Indian Point 2

Maintenance Department

2001 Business Plan

Plan Manager: Thomas Poirier

Submitted: _____ Date: 1/4/01

Sr. Management Sponsor: Robert E. Masse

Approved: _____ Date: 1/4/01

MAINTENANCE
2001 Business Plan Summary

***OVERVIEW*:**

The Indian Point Maintenance Organization has entered a "New Era of Excellence" where WE recognize and embrace change in our pursuit of continuous performance improvement. Achieving excellence is a key component for life extension.

The primary role of the Maintenance organization is to ensure that installed plant equipment operates when needed and that equipment malfunctions or deficiencies are corrected in a timely manner and rarely occur. In order to perform our role, we must take full ownership of all Maintenance activities. Our primary customer, Operations, must have "one-stop shopping" when requesting assistance of Maintenance to solve a problem. It is our responsibility to drive the problem to closure and employ support needed from other work groups. Achieving excellence in Maintenance is a journey that can only be traveled with teamwork, integrity, professionalism, and a dedicated commitment to owning and maintaining high standards of performance.

As nuclear professionals, each of us within the Maintenance organization is fully accountable for implementation of safe and proper work practices. We recognize that **less than full accountability is not an option!**

For over 25 years the Maintenance Organization, with vital support from many work groups, has been counted on to ensure that installed plant equipment operates when called upon per design. WE are, however, much more than just a Maintenance organization…**WE ARE CONFIDENCE BUILDERS.** It is that confidence, gained by the nuclear plant operator, knowing that station equipment will respond every time when called upon. As nuclear professionals, we hold in highest esteem that we have been entrusted to protect the health and safety of the public.

As we focus towards the future and our relentless quest for excellence, we truly have become the Maintenance organization of choice. WE are the proud men and women who have chosen to "Step Up To Maintenance".

***GOALS*:**

- Have the highest regard for nuclear, personnel, and radiological safety.
- Be of high character traits - respect, integrity and trust are exemplified in our everyday interactions with others.
- Conduct our work to the highest professional standards - personal and professional pride in every job.
- Value teamwork – working hard to make others successful.
- Be a "learning" organization – building on our skills and knowledge for continuous performance improvement.
- Value our diversities – understand and draw upon our differences to make Indian Point a great place to work.
- Honor our commitments – say what we are going to do, then do it!
- Be responsive to plant needs – an appropriate sense of urgency when required.
- Be business minded – that we deliver exceptional value for every dollar invested in us.
- Be caring friends and neighbors of the community.

***EXPECTED RESULTS*:**

- Zero lost time injuries.
- Reduce non-outage work order backlog to: CM<200, OTR<200, MM<500.
- Raise job completion rates (T-0) on the schedule to >95%.
- Resource load schedule to 85% of manpower availability combined with a craft utilization/productivity rate (job/worker/week) of >3.5.
- Eliminate surveillance tests and PM's in grace.
- Maintain CCRDI's and Operator Workarounds to <10.
- Maintain all departmental corrective action metrics in green status.
- Complete all scheduled Maintenance Rule A.1 SSC corrective actions.
- Fully accredited training programs by the National Nuclear Accrediting Board.

MAINTENANCE
2001 Project Request

Title: Preventive Maintenance Optimization

Description: To optimize the preventive maintenance program by:

- Developing templates for PM tasks based on EPRI guidance
- Establishing a database for preventive maintenance
- Reviewing PM's on a component/system basis and developing PM tasks sheets/technical basis

Justification: To improve the reliability and availability of plant equipment and systems by improving the effectiveness of the preventive maintenance program.

Environmental, Health, & Safety Impact:

Action Plan Reference: INPO AP-913, equipment reliability self assessment.

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
Maintenance and Instrument & Control	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
BACKLOG REDUCTION PLAN
ACCELERATED IMPROVEMENT PLAN

Title: Backlog Reduction

Description: Develop and Implement a detailed Backlog Reduction Strategy

Justification: To improve equipment performance and reliability. The on-line backlog of work orders is not a manageable number as it presently stands. In order to support the operation of the plant it is necessary for the station to do the following in relation to backlog reduction:

- Redefine work by "scrubbing" work orders presently in the system and recategorizing.
- Utilize the Minor Maintenance, Tool Pouch and FIN procedural requirement
- After reducing the number of work orders in the backlog, maintain the proper number

Environmental, Health, & Safety Impact:

Action Plan Reference:

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
Maintenance	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
ACCELERATED IMPROVEMENT PLAN

Title: System Upgrade

Description: Remove and preclude Rad Monitors from A-1 Maintenance Rule status and to replace obsolete instrumentation to reduce and eliminate backlog scope as identified in NRC and Assessment Reports.

