



Regulatory Unit

Monthly Performance Report

April 2000

Office of Safety
Regulation of the
TWRS
Privatization
Contractor

June 2000
Environmental Management
Performance Report Submittal

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EXECUTIVE OVERVIEW

EXECUTIVE SUMMARY

During the reporting period, significant Regulatory Unit (RU) activities included the following:

- the External Independent Review (EIR) Team, a Congressionally chartered and funded group of senior industry managers, concluded that the RU was ready to proceed with Part B-2 of the TWRS-P Contract;
- RU acceptance of the BNFL Inc. Corrective Action Plan (CAP) that addresses inspection findings associated with inadequate maintenance of the Authorization Basis;
- start of the RU evaluation of the BNFL Inc. "Non-radiological Worker Safety and Health Plan" and selected BNFL Inc. technical contract deliverables;
- start of an inspection of the BNFL Self-Assessment and Corrective Action Program; and
- start of a special inspection to assess the independence of the BNFL Inc. Project Quality Assurance Organization from the TWRS Privatization Project Organization.

Subsequent to this period, on May 8, 2000, the Secretary announced DOE's intent to terminate the BNFL Inc. contract, establish a bridging contract with Bechtel and issue a Request for Proposal for the remaining design and construction, and subsequent operation of the Waste Treatment Plant. Later discussions between the RU and BNFL confirmed the intent that the transition contractor will retain schedule of the near-term regulatory submittals. Therefore, the RU will continue with preparations to start review of the contractor's Radiation Protection Program on May 31, 2000, and review of the contractor's Quality Assurance Program and Implementation Plan for construction activities and the Limited Construction Authorization Request, both on June 26, 2000.

MONTHLY HIGHLIGHTS

External Independent Review Team

In March and April, an External Independent Review (EIR) Team, a Congressionally chartered and funded group of senior industry managers, assessed the RU's readiness to proceed with Part B-2 of the TWRS-P Contract. The EIR Team concluded that the RU was ready to proceed into Part B-2 and identified no concerns associated with the safety regulation of TWRS-P by the Regulatory Unit. In reaching this conclusion, the Team observed the following:

- the nuclear safety regulations of TWRS-P will withstand technical and public scrutiny;
- the established review schedule is consistent with the Contract; provisions exist to address emerging issues;
- the RU has adequate authority and resources; and
- the RU inspection and oversight functions provide assurance and confidence.

Inspection Program

The RU started two inspections of BNFL this month, a planned inspection and a special inspection. The planned inspection (report to be issued by June 1, 2000) examined BNFL's Self-Assessment and Corrective Action Program. RU inspectors determined that BNFL had an effective self-assessment program and an ineffective corrective action program. Preliminary Findings of this inspection included the following:

1. BNFL failed to implement timely corrective actions for identified deficiencies – corrective actions for approximately half of the Deficiency Report (DR's) reviewed were significantly untimely
2. BNFL failed to follow procedures – examples include a DR not written and a group of five DR's not being converted to Corrective Action Reports when required
3. BNFL failed to implement adequate quality improvement procedures – errors in logic and lack of adequate detail to ensure effective implementation were in evidence.

The special inspection examined the independence of the BNFL Inc. Project Quality Assurance Organization from the TWRS Privatization Project Organization. RU inspectors determined that the BNFL Inc. Project Quality Assurance Organization was not sufficiently independent from the TWRS Privatization Project Organization. Preliminary Findings of this inspection included the following:

1. BNFL failed to follow 10 CFR 830.120 and its QAPIP, in that the Project General Manager, who has no management authority over the Project QA Manager, reassigned the Project QA Manager.
2. BNFL failed to follow its stop work procedure, in that the Project Quality Assurance Manager provided the Deputy Project Manager with a stop work order, but work was not stopped.

BNFL also submitted its Corrective Action Plan (CAP) that addressed RU findings from an inspection of the BNFL authorization basis (AB). The BNFL CAP commits to bring the project's authorization basis current with the project technical baseline and to revise the process for keeping it current. The RU reviewed and approved the CAP. During the week of April 24, the RU assessed the Contractor's progress in implementing the CAP, as part of a previously scheduled inspection. The inspectors concluded that Contractor's progress in implementing corrective actions was substantial and consistent with commitments made in the CAP. The inspectors found that Contractor management involvement was evident in implementing the corrective actions and that appropriate resources had been provided. The RU will assess the completion of corrective actions during the next inspection of the AB that is currently scheduled for November 2000.

Design Reviews

The BNFL Contract Part B-1 design documentation was provided to the RU during the week of April 24, 2000. The RU is intensively reviewing these documents and will include results of this review in the RU input to the DOE assessment of BNFL's readiness to proceed into Part B-2. The RU's evaluation of the Part B-1 design documents will assess the current design maturity for FY 2000 and FY 2001 safety deliverables and authorization requests including the Construction Authorization Request, which includes the Preliminary Safety Analysis Report.

On April 20, 2000, the RU observed a multi-discipline design review evaluating low-activity waste (LAW) vitrification facility layouts. BNFL has made significant progress on the LAW facility design since the vitrification concept was revised to utilize a locally shielded melter in November 1999. RU observation of BNFL design review in accordance with the TWRS-P Contract is ongoing. BNFL has postponed design reviews of fire sprinkler systems, fire detection systems, and fire hazard analysis from May 18, 2000 to May 24, 2000, and review of the Low-Activity Waste Pretreatment Facility layout from May 18, 2000 to May 30, 2000. A review of High-Level and Low-Activity Waste Melter Design and Operation has also been scheduled for May 23, 2000. The RU will observe these scheduled design reviews.

Topical Meeting

Chemical hazards was the subject of the April Topical Meeting. BNFL proposed to use chemical industry standards to control chemical hazards unless the chemical event initiated radiological consequences. If radiological consequences were initiated by a chemical event, the ISM process would be used to develop control strategies and standards.

The most significant chemical hazards that were identified were the release of NO_x gas from the melter offgas system to parts of the facility that could be occupied by workers. This scenario would develop rapidly if offgas exhaust fans failed. Fan failure would cause the offgas system to pressurize and lethal concentrations of NO_x gas would leak into workspaces within minutes. A suitable control strategy for this event had not been developed.

The next Topical Meeting is scheduled over a two-day period, May 31 and June 1, 2000. The subject of this meeting is the ISM Cycle 2 evaluation of hazards and control strategies.

Memorandum of Understanding (MOU)

A Memorandum of Understanding (MOU) was put in place to describe how the RU, the Washington State Department of Ecology (Ecology), and the Washington State Department of Health (WDOH) will coordinate regulatory activities. This MOU applies only to the design, construction, operations, and deactivation of the TWRS-P facility by BNFL.

The RU, Ecology, and WDOH assess BNFL compliance with applicable safety and environmental limits, regulations, and standards. The RU is responsible for safety regulation. Ecology implements and regulates the federal hazardous waste program and other environmental programs in Washington State. The WDOH regulates radioactive airborne emissions. The regulatory responsibilities of these entities are generally unique. However, submittals required of BNFL, and oversight of BNFL may have common elements. The purpose of coordinating regulatory activities is to improve regulatory efficiency and effectiveness by eliminating duplicate efforts with no diminution of protection provided to the workers, the public, and the environment.

Industrial Health and Safety Program

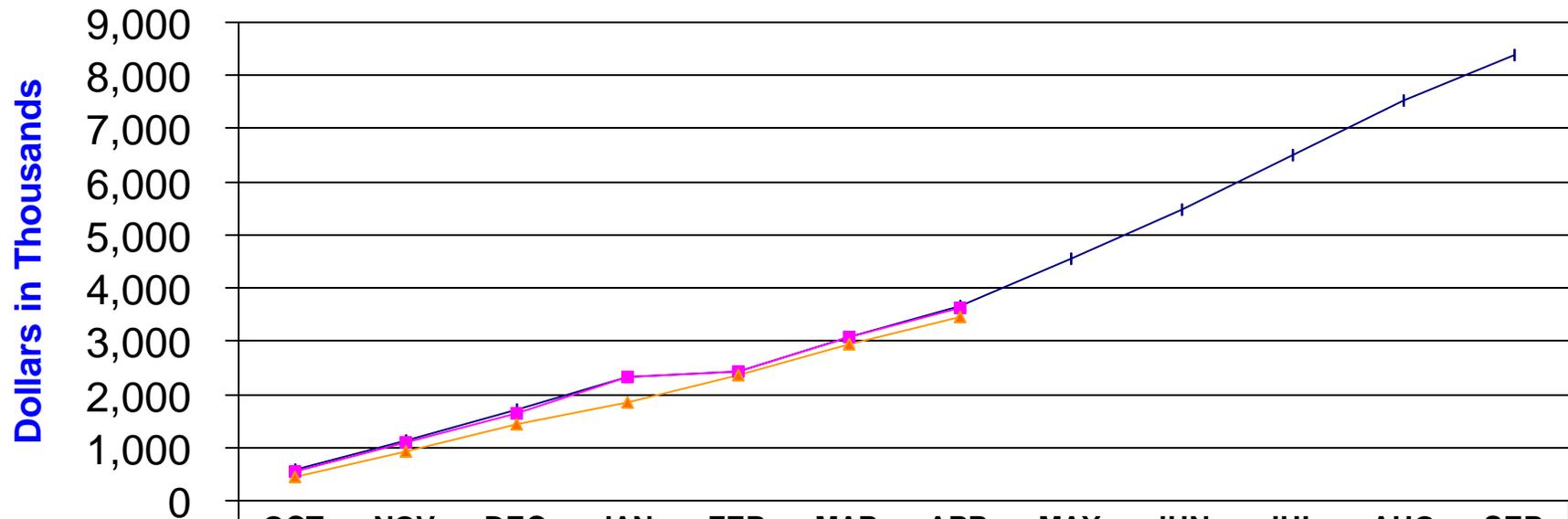
The RU is continuing to define a comprehensive program for regulating industrial hygiene and safety (IH&S). During the month, the RU received the Contractor's "Non-radiological Worker Safety and Health Plan (the Plan)." The Plan defines the Contractor's IH&S program for construction. The RU found the Plan was acceptable for detailed review. The RU started a detailed review according to the Review Guidance and Planning Handbook described below. The review will be completed within 90 days and is not specifically affected by the decision to terminate the BNFL contract. The RU is expecting the Washington State Department of Labor and Industries and the Occupational Safety and Health Administration, Region 10, to provide informal input to the review. The RU will contact the Tribal Nations to solicit their interest in the Plan and has made it publicly available through the RU website.

The status of the components of the IH&S regulatory program is:

- Policy and Memorandum of Agreement (MOA) - these documents are essential to documenting the RU's authority to regulate IH&S. The documents were revised to reflect the decision to cancel the BNFL contract and were returned to the signature process. Signatories include EH-1, EM-1 and S-3 (Policy only).
- Regulatory Plan - this plan describes the process the RU will follow internally in regulating IH&S. The Regulatory Plan is in the signature process for issuance. The RU expects to revise the plan prior to the start of construction and continues to seek public, contractor and agency review.
- Position Paper - the RU's position on regulating IH&S was revised (Revision 2) and sent to the Contractor for review and comment on March 2, 2000. No comments have been received to date.
- Review Guidance - Contractor comments on the draft review guidance for the Non-radiological Worker Safety and Health Plan were received. The guidance was revised, reissued, and is being used in the currently ongoing review of the Plan.
- Review Planning Handbook – This detailed description of how the RU will conduct the review of the Plan was issued in April. The review team is proceeding with their review according to the requirements of the Planning Handbook
- Inspection Program - the Verification and Confirmation Official and his staff are defining a comprehensive IH&S inspection program. (The basic scope of the program was provided to BNFL as part of the Regulatory Plan.)

