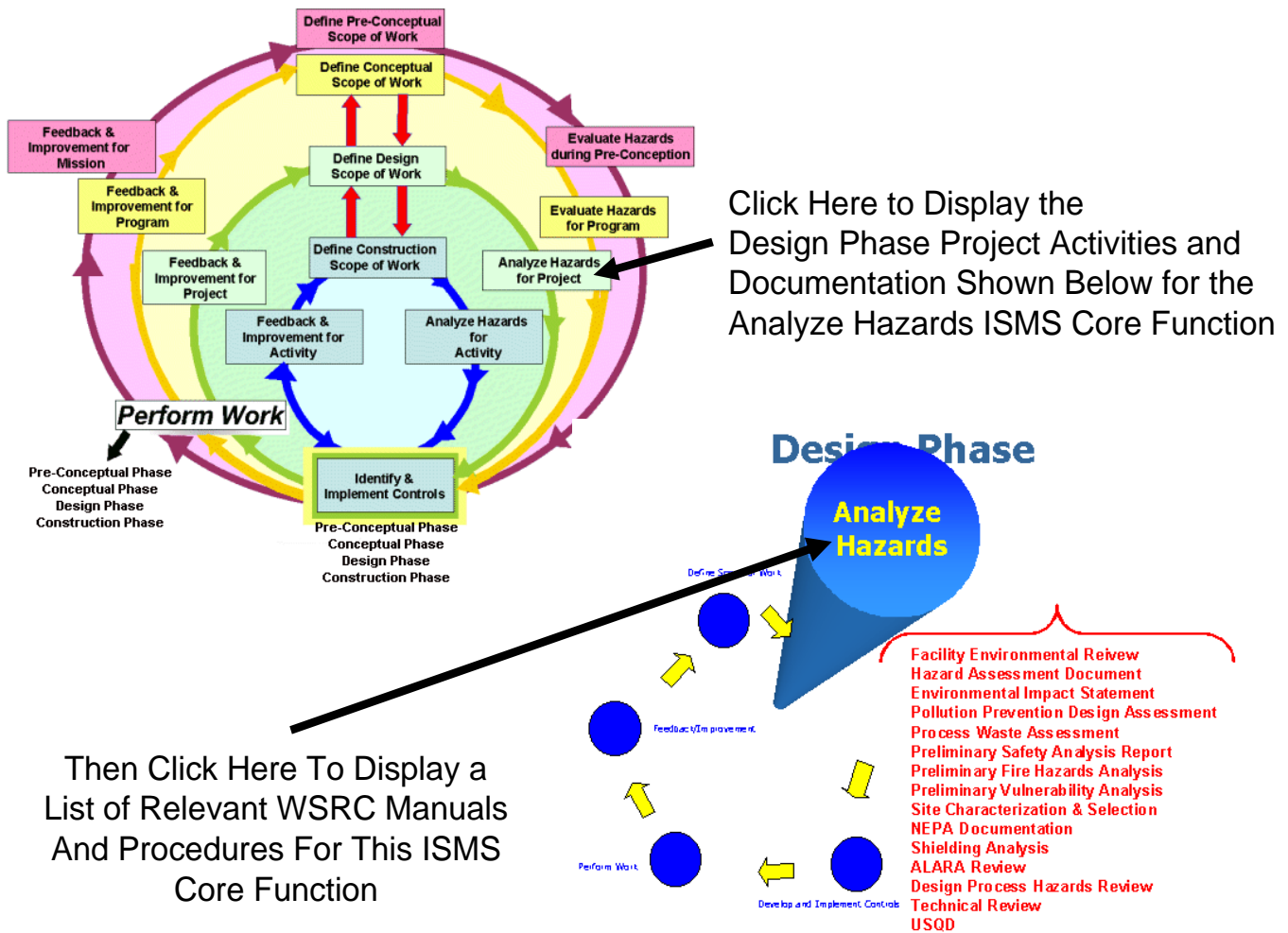
8. Federal Employee Occupational Safety and Health (FEOSH). Do you have a robust FEOSH program that meets DOE O 440.1A and 29 CFR 1960, *Basic Program Elements For Federal Employee Occupational Safety And Health Programs And Related Matters*? Provide a description of your program.

(DOE only)

9. **Implementation of ISM core functions for new design/construction and major facility modification projects. Describe the contractor’s process for assuring rigorous and timely implementation of the ISM core functions are applied to the new facility (or major modification) projects that are subject to DOE Order 420.1A. How effectively has the contractor implemented their process and what is your DOE office’s involvement in ensuring ISM is applied to these and for overseeing these new projects?**

Implementation of ISM Core Functions into new facility design/construction and major facility modifications is conducted according to a number of WSRC procedures and assisted by some tools designed by WSRC to assure that project managers, designers and other key personnel are aware of the necessary processes and documentation for each facility life cycle stage from Pre-Conceptual Design through Decommissioning. These tools are available to all site employees on ShRINE the site intranet. Close coordination of all aspects of project management, design and construction, engineering standards, hazards analysis and safety documentation, quality, etc., using WSRC Policies, Manuals and Procedures has enabled WSRC to successfully obtain startup authorization for many facilities and modifications.

The figure below is comprised of example screenshots from the preoperational facility (i.e., Pre-Conceptual, Conceptual, Design, and Construction) life cycle tool:



10. Identify the strengths and weaknesses of ISMS implementation at your site (all levels for both Federal and contractor). Provide an overall judgment as to whether ISM is effectively implemented. If the judgment is that ISMS is effectively implemented, provide justification/discussion for your decision based on how ISMS has provided the worker with a safe work process and how ISMS is protecting public health and safety. If the conclusion is that the ISMS is not effectively implemented, identify the actions being taken by both the DOE and the contractor to remedy the condition.

The WSRC ISMS continues to be a well-designed management system for accomplishing work in a manner that protects site workers, the public and the environment. This is substantiated by a number of indicators, performance analyses and data trending, and comparisons with industry accident and illness rates. As additional acknowledgement, WSRC was named as one of America's twelve safest companies in the October 2005 edition of *Occupational Hazards* magazine. Despite the positive feedback, WSRC has consistently sought to improve its safety performance by declaring "Zero Injuries" as achievable and that has become the company's primary safety objective. Since that objective has yet to be achieved, WSRC has developed a robust system for managing corrective actions and continuous improvement in the quest to be the best.

From the aggregate of data from events and assessments, both strengths and weaknesses have been identified in FY06. Most notable among those are as follows:

Strengths

- WSRC managers at all levels are fully engaged in promoting safety programs and improving performance
- The WSRC set of excellent configuration management and engineering program documents and procedures tied to a comprehensive maintenance program
- Improvements in formal Conduct of Operations in H-Canyon, indicative of a commitment on the part of facility management to correct problems with past performance. Operators were actively involved with facility management in implementing effective changes to improve the necessary formality and discipline of operations
- The Performance Analysis process managed by the Performance Analysis Advisory Group providing quarterly performance analysis, including trend analyses, both event and assessment data
- The continual increase in employee participation in the Behavior-Based Safety (BBS) program is a strong indicator of employee commitment to a safe working environment and management's cultural support to the overall ISMS Objective to "Do Work Safely"
- A strengthened task-level "Analyze Hazards" ISM Core Function by introduction of new tools such as the Visual Survey Data System that superimposes radiological survey data onto a picture of the work location, and enhances work planning due to improved data retrieval, record integrity and legibility
- Improvements made to the Assisted Hazards Analysis process through an improved user interface, a refined approach, and continued training

- Focused improvements made to significantly reduce the DART Rate through improved case management

Weaknesses

- In some instances the safety basis accident analysis does not reflect adequate rigor, attention to detail, and questioning attitude that would improve with better execution of the excellent WSRC engineering, configuration management and related programs that are in place. In addition, there are instances of issues with the implementation and execution of the safety basis controls in facility operations.
- The area of human performance, while improving, continues to challenge effective execution of the controls prescribed in operating documents

WSRC has made a practice of using feedback information not only to correct specific problems, but also to drive continuous improvements in all areas of safety performance. In FY06, an ISMS Revitalization Task Force was established to identify areas for strategic improvement and actions necessary to align the WSRC ISMS with the DOE Implementation Plan for DNFSB 2004-1 recommendations. After a screening process of all of the candidate topical areas for improvement, sub-teams were established to develop action plans and schedules for improvements in the following areas:

- Strengthen Feedback and Improvement
- Improve Work Planning and Control
- Enhance the ISM Culture
- Project Lifecycle ISM Implementation
- Improvement of Human Performance

Another improvement initiative begun in FY06 is the formation of a Subcontract Technical Management Execution Council that is chartered to provide oversight, guidance, and feedback to line organizations to assist in the effective implementation of the WSRC Subcontract Management Program.

During FY06, WSRC participated at the request of DOE-EM in their “Making Safety Real” initiative. WSRC conducted a study of the “Time Out” process that WSRC developed as an alternate means for workers at all levels to temporarily suspend work if the worker believes there is any question regarding the safety of continuing the work. An informal “Time Out” is an alternative to the more formal “Stop Work” option for workers to call for the cessation of work when continuation of the work is believed, with some certainty, to result in imminent danger. Data related to usage of Time Outs was collected from two WSRC facilities over a two-month period. Analysis of the data and development of a report are in progress.

List of Figures:

1. Annunciator Panel - Savannah River Site Performance Indicators
2. Annunciator Panel – Safety and Security Focus Area
3. Annunciator Panel – Technical Capability and Performance Focus Area
4. Annunciator Panel – Community, State, and Regulator Relationships Focus Area
5. Performance Indicator Chart for WSRC Operations TRC and DART Rates twelve-month moving averages
6. Performance Indicator Chart for Construction TRC and DART Rates (not part of the set of WSRC KPIs), twelve-month moving averages
7. Performance Indicator Chart for Emergency Preparedness Exercises and Drills Conducted Versus Scheduled
8. Performance Indicator Chart for Reportable Contamination Events
9. Performance Indicator Chart for Significant Nuclear Safety Incidents Management
10. Performance Indicator Chart for Nuclear Safety Issue (NI/PISA) Management
11. Performance Indicator Chart for Security Incidents
12. Performance Indicator Chart for Conduct of Operations
13. Performance Indicator Chart for Packaging and Transportation
14. Performance Indicator Chart for Environmental Enforcement Actions
15. Performance Indicator Chart for Employee Concerns Program – Average Days to Closure
16. WSRC Injury and Illness Ranking Within the DOE EM Complex (for latest period available, CY05) DART and TRC Rates - Ranked by TRC
17. Construction Injury and Illness Ranking Within the DOE Complex (for latest period available, CY05) DART and TRC Rates – Ranked by TRC
18. WSRC Injury and Illness Ranking Within the DOE EM Complex for CY2001-2005 – Ranked by TRC
19. Construction Injury and Illness Ranking Within the DOE Complex for CY2001-2005 – Ranked by TRC

These figures appear on the following pages.


Figure 1

Savannah River Site Performance Indicators Through July 31, 2006

| Focus Area | Level I | | | | |
|---|--------------------------------|----------------------------|---------------------------|----------------|-------------------|
| G G G G | Y G G Y | B B Y G | B B B G | R Y G G | B B B B |
| Safety and Security | Industrial Safety | Emergency Services | Radiological Safety | Nuclear Safety | Physical Security |
| G | G | G | B | G | B |
| G B G G | B B B B | G B G G | G G G G | | |
| Tech Capability and Performance | Production | Infrastructure | Disciplined Operations | | |
| G | B | G | G | | |
| B G B G | B B B B | B G B Y | | | |
| Community, State and Regulatory Relationships | Environmental Compliance Index | Employee Relations | | | |
| G | B | G | | | |
| B G G B | B B B B | G Y Y G | B B G B | | |
| Cost Effectiveness | Fee Performance | Feedback and Improvement | Processes for Improvement | | |
| B | B | G | B | | |
| G G G G | G G Y Y | Y Y Y G | B Y Y Y | | |
| Contract Performance | H-Area Completion | Liquid Waste Disposition | Waste Solidification | | |
| Y | Y | Y | Y | | |
| B B B B | B B B B | B B B B | G G G G | | |
| Soil and Groundwater Closure | Facilities Risk Reduction | Solid Waste Risk Reduction | | | |
| G | G | B | G | | |

B Exceptional program, innovative process, or superlative performance;

G Effective performance which meets or exceeds requirements and expectations; therefore, only a maintenance level of management attention or resources is needed.

 The arrow shows how the metric has changed from the previous month. An up arrow is an improvement; a down arrow shows declining performance.

Y "Marginal". Yellow can be used to denote either of two conditions:
 -Borderline or declining performance, which needs increased management attention and resources to achieve desired performance or to reverse a negative trend.
 -Acceptable performance that relies on a set of conditions which could change and quickly send performance into the "Red" category.

R Degraded or adverse performance warranting significant level of management attention, resources, and improvement.

W Insufficient data or not applicable


 Blue and green metrics that are trending down, may not reach their goal, or other issues that should be brought to management attention.

Figure 2

Savannah River Site
Performance Indicators
Through July 31, 2006

| Focus Area | Level 1 | Level 2 | |
|---|---|---|--|
| <p style="text-align: center; font-size: 2em;">Safety and Security</p> | <p style="text-align: center;">↑</p> <p style="text-align: center;">Industrial Safety and Health</p> <p style="text-align: center;">G I-A</p> | <p style="text-align: center;">↑</p> <p style="text-align: center;">TRC Rate</p> <p style="text-align: center;">Y I-A-1</p> | <p style="text-align: center;">DART</p> <p style="text-align: center;">B I-A-2</p> |
| | <p style="text-align: center;">↑</p> <p style="text-align: center;">Emergency Services</p> <p style="text-align: center;">G I-B</p> | <p style="text-align: center;">↑</p> <p style="text-align: center;">Emergency Exercises/Drills</p> <p style="text-align: center;">G I-B-1</p> | |
| | <p style="text-align: center;">↑</p> <p style="text-align: center;">Radiological Safety</p> <p style="text-align: center;">B I-C</p> | <p style="text-align: center;">↑</p> <p style="text-align: center;">Reportable Contamination</p> <p style="text-align: center;">B I-C-1</p> | |
| | <p style="text-align: center;">Nuclear Safety</p> <p style="text-align: center;">G I-D</p> | <p style="text-align: center;">Significant Nuclear Safety Incidents Index</p> <p style="text-align: center;">Y I-D-1</p> | <p style="text-align: center;">Nuclear Safety Issue (N/PISA) Management</p> <p style="text-align: center;">B I-D-1</p> |
| | <p style="text-align: center;">Physical Security</p> <p style="text-align: center;">B I-E</p> | <p style="text-align: center;">Security Incidents 1/8 Hour Reportable</p> <p style="text-align: center;">B I-E-1</p> | <p style="text-align: center;">Security Incidents Total Recordable</p> <p style="text-align: center;">B I-E-1</p> |
| | <p style="text-align: center;">G I</p> | | |

Figure 3

Savannah River Site
Performance Indicators
Through July 31, 2006

| Focus Area | Level 1 | Level 2 | |
|--|---|---|---|
| <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> G B G G </div> <div style="text-align: center; margin-top: 20px;"> <h2 style="margin: 0;">Technical Capability and Performance</h2> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> G II </div> | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> B B B B </div> <div style="text-align: center; margin-top: 20px;"> <h3>Production</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> B II-A </div> | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> B B B B </div> <div style="text-align: center; margin-top: 20px;"> <h3>Tritium Loading/ Finishing Lead Time</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> B II-A-1 </div> | |
| | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> G B G G </div> <div style="text-align: center; margin-top: 20px;"> <h3>Infrastructure</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> G II-B </div> | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> B B G G </div> <div style="text-align: center; margin-top: 20px;"> <h3>Delinquent Preventive Maintenance</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> B II-B-1 </div> | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> G B G B </div> <div style="text-align: center; margin-top: 20px;"> <h3>Corrective Maintenance Backlog</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> G II-B-2 </div> |
| | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> G G G G </div> <div style="text-align: center; margin-top: 20px;"> <h3>Disciplined Operations</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> G II-C </div> | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> G G G G </div> <div style="text-align: center; margin-top: 20px;"> <h3>Conduct of Operations</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> G II-C-1 </div> | <div style="border: 1px solid black; padding: 2px; display: flex; gap: 5px;"> B B B B </div> <div style="text-align: center; margin-top: 20px;"> <h3>Packaging and Transportation</h3> </div> <div style="border: 1px solid black; padding: 2px; display: flex; justify-content: space-between;"> B II-C-2 </div> |

Figure 4

Savannah River Site
Performance Indicators
Through July 31, 2006

| Focus Area | Level 1 | Level 2 | | |
|---|---|---|---|--|
| Community, State, and Regulator Relationships G III | B B B B Environmental Compliance Index B III-A | B B B B Environmental Enforcements (NOVs) B III-A-1 | | |
| | B G B Y Employee Relations G III_B | B B B G ↑ # of Open Employee Concerns B III-B-1 | G Y B Y Ave. # of Days to Closure Y III-B-2 | B G B G ↓ Median Days of Closed vs. Open Concerns G III-B-3 |

Figure 5

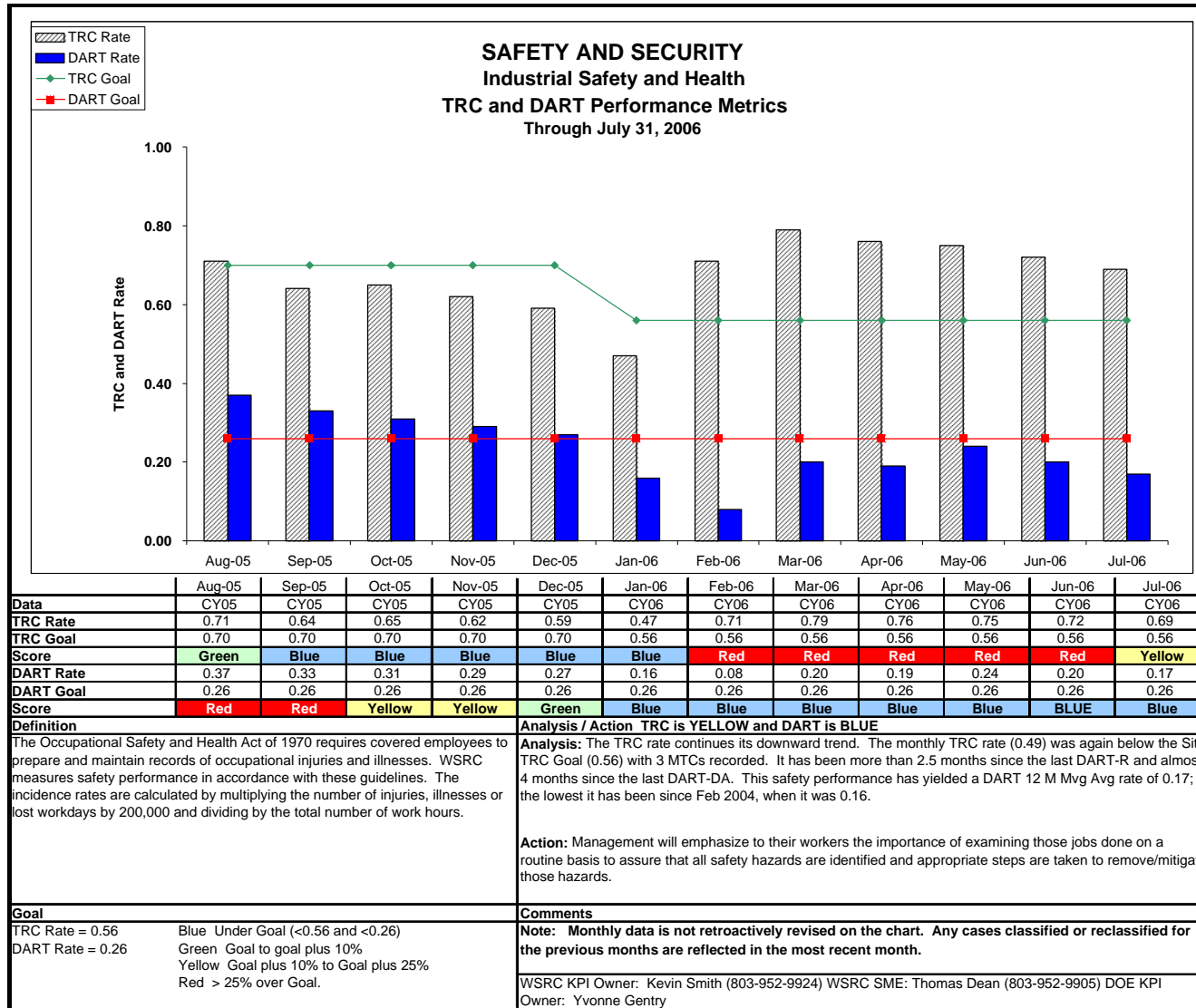
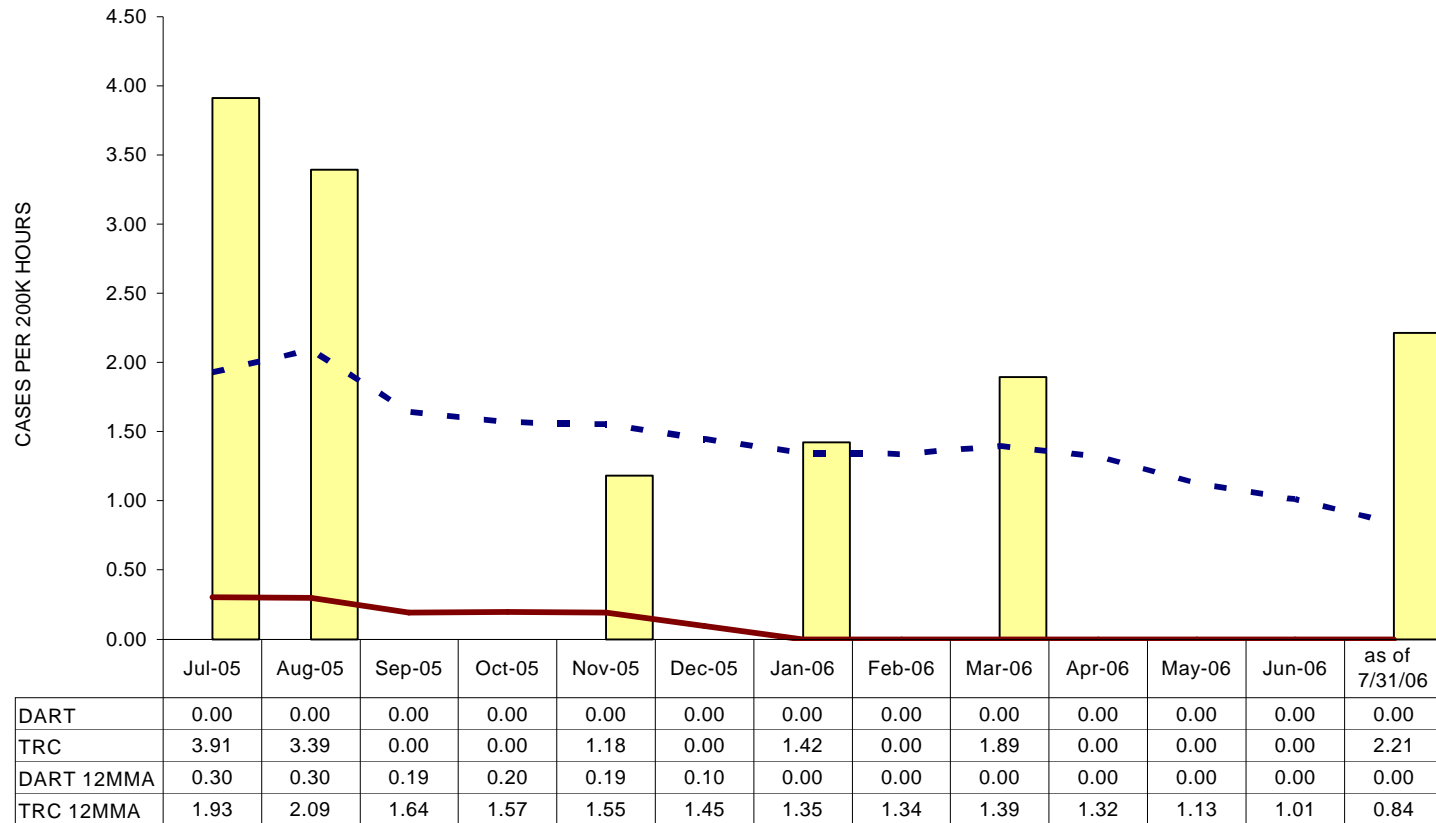


Figure 6

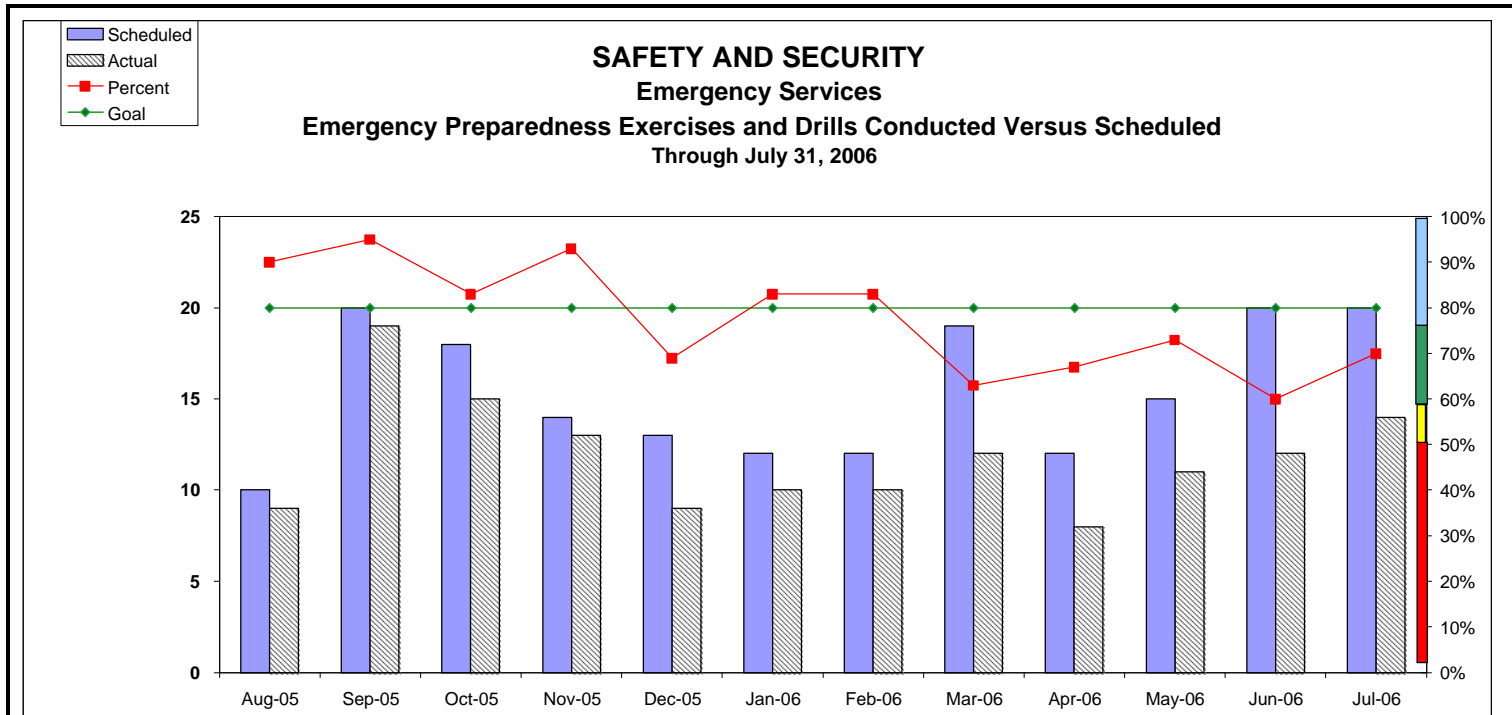
SRS Construction Department

ACTUAL MONTHLY RATES COMPARED TO 12 MONTH MOVING AVERAGES



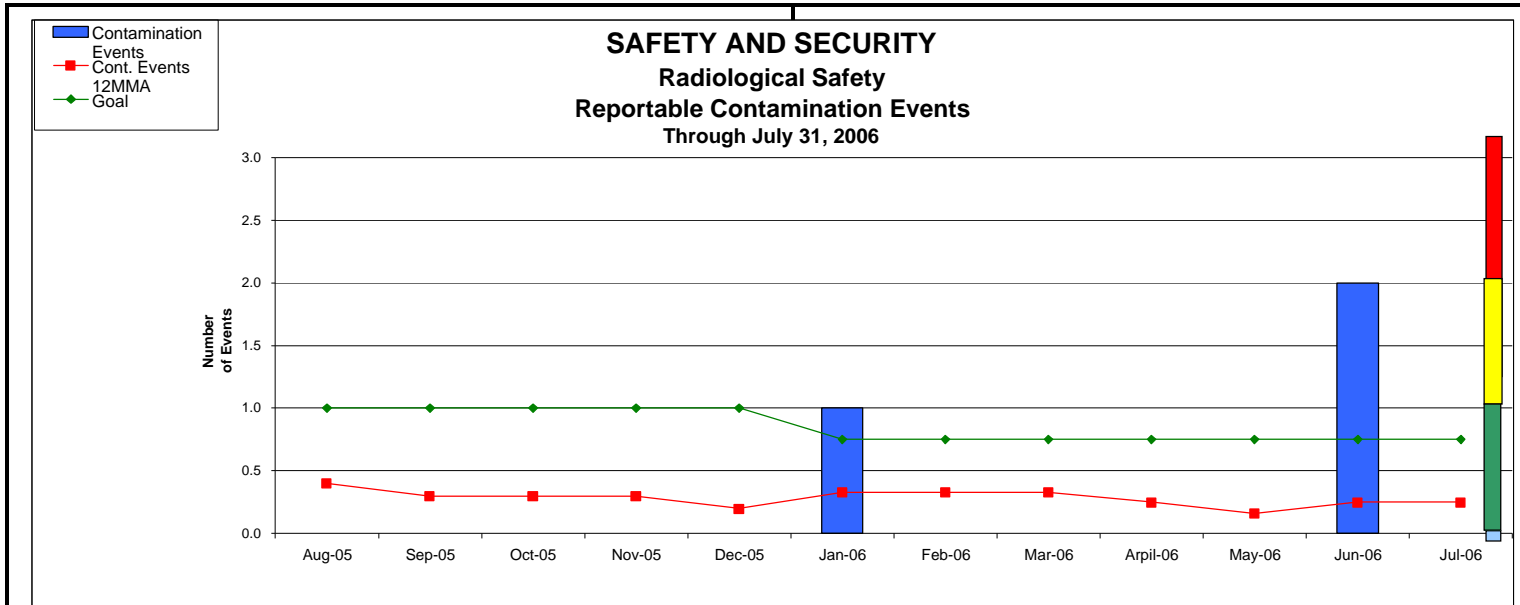
■ DART
 ■ TRC
 — DART 12MMA
 - - - TRC 12MMA

Figure 7



| Data | Aug-05 | Sep-05 | Oct-05 | Nov-05 | Dec-05 | Jan-06 | Feb-06 | Mar-06 | Apr-06 | May-06 | Jun-06 | Jul-06 |
|--|--------|--------|--------|--------|--------|--|--------|--------|--------|--------|--------|--------|
| Scheduled | 10 | 20 | 18 | 14 | 13 | 12 | 12 | 19 | 12 | 15 | 20 | 20 |
| Actual | 9 | 19 | 15 | 13 | 9 | 10 | 10 | 12 | 8 | 11 | 12 | 14 |
| Percent | 90% | 95% | 83% | 93% | 69% | 83% | 83% | 63% | 67% | 73% | 60% | 70% |
| Goal | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% | 80% |
| Score | Blue | Blue | Blue | Green | Blue | Yellow | Green | Green | Yellow | Green | Yellow | Green |
| Definition | | | | | | | | | | | | |
| This indicator depicts the number of exercises and drills scheduled each month versus the number actually conducted. | | | | | | GREEN Analysis: Twenty drills were scheduled in July. Of the twenty, fourteen were conducted and six were rescheduled or cancelled by Defense Programs due to ongoing management assessments and startup operation activities. Action: Continue to monitor the drill schedule for adequate ERO qualification opportunities. | | | | | | |
| Goal Blue = > 90% of scheduled drills conducted Green = 70-90% of scheduled drills conducted Yellow = 60-70% of scheduled drills conducted Red = <60% of scheduled drills conducted | | | | | | Comments The bar on the right (showing green, white, yellow, and red) is for the right y axis. KPI Owner: Chris Baker (803-725-5096) SME: Lynda Blystone (803-725-2373) DOE-KPI Owner: John Merrick (803-208-8010) | | | | | | |

Figure 8



| Data | Aug-05 | Sep-05 | Oct-05 | Nov-05 | Dec-05 | Jan-06 | Feb-06 | Mar-06 | Apr-06 | May-06 | Jun-06 | Jul-06 |
|----------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Contamination Events | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| Goal | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Cont. Events 12MMA | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.33 | 0.33 | 0.33 | 0.25 | 0.16 | 0.25 | 0.25 |
| Score | Blue | Blue | Blue | Blue | Blue | Green | Blue | Blue | Blue | Blue | Yellow | Blue |

| Definition | Analysis/Action |
|---|---|
| This chart reflects the number of ORPS reportable personnel contamination events per month. | <p>Blue Analysis: Excellent performance for the month of July with no contamination events recorded.</p> <p>Action: WSRC management continues to closely monitor contamination events, even those minor events that are below the ORPS reporting thresholds. The minor events are used as a leading indicator that may signal adverse trends. The investigation of these minor events provides lessons learned that are shared with the site's radiological control organizations to minimize recurrence and improve performance.</p> |

| Goal | |
|---|---|
| Blue: 0 cont. events Green: 1 cont. event Yellow: 2 cont. events Red: > 2 cont. events | WSRC KPI Owner: Jim Stafford (803) 952-9888, Ellen Parrish (803) 725-0914 DOE KPI Owner: Brenda Mills (803) 952-8125 |

Figure 9

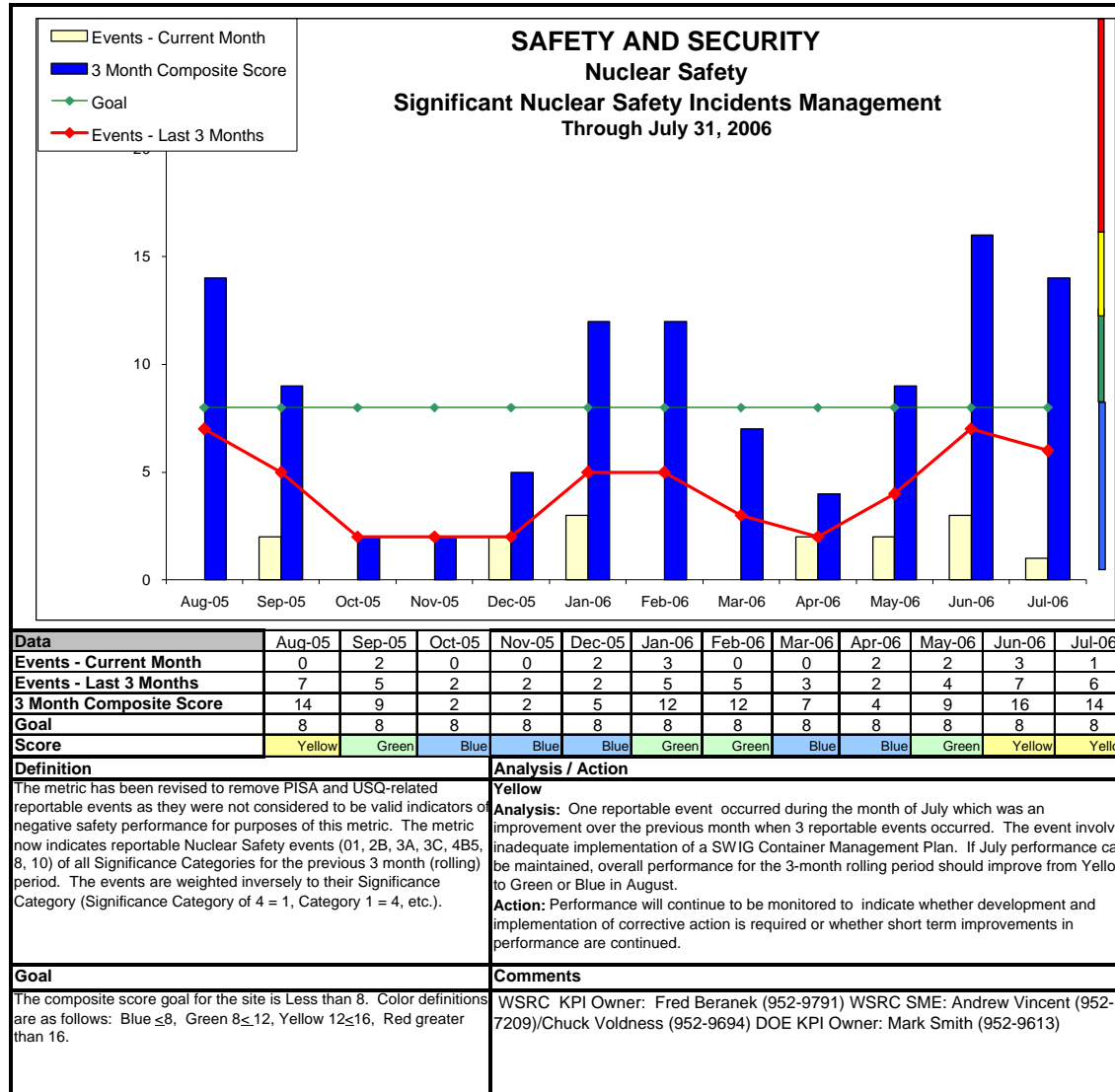


Figure 10

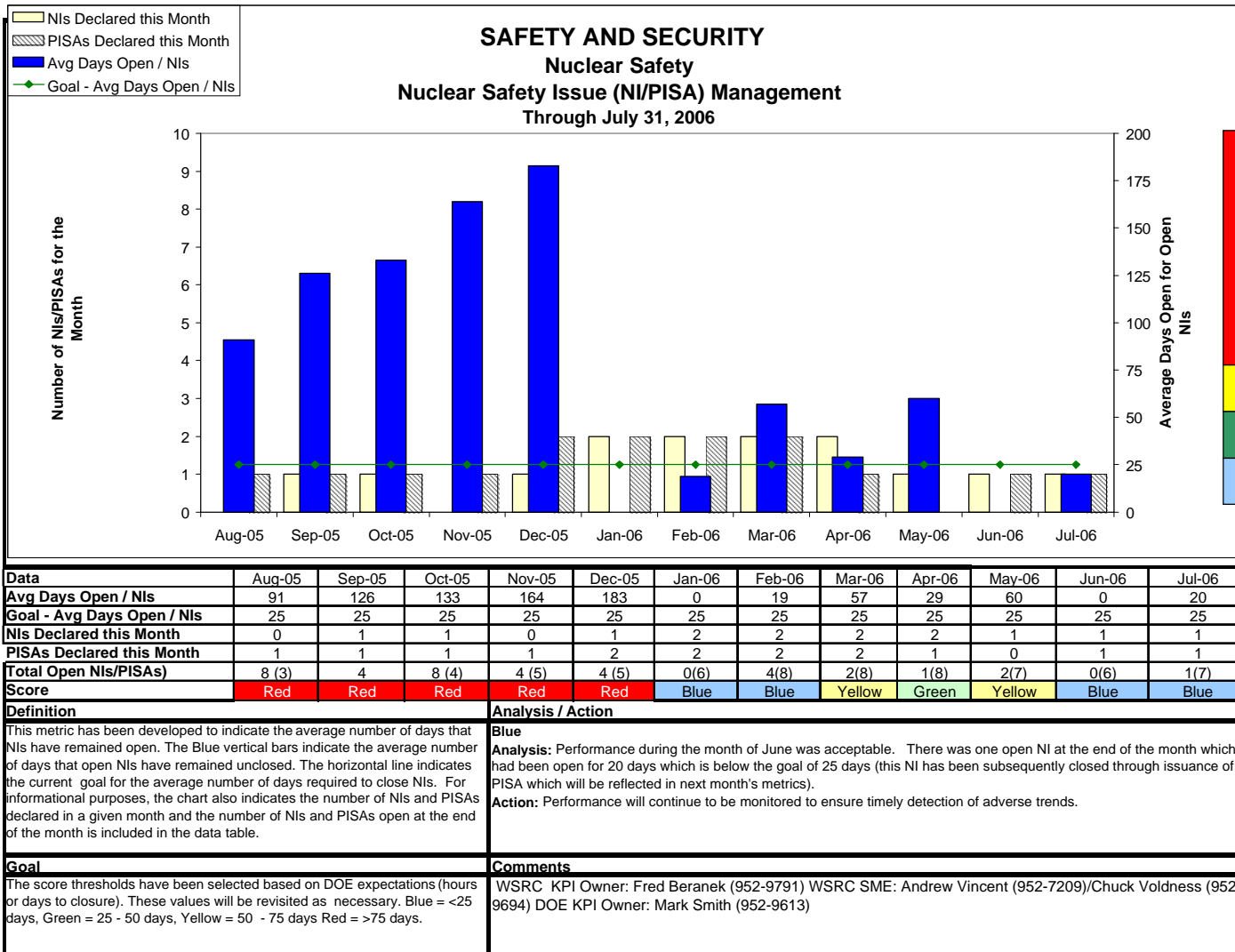


Figure 11

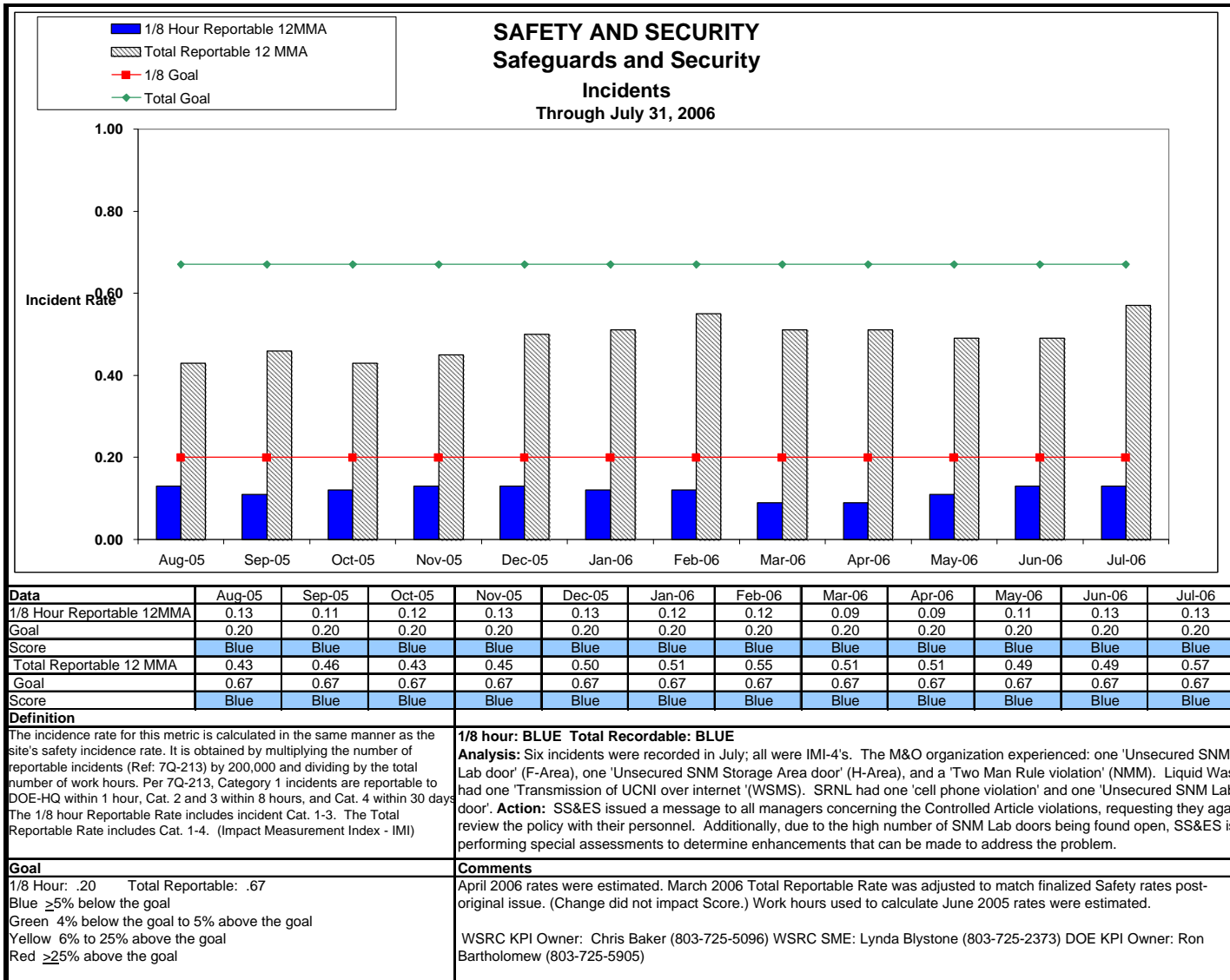


Figure 12

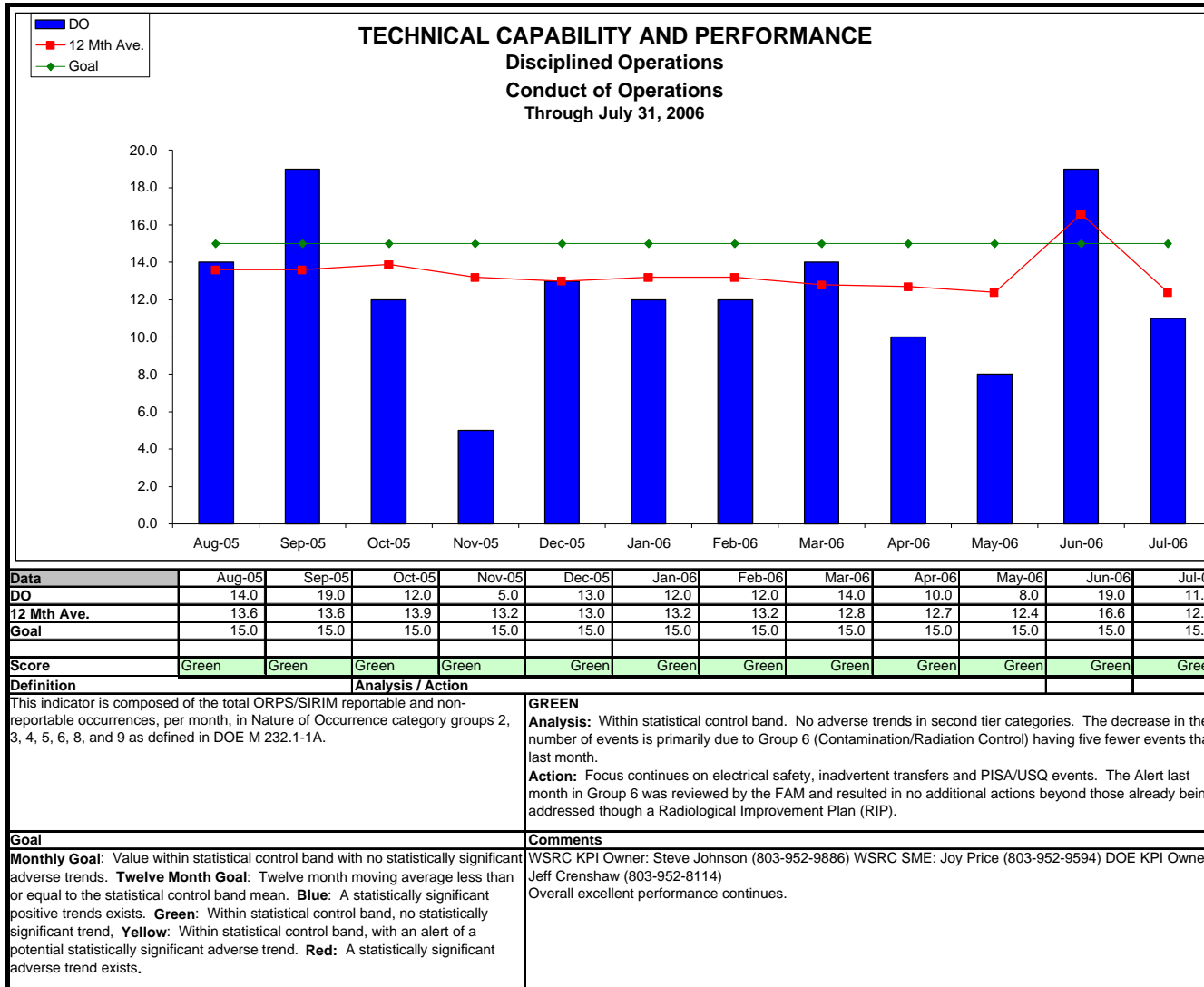


Figure 13

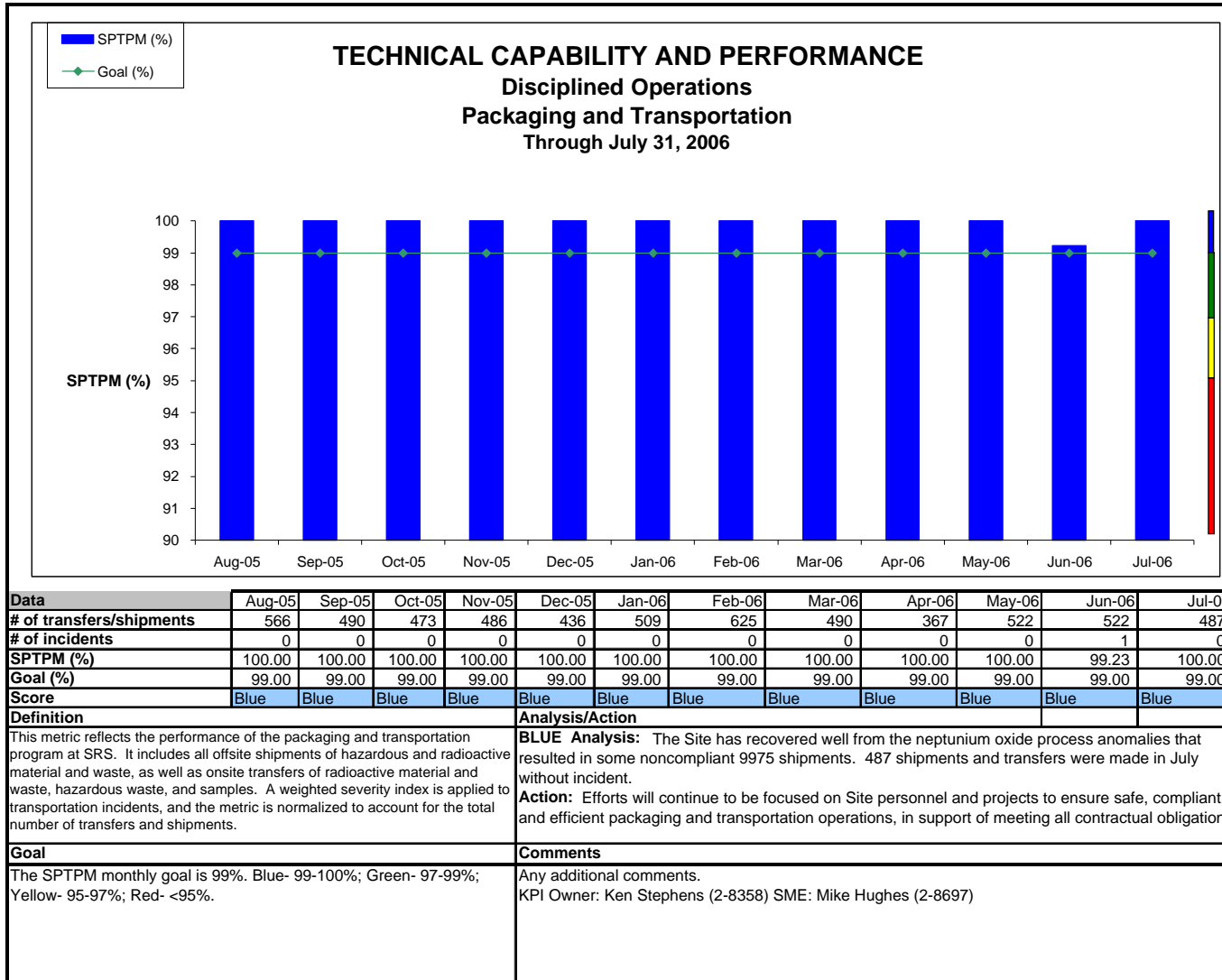


Figure 14

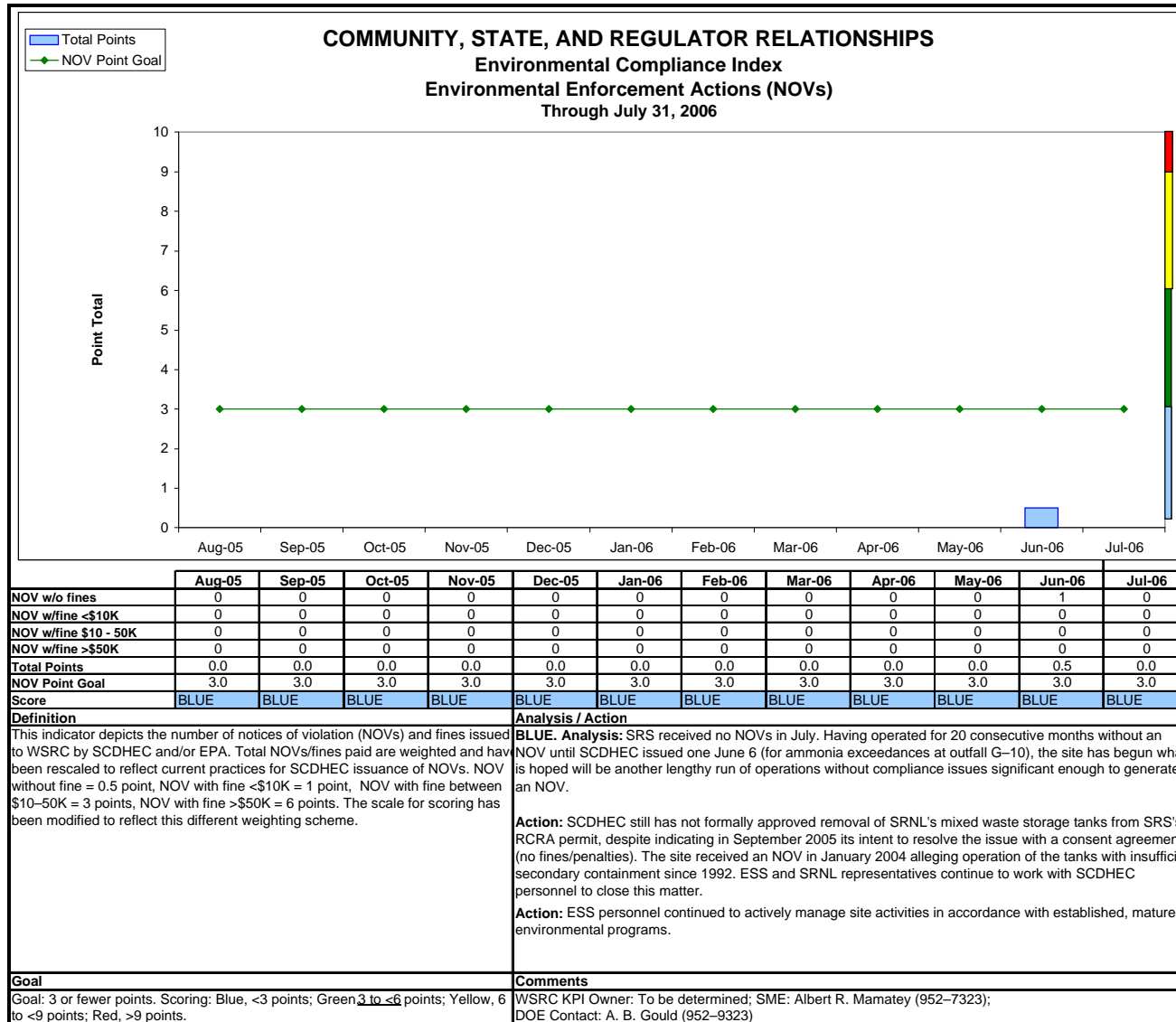
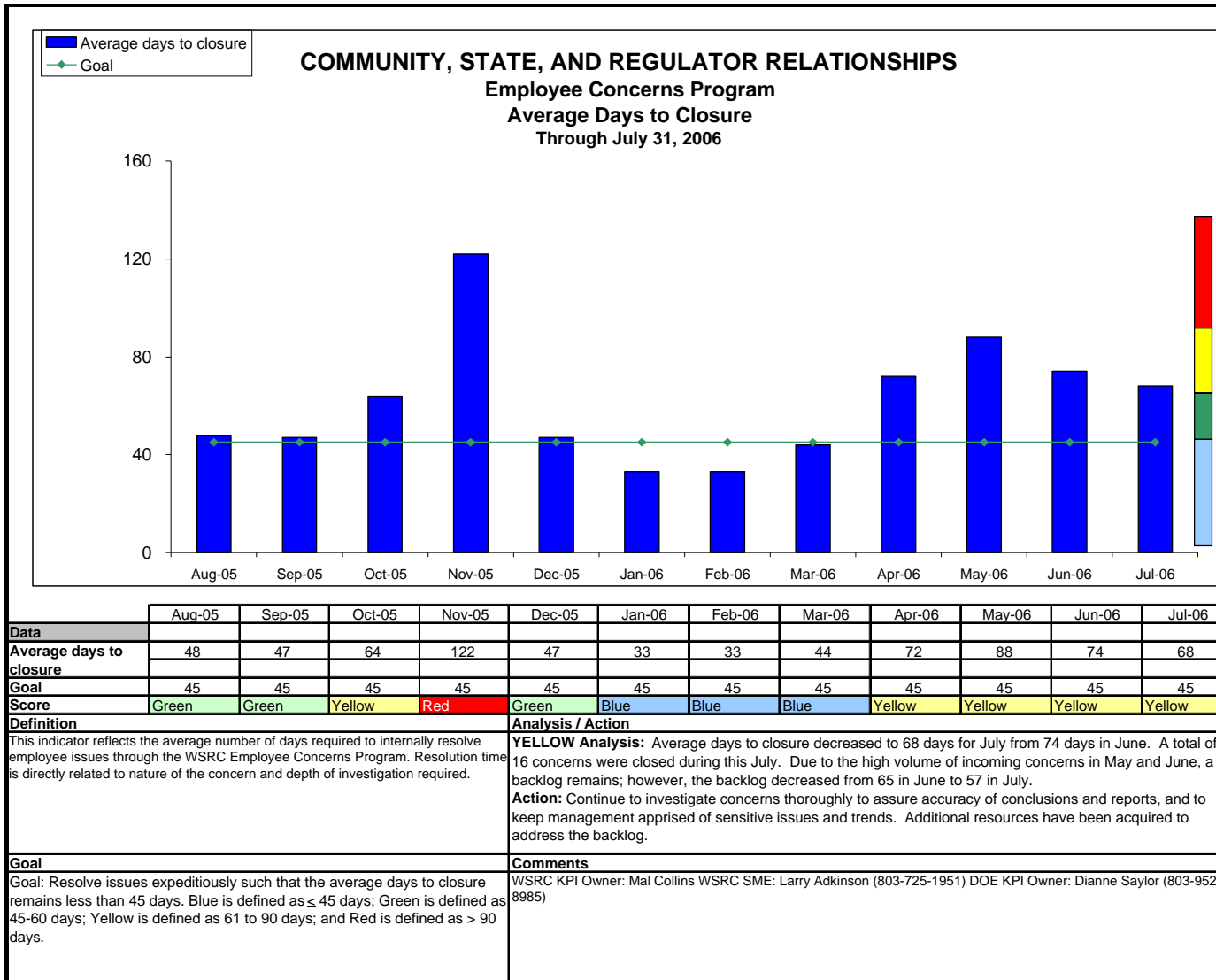