Justification: Labor and parts will be required to ensure ability of the system to perform its duty in a reliable manner and address Maintenance Rule concerns for system reliability.

Environmental, Health, & Safety Impact:

Action Plan Reference:

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
Maintenance	Hum Res O&M Capital XM						
Engineering	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
2001 Project Request

Title: Gas Turbine 1 Major Overhaul

Description: Major overhaul of gas turbine #1 includes a complete disassembly, compressor blade replacement and complete reassembly.

Justification: Presently gas turbine 1 has visual indications of cracked compressor blades. Gas turbine 1 is our principle mitigation strategy in the station blackout scenario. This overhaul has been deferred the past two years and has received GL 91-18 evaluations.

Environmental, Health, & Safety Impact: Failure to repair may result in an inability to provide support to the unit if required or to support the system.

Action Plan Reference:

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
MAINTENANCE	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
2001 Project Request

Title: M&TE Program

Description: Establish a consolidated M&TE program under a new M&TE supervisor. All the M&TE related activities and personnel currently under the Tool Room, I&C and T&P to be transferred to the new M&TE Supervisor.

Justification: The calibration, control and issue of Measuring and Test Equipment is presently implemented by separate groups that regularly use M&TE in the course of work activities. Assessments/audits have revealed a need to address calibration records requirements, records retention for training/qualification, requisition requirements for vendor services and equipment suppliers, document control requirements, maintenance of accuracy and uncertainty data on M&TE, etc. This program will facilitate the necessary areas of concern and be responsive to an overdue 1998 audit.

Environmental, Health, & Safety Impact:

Action Plan Reference:

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
MAINTENANCE	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
2001 Project Request - # 10

Title: Procedure Development, Consolidation And Enhancements

Description: Provide resources to develop, consolidate and enhance procedures within the Maintenance and I&C groups.

Justification: Personnel needed to support development of procedures for use by our field personnel for corrective and preventive maintenance activities as well as round out and consolidate our administrative procedures. Maintenance is projecting a procedure workload of approximately 260 procedures and I&C is projecting a workload of 325 procedures each of the identified years. It is projected that a contract manpower loading of seven persons will be required between the two groups to work down this workload. The projected cost is and respectively for the cost of the Maintenance and I&C work activities.

Environmental, Health, & Safety Impact:

Action Plan Reference:

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
MAINTENANCE	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
2001 Project Request - # 4

Title: Utility Tunnel Upgrade

Description: The Unit 1 Utility Tunnel is a structure that houses various mechanical and electrical components. It physically is located underground on the south side of the plant and runs from the main entrance down to the waterfront area. In the past, water intrusion measures were taken to identify retired and active mechanical and electrical systems. This was done in anticipation of the removal/replacement of structural supports. Additionally, a contractor was retained to perform grout injection in various areas of the tunnel to reduce the amount of water in leakage. Work that remains is to complete the grout injections for the entirety of the structure, to remove retired mechanical/electrical systems and to replace deteriorated supports.

Justification: Utility Tunnel SSC's are severely degraded. These systems have received GL 91-18 evaluations for deferral over the past two years. The utility tunnel houses Unit 2's fire protection water supply and the city water supply, this is our back up supply to the auxiliary feedwater system.

Environmental, Health, & Safety Impact: The utility tunnel contains the oil supply header to our house service boilers. This header is adjacent to the Hudson River.

Action Plan Reference:

FUNDING

Departments		Actual to Date	2001	2002	2003	2004	Total
MAINTENANCE	Hum Res O&M Capital XM						
DESIGN ENG.	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval: Tom Poirier	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE
2001 Project Request -

Title: Reactor Coolant Pump PM Optimization

Description: Perform PM Overhaul of Reactor Coolant Pump Spare Motor

Justification:
Reactor Coolant Pump spare motor will be overhauled to optimize its effectiveness. This is being performed in accordance with TS-SQ-12.311 preventive maintenance program evaluation and Westinghouse produce update M-001-1 dated Nov. 1991.

Environmental, Health, & Safety Impact:

Action Plan Reference:

FUNDING ($000)

Departments		Actual to Date	2001	2002	2003	2004	Total
Maintenance	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
	Hum Res O&M Capital XM						
PROJECT TOTAL	Hum Res O&M Capital XM						

Proposed By:	**Date:**
Dept. Manager Approval:	**Date:**
2001 Budget Approval By:	**Date:**

MAINTENANCE - 2001 ACTION PLAN

ISSUE: Key backlogs of work items remain relatively high, and are not being reduced at a rate to minimize challenges to the operators. These include: Control Room Deficiencies; Temporary Modification/Field Changes older than 6-months; Operator Work Arounds; Tech Spec surveillances in grace; and Preventive Maintenance work orders in grace.				
GOAL	**ACTIONS**	**OWNER**	**EXPECTED COMPLETION DATE**	**STATUS**
Reduce the Work Order backlog through the implementation of our backlog reduction strategy.	1. Establish standards and expectations for T-12 through T-1 weeks in order to raise job completion rates (T-0) on the schedule to >95%.	Parker/Woody/Santis	01/31/01	
	2. Utilize Performance Indicators developed in the 2000 Business Plan in strategizing the backlog reduction effort.	Parker/Woody/Santis	01/31/01	
	3. Utilize Station personnel (overtime) and additional contract personnel dedicated to WO backlog reduction (accelerated reduction strategy).	Parker/Woody/Santis	3/30/01	
	4. Resource load schedule to 85% of manpower availability combined with a Craft utilization/Productivity rate (Job/worker/week) of >3.5.	Parker/Woody/Santis	03/30/01	
	5. Implement the accelerated backlog reduction strategy and streamlined Work Control process to reduce and maintain WO backlog to: CM < 200, OTR < 800, MM < 500, CCRDIs <10.	Parker/Woody/Santis	12/31/01	

ISSUE: Maintenance needs to constantly strive at Improving the work control process. Improvements will result in an improved schedule (resource loading), industry alignment (INPO AP-928), and other new technologies that are relevant to our process.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Establish improved Work Management Processes	1. Participate in the development of a procedure within the Work Process Manual for resource loading the on-line schedule. This includes establishing the expectations from planners, maintenance coordinators and schedulers.	Parker/Woody/Santis	2/15/01	
	2. Implement a resource-loaded schedule.	Parker/Woody/Santis	3/30/01	
	3. Benchmark SAO-204 work management process versus the INPO AP-928	Parker/Woody/Santis	3/30/01	

ISSUE: Develop/Revise Training Materials				
GOAL	**ACTIONS**	**OWNER**	**EXPECTED COMPLETION DATE**	**STATUS**
Develop, revise, and maintain curriculum through the use of curriculum review committee feedback and subject matter experts that result in improved human performance.	1. Continue to supply subject matter experts to support development of training materials.	Woody/Parker	12/31/01	
	2. Complete analysis and design for the new tasks added to the mechanical program.	Parker	3/31/01	

ISSUE: Implement Scheduled Accredited Training

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Implement approved training materials on schedule.	1. Initiate training for General Utility Workers for Maintenance. 2. Initiate training for Mechanic "B" for Maintenance personnel. 3. Implement training for Phase I and Phase II for the Supervisor training program. 4. Initiate initial training for Instrument and Control Technicians. 5. Conduct specific continuing training for Supervisor Personnel. 6. Provide a minimum of 32 hours of continuing training for the following disciplines: • Instrument and Control • Maintenance 7. Conduct professional development training for management personnel.	Parker/Woody/Perry/Santis	12/31/01	

ISSUE: During the internal audit 89-08-F "M&TE and Operation Gauges" it was noted that the station is maintaining multiple M&TE systems. This has resulted in each group using or maintaining M&TE to maintain separate calibration and control systems. There are overlaps in the M&TE inventories, duplication of calibration standards, multiple computer systems to be maintained and multiple administrative directives to be maintained. There are inconsistencies in the methodologies established by the different groups with respect to record retention, M&TE issuance, M&TE control and Technician task qualification.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Formulate an effective plan to develop a Station wide M&TE Program with the Maintenance Department having the ownership of the new program.	1. Establish M&TE support personnel: M&TE Supervisor (new position) 1 – Lead M&TE Technician (new position) 2 - Technicians (existing from Tool Room) 2 - Technicians (existing from I&C) 1 - Technician (existing from T&P) Clerical help for record keeping & filing	Poirier	1/1/01	
	2. Identify, Inventory and Collect active M&TE items from: Tool Room I&C T&P Chemistry HP QA and Conduct documented physical inventory	Poirier	3/31/01	

	3. M&TE Supervisor with the help of the System Administrator verifies that the ATICTS upgrade is complete, ATICTS is tested for accepting the proposed M&TE, work order and personnel bar codes and that ATICTS performs as required by the M&TE Program.	System Administrator M&TE Supervisor	1/8/01	
	4. Collecting Vendor Technical Manuals (VTM) Associated with the active. M&TE items	M&TE Supervisor	5/1/01	
	5. a. Develop a new M&TE program procedure. b. Revise or delete the existing following procedures on M&TE: • SAO-217 Rev 8 • MAD-8 Rev 8 • IC-AD-5 Rev 8 • TP-SQ-11.019 Rev 3 c. Develop new guidance documents for: • Developing M&TE Specification Sheets M&TE Engineering Evaluation	 Perry Perry Perry	 1/1/01 1/1/01 1/1/01	
	6. Developing M&TE Specification Sheets	M&TE Supvr	7/1/01	
	7. Determine the readiness of ATICTS To accept new M&TE program Requirements**.**	Tool Room I&C, M&TE Supvr. Technicians Comptr. Applications.	1/1/01	

	8. Conduct Computer assisted M&TE control process Training including ATICTS Familiarization	System Administrator M&TE Supervisor	3/30/01	
	9. Develop M&TE calibration standards (limited)	M&TE Supervisor	6/1/01	
	10. Conduct a general training of plant personnel for the new M&TE program	M&TE Supervisor	3/1/01	
	11. Complete "On the Job Training"(OJT) Of M&TE Supervisor and associated Technicians	M&TE Supervisor	3/31/01	
	12. Establish M&TE Primary & Satellite facilities	M&TE Supervisor	3/30/01	
	13. Conduct a "mock conversion" Test and convert to the new M&TE Program	M&TE Supervisor	4/1/01	
	14. Perform Post Implementation assessment of M&TE Program Effectiveness. Correct for any deficiencies and improve the Program as necessary	M&TE Supervisor Associated Technicians	8/31/01	

ISSUE: There is a lack of feedback in the form of documented "as found" conditions of equipment which prevents the necessary review of the maintenance.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
To improve system and equipment reliability through the optimization of the station Preventative Maintenance Program.	Reinforce and monitor the expectations for maintenance workers to document the as-found equipment condition and the specific work performed during preventative and corrective maintenance, and develop a method to routinely distribute this information to engineering for evaluation of PM adequacy.	Poirier	5/1/01	

ISSUE: I&C PM's have not been routinely scheduled and performed. Although the PMs are defined by The PM data sheets, there are few procedures to ensure consistent performance or capture lessons learned to improve I&C equipment reliability.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Improve equipment reliability by formalizing the I&C program.	1) Identify and publish a list of existing I&C PMs to Work Control, Engineering and Operations. The list should show the PM scope, the applicable system and equipment ID numbers, safety or non –safety equipment, and the last date the PM was performed.	Woody	1/31/01	
	2) Establish a team and criteria to screen the list for PMs that are overdue (outside specified frequency). The team should include I&C personnel knowledgeable in the I&C PMs, system engineering personnel, and work control personnel.	Woody	2/29/01	
	3) Review list to prioritize and schedule overdue I&C PMs as appropriate.	Woody	3/15/01	
	4) Benchmark industry for existing procedures that could be easily converted	Woody	2/15/01	
	5) Develop procedures for pilot (5) systems – assign technicians to validate.	Perry	3/15/01	
	6) Perform a self-assessment to determine effectiveness of procedure development. Adjust plan to develop procedures and step instructions for the remaining task sheets.	Woody	4/15/01	
	7) Develop procedures to support performance of the I&C PMs	Woody/Perry	9/1/01	

ISSUE: Consistent feedback from maintenance personnel can be difficult for system engineers to obtain.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Improve equipment performance by revising the preventive maintenance for plant equipment.	Establish maintenance assignments such that maintenance personnel develop expertise on specific systems.	Poirier	3/1/01	

ISSUE: There is a lack of understanding on the issues in the Business Plan and the status of on-going activities associated with the Business Plan