COST PERFORMANCE (Graph)

Regulatory Unit Cost Performance



| | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| —+— BCWS | 585 | 1,131 | 1,694 | 2,333 | 2,425 | 3,067 | 3,657 | 4,544 | 5,478 | 6,489 | 7,535 | 8,370 |
| —■— BCWP | 543 | 1,084 | 1,635 | 2,333 | 2,425 | 3,069 | 3,640 | | | | | |
| —▲— ACWP | 460 | 912 | 1,422 | 1,850 | 2,367 | 2,927 | 3,455 | | | | | |
| SV | (42) | (47) | (59) | 0 | 0 | 2 | (17) | | | | | |
| CV | 83 | 172 | 213 | 483 | 58 | 142 | 185 | | | | | |

COST PERFORMANCE SUMMARY

The fiscal year-to-date cost through April reflects a favorable variance of \$185K. This variance results from lower than anticipated costs associated with the development of CAR Review handbooks, Program Planning and Control and the resolution of Topical Issues. The RU is working through a mid-year review to update the Program's baseline to the latest BNFL schedule (prior to the termination decision) and identify the Programmatic cost savings that will be utilized for new emergent workscope. Current planning efforts reflect an approximate \$900K schedule delay (primarily Standards Approval (SA) Package Review activities into FY 2001) and Programmatic cost savings of \$500K. When finalized, the mid-year review will be documented in a formal change request scheduled for completion and approval by May 31, 2000.

NEAR-TERM LOOK AHEAD

| | Planned Due Date |
|--|-------------------------|
| May | |
| • Issue IH&S Regulatory Plan | 5-17-00 |
| • Present 14 th Quarterly Briefing to Headquarters | 5-18-00 |
| • Issue Assessment of BNFL's ISMP Implementation | 5-23-00 |
| • Issue Tri-Annual Openness Report | 5-26-00 |
| • Issue Corrective Action Inspection Report | 5-30-00 |
| • Conduct Topical Meeting on 2 nd Iteration: Hazards Control Strategies | 5-31-00 |
| • Commence Review of BNFL RPP | 5-31-00 |
| • Issue Special Inspection Report of BNFL's QA Organization Independence | 5-31-00 |
| • Issue Assessment of BNFL's Part B-1 Design Documentation | 5-31-00 |
| • Mid-year Change Request Approved | 5-31-00 |
| June | |
| • Issue SAP Review Handbook | 6-09-00 |
| • Conduct Topical Closeout Meeting | 6-13-00 |
| • Conduct QA Inspection | 6-19-00 |
| • Commence Review of BNFL LCA Request | 6-26-00 |
| • Commence Review of BNFL QAPIP | 6-26-00 |
| • Issue LCA Review Handbook | 6-30-00 |
| • Issue Revised Openness Plan | 6-30-00 |
| July | |
| • Issue QA Inspection Report | 7-17-00 |
| • Issue ER on BNFL IH&S Program Description | 7-21-00 |
| • Conduct Topical Meeting on Seismic PRA | 7-25-00 |

PROGRAM PERFORMANCE OVERVIEW

PERFORMANCE SUMMARY (Chart) – Program Direction and Program Support

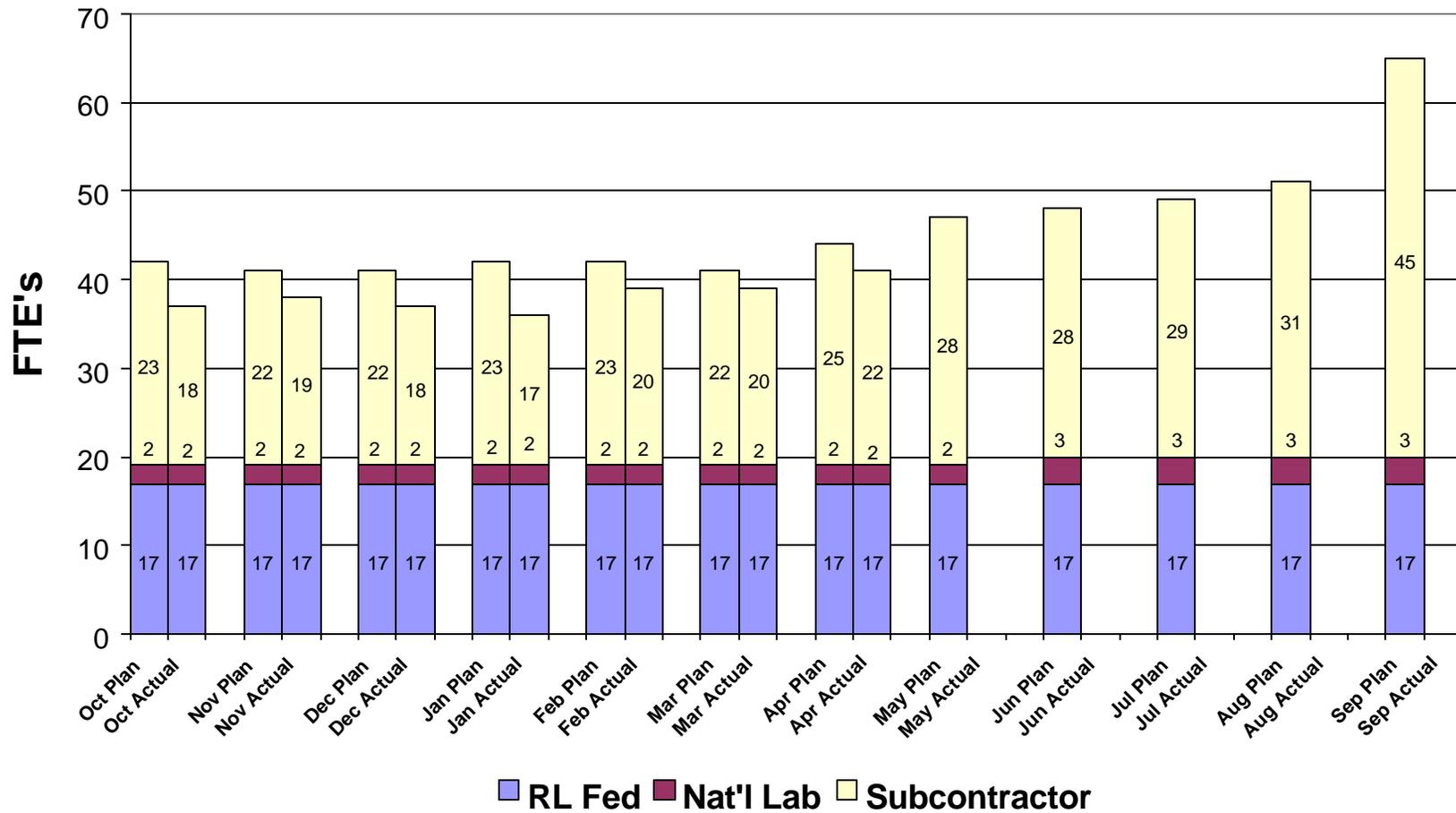
| | | DOLLARS IN \$000's | | | | | FY 2000 | | |
|--------------------------------------|--|--------------------|--------------|--------------|-------------|---------------|----------------|--------------|----------------|
| | | BCWS | BCWP | ACWP | SV | CV | BAC | EAC | Delta |
| RU1 | Program Management | | | | | | | | |
| | <i>Program Direction</i> | \$722 | 722 | 797 | 0 | (\$75) | \$1,290 | 1,403 | (\$113) |
| | <i>Program Support</i> | 980 | 980 | 902 | 0 | 78 | 1,882 | 1,623 | 259 |
| | Total RU1 ----- | 1,702 | 1,702 | 1,699 | 0 | 3 | 3,172 | 3,026 | 146 |
| RU2 | Regulatory Policy & Practices | | | | | | | | |
| | <i>Program Direction</i> | 74 | 70 | 79 | (4) | (9) | 105 | 120 | (15) |
| | <i>Program Support</i> | 161 | 159 | 176 | (2) | (17) | 371 | 338 | 33 |
| | Total RU2 ----- | 235 | 229 | 255 | (6) | (26) | 476 | 458 | 18 |
| RU5 | Recurring Safety Reviews | | | | | | | | |
| | <i>Program Direction</i> | 239 | 238 | 223 | (1) | 15 | 424 | 393 | 31 |
| | <i>Program Support</i> | 703 | 693 | 648 | (10) | 45 | 1,351 | 1,244 | 107 |
| | Total RU5 ----- | 942 | 931 | 871 | (11) | 60 | 1,775 | 1,637 | 138 |
| RU6 | Construction Authorization | | | | | | | | |
| | <i>Program Direction</i> | 99 | 99 | 52 | 0 | 47 | 440 | 207 | 233 |
| | <i>Program Support</i> | 130 | 130 | 69 | 0 | 61 | 1,485 | 399 | 1,086 |
| | Total RU6 ----- | 229 | 229 | 121 | 0 | 108 | 1,925 | 606 | 1,319 |
| RU9 | Oversight & Inspections | | | | | | | | |
| | <i>Program Direction</i> | 177 | 177 | 150 | 0 | 27 | 305 | 182 | 123 |
| | <i>Program Support</i> | 347 | 347 | 307 | 0 | 40 | 624 | 666 | (42) |
| | Total RU9 ----- | 524 | 524 | 457 | 0 | 67 | 929 | 848 | 81 |
| RU10 | Special Projects | | | | | | | | |
| | <i>Program Direction</i> | \$7 | 7 | 9 | 0 | (\$2) | \$7 | 9 | (\$2) |
| | <i>Program Support</i> | 17 | 17 | 42 | 0 | (25) | 86 | 36 | 50 |
| | Total RU10 ----- | \$24 | 24 | 51 | 0 | (\$27) | \$93 | 45 | \$48 |
| Total Regulatory Unit Program | | | | | | | | | |
| | <i>Program Direction</i> | \$1,318 | 1,313 | 1,310 | (5) | \$3 | \$2,571 | 2,314 | \$257 |
| | <i>Program Support</i> | 2,338 | 2,326 | 2,144 | (12) | 182 | 5,799 | 4,306 | 1,493 |
| | Total RU Program ----- | \$3,656 | 3,639 | 3,454 | (17) | \$185 | \$8,370 | 6,620 | \$1,750 |

MILESTONE CONTROL LOG

| MILESTONE CONTROL LOG | | | | | | | |
|--------------------------------|--------|-------|---|--------------------------------|--------------------|--------------------------------|------------------------------|
| MILESTONE | | WBS | MILESTONE DESCRIPTION | BASELINE COMPLETION DATE | SCHEDULE STATUS | FORECAST COMPLETION DATE | ACTUAL COMPLETION DATE |
| TYPE | NUMBER | | | | | | |
| <u>FISCAL YEAR 2000</u> | | | | | | | |
| RL | 00-010 | RU902 | Standards Selection Inspection rpt issued | 10/12/99 | Complete | 10/06/99 | 10/06/99 |
| RL | 00-011 | RU902 | Authorization Basis Inspection rpt issued | 11/08/99 | Complete | 12/13/99 | 12/13/99 |
| RL | 00-012 | RU902 | Safety Integration Inspection rpt issued | 12/07/99 | Complete | 12/03/99 | 12/03/99 |
| FO | 00-013 | RU203 | IH&S Plan issued | 4/07/00 | Behind | 5/17/00 | |
| FO | 00-015 | RU205 | Revised Interface Plan issued | 1/31/00 | Complete | 1/28/00 | 1/28/00 |
| RL | 00-016 | RU902 | Design Process Inspection rpt issued | 2/14/00 | Complete | 2/08/00 | 2/08/00 |
| RL | 00-017 | RU902 | Employee Concerns Program Inspection rpt issued | 3/13/00 | Complete | 3/10/00 | 3/10/00 |
| RL | 00-018 | RU902 | Training & Qualifications Inspection rpt issued | 4/07/00 | Complete | 4/05/00 | 4/05/00 |
| RL | 00-019 | RU608 | SAP Rvw Handbook issued | 5/12/00 | Behind | 6/09/00 | |
| RL | 00-027 | RU608 | Initiate Review of SAP | 5/15/00 | Behind | 8/31/00 | |
| RL | 00-020 | RU605 | LCA Rvw Handbook issued | 5/17/00 | Behind | 6/30/00 | |
| FO | 00-004 | RU502 | ER & Approval of QAPIP Rev. 6 issued | 7/19/00 | Behind | 9/21/00 | |
| RL | 00-014 | RU902 | Standards Implementation Inspection rpt issued | 6/19/00 | Behind | TBD | |
| RL | 00-026 | RU605 | Initiate Review of LCA Request | 6/26/00 | On Schedule | 6/26/00 | |
| FO | 00-002 | RU204 | Openness Plan Rev. 3 issued | 6/30/00 | On Schedule | 6/30/00 | |
| RL | 00-021 | RU902 | QA Inspection rpt issued | 7/17/00 | On Schedule | 7/17/00 | |
| RL | 00-022 | RU602 | CAR Rvw Handbook issued | 6/09/00 | Behind | 8/24/00 | |
| FO | 00-023 | RU502 | Approval of RPP Rev. #3 issued | 8/18/00 | On Schedule | 8/18/00 | |
| RL | 00-024 | RU902 | Corrective Actions Inspection rpt issued | 5/30/00 | On Schedule | 5/30/00 | |
| RL | 00-025 | RU902 | ALARA Inspection rpt issued | 9/11/00 | On Schedule | 9/11/00 | |
| FO | 00-003 | RU102 | FY 2001 PMP issued | 9/29/00 | On Schedule | 9/29/00 | |

FULL-TIME EQUIVALENCY PROFILE (Graph)

Regulatory Unit FTE Profile



CHANGE CONTROL STATUS LOG

| Regulatory Unit FY 2000 Change Control Log | | | | | | | |
|---|--------------------|-----------------|------|------------------------|---|-----------------|-----------------|
| CIN# | Change Classified. | Author | WBS# | Date Change Originated | Change Request Explanation | CEB Review Date | CEB Disposition |
| 00-001 | I | K.D. Grindstaff | 1.10 | 11/99 | Processing of the FY 1999 Carryover into FY 2000 Baseline and Realignment of FY 2000 Cost Savings to Emergent Priority Workscope. | 11/24/99 | Approved |
| 00-002 | II | K.D. Grindstaff | 1.10 | 12/99 | Added new emergent workscope associated with impact risk balancing between TWRS and the TWRS-P facility. | 12/03/99 | Approved |
| 00-003 | III | K.D. Grindstaff | 1.10 | 1/00 | Redistributed funds associated with a task package titled Other Direct Cost (0424ODC). | 01/18/00 | Approved |
| 00-004 | II | K.D. Grindstaff | 1.10 | 1/00 | Renamed Cost Account RU1002 from K Basin SAR to Misc. RU Reg. Activities and separated the CAP into three tasks; K Basin SAR, RL Quality Assurance Program Plan, and WIPP Reg. Program Development. | 01/20/00 | Approved |
| 00-005 | I | K.D. Grindstaff | 1.10 | 2/00 | Implemented the most recent resource/activity planning effort, utilizing the Project's FYTD cost savings. Mid-year rebaselining effort. | 02/25/00 | Approved |
| 00-006 | II | K.D. Grindstaff | 1.10 | 5/00 | Initiated the detailed review of the BNFL process and facility design, which will provide the RU a current understanding of the BNFL process and facility design. | 05/02/00 | Approved |