

PSEG Nuclear

Improving the Work Environment at Salem / Hope Creek

**NRC Public Meeting
December 2, 2004**



Chris Bakken

President & CNO
PSEG Nuclear, LLC



Agenda

Chris Bakken

Work Environment Update

Mike Brothers

Performance Metric Review

Mike Gallagher

**Engineering Support of
Operational Decision Making**

Mike Brothers

Human Performance Update

John Carlin

Quality Assurance Update

Chris Bakken

Next Steps

Corporate Commitment

Leadership commitment and involvement

Participation at site

\$800 million over the next five years

Hope Creek Outage

Improving Our Business – Our Model



Work Environment Update

Three Key Areas

- People
- Processes
- Plant

Performance Metric Review/Human Performance Update

Michael Brothers

Vice President – Site Operations



PSEG Nuclear, LLC

Metrics will be published following the first quarter 2005 Employee Survey for:

* KNOWLEDGE OF ALTERNATIVE AVENUES


* EMPLOYEE PERCEPTION OF MANAGEMENT COMMITMENT

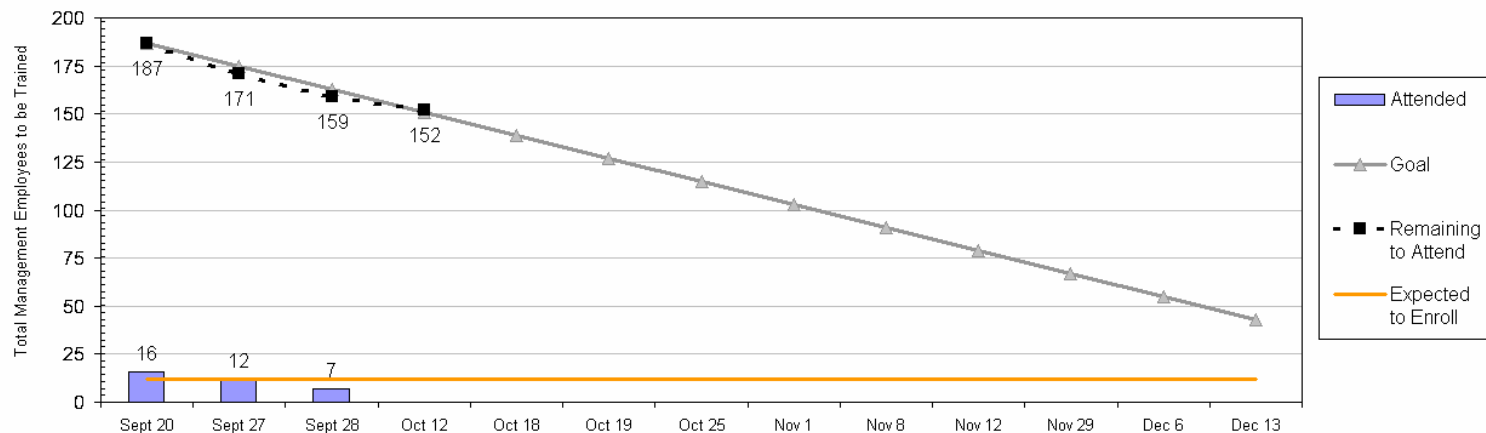
* SUPERVISOR COMMUNICATION EFFECTIVENESS


* TRUST AND RESPECT BETWEEN MANAGEMENT & SITE PERSONNEL



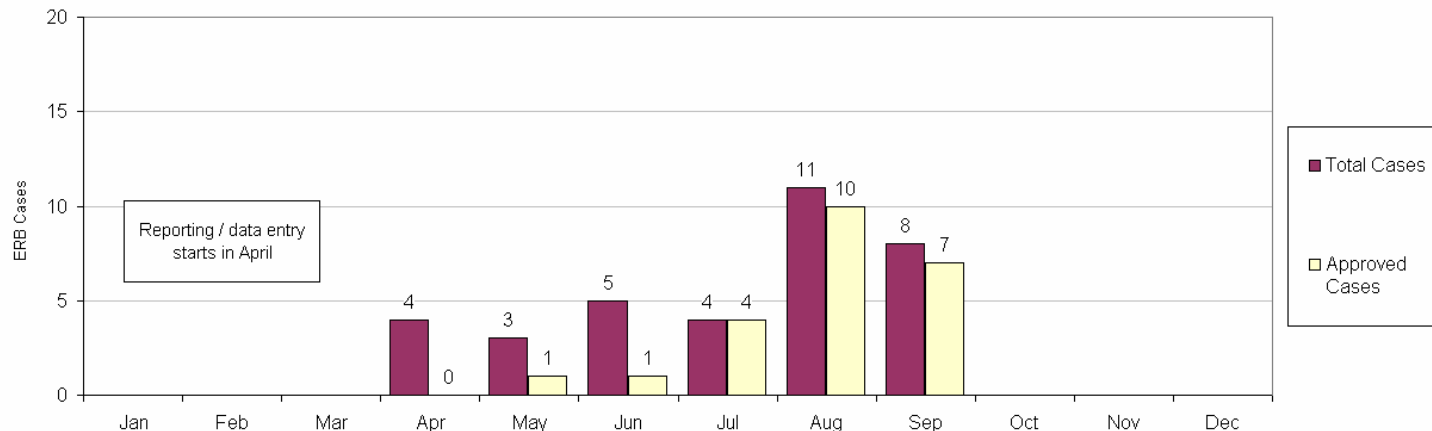
We make things prosper.