Figure 15



| | Aug-05 | Sep-05 | Oct-05 | Nov-05 | Dec-05 | Jan-06 | Feb-06 | Mar-06 | Apr-06 | May-06 | Jun-06 | Jul-06 |
|--------------------------------|---|--------|--------|--------|--------|---|--------|--------|--------|--------|--------|--------|
| Data | | | | | | | | | | | | |
| Average days to closure | 48 | 47 | 64 | 122 | 47 | 33 | 33 | 44 | 72 | 88 | 74 | 68 |
| Goal | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Score | Green | Green | Yellow | Red | Green | Blue | Blue | Blue | Yellow | Yellow | Yellow | Yellow |
| Definition | This indicator reflects the average number of days required to internally resolve employee issues through the WSRC Employee Concerns Program. Resolution time is directly related to nature of the concern and depth of investigation required. | | | | | Analysis / Action YELLOW Analysis: Average days to closure decreased to 68 days for July from 74 days in June. A total of 16 concerns were closed during this July. Due to the high volume of incoming concerns in May and June, a backlog remains; however, the backlog decreased from 65 in June to 57 in July. Action: Continue to investigate concerns thoroughly to assure accuracy of conclusions and reports, and to keep management apprised of sensitive issues and trends. Additional resources have been acquired to address the backlog. | | | | | | |
| Goal | Goal: Resolve issues expeditiously such that the average days to closure remains less than 45 days. Blue is defined as ≤ 45 days; Green is defined as 45-60 days; Yellow is defined as 61 to 90 days; and Red is defined as > 90 days. | | | | | Comments WSRC KPI Owner: Mal Collins WSRC SME: Larry Adkinson (803-725-1951) DOE KPI Owner: Dianne Saylor (803-952-8985) | | | | | | |

Figure 16

Injury and Illness Ranking Within the DOE EM Complex
 January - December 2005 (Ranked by TRC)

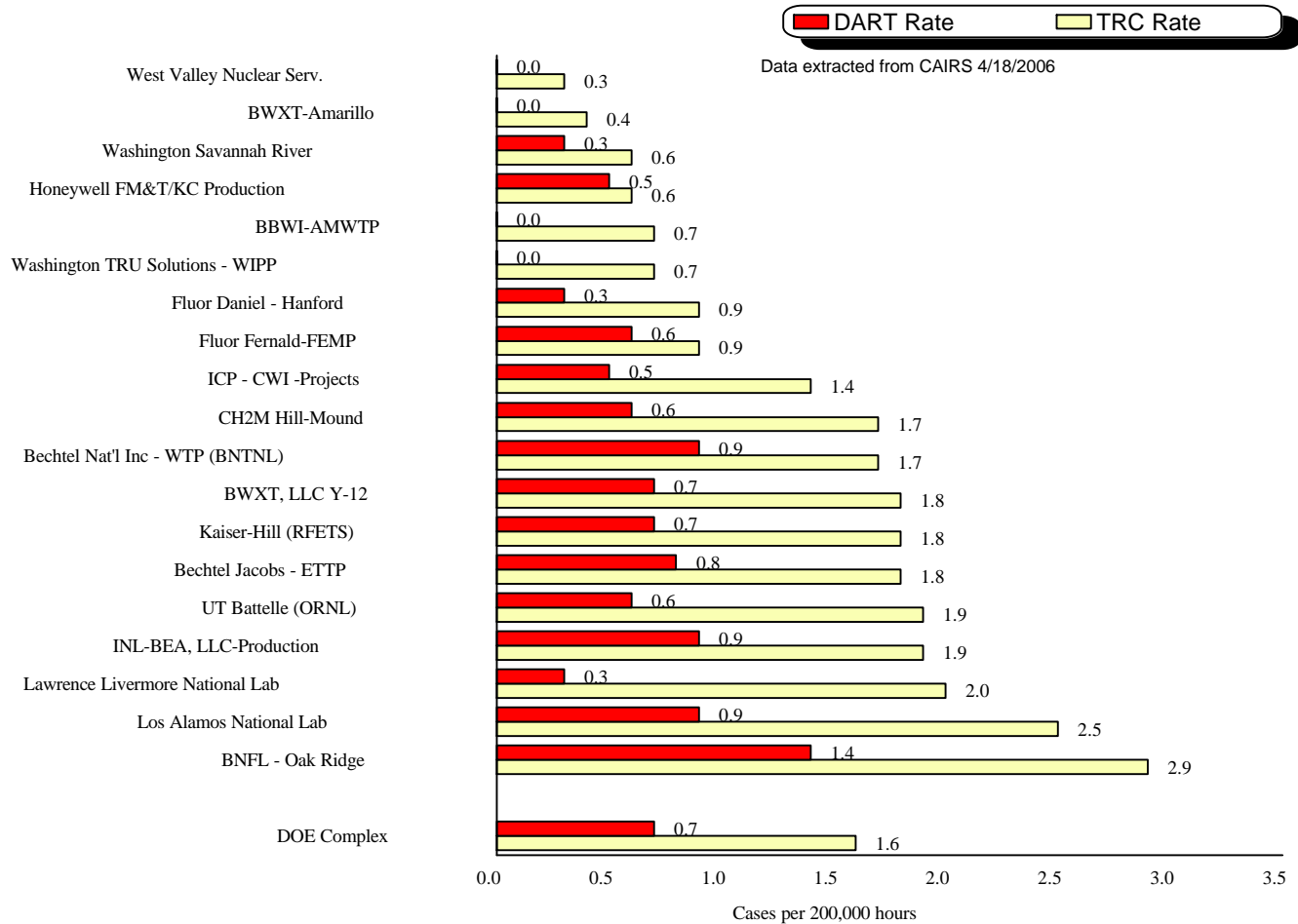


Figure 17

Injury and Illness Ranking Of DOE Construction Contractors

January - December 2005 (Ranked by TRC)

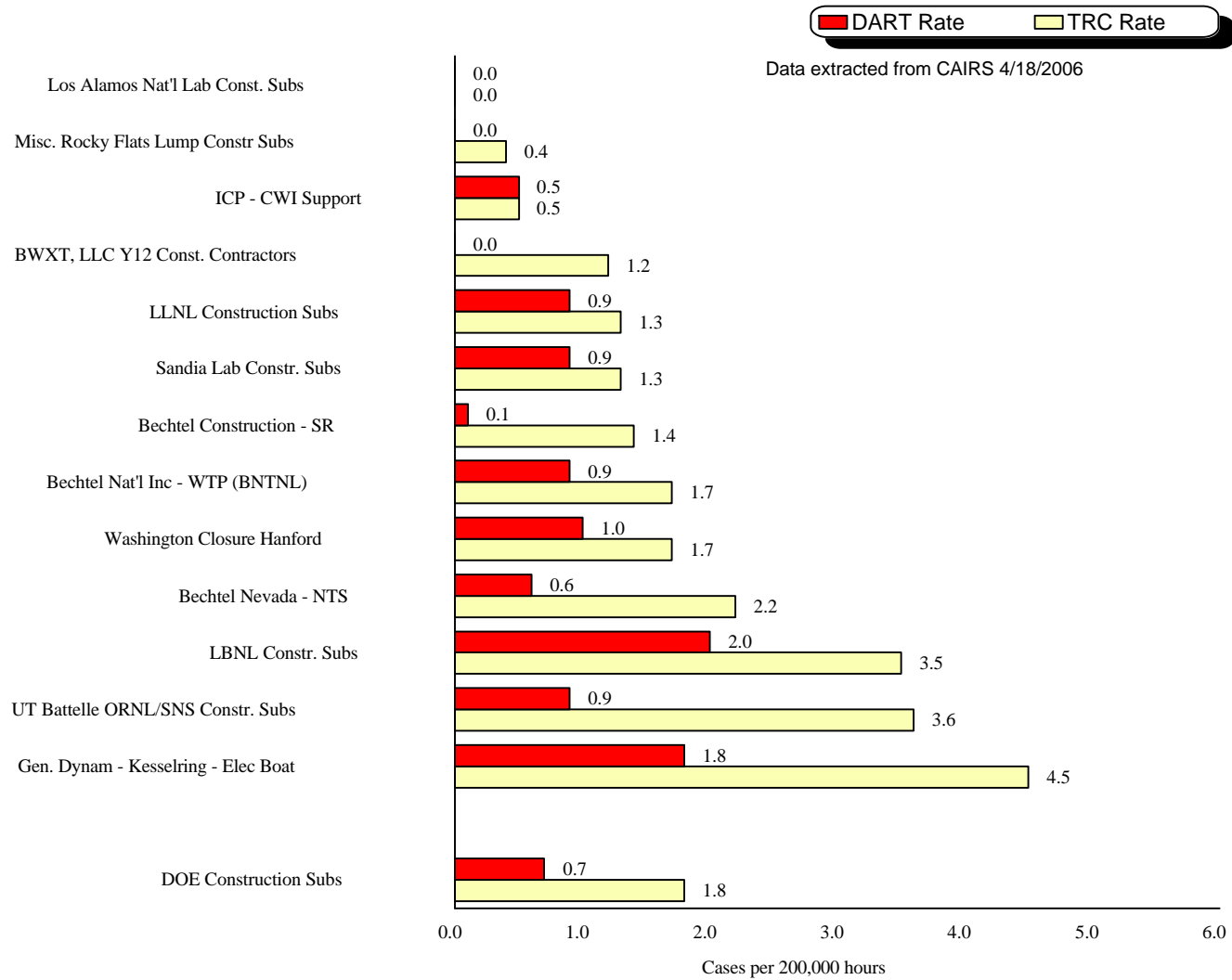
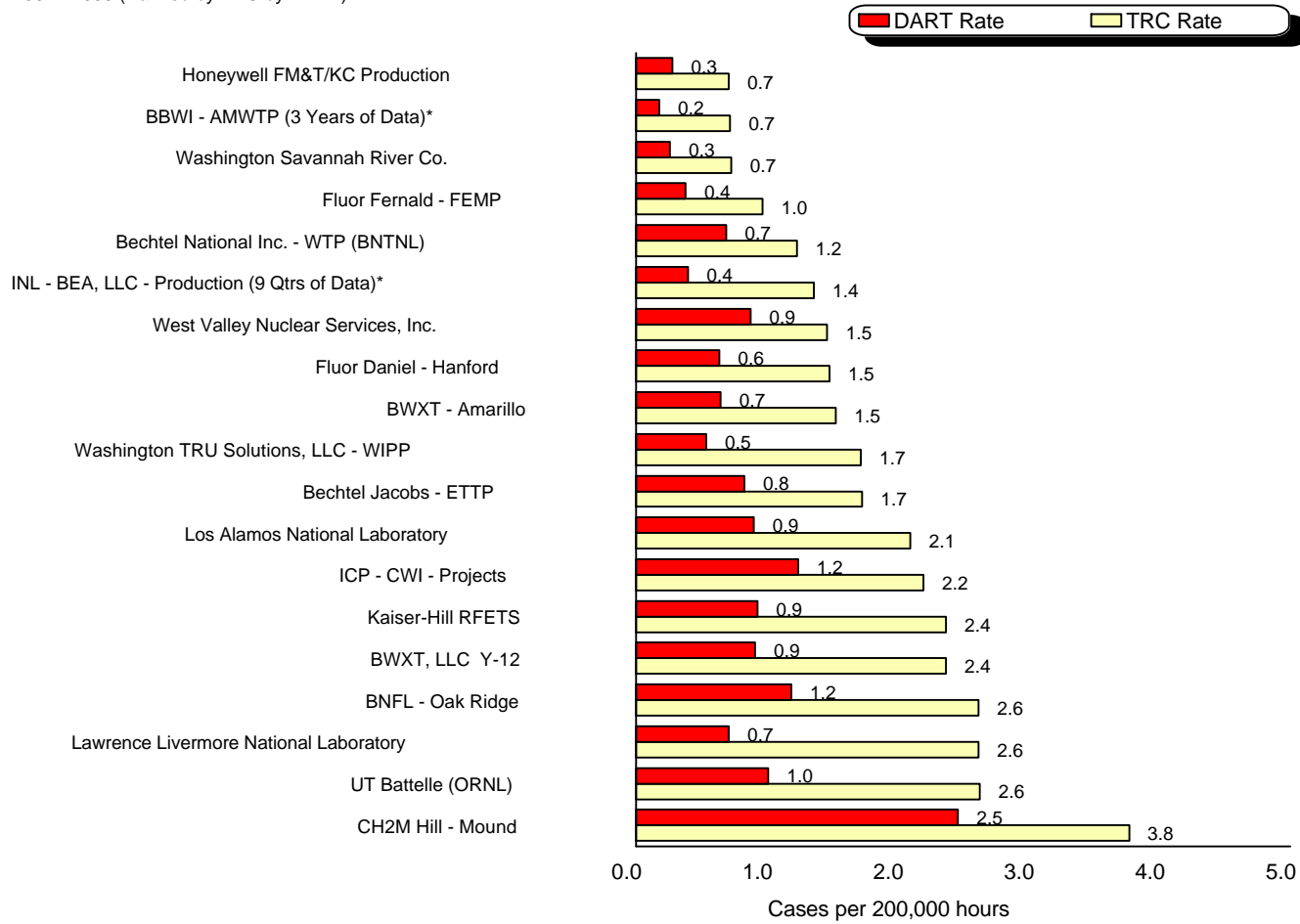


Figure 18

Injury and Illness Ranking Within the DOE EM Complex

2001 - 2005 (Ranked by TRC by DART)

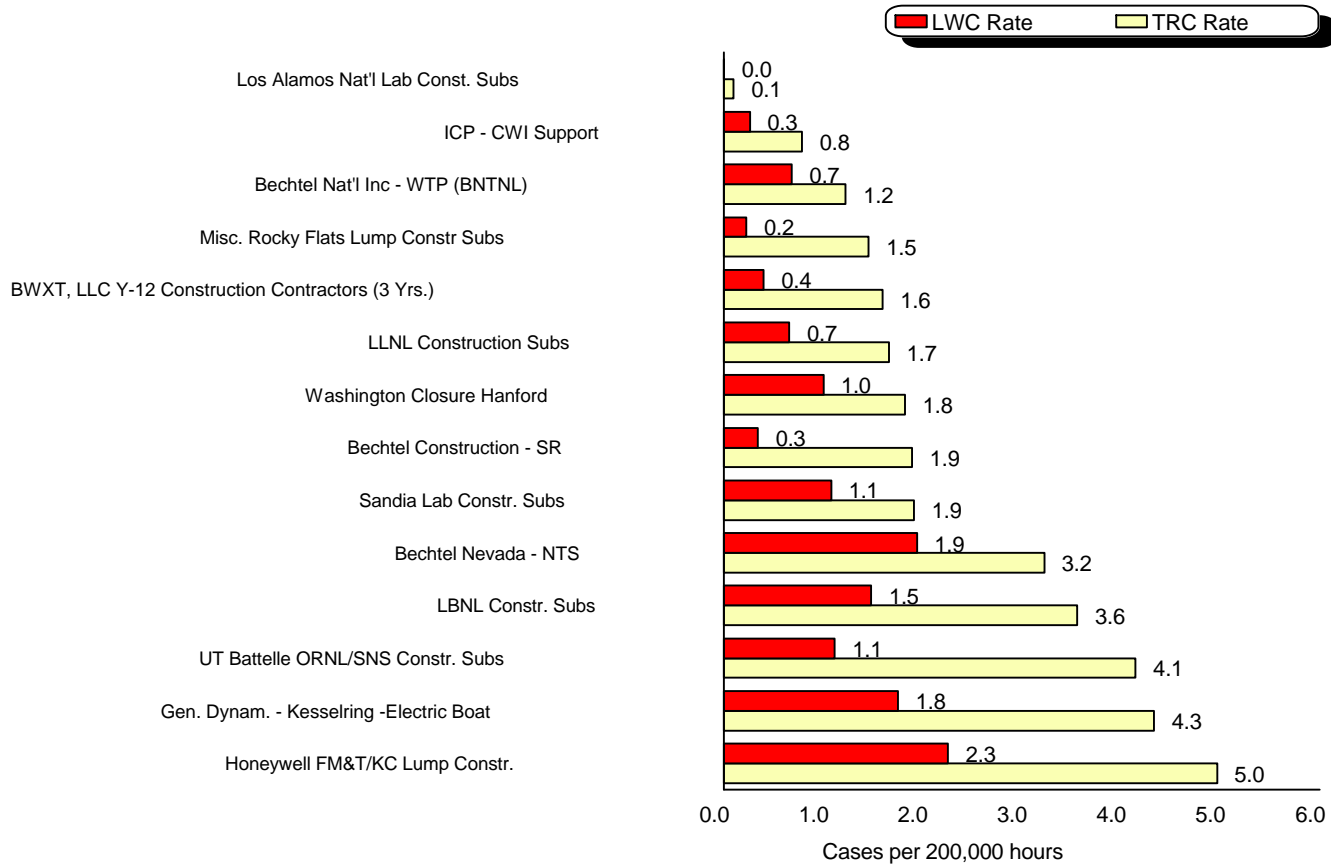


NOTE: WSRC worked 77.4 million hours more than Honeywell and 98.7 million more hours than BBWI.

*Five-Year Data Not Available
DOE Complex 0512_Five Year

Figure 19

Injury and Illness Ranking OF DOE Cost Const. Contractors
 2001 - 2005 (Ranked by TRC)



*Five-Year Data Not Available

DOE Complex 01-05_Five Year