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June 2, 1995

TPJLTR 95-0062

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555

Subject: Dresden Station Units 2 and 3
Docket Nos. 50-237, 50-249
Response to SALP 13 Report

References:
1. J.B. Martin letter to T.P Joyce dated April 28, 1995 transmitting Dresden Station SALP 13 Report

2. T.P. Joyce letter to W.T. Russell dated April 24, 1995 regarding Dresden Plan Implementation Progress

We have reviewed the SALP 13 Report for Dresden Station and the information provided by the NRC during our May 12, 1995 meeting to discuss that report. We agree with the assessment of our performance contained in the report.

The improvements achieved in August through December 1994 were largely due to the response of plant personnel to the focused attention of a few experienced senior managers on a limited number of restart actions. Those actions provided an important basis for our continuing performance improvement efforts as described in the Dresden Plan and associated 1995 Focus Areas. However, the momentum gained during the restart effort was not sustained. Problems caused by non-conservative operation of the plant continued to occur, and early in 1995 were compounded by an insufficiently developed questioning approach and a weak response by the management team.

The leadership provided by a strong management team is essential to changing the way of doing business at Dresden. This leadership has been improved by the hiring of new managers in key positions, such a new Station Manager, the Site Engineering Manager, the Unit 2 Maintenance Superintendent, and the Station Work Control Superintendent - many of whom have extensive experience outside ComEd. We are continuing to evaluate our management personnel and workforce to ensure that we have the right breadth and depth of resources to bring about the necessary changes in our performance.

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Many of the weaknesses described in the SALP 13 report cut across functional areas and are being addressed on a site-wide basis through our 3-year Dresden Plan and the 1995 Focus Area Plans. Those we view as most critical are:

1. Procedural Adherence. Procedural adherence and other aspects of human performance (standards and expectations, attention to detail, and conservative decision-making) require considerable improvement to achieve event-free performance.

2. Materiel Condition. Items potentially impacting plant safety or operation (operator workarounds, control board items, and causes of scrams/derates) are receiving particular focus. The plant's materiel condition has improved somewhat, but still requires substantial upgrading.

3. Work Management. Preparation of quality work documents well in advance of scheduled work, effective coordination and communication among those responsible for work performance, and timely completion of high-quality work remain a serious challenge.

4. Corrective Action Program. Efforts to identify potential problems and trends before failures result, and to vigorously address problems so that they do not recur, have been strengthened, but are not fully effective. Assessment of corrective action effectiveness is receiving significant attention.

5. Radiation Protection. Levels of dose, contaminated floor space, and personnel contamination events have been substantially improved. Overall dose levels are still higher than industry norms and control of contaminated items has been weak.

Specific improvement steps have been taken to address each of the above issues, and more are planned. Some positive performance results are apparent, but in none of these areas have we yet reached a satisfactory level of performance.

Particular attention is being focused on ensuring sustained improvement. I have been enforcing accountability for the implementation of selected improvement actions in our daily site management meetings. I am transitioning to a weekly management meeting focussed on progress in accomplishing these actions. Additionally, at Dresden and each of the other Com Ed BWRs we have initiated performance meetings (one to two per month) chaired by the BWR Vice President to further reinforce accountability of responsible managers for achieving improvement. These will continue until strong follow-through and self-initiated improvement become the normal approach of site management. Other elements of our efforts to ensure sustained improvement are:

1. Specific improvement plan actions have been identified for effectiveness review by Site Quality Verification audits, observations, and inspections. Additionally, a series of special management and third-party assessments over the next eight months is being scheduled to evaluate our progress in achieving improvement plan goals. Input from these activities is used to modify and supplement our plans when continuing weakness is found.

2. We are monitoring implementation and effectiveness of our improvement plans through objective performance measures. Specific performance targets and indicators tied to these plans have been set and systematically monitored during daily site management meetings since March 1995. We know where we stand, and any changes in performance trends quickly become apparent.