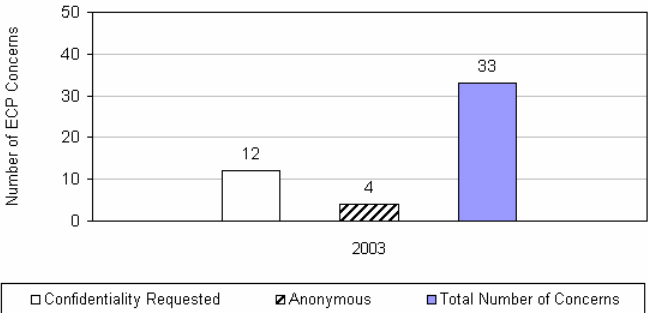
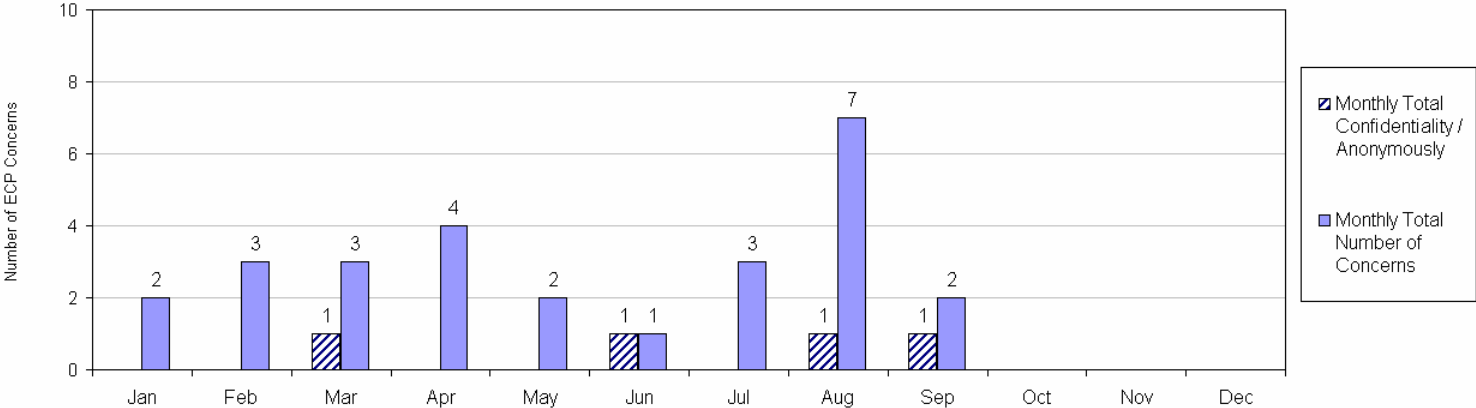
PSEG Nuclear, LLC		September 2004	Status	Definition
SCWE MANAGEMENT TRAINING ATTENDANCE		Updated: Monthly		Attendance for Safety Conscious Work Environment (SCWE) Training - PSEG Nuclear Management.
Chart Owner				
Nuclear Training Manager			Goal:	43 associates by year end
History		Intent of Metric		
New Indicator for 2004		Nuclear provides a significant amount of training on a broad range of subjects. This metric measures the training to enhance management's understanding of key Safety Conscious Work Environment (SCWE) policy attributes and our collective roles and responsibilities for proper implementation. This is a full day of training.		
		Analysis and Actions		
		Safety Conscious Work Environment training for management is scheduled to be completed by the end of January 2005.		


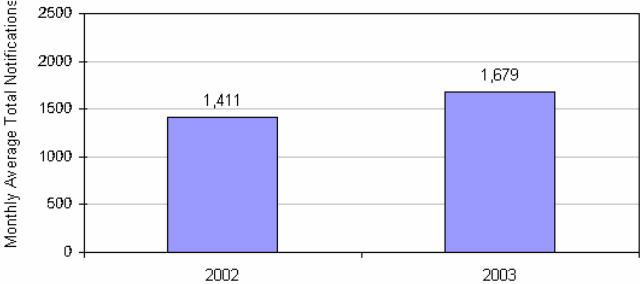
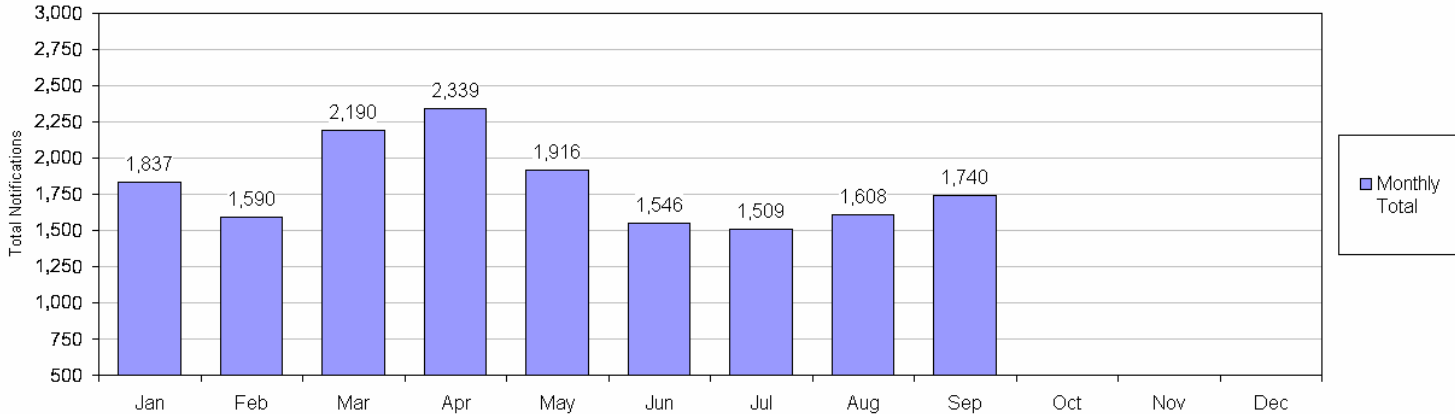



PSEG Nuclear, LLC	September 2004	Status	Definition
EXECUTIVE REVIEW BOARD (ERB) ACTION APPROVALS	Updated: Monthly		Executive Review Board (ERB) reviews proposed personnel actions to ensure no retaliation or chilling effect implications.
Chart Owner			
Safety Conscious Work Environment Manager		Goal:	No Adverse Trend

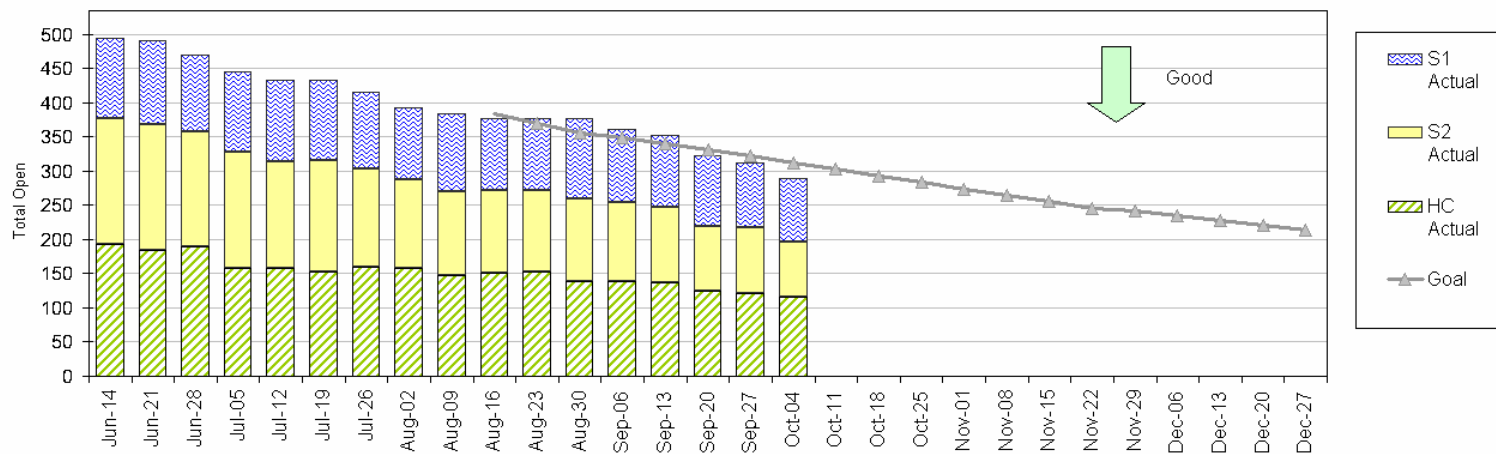
History	Intent of Metric
New Indicator for 2004	The Executive Review Board (ERB) was established to ensure that no adverse action is taken or perceived to be taken against site personnel for raising nuclear safety issues. This Board reviews significant proposed discipline, promotions, transfers and terminations for PSEG employees and supplemental (contract) personnel.
	Analysis and Actions
	The ERB process was initiated in April, with a follow-up letter sent to all supplemental (contractor) personnel vendors in July. As expected, initial approvals were low, however, the approval rate has significantly improved as management has become more knowledgeable and experienced in the process.




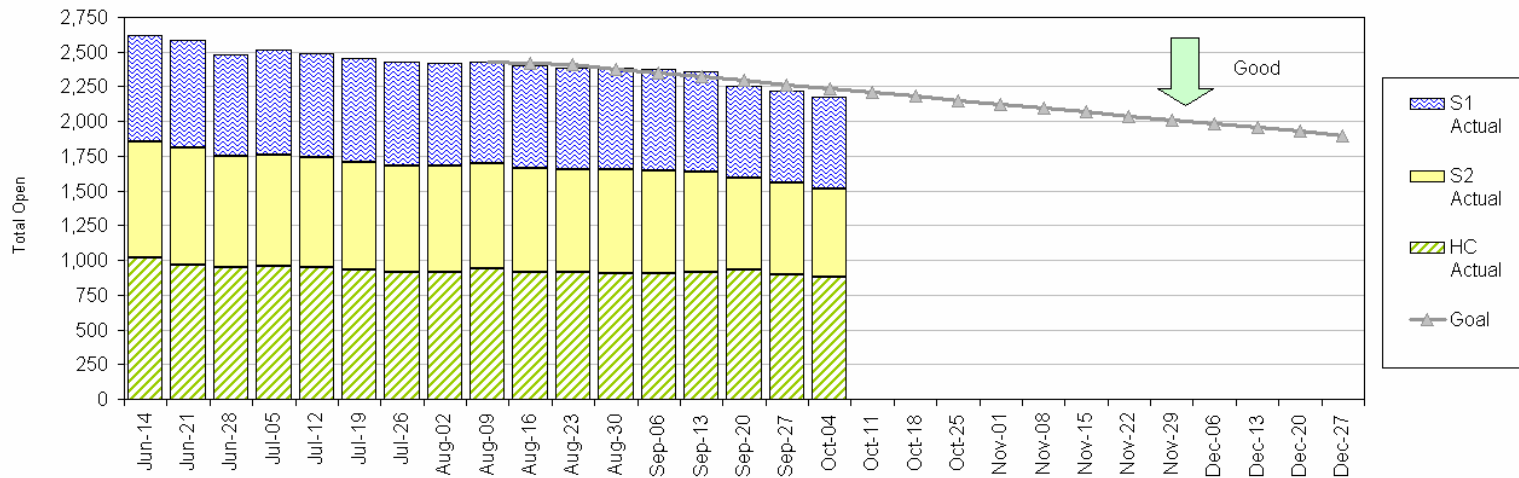
<p>PSEG Nuclear, LLC</p>	<p>September 2004</p>	<p>Status</p>	<p>Definition</p>																																							
<p>EMPLOYEE CONCERNS PROGRAM (ECP) - CONCERNS CONFIDENTIALITY / ANONYMITY REQUEST</p>		<p>Updated: Monthly</p>	<p>The number of Employee Concerns Program (ECP) concerns filed anonymously / confidentially versus total number of concerns per month. Chart does not include NRC 30-day requests.</p>																																							
<p>Chart Owner</p>																																										
<p>Employee Concerns Program Manager</p>			<p>Goal:</p>	<p>No Adverse Trend</p>																																						
<p>History</p>		<p>Intent of Metric</p>																																								
 <table border="1"> <caption>2003 ECP Concerns Data</caption> <thead> <tr> <th>Category</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td>Confidentiality Requested</td> <td>12</td> </tr> <tr> <td>Anonymous</td> <td>4</td> </tr> <tr> <td>Total Number of Concerns</td> <td>33</td> </tr> </tbody> </table>	Category	Count	Confidentiality Requested	12	Anonymous	4	Total Number of Concerns	33	<p>This metric shows the total number of concerns brought to our Employee Concerns Manager. This is an alternate means to have issues addressed outside of line management.</p> <p>Analysis and Actions</p> <p>During the current year, there have been twenty-seven concerns (non-NRC referred) brought to the attention of the Employee Concerns Program. Four were submitted anonymously or with a specific request for confidentiality. A review of the concerns indicates no adverse trend.</p>																																	
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 <table border="1"> <caption>Monthly ECP Concerns Data</caption> <thead> <tr> <th>Month</th> <th>Monthly Total Confidentiality / Anonymously</th> <th>Monthly Total Number of Concerns</th> </tr> </thead> <tbody> <tr> <td>Jan</td> <td>0</td> <td>2</td> </tr> <tr> <td>Feb</td> <td>0</td> <td>3</td> </tr> <tr> <td>Mar</td> <td>1</td> <td>3</td> </tr> <tr> <td>Apr</td> <td>0</td> <td>4</td> </tr> <tr> <td>May</td> <td>0</td> <td>2</td> </tr> <tr> <td>Jun</td> <td>1</td> <td>1</td> </tr> <tr> <td>Jul</td> <td>0</td> <td>3</td> </tr> <tr> <td>Aug</td> <td>1</td> <td>7</td> </tr> <tr> <td>Sep</td> <td>1</td> <td>2</td> </tr> <tr> <td>Oct</td> <td>0</td> <td>0</td> </tr> <tr> <td>Nov</td> <td>0</td> <td>0</td> </tr> <tr> <td>Dec</td> <td>0</td> <td>0</td> </tr> </tbody> </table>				Month	Monthly Total Confidentiality / Anonymously	Monthly Total Number of Concerns	Jan	0	2	Feb	0	3	Mar	1	3	Apr	0	4	May	0	2	Jun	1	1	Jul	0	3	Aug	1	7	Sep	1	2	Oct	0	0	Nov	0	0	Dec	0	0
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PSEG Nuclear, LLC		September 2004	Status	Definition
TOTAL NOTIFICATIONS GENERATED		Updated: Monthly		Total notifications generated on a monthly basis.
Chart Owner				
Corrective Action Program Manager			Goal:	No Adverse Trend
History		Intent of Metric		
		<p>Site personnel write a notification in our Corrective Action Program (CAP) to identify an issue that needs attention. This metric illustrates the total number of notifications written each month by site personnel. We are monitoring to be sure the volume of issues is consistent with expected trends, based on our own past performance as well as industry perspective.</p>		
		Analysis and Actions		
		<p>This performance indicator identified a normal increase seen during the spring refueling outage period. Subsequent monthly data shows a return to typical non-outage levels.</p>		
				

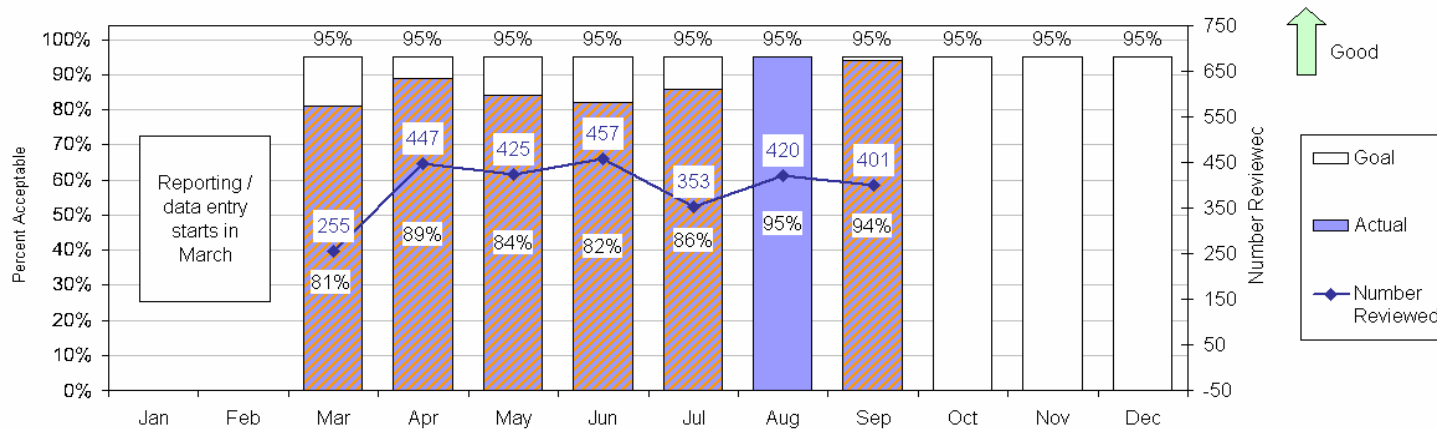
PSEG Nuclear, LLC		September 2004	Status	Definition
ONLINE CORRECTIVE MAINTENANCE BACKLOG		Updated: Monthly		The number of open online corrective maintenance work items.
Chart Owner				
Salem Maintenance Manager and Hope Creek Maintenance Manager			Goal:	215 by year end
History		Intent of Metric		
Historical Data Not Available		This metric measures our total backlog of on-line corrective maintenance. These are items that have an impact on plant operations and can be fixed while the unit is in service. Benchmarking indicates the industry median at 90, with top performance at 45 for our site. Our goal is to achieve top performance by the end of 2005.		
		Analysis and Actions		
		This indicator is on target to meet the year-end goal.		




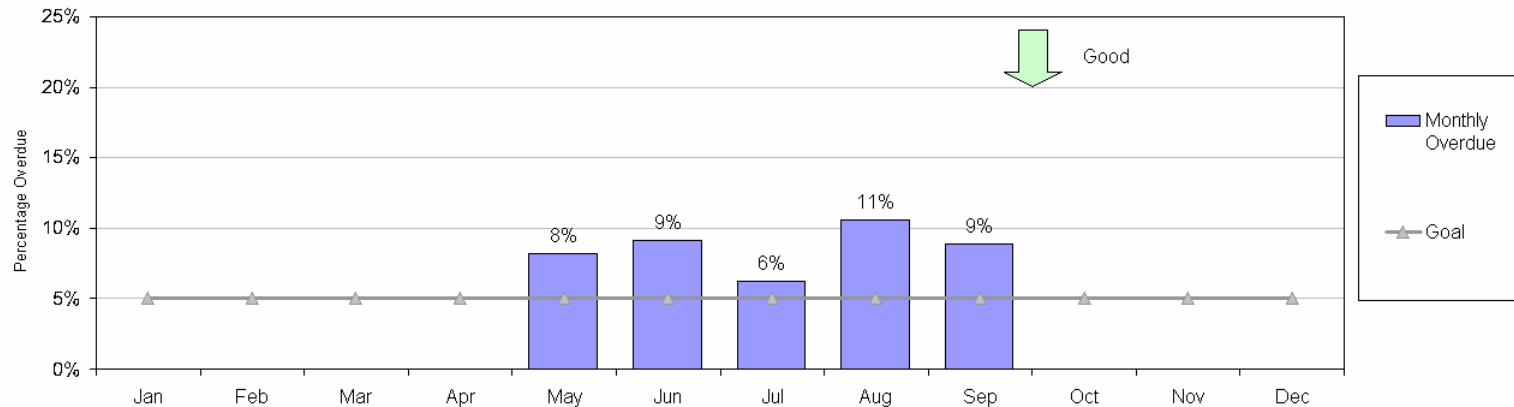
PSEG Nuclear, LLC		September 2004	Status	Definition
ONLINE ELECTIVE MAINTENANCE BACKLOG		Updated: Monthly		The number of open online elective maintenance work items.
Chart Owner				
Salem Maintenance Manager and Hope Creek Maintenance Manager			Goal:	1900 by year end
History		Intent of Metric		
Historical Data Not Available		This metric measures our total backlog of on-line elective maintenance. These are items that do NOT have an impact on plant operations and can be fixed while the unit is in service. Benchmarking indicates the industry median at 1450, with top performance at 1200 for our site. Our goal is to achieve top performance by the end of 2005.		
		Analysis and Actions		
This indicator is on target to meet the year-end goal.				




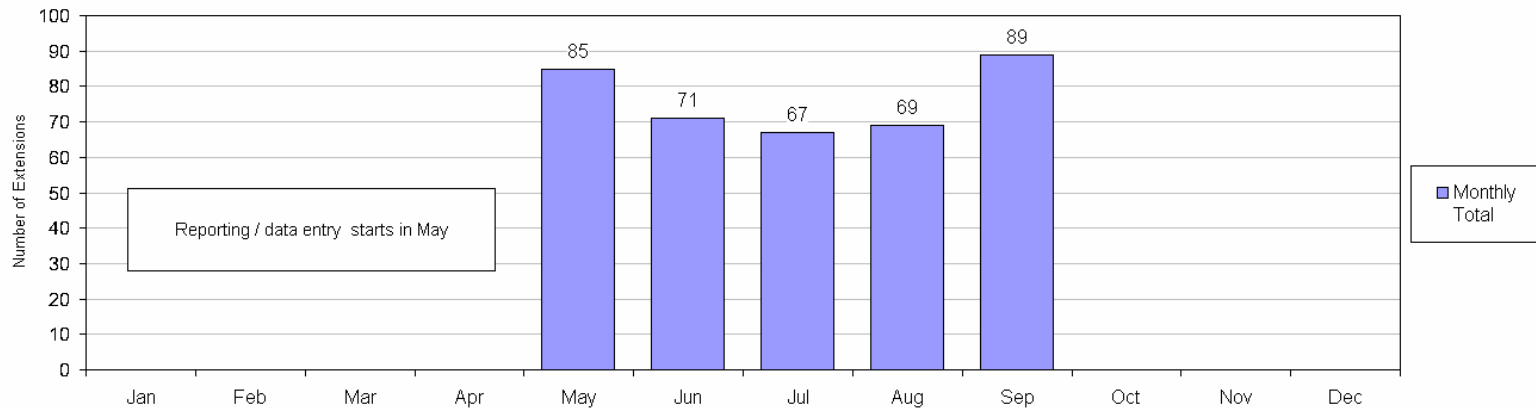
PSEG Nuclear, LLC	September 2004	Status	Definition
CORRECTIVE ACTION PROBLEM RESOLUTION	Updated: Monthly		The percent of corrective action closures determined to be acceptable by Corrective Action Closure Board review, based on the problem resolution criteria. The performance indicator is a monthly value.
Chart Owner			
Corrective Action Program Manager		Goal:	95%
History		Intent of Metric	
New Indicator for 2004		Site personnel write a notification in our Corrective Action Program (CAP) to identify an issue that needs attention. This metric tracks the quality of the corrective actions that resulted with a goal of greater than or equal to 95% Closure Board acceptance rate, meaning the correct actions resulted from the notification. Items that are not accepted by the Board are not closed until the issue is reworked and the Board approves.	
		Analysis and Actions	
		Improvement has been achieved in the quality and completeness of corrective action closures. This indicator is trending to achieve the 95% acceptance goal.	




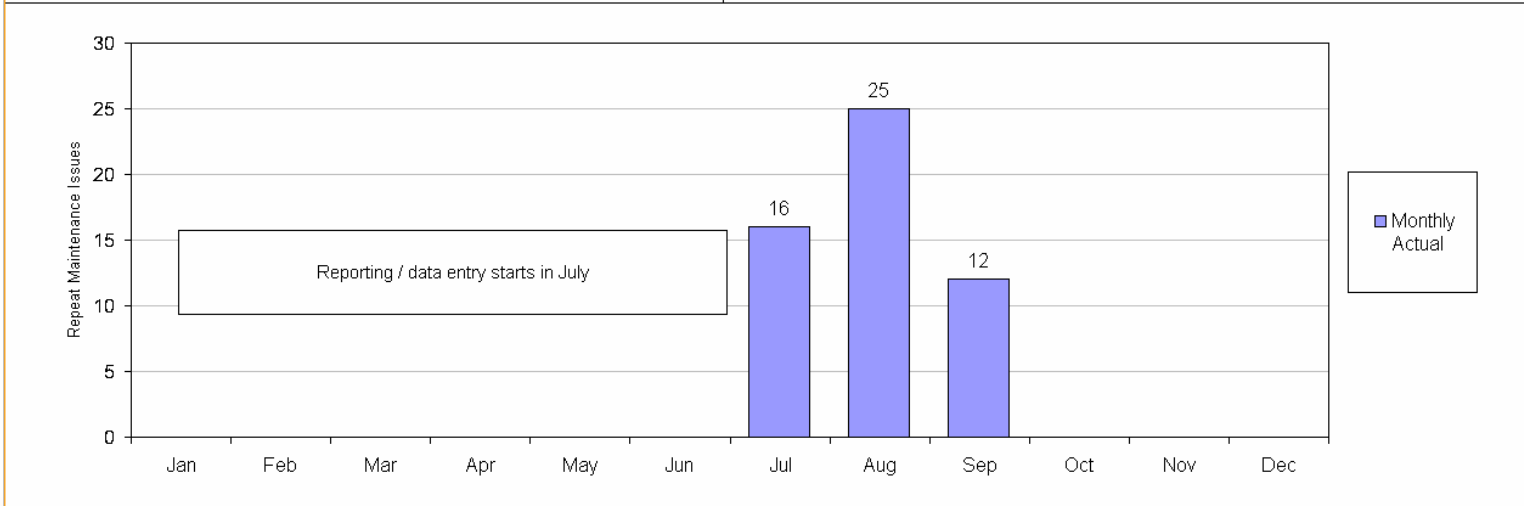
PSEG Nuclear, LLC		September 2004	Status	Definition
NUCLEAR CONDITION REPORT ACTIVITIES OVERDUE		Updated: Monthly		Percentage of Nuclear Condition Report activities overdue on a monthly basis, measured as activities with an actual finish date occurring after the due date.
Chart Owner				
Corrective Action Program Manager			Goal:	5%
History		Intent of Metric		
New Indicator for 2004		Site personnel write a notification in our Corrective Action Program (CAP) to identify an issue that needs attention. This metric tracks the timeliness of our review and corrective actions, by measuring the percentage overdue, with a goal of less than or equal to 5%.		
		Analysis and Actions		
The number of nuclear condition report activities overdue has not improved. This was expected because we chose to concentrate on CAP quality first, which has improved, and we will now begin focusing on CAP timeliness as part of a methodical process improvement strategy.				




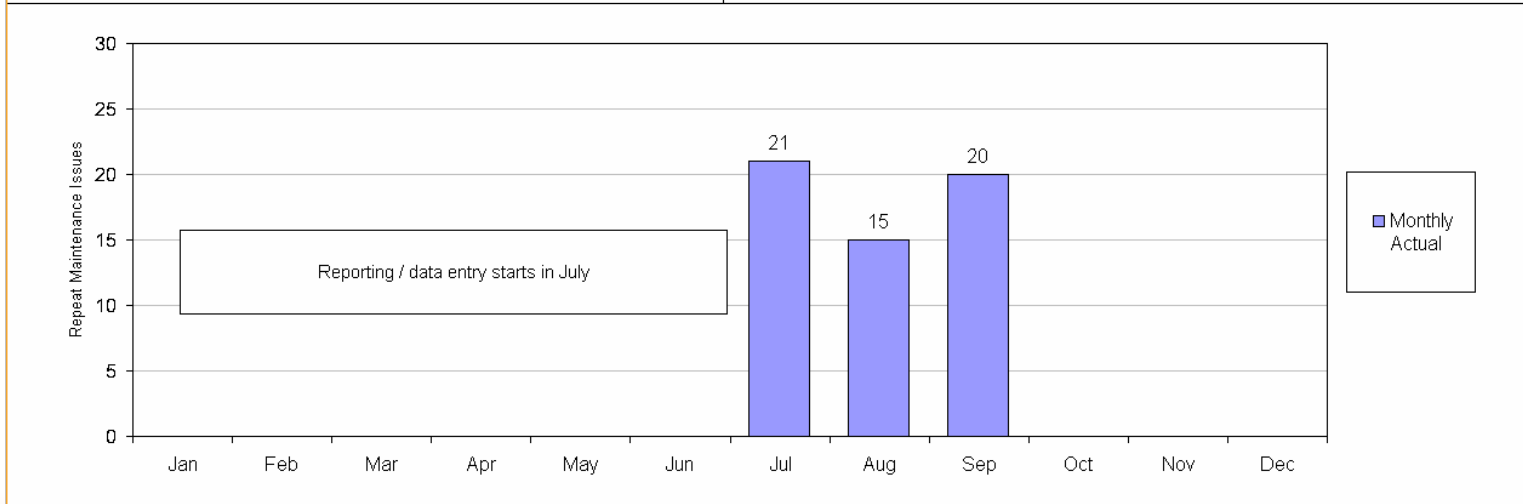
PSEG Nuclear, LLC		September 2004	Status	Definition
OPEN NUCLEAR CONDITION REPORT EVALUATIONS WITH DUE DATE EXTENSIONS		Updated: Monthly		The number of due date extensions approved for open Nuclear Condition Report evaluations.
Chart Owner				
Corrective Action Program Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		Site personnel write a notification in our Corrective Action Program (CAP) to identify an issue that needs attention. This metric looks at the timeliness of our review and corrective actions by tracking the number that have a due date extension, which is allowed by our process. By tracking those that are extended, we expect to see an improvement trend in overall timeliness.		
		Analysis and Actions		
		The trend for this indicator has not improved. This was expected because we chose to concentrate on CAP quality first, which has improved, and we will now begin focusing on CAP timeliness as part of a methodical process improvement strategy.		




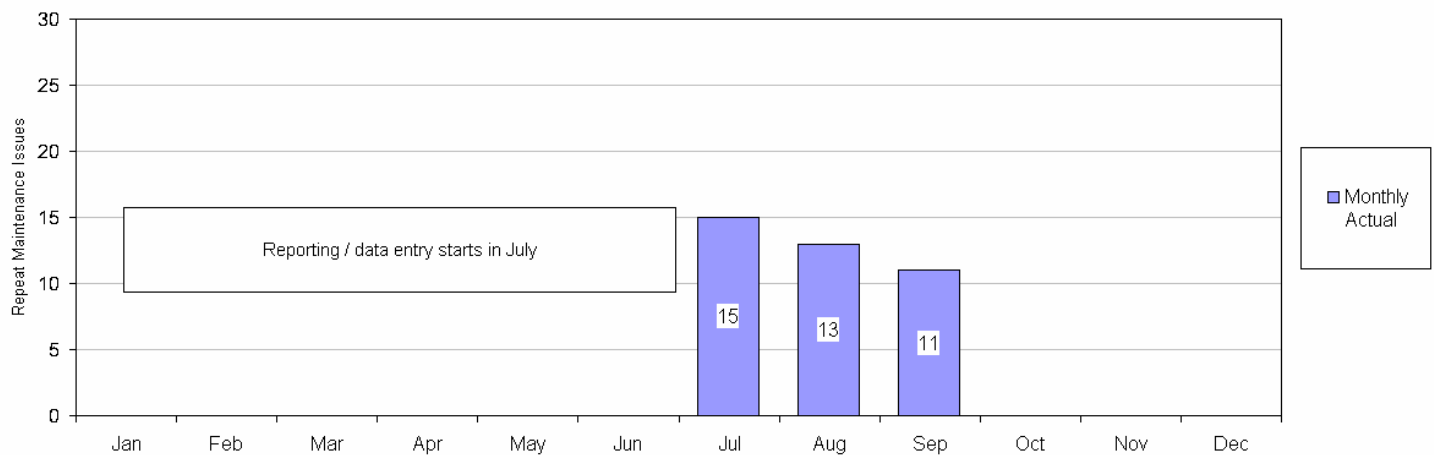
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 1 REPEAT MAINTENANCE ISSUES		Updated: Monthly		The number of repeat maintenance issues identified on safety related equipment.
Chart Owner				
Corrective Action Program Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		This metric monitors the number of issues that were not fixed correctly the first time on safety-related equipment. We track items that have been fixed and need to be reworked within twelve months. This is a new metric to ensure we see a reduction as our corrective action program improves.		
		Analysis and Actions		
		Review of the data for the past quarter does not indicate an adverse trend. Analysis of the specific component challenges reported as repeat maintenance indicates that valve issues are the largest contributor. A review will be performed and corrective actions will be issued if required.		




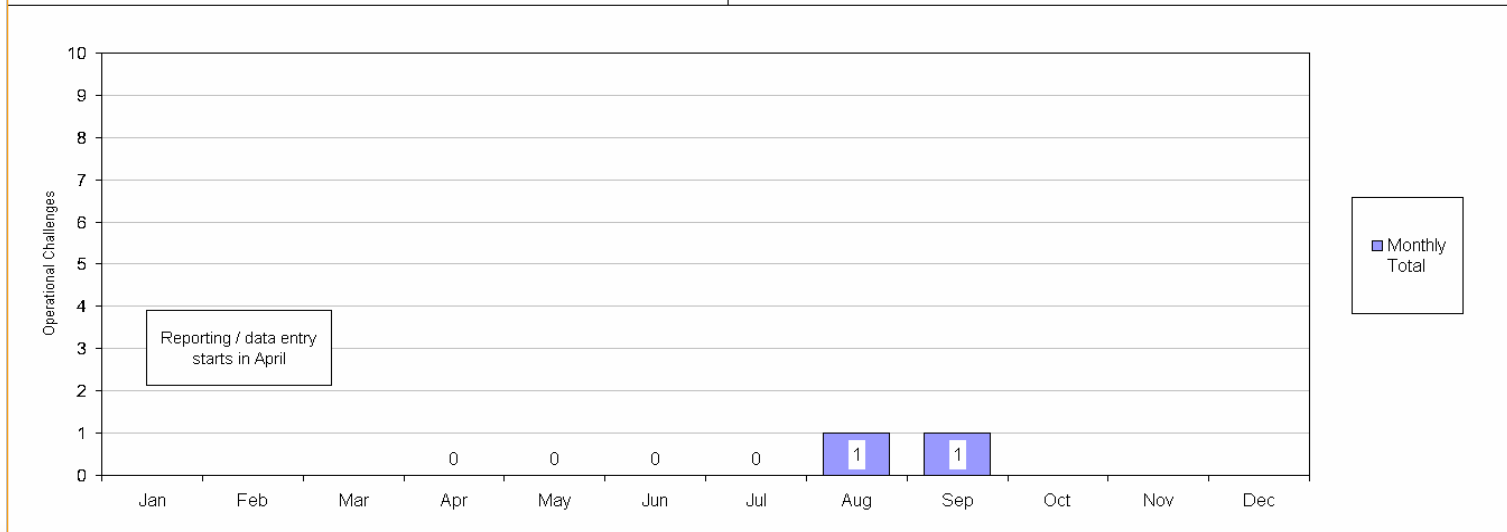
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 2 REPEAT MAINTENANCE ISSUES		Updated: Monthly		The number of repeat maintenance issues identified on safety related equipment.
Chart Owner				
Corrective Action Program Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		This metric monitors the number of issues that were not fixed correctly the first time on safety-related equipment. We track items that have been fixed and need to be reworked within twelve months. This is a new metric to ensure we see a reduction as our corrective action program improves		
		Analysis and Actions		
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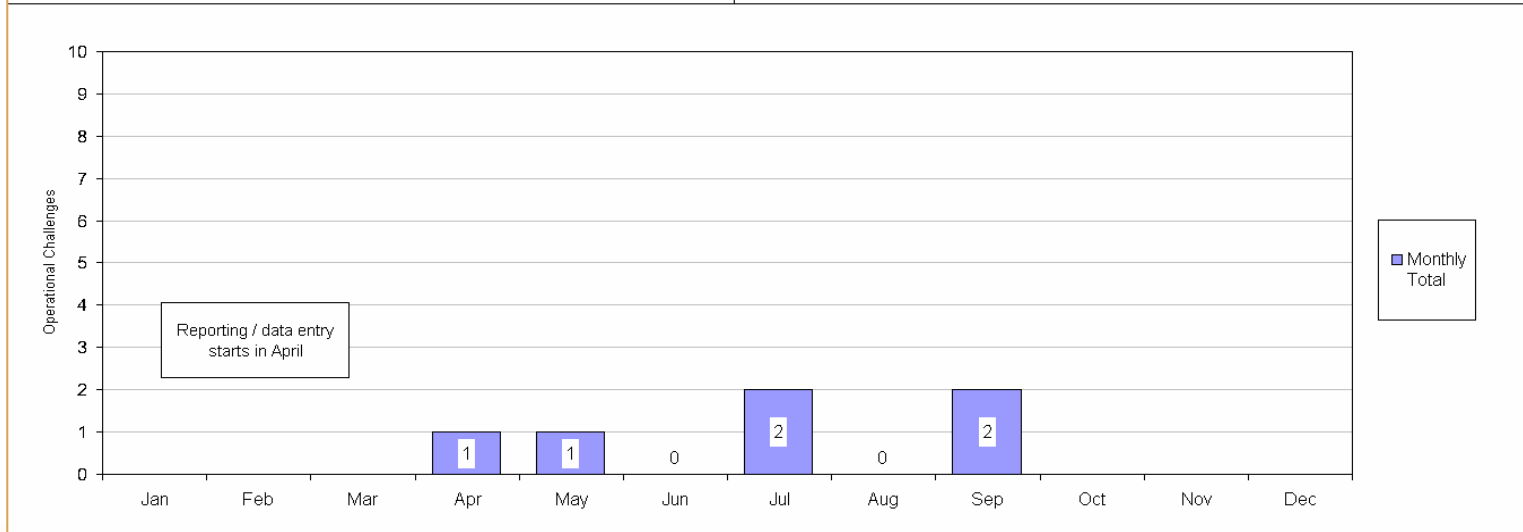
PSEG Nuclear, LLC		September 2004	Status	Definition
HOPE CREEK REPEAT MAINTENANCE ISSUES		Updated: Monthly		The number of repeat maintenance issues identified on safety related equipment.
Chart Owner				
Corrective Action Program Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		This metric monitors the number of issues that were not fixed correctly the first time on safety-related equipment. We track items that have been fixed and need to be reworked within twelve months. This is a new metric to ensure we see a reduction as our corrective action program improves		
		Analysis and Actions		
		Review of the data for the past quarter does not indicate an adverse trend. Analysis of the specific component challenges reported as repeat maintenance indicates no specific component trends evident.		




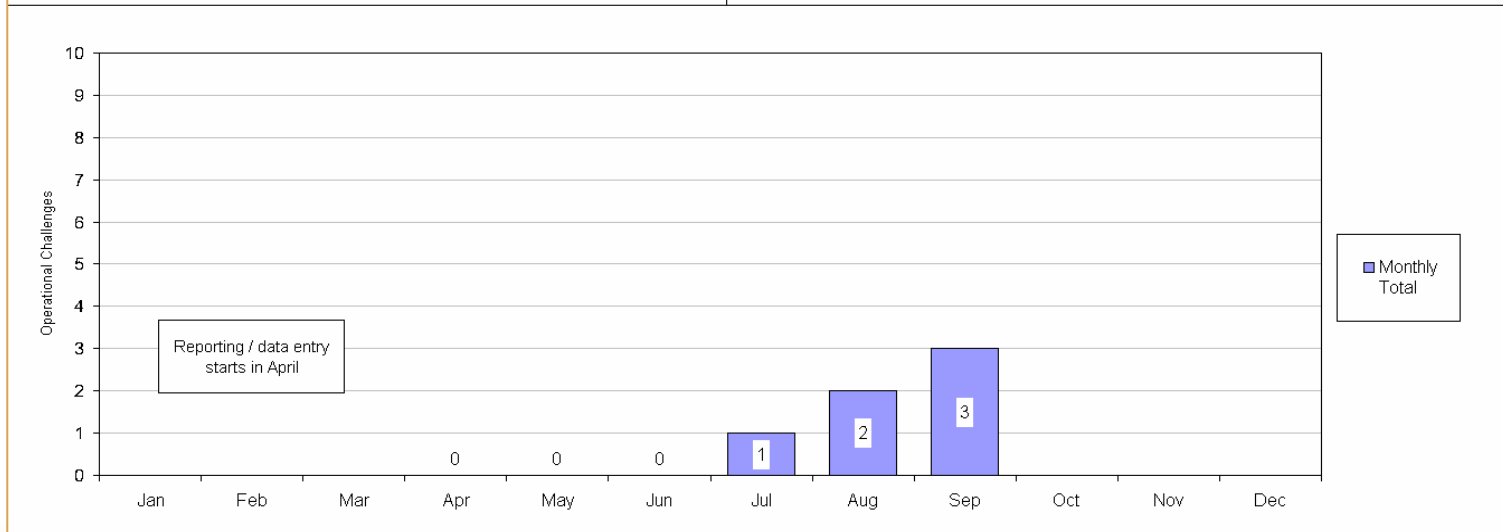
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 1 OPERATIONAL CHALLENGES		Updated: Monthly		The number of plant operational issues that warrant implementation of the Operational Challenges Response Team.
Chart Owner				
Salem Plant Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		We established a procedure to allow our operating crews to request additional assistance to address emergent issues. These are called "Operational Challenges". This metric measures the number of times each month our operators engage this assistance. Our goal is to minimize the challenges to our operating crews. By tracking and reviewing the challenges, we can investigate common causes and potential trends.		
		Analysis and Actions		
		Two operational challenges were experienced year to date. The first involved a challenge to performance of station battery testing within the required frