

Fundamentals Improvement Plan



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INTRODUCTION

The purpose of the Fundamentals Improvement Plan is to identify those specific actions and monitoring metrics that are needed to improve plant performance in several of the cross cutting issues that support the cornerstones described in the NRC Regulatory Oversight Program (ROP). These actions are a sub-set of the overall Entergy 2002 business plan and are focused primarily on the ROP cornerstones in order to provide a consistent, common frame of reference between Entergy and the NRC on cornerstone improvement initiatives. The actions planned are based on the results of several significant internal and external evaluations of station performance, which include the self assessment performed by Entergy in November, 2001 and NRC inspection number 2001-02 performed pursuant to inspection procedure 95003. The plan is designed to improve five key areas: human performance, maintenance of the licensing and design bases, equipment performance, problem identification and resolution, and licensed operator performance. The plan also includes performance indicators that will be used to evaluate the effectiveness of the actions. It should be noted that the indicators emphasize the results achieved. Since it is the effective results of the actions that are significant rather than mere completion of the actions themselves, the action plan will be revised as needed to achieve the desired results. The table shows the quarter the individual actions are scheduled to be completed.



KEY RESULTS AREA—I HUMAN PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
1.0 Improvement Actions					
.1. Establish a site Human Performance Coordinator	C				Complete
.2. Upgrade the Human Performance Program	X				
.3. Establish the site Human Performance Team (assign departmental HP coordinators)	C				Complete
.4. Train site personnel in Human Performance Fundamentals				X	
.5. Develop departmental event free clocks		X			
.6. Design and develop a human performance laboratory			X		
.7. Train managers and supervisors in observation, coaching, and intervention skills			X		



KEY RESULTS AREA—I HUMAN PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
2.0 Senior management strengthen accountability by:					
.1. Conducting a seminar with managers to establish expectations and examples of peer checking and holding each other accountable		X			
.2. Conducting 2Cs meetings (compliments and concerns) with representative groups of station employees				X	
3.0 Establish the concept of individual accountability in Maintenance as a cornerstone of acceptable performance by:					
.1. Republishing and discussing with department managers, supervisors, and workers the Maintenance Department standards and expectations	X				
.2. Implementing employee development assignments	X				



KEY RESULTS AREA—I HUMAN PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
4.0 Improve effectiveness of management observation of work activities by:					
.1. Maintenance will implement actions to reduce the administrative burden on managers and supervisors	X				
.2. Training managers and supervisors to improve effectiveness of observations for enhancing worker performance	X				
.3. Enforcing the requirement that prejob briefings include specific work performance enhancing elements	X				
.4. Maintenance will conduct self-assessment of prejob briefings	X				
5.0 Improve the Industrial Safety Program					
.1. Develop and publish clear Industrial Safety Expectations for employees and supervisors.	X				
.2. Establish a safety orientation program for new Entergy and Contract staff.		X			



KEY RESULTS AREA—I HUMAN PERFORMANCE

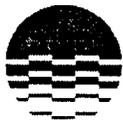
Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.3. Develop Industrial Safety Program Manual for Indian Point 2 Energy Center.	X				
.4. Develop a Job Hazard Assessment/Hazard Control process	X				
.5. Align management observation program with general industrial safety issues to increase focus on safety issues when performing plant observations.	X				
.6. Develop additional safety program performance indicators.	X				



KEY RESULTS AREA—II DESIGN CONTROL/LICENSING BASIS

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
1.0 To complete the Design Basis Improvement/Reconstitution Projects:					
.1. Issue the IP2 Design Basis Initiatives (DBI) Project Plan (refer to plan on IP2 U-drive)	C				Complete
.2. Complete portions of the Engineering DB/LB Multi-Year Improvement Projects as indicated in 2001 Engineering Business Plan (refer to 2001 Engineering Business Plan on IP2 U-drive)	C				See 2001 project list ¹ Complete
.3. Issue monthly progress report which quantifies progress on each element of the IP2 DBI Project	X				10 th working day of each month, commencing February
.4. Assess methodology and implement plan for ongoing training for IP2 personnel on DB/LB information electronic databases use	X				

¹ The percentage completion of each separate project may be found in the IP2 Engineering Department 2001 Business Plan Performance Indicator Report. At the end of November, all projects were expected to be greater than 95% complete (against the portion of the project that was to have been completed in 2001) and in some cases well over 100% (greater progress than planned).



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KEY RESULTS AREA—II DESIGN CONTROL/LICENSING BASIS

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.5. Determine the future of the various electronic design basis databases such as the Component Function Database that were created during the 50.54f project. This assessment will take into account Entergy Nuclear Northeast fleet-wide initiatives in design information electronic databases. Issue a report to the Director of Engineering with recommended future course of action.	X				
.6. Develop Effectiveness Review strategy and issue in a formal Document for IP2 Design Basis Initiatives Project			X		
.7. Perform Effectiveness Review of IP2 Design Basis Initiatives Project				X	

KEY RESULTS AREA—II DESIGN CONTROL/LICENSING BASIS

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
2.0 Transfer ownership of temporary facility change to engineering and improve the process/procedure:					
.1. Obtain approval and implement SAO- 120 Change Management Plan to transfer ownership	C				Complete
.2. Develop a workdown curve and a table which includes information on TFC description, owner, etc. ²	C				Complete
.3. Revise and implement SAO-206 improvements related to TFCs	X				
.4. Prepare a tailgate discussion to be presented to plant management to highlight awareness of the deleterious effect of a high number of TFCs on operations.	X				
.5. Perform an effectiveness review to ensure the revised procedure SAO-206 is effective, the plant operators are not overly burdened by outstanding temporary facility changes, and the workdown curve is on schedule			X		

² Baseline table and workdown curve are attached and will be updated in weekly meetings led by TFC Project Manager .



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
1.0 Improve work management					
.1. Establish corrective maintenance backlog reduction goal of less than 200 items to be achieved by end of 2R15 outage	C				Complete
.2. Fill work control section manager position with an experienced Operations Shift Manager	C				Complete
.3. Establish standards for the maximum number of control room activities to be scheduled in parallel to reduce work activity delays associated with control room access.	C				Complete
.4. Establish staggered control room briefing times to reduce delays	C				Complete
.5. Establish 21-day clock for resolution of control room deficiencies	C				Complete
.6. Establish 7-day clock for locked in control room alarms.	C				Complete

KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.7. Assign experienced Operations Shift Manager to the FIN Team.	C				Complete
.8. Implement Rapid Response Team led by Work Week Manager to improve off-hours support	C				Complete
.9. Establish work-down curves for preventative maintenance items currently in grace or overdue		X			
.10. Support MAXIMO project implementation to address current limitations with current work management system		X			
.11. Conduct work management self-assessment to evaluate corrective action effectiveness			X		
2.0 Improve work preparation by:					
.1. Reinforce work group work package walk down standards and expectations for support of 12-week process.	X				



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.2. Adjust focus/resources as needed to resolve leading causes of inadequate work preparation that result in attrition of 12-week schedule activities between T12 and T6.	X				
.3. Establish standards and expectations for surveillance test walk downs consistent with standards established for work package walk downs for surveillances with testing intervals of quarterly or greater.	X				
.4. Implement corrective actions to resolve timely issuance of surveillance tests to support upgraded surveillance test walk down requirements.	X				
.5. Establish 12-week process milestones for planners to identify engineering support needs, (e.g. T-11), to support engineering resolution by T6.	X				



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.6. Establish 12-week process milestone for planners to identify material support needs, (e.g. T-11) to support material resolution by T-6.	X				
.7. Reinforce requirement for production groups to provide realistic activity duration estimates and resource availability input at T-12 to support development of accurate and credible schedules.	X				
.8. Assess effectiveness of corrective actions by monitoring the 12-week work process performance indicators that measure work preparation effectiveness and backlog reduction.	X	X	X	X	Ongoing



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
3.0 Improve timeliness of preventive maintenance performance					
.1. Establish mini-team to resolve frequently performed preventive maintenance tasks (6 month or less frequency) material issues.	C				Complete
.2. Develop and provide MP&C a comprehensive material list for frequently performed preventive maintenance items.	C				Complete
.3. Complete conversion of preventive maintenance database to MAXIMO by 3/31/02. In support of this objective start conversion of PMs into Maximo in January. Implementation of MAXIMO will provide for auto generation of preventive maintenance repetitive tasks.	X				
4.0 To improve the reliability and performance of equipment by strengthening the Predictive Maintenance program:					

KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.1. Establish and populate a plant equipment database that stores and trends predictive maintenance data and is available to all station personnel.	C				Complete
.2. Expand the scope of the current program to include more equipment and to incorporate other predictive technologies.	X				
.3. Develop procedures for predictive maintenance activities.	C				Complete
.4. Upgrade software for vibration data and thermographic image analysis.	C				Complete
.5. Establish an in-house oil analysis program.	X				
.6. Provide training for predictive maintenance technologies.	X				
5.0 Optimize the Preventive Maintenance Program by:					



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.1. Performing a systematic review of PM tasks using EPRI-NMAC templates, equipment history, predictive maintenance data, operating experience, etc., and revising PM tasks for 15 systems	X				
.2. Continuing systematic review and revising PM tasks for additional systems IAW the Design Basis Project Plan				X	
.3. Establishing a systematic review of corrective maintenance for potential changes in the PM tasks and frequencies	X				
.4. Establish and implement a plan to widely communicate the purpose and goals of a living PM program to station personnel.	C				Complete
.5. Establish a database for the creation and storage of preventive maintenance tasks and technical bases	C				Complete



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.6. Reinforce and monitor the expectations for maintenance workers to document the <i>as-found</i> equipment condition and the specific work performed during preventive and corrective maintenance, and develop a method to routinely distribute this information to engineering for the evaluation of PM adequacy.	X				
.7. Establish a systematic review of corrective maintenance for potential changes in the PM task and frequencies.	X				
.8. Perform a systematic review of PM tasks utilizing EPRI-NMAC templates, equipment history, predictive maintenance, OE, etc. Populate PM database with revised/reviewed PM tasks for additional systems. (refer to Design Basis Initiatives Project Plan)				X	
.9. Perform an Effectiveness Review of actions taken to Optimize the Preventive Maintenance Program				X	



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
6.0 Ensure action plans encompass significant historical equipment so that issues related to tactical and strategic equipment are improved by:					
.1. Reviewing historical shutdown and unplanned power reductions to ensure action plans address significant equipment issues	X				
.2. Developing system health rollup to ensure cross-cutting equipment issues are identified and addressed	X				
7.0 Reduce the amount of rework by:					
.1. Designating a Maintenance Department rework program administrator to instill ownership and continuity	C				Complete
.2. Developing a rework program improvement plan	X				
.3. Using the condition reporting process to identify rework and trends, and needed actions	X	X	X	X	On-going

KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.4. Implementing a mechanism for communicating rework performance to craft personnel on a regular basis	X				
8.0 Improve effectiveness of M&TE Program by:					
.1. Assigning a station M&TE Program administrator	C				Complete
.2. Developing a plan for consolidating all M&TE on site into one program	X				
9.0 Improve I&C preventive maintenance by:					
.1. Completing the I&C PM Project, including development of I&C PM task sheets, per the established schedule and procedure upgrades for eight (8) systems				X	Multi-year effort

KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.2. Eliminating the backlog of overdue I&C PMs by augmenting I&C resources, realigning field crews, implementing a workoff curve, and reviewing the I&C PM backlog in the weekly "pick" meetings for inclusion in upcoming work cycles		X			
.3. Revising associated procedures to clarify responsibilities and expectations, and training affected personnel on these changes		X			
10.0 Develop/Implement System & Component Long-Range Strategic Plan					
.1. Develop IP2 SSC Long-Range Strategic Planning Standard	X				
.2. Develop proactive obsolescence program geared towards a prioritized and focused replacement strategy		X			
.3. Produce Long-Range Strategic Plan for each Level I System				X	



KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
11.0 To develop focused ownership for predictive maintenance, preventive maintenance and equipment reliability:					
.1. Establish Equipment Reliability Group	C				Complete
.2. Establish Engineering portion of new Equipment Reliability Group to support Equipment Reliability initiatives: Unit Performance Valve Programs PDM/PM Programs	C				Complete
.3. Establish Technician portion of new Equipment Reliability Group to be comprised of: Supervisor of Technicians Technicians (transferred from former Test & Performance Section)	C				Complete
.4. Develop and perform effectiveness review of Equipment Reliability and the actions of this Action Plan .	X				

KEY RESULTS AREA—III EQUIPMENT PERFORMANCE/WORK MANAGEMENT

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
12.0 Provide Station Management with tools to effectively reinforce high standards for excellence in material condition:					
.1. Develop and implement top technical issue list to focus station resources on resolving equipment issues.	C				Complete
.2. Develop and implement equipment status reports to communicate equipment trends and status.	C				Complete
.3. Develop Maintenance Rule SSC's status report and indicators.	C				Complete
.4. Establish indicator that monitors unplanned entries in LCO conditions.	C				Complete
.5. Establish station observation program to ensure managers and supervisors are observing field activities.	C				Complete
.6. Evaluate utilizing equipment failure analysis techniques and implement as appropriate		X			

KEY RESULTS AREA—IV PROBLEM IDENTIFICATION AND RESOLUTION

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
1.0 Improve overall effectiveness of condition reports for resolving problems by:					
.1. Performing effectiveness reviews of all SL-2 CRs and selected SL-3 CRs after completion of actions	X				
.2. Identifying and prioritizing backlogged actions for more timely accomplishment in individual action plans	X				
.3. Requiring general manager or vice president approval for extensions to SL-2 CR due dates	C				Complete
.4. Reviewing timeliness of CR closeout weekly with the management team	X	X	X	X	Ongoing (began in Nov 2001)
2.0 Establish an integrated and detailed set of performance indicators for the station and each department, to be reviewed monthly with management team					
.1. Develop and implement PI's for each department	X				

KEY RESULTS AREA—IV PROBLEM IDENTIFICATION AND RESOLUTION

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
3.0 Improve independent oversight effectiveness in identifying key weaknesses in station performance by:					
.1. Improving the experience level of assessors through benchmarking				X	
.2. Providing training for assessors that will reinforce management's expectations for in-depth, performance-based assessments, that includes review lessons learned from recent NQA misses; and that will improve their basic assessment skills			X		
.3. Addressing assessor resource issues, including staffing and performance of line responsibilities	X				
.4. Using additional measures to implement an accountability plan for meeting assessment standards as well as increasing the effectiveness of assessor feedback on timely and accurate problem identification		X			
.5. Establishing a line rotation plan to QA			X		



KEY RESULTS AREA—IV PROBLEM IDENTIFICATION AND RESOLUTION

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.6. Conducting follow-up performance-based assessments for 12 issues identified by NQA in the past	X				
.7. Developing a performance indicator to track NQA's ability to identify and communicate problems to senior management		X			

KEY RESULTS AREA— V LICENSED OPERATOR PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
1.0 Operator Performance in Requalification Examinations					
.1. Increase management observations of training	X				
.2. Develop staffing/rotation plan inject additional operations expertise into training organization	X				
.3. Require review of examination materials by qualified/formerly qualified operators	X				
.4. Increase operations manager interaction with training organization to ensure reinforcement of standards in training	X				
2.0 Improve the overall quality of operations training using the Training Improvement Plan					
.1. Conduct "high intensity" training to upgrade knowledge and performance of licensed operators		X			
.2. Increase the number of operations instructors to 4 who have IP2 or similar operating experience	X				



KEY RESULTS AREA— V LICENSED OPERATOR PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.3. Develop an operations training staffing plan to ensure that sufficient expertise is maintained		X			
3.0 Establish training and testing practices that will continue to drive improvement in the level of knowledge and skill of the operators					
.1. Pilot and implement the use of closed reference questions in licensed operator continuing training				X	
.2. Implement Entergy Nuclear Northeast standardized training processes			X		
.3. Revise the annual operating examination process			X		
.4. Incorporate the use of oral boards into initial operator training				X	
4.0 Reactivity Management					



KEY RESULTS AREA— V LICENSED OPERATOR PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.1. Conduct corporate assessment of reactivity management at Entergy Nuclear Northeast stations	C				Complete
.2. Strengthen controls for reactivity management		X			
.3. Conducting prebriefings on all planned reactivity changes	X	X	X	X	On-going
.4. Provide additional reactivity management training for all operators		X			
.5. Training on responsibilities regarding reactivity issue identification		X			
5.0 Shift Manager and Supervisor Leadership					
.1. Assign mentors to Shift Managers	X				
.2. Specifically selected managers conduct in-field, control room, and simulator observations	X				
6.0 Plant Status Control (valve positioning and tagging)					



KEY RESULTS AREA— V LICENSED OPERATOR PERFORMANCE

Strategies	2002 Targets				Comments
	Q1	Q2	Q3	Q4	
.1. Perform additional independent verifications	X				
.2. Conduct focused observations of field activities for error-reduction techniques	X				
.3. Upgrade operations valve checkoff lists to include full power valve alignments				X	
7.0 Plant Labeling					
.1. Develop and implement a combined Unit 1/ Unit 2 plant labeling program				X	
.2. Align operations procedures to single database of valve names/numbers			X		