3. Important actions are being taken to engage the workforce and create a site culture which fosters self-initiated improvement. A formal process for management observation and feedback concerning work performance has been established which requires each responsible manager and supervisor to spend several hours in the field each week. All members of the workforce must support our improvement efforts and pull together as a united team. There have been some recent signs of improvement in this area, but securing this type of personal involvement remains a daily challenge.

4. To minimize repeat failures, we have taken several steps to improve the quality of trending, root cause analysis and corrective action. Responses to recent events involving scram testing, operator panel attentiveness, and control of contaminated material have been much more forceful than has historically been the case at Dresden. We are conducting periodic reviews to determine the effectiveness of actions in response to previous significant events and, as needed, are taking further action to prevent recurrence.

We believe that these actions will help us drive continuing improvement and minimize lapses in momentum. The management team and I are deeply committed to change, and we are demanding this same commitment of our workforce.

Attachment A provides a description of our actions to address weaknesses in the SALP 13 report, including our evaluation of how well these weaknesses have been addressed to date. Progress in many of these same areas was described in our letter of April 24, 1995. The large majority of these actions are those already identified in the Dresden Plan or the 1995 Focus Areas. It is essential that we continue to implement our plans in a disciplined way in order to make progress.

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In closing, we are obviously not satisfied with our performance as reflected in the SALP 13 report. We have implemented a number of improvement actions in the last several months, and some progress has been made. But we clearly recognize that our overall performance is still weak and that sustained improvement and event-free performance must occur. To this end, we are systematically implementing our improvement plans and carefully assessing performance results, and will adjust or supplement our plans as needed.

Very truly yours,

T. P. Joyce

Thomas P. Joyce
Site Vice President
Dresden Station

TPJ/slb

attachment

cc: J. B. Martin, Regional Administrator, Region III
W. T. Russell, Director, NRR
J. F. Stang, Project Manager, NRR (Unit 2/3)
M. N. Leach, Senior Resident Inspector, Dresden Station
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ATTACHMENT A

STATUS OF ACTIONS TO ADDRESS SALP 13 WEAKNESSES

Many of the weaknesses described in the SALP 13 report cut across functional categories, and are being addressed through site-wide improvement plans included in the three-year Dresden Plan and the nearer-term 1995 Focus Area Plans. Accordingly, this Attachment describes the status of site-wide issues first, followed by discussion of issues specific to individual functional areas.

1. SITE WIDE ISSUES

Cyclic Performance

Improvement momentum in the fall of 1994 was not sustained. Avoiding cyclic performance requires strong followthrough on plans and performance assessment. Actions include:

- We are systematically assessing improvement progress on a real-time basis. Performance meetings chaired by the BWR Vice President are being conducted approximately twice per month to review progress and enforce accountability for achieving performance improvement. During these meetings, responsible management personnel review performance and describe actions planned to correct area of weakness. In addition:

  - We are transitioning to a weekly site management meetings focussed on review of progress in implementing improvement plan actions.
  - Specific action plan items have been identified for effectiveness review by Site Quality Verification audits, observations, and inspections.
  - A series of special management and third-party assessments is being scheduled during the next eight months to more broadly evaluate our progress in achieving improvement plan goals.
  - Bimonthly Management Review Board reviews are performed by experienced managers from outside Dresden Station and/or Com Ed.

  Input from these assessments is being used to modify and supplement our plans when continuing weakness is found.

- For each 1995 Focus Area, a specific set of objective performance indicators has been established to measure whether desired improvement is occurring. For example, in the Materiel Condition Focus Area, the numbers of outstanding Control Room Work Requests, Operator Workarounds, and unplanned LCO entries are monitored weekly. Reasons for failure to achieve target performance levels, and further action needed for attaining them, are addressed during weekly site management team meetings.

- Substantial efforts are being made to engage first line supervisors and the workforce in our improvement efforts. Beginning in May 1995, the Site Vice President has conducted two-hour "compliments and concerns" meetings with 15-30 workforce members to discuss

worker views of performance, performance criticisms, and suggestions for improvement. Items noted during the meeting are evaluated for appropriate responsive action. Recently there has been worker and union support in the development and implementation of personnel performance standards and corrective and improvement actions, but resistance to change is still present. Workforce engagement remains a daily challenge of all levels of management.

- Several steps (described later in this Attachment) have been taken to improve root cause analysis and corrective actions. Cyclic performance can result when problems whose causes are not fully eliminated recur. Our approach is to take strong and thorough action in response to events and other significant problems. We are also in the process of reviewing corrective actions taken in response to significant events in 1994, and will take further action as warranted.

These approaches are designed to minimize performance relapses. It is too early to gauge their effectiveness.

Procedure Adherence, Personnel Performance Standards, and Related Aspects of Human Performance

The loss of momentum late in the SALP period largely involved human performance events caused by misunderstanding of requirements, insufficiently conservative decision making, and problems with procedure quality. Efforts to achieve event- and error-free performance have been centered in our 1995 Focus Area Plan for Procedure Adherence. Actions taken include:

- Personnel performance standards are reinforced through daily management presence in the plant. Our informal review of management observations in the plant during site management meetings has been upgraded to a formal Management By Walking Around process which provides written data for trend analysis. During this process, management personnel will be expected to provide coaching and feedback to work groups.

- In April 1995, Senior Management participated in a seminar on Conservative Decision Making to ensure that a conservative safety focus is maintained when making operational decisions. Subsequently, Licensed Operators were provided this same training off-site in a two-day seminar conducted by Com Ed BWR Vice Presidents.

- In March and April 1995, strong actions were taken in response to human performance events, including establishment of stronger standards for operator panel attentiveness, improved programmatic control of reactivity changes, and improved control of contaminated material. In connection with these actions, work standdowns were held to clearly communicate the seriousness and nature of these events to the workforce.

- Core teams of plant personnel in several departments were established beginning in the 4th quarter of 1994. These teams have fostered workforce participation in the development and implementation of performance standards, corrective actions, and improvement efforts.

- Training is a 1995 Focus Area. Key actions taken include proficiency testing of personnel in Maintenance, Engineering, Chemistry, and Rad Protection (results are being used to specify further training); requiring greater line management participation in the development and evaluation of training programs; and institution of technical training seminars for Engineering personnel.

- Improved training for first line supervisors to enhance their skills in correcting worker performance problems is being developed and is planned to be conducted in the Fall of 1995.

- A comprehensive review of the Technical Specifications, their bases, operability evaluations, and operating procedures will be performed to ensure compliance of lower-tier documents with the Technical Specifications. This will ensure consistency and help educate the operators and engineering staff on the proper approach to compliance with the Technical Specifications. Selected high-quality outside personnel will be utilized to assist in this review.

Management observations in the field indicate that procedures are being used and that workers are aware of the need to strictly comply with them. Also, the number of procedure revisions initiated by the workforce has risen dramatically in the past few months, indicating that greater attention is being paid to procedures. However, we continue to experience human performance problems at an unacceptable rate.

Work Management

The ability to accomplish work has been impacted by problems in planning, scheduling, and coordinating work activities. Work Management is 1995 a Focus Area. Recent actions include:

- A Work-It-Now (WIN) team was established to accomplish minor maintenance. This team has completed over 700 tasks since mid-January 1995, and has been very effective in completing tasks in a reduced time frame.

- In January 1995 a Work Control Center was instituted to coordinate planning activities of Maintenance, Operations, Work Planning, Engineering, and Radiation Protection.

- The Electronic Work Control System (EWCS) was implemented in March 1995. The EWCS is currently in the early stages of implementation, but is slowly beginning to contribute to better work packages and more efficient work completion. Work packages are still complex and in need of further streamlining. An Operations staff person participated in the Dresden EWCS development team to ensure Operations buy-in.

- Since April 1995, a twelve week rolling master site schedule has been used to make planned work packages available to the maintenance shops well in advance of the work date for package review and walkdowns. Operations Shift Managers have been integrated into the process to help ensure implementation of activities on schedule. Though the 12-

week schedule has improved work planning, too much emergent work is still occurring because the 12 week cycle has not yet been run through, and because of plant materiel condition, quality of job estimates, and rework.

Overall, the impact of actions taken to date has been only moderate. Some progress has been made in reducing key station backlogs, including corrective Nuclear Work Requests, Operator Workarounds, and Control Room Work Requests , but rates of work remain below desirable levels, and the proportion of work done on an emergent basis remains too high.

Materiel Condition

The materiel condition of the station has been a long-term concern and a barrier to strong operational performance. Materiel Condition has been a 1995 Focus Area. As described in our April 24, 1995 letter regarding improvement progress, significant materiel condition improvements have been completed in recent months, and lists of key upgrades to implement prior to July 1, 1995 and during the upcoming Unit 2 refueling outage were developed. These lists include those items most likely to potentially impact safety, cause scrams/derates, or create operating burdens. To date, we have completed the following non-outage items from those lists:

- The 120 control room work requests to be closed by June 1, 1995 have been completed. A goal of less than 40 open control room work requests (total for both units) has been set for the end of the Unit 2 refueling outage.

- Planned 2-year preventive maintenance of the Unit 2 emergency diesel generator and pressure testing of underground diesel generator cooling water lines were completed.

- Repairs were completed to eliminate steam leaks on the Unit 3 HPCI control valves and repair the gland seal leak-off drain pump pushbutton station. The Unit 3 HPCI room cooler repairs are scheduled for June 1995.

- Standby gas treatment charcoal tray modifications were completed on the "A" train. The "B" train modifications are scheduled for September 1995.

- Work to resolve several 3C Reactor Feed Pump problems were completed, including repair of: oil leaks, a minimum flow valve seat leak, a pump inboard seal flange water leak, and a discharge packing valve leak.

- Unit 2 and 3 reactor building damper adjustments were completed, but expected flow results were not achieved. Further action is under evaluation.

- A new flow control instrument was connected to the Unit 3 off-gas flow transmitter. This provides full range measurements of off-gas flow after the recombiner and at the local panel in the off-gas building, as well as control room indication.

- Three Unit 2 and Unit 3 drywell H_2O_2 lift check valves which had high failure rates were replaced with more appropriate swing-type check valves. The fourth is scheduled for replacement by June 15, 1995.

- Crack repair, valve repacking, and valve replacements were completed on the Unit 3 continuous lube oil filter system.

The other non-outage items on the list remain scheduled for completion by July 1, 1995, with the exception of changes to line up the Unit 3C shutdown cooling loop to the reactor vessel, which has been deferred until August 1995 to ensure availability of appropriately trained personnel. We remain committed to completion of the major upgrades scheduled for the Unit 2 refueling outage that were described in our April 24, 1994 letter.

The number of control room work requests open has been reduced from over 120 in March 1995 to less than 95 in May 1995; during the same period, the number of operator workarounds has been reduced from over 80 to less than 70. We recognize that these backlogs remain unacceptably high and that more aggressive action to reduce them is necessary. Goals for further substantial reductions to these backlogs during the upcoming Unit 2 refueling outage have been established. In addition, we are selecting the next set of most important materiel condition upgrades to implement following the Unit 2 outage.

Problem Identification, Trending, and Corrective Action

Sustained improvement cannot be achieved unless problem causes are thoroughly addressed. Problems experienced in January 1995 were compounded by weak management response. Site corrective action processes now require senior station management and Corrective Action Core Team member involvement in corrective action for significant problems. Recent examples of this involvement are reflected in the actions in response to the March 1995 half-core SCRAM testing and operator panel attentiveness (recorder on pause) events, and the April 1995 discovery of contaminated items outside of the Radiologically Posted Area (RPA).

The Corrective Action Program was selected as a 1995 Focus Area. Actions completed to improve problem identification, trending, and corrective action include:

- Increased use has been made of trend analysis of lower-level events. Specific trend analyses have been completed regarding: industrial safety; operations human performance; radiation protection; and instrument maintenance human performance. Despite these steps, our trend measurement and analysis require substantial improvement and are being upgraded.

- Senior station management participates in the daily Event Screening Committee meetings at which Problem Identification Forms (PIF) are reviewed, evaluated, and prioritized. This allows ongoing reinforcement of higher standards and expectations. In addition, senior station management approval is required in order to extend any corrective action due dates.

- 1994 Level II PIF corrective actions were evaluated for effectiveness during May 1995. As a result of the review, some actions were determined not to have been effectively implemented. Follow-up actions have been identified to address these problems.

Planned improvements include upgrades to Level 4 event trending methods, formalization of the processes for closing corrective actions and extending completion dates, and regular trending of plant equipment problems. Overall, the station response to recent events has been more aggressive and thorough. Problem identification and trending has improved somewhat, but are still not satisfactory.

Radiation Protection

Radiation Protection remains a major issue at Dresden and has been a 1995 Focus Area. Actions taken to improve plant radiation protection include:

- Application of increased resources to plant decontamination has led to decontamination of 50,000 square feet since August 1994. In 1995, plant general area overhead areas have been cleaned to help reduce contamination. The recent addition of a Materiel Condition Supervisor in the Radiation Protection Department along with the continued use of a dedicated decontamination crew will assist in maintenance of a clean plant.

- Largely as a result of plant decontamination and shielding efforts, non-outage personnel exposure has been reduced from an average of over 800 mrem per day in 1994 to less than 510 mrem per day to date in 1995. The Station ALARA Committee recently revised the 1995 exposure target from 650 mrem to 450 mrem per non-outage day.

- The 1994 average of 15 personnel contamination events per month is now 7 per month to date in 1995. The number of low-level personnel contamination events has also been reduced from 665 per month in 1994 to an average of 80 per month in the first four months of 1995. These reductions were due primarily to reduced contaminated plant area.

- Since locked high radiation areas were provided with individual keys and locks in February 1995, there have been no high radiation area control violations.

These are substantial accomplishments. However, we recognize that Dresden Station dose and contamination levels are still much higher than normally experienced in the industry. As we reach our goals, we will continue to make them more aggressive. Visits to sites which have achieved excellent radiation protection performance are planned for the fourth quarter of 1995. This will permit appropriate Operations, Maintenance, and Radiation Protection personnel to learn techniques for further reducing dose and source term. Peer evaluators from industry top performers will be utilized for quarterly reviews of performance trends and recommend improvements.

2. OPERATIONS

Operator Standards and Attention to Plant Parameters

Operator performance is a main focus of the Procedure Adherence actions described in Section 1 above. Further actions underway or planned, include:

- Beginning in the third quarter of 1995, industry peers from best-performing plants will critique operator performance and standards on a quarterly basis.

- Specific standards for panel attentiveness, conservative decision making, communications, annunciator response, operation of control room equipment and professionalism were developed and are being enhanced. Operators and shift supervisors are leading this effort.

- Simulator training practice sessions are being used to test and evaluate the internalization of improved standards by each operating crew. Sessions to date indicate that performance standards are still below expectations.

- Industry and INPO peers are being retained to review the Operations training program in the fourth quarter of 1995 and develop criteria to judge its effectiveness and performance against other successful industry training programs.

In sum, we have begun to make progress in Operation Standards and operator knowledge but adherence to standards still needs dramatic improvement.

Operational Control During Startups and Specific Evolutions

Detailed formal Startup Plans and Checklists were developed and utilized to achieve error free startups of Units 2 and 3 in the fall of 1994. These include a variety of hold points during the startup and power ascension. These formal plans have continued in use during more recent startups and each startup to date in 1995 has also been error-free. Similar plans and checklists are being developed for plant shutdowns.

3. MAINTENANCE

Work Management

In addition to the site-wide actions described in Section 1 actions taken to improve Maintenance work management include:

- In March 1995 the Consolidated Facilities Maintenance Group was established to perform non-power block work to limit diversion of resources of the core maintenance groups (Mechanical, Electrical, and Instrument Maintenance). The functions of this group are being expanded to rigging, scaffolding, carpentry, painting, cranes, and similar items.

- In February 1995 four Radiation Protection Technicians were assigned to work directly with the Maintenance Departments. This has resulted in some improved efficiency and radiation worker performance, but these technicians have not been consistently utilized.

- In February 1995 the "arranger" position was created in the Mechanical and Electrical Maintenance Departments. Prior to job execution the arranger reviews job plans for workability, stages parts, performs walkdowns to verify scaffolding and working conditions, and verifies Radiation Work Permit readiness.

- In January 1995 dedicated work crews were assigned to first line supervisors in Mechanical and Electrical Maintenance. This permits improved job continuity, quality of coaching, and consistent application of standards and expectations.

- In May 1995 the Construction Department was moved into the Maintenance organization. These resources are now available to help reduce maintenance backlogs.

Several of these actions are recent and long-term effectiveness remains to be demonstrated. To evaluate near-term effectiveness, an industry peer review of maintenance will be conducted during the week of June 12, 1995 utilizing personnel from the Limerick, Grand Gulf, and South Texas nuclear stations. Station management is monitoring the new work methods to ensure that they do not compromise quality.

Performance Level and Training of Maintenance Personnel

In addition to the site-wide actions discussed in Section 1 above, actions taken to improve Maintenance personnel performance, standards, and training include:

- In October 1994, work was suspended while maintenance standards were developed by first line supervisors and workers along with input from site senior management. Maintenance workers are now accountable to these standards, which emphasize a questioning attitude and stopping the job to resolve any uncertainty. Senior management met with each crew and supervisor to ensure understanding and agreement before work was allowed to resume.

- Pre-job briefings are now required for all non-minor maintenance jobs, regardless of scope or complexity, in order to ensure worker understanding of work steps and applicable requirements.

- Beginning in January 1995, benchmark testing of maintenance and other personnel was conducted which revealed knowledge deficiencies in significant numbers of personnel. With the exception of a few individuals, specific training to remedy these deficiencies will be completed by July 1995. Pending remedial training, only those personnel who tested satisfactorily may perform work in areas of test failure.

- Since January 1995, overviews have been performed by upper and middle maintenance management each week to reinforce the standards and measure progress in changing

workforce behaviors. Each Maintenance Superintendent and Department Head performs at least one maintenance overview per week using a standard check sheet to document observations. The results of these observations and any noted trends are communicated within the maintenance departments.

- A maintenance self-assessment was performed by Site Quality Verification in March 1995. Results indicated improved maintenance worker standards, but continuing weaknesses were also noted and are being acted upon.

Long-term maintenance personnel performance improvement remains to be demonstrated. As noted above, a broad-scope maintenance assessment by industry peers is planned for the week of June 12, 1995.

Foreign Material Exclusion

In the fall of 1994, a Foreign Material Exclusion (FME) Team revised FME procedures, developed enhanced training, and enforced FME standards and expectations to site personnel. Training utilized mockups and a video of FME practices. Training labs are now equipped with proper FME devices. The upcoming Unit 2 outage and an upcoming planned audit will test the effectiveness of these measures.

Minimizing Risk From Out-Of Service Activities

To support safe maintenance work, operations personnel have been provided interim guidance on how to minimize risk from on-line maintenance work activities. A formal process to minimize risk from out-of-service activities was implemented in May 1995. An expanded computer-based tool to evaluate equipment out-of-service risks will be implemented in August 1995.

4. ENGINEERING

System Engineering Program

Actions taken to improve the System Engineering Program include:

- In the fall of 1994, training was provided to system engineers which emphasizes expectations for system engineers/managers and methods for better performance monitoring of systems and equipment. Training on these topics has continued in 1995. In the first quarter of 1995, 15 experienced engineers were assigned to serve as mentors to less experienced system engineers.

- System Engineering personnel were moved into the Site Engineering organization, and personnel assignments were adjusted to better match staff skills to their functions.

- In the last few months, twelve experienced engineers have been hired from outside Com Ed to help upgrade standards and improve on system ownership.

- System Engineering now takes the lead in assuring that items on the twelve week rolling schedule are prioritized based upon potential safety/operational impact. This is done in close consultation with Operations.

Although much clearly remains to be done, observations by Operations, Maintenance, and Work Control personnel indicate that system engineer performance is improving. Com Ed corporate Engineering is scheduled to assess Dresden System Engineering during the summer of 1995.

Engineering Procedures

To improve the quality of Engineering procedures and eliminate outdated procedures, Corporate Engineering is in the process of issuing a set of Nuclear Engineering Procedures (NEPs) for use at all six stations, which are expected to be in use prior to October 1995. Revisions to Dresden procedures to accommodate the new NEPs are scheduled to be completed by October 1995. A joint team of corporate and Dresden engineers is reviewing the new NEPs and associated Dresden procedures to eliminate redundancies, clarify steps in the administrative process, and identify departmental responsibilities. To date, procedure revisions and training modification and exempt change process have been completed, and an interim change to the 50.59 evaluation procedure has been implemented. These completed changes address the bulk of the procedure weaknesses noted during the SALP 13 period.

Quality and Effective Long Term Resolution of Technical Issues

These issues are being addressed via the above-noted Engineering reorganization, procedure upgrades, training, and new hires. Some indications of improvement can be seen in the performance of the condensate and feedwater pumps, Control Rod Drive components, Unit 3 main feedwater and feedwater heater level control (each of which has been subject to recent engineered actions to improve performance), and overall Unit 3 performance following upgrades during the last refueling outage. Reduced numbers of operator workarounds and control room work requests also suggest improvement. However, these are broad, long-term issues and there is not yet sufficient evidence that previous weaknesses have been overcome.

5. PLANT SUPPORT

Control of Radioactive Material

After the discovery of contaminated material outside the plant RPA, a site lockdown and survey for contaminated materials was performed, resulting in the recovery and control of many low-level contaminated items. This survey included extensive participation of non-Dresden radiation protection technicians and Site Quality Verification oversight. New controls established to prevent future movement of contaminated materials outside the RPAs, include sealing or locking unmonitored RPA exits, and periodic checks of sealed doors by Security. A follow-up site survey using the similar methods will be performed in 1996.

Source Term Reduction

Source term reduction activities scheduled for completion during the upcoming unit 2 refueling outage include:

- Installation of a depleted zinc injection system along with conversion to "iron-eating" resin to reduce levels of iron in the feedwater system.

- Replacement of 13 control rod blades, 9 valves and feedwater regulating valve trim with low/no stellite components.

- Increased use of temporary shielding (greater than 200 applications)

- Installation of additional permanent shielding (the first US EPRI application to install permanent shielding on portions of the reactor recirculation piping).

Radiation Worker Practices

Radiation worker practices continue to require significant improvement. Advanced Radiation Worker training courses are being provided to appropriate Com Ed and contractor personnel. Contract craft personnel are being required to take a one- day course prior to the upcoming Unit 2 outage. A course for radiation worker supervisors is also being implemented.