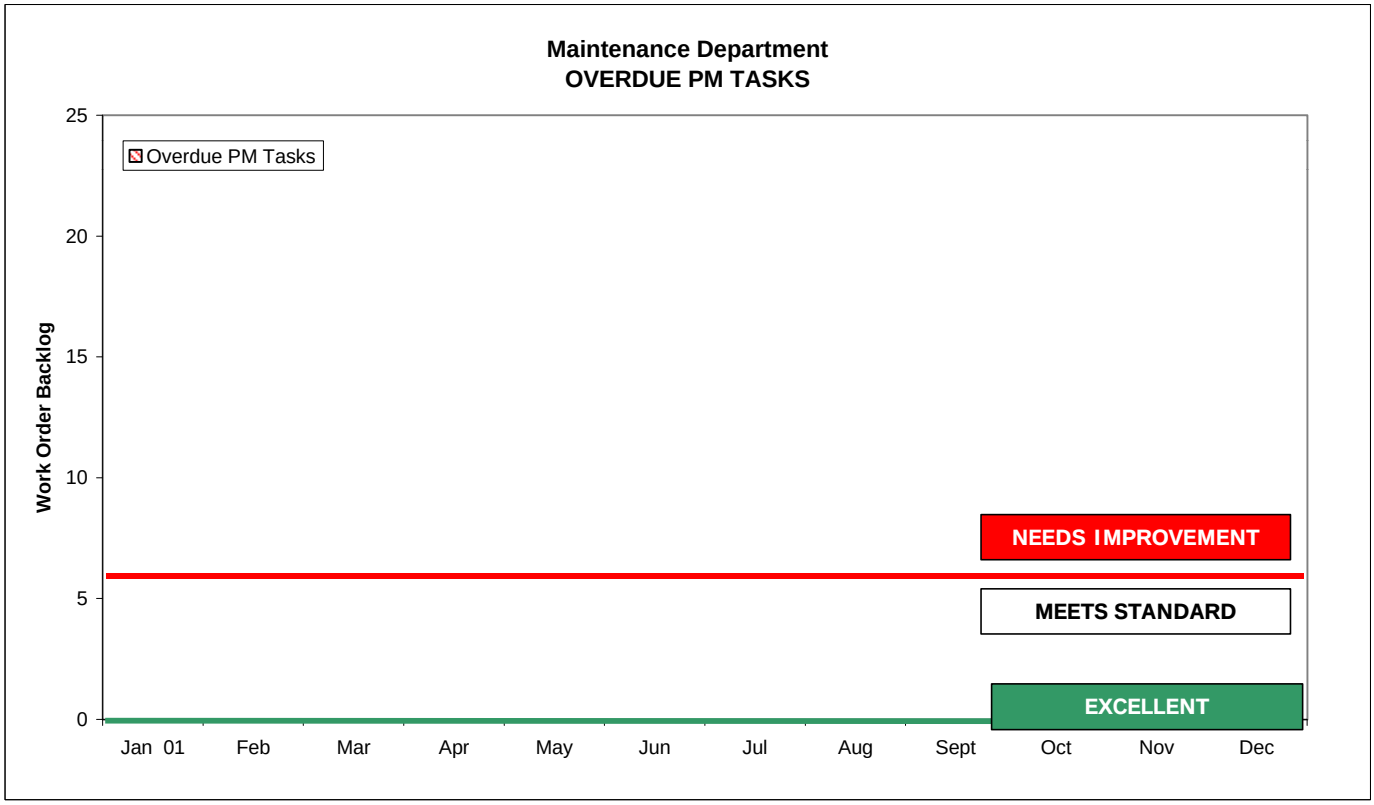
GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
An overall understanding of the status of the Business Plan.	Have monthly meetings with personnel to status the Business Plan.	Poirier	1/31/01	

ISSUE: Development and implementation of a training course in contract administration is needed for Nuclear Projects personnel and other personnel in the station.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Increase the working knowledge of personnel relative to the revised contract administration program/procedure.	In conjunction with Nuclear Training develop and implement a training program on contract administration.	Ballow	7/1/01	

ISSUE: Nuclear Projects procedures and administrative documents need to be upgraded to reflect compliance with station procedures that have undergone change.

GOAL	ACTIONS	OWNER	EXPECTED COMPLETION DATE	STATUS
Rewrite and update Nuclear Projects Quality Control Procedures and Administrative documents to be reflective of the ongoing change to station operating and control methodology.	Using contractor subject matter experts, rewrite Nuclear Projects Quality Control procedures and Administrative documents.	Geider	9/30/01	



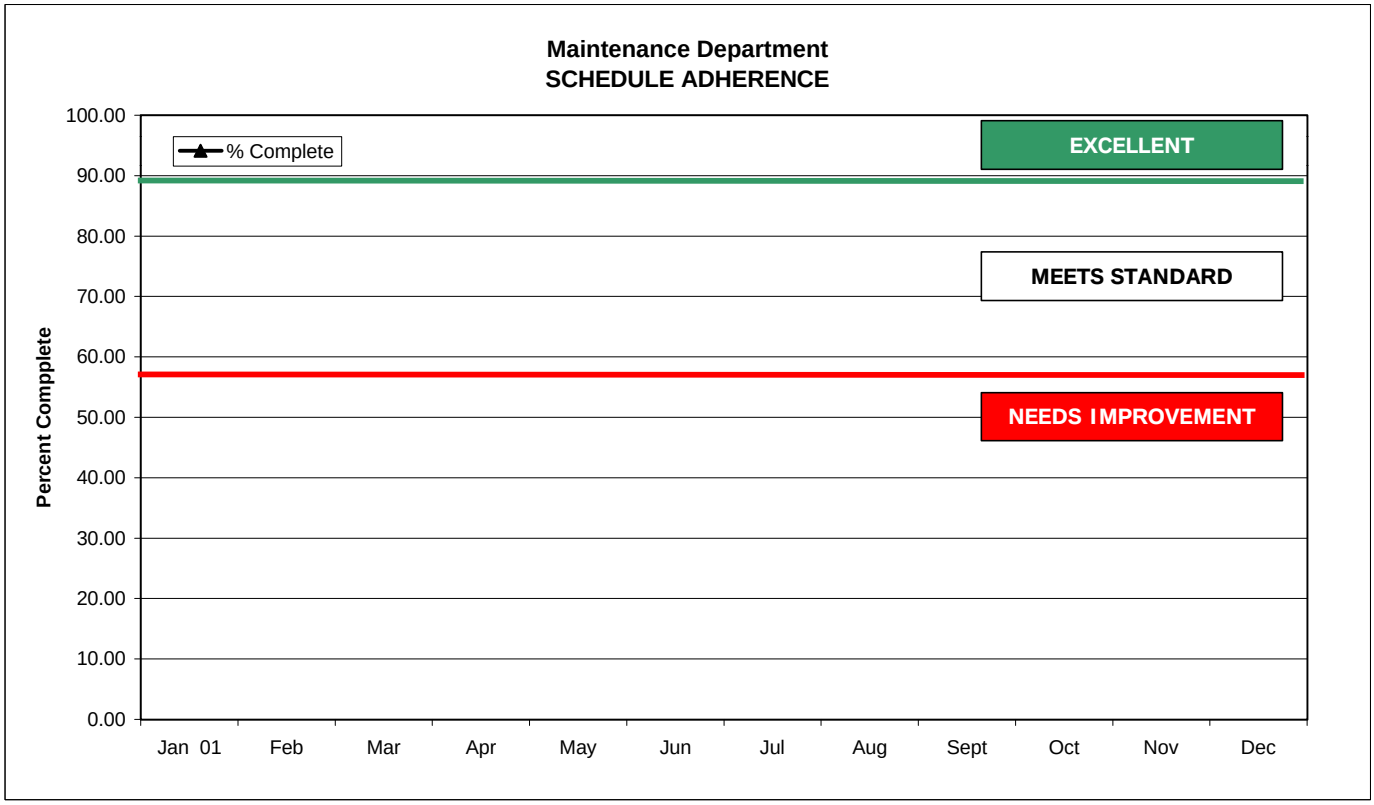
Month	Jan 01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Overdue PM Tasks												

INDICATOR DESCRIPTION

Put description here.

ANALYSIS

Put Analysis here.



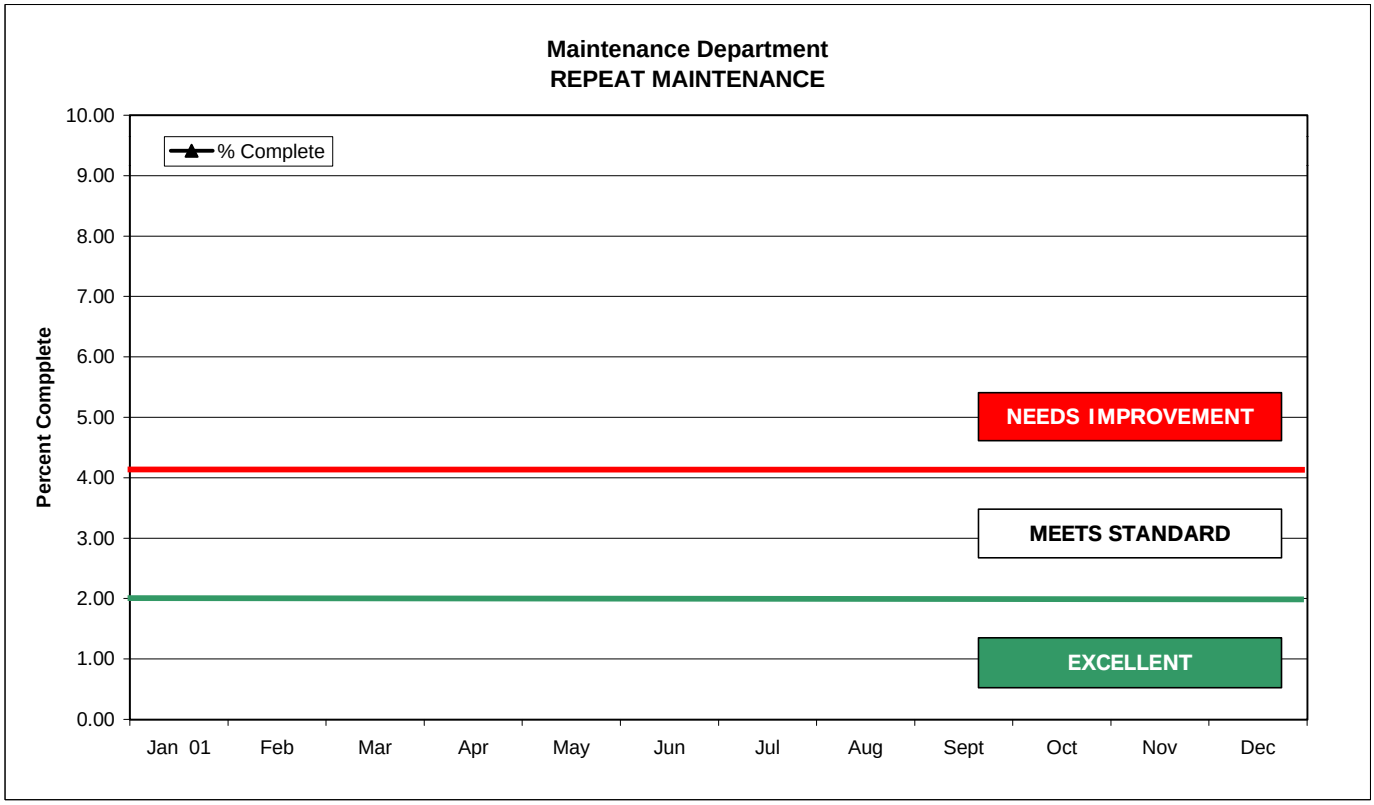
Month	Jan 01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
% Complete												

INDICATOR DESCRIPTION

Put description here.

ANALYSIS

Put Analysis here.



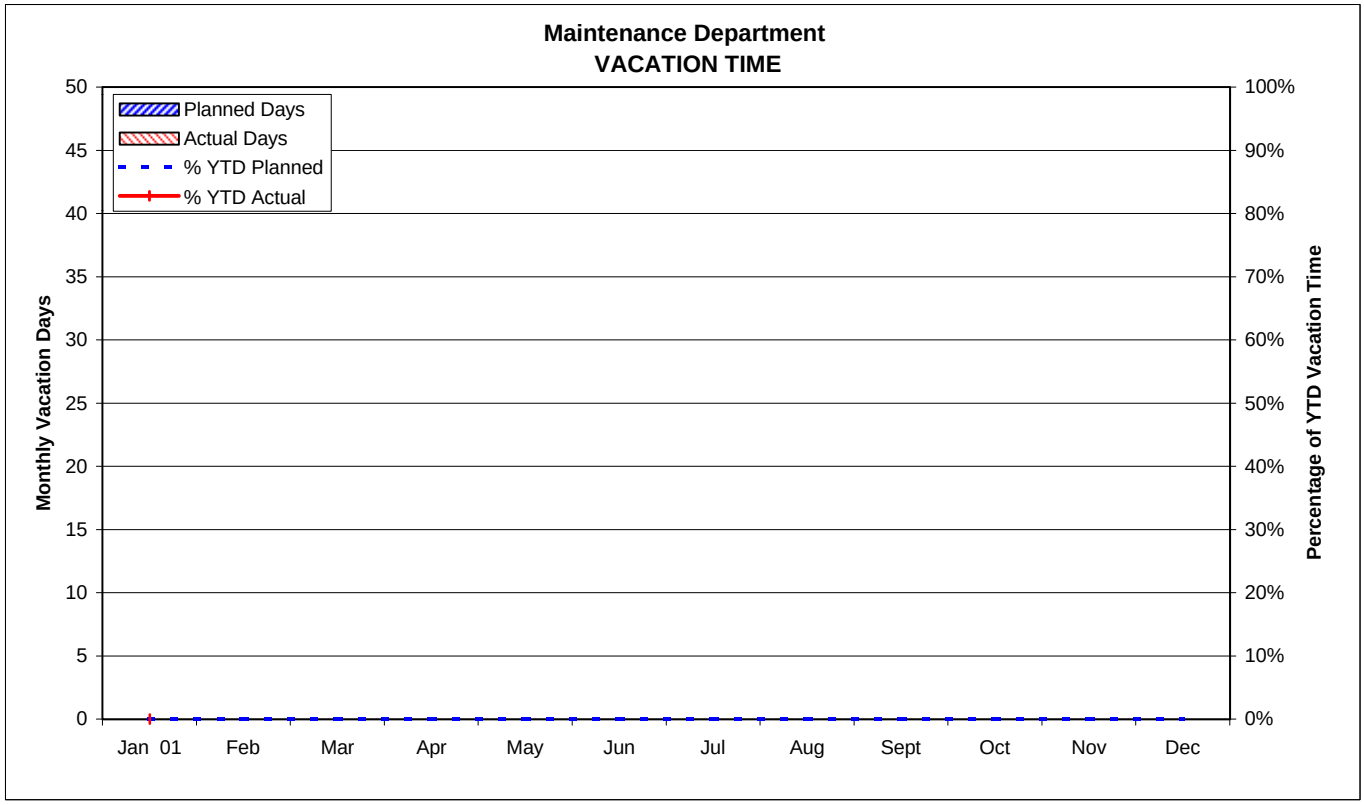
Month	Jan 01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
% Complete												

INDICATOR DESCRIPTION

Put description here.

ANALYSIS

Put Analysis here.



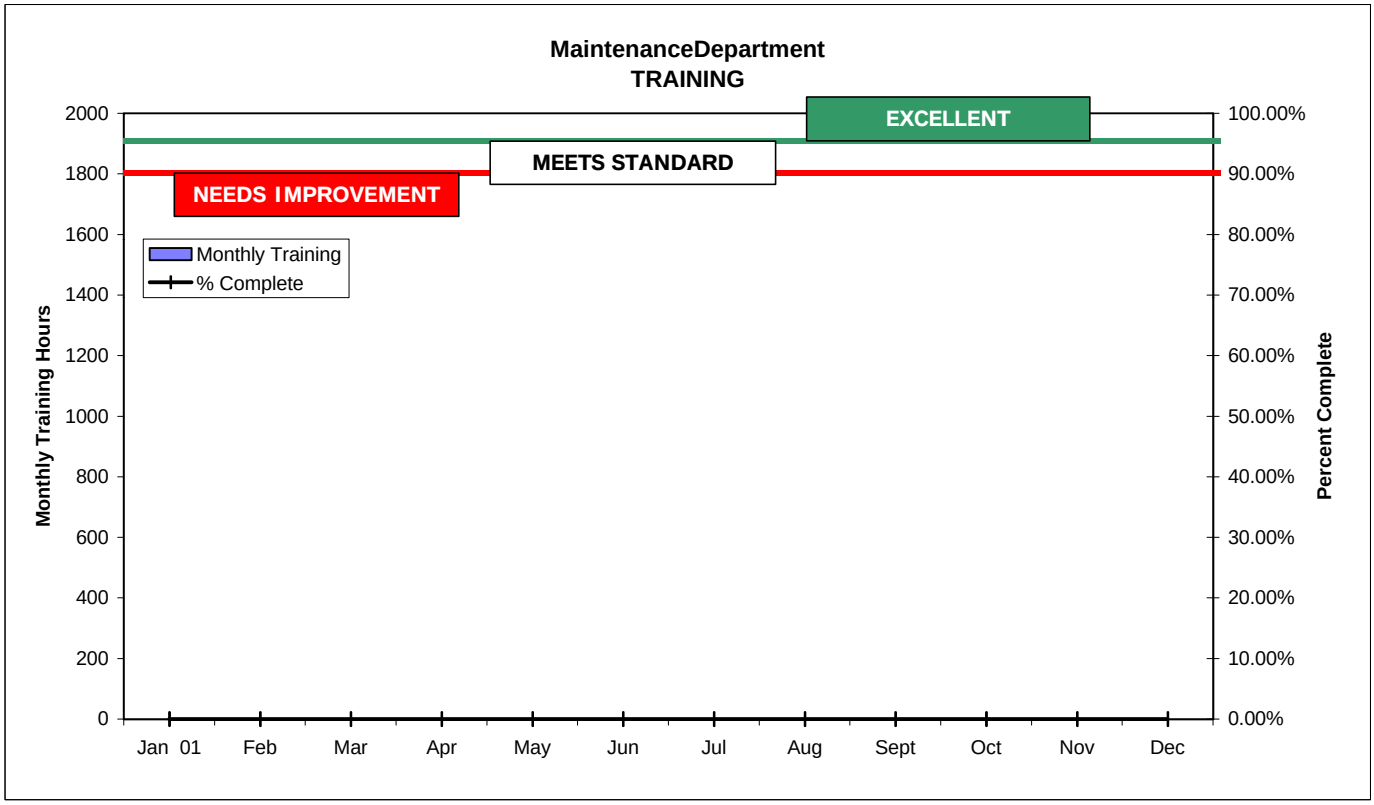
Month	Jan 01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Planned Days												
Actual Days												
YTD Planned	0	0	0	0	0	0	0	0	0	0	0	0
YTD Actual												
% YTD Planned	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
% YTD Actual	#DIV/0!											

INDICATOR DESCRIPTION

This indicator represents the planned versus actual vacation schedule for the department. Vacation planning is performed at the beginning of the year and used for work planning and ensuring that there is sufficient staffing even during peak vacation periods. Actual usage of vacation time may vary depending upon personal circumstances.

ANALYSIS

The analysis section describes the department's vacation usage on a monthly basis, whether or not useage is on track with the plan and if there are any specific reasons for the performance indicated, such as outages, etc. If emerging issues are of concern or if remedial measures are being taken that could affect future performance and /or indicated trends, they can be presented in this section.



Month	Jan 01	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Monthly Training												
YTD Training		0	0	0	0	0	0	0	0	0	0	0
% Complete	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

INDICATOR DESCRIPTION

Put description here.

ANALYSIS

Put Analysis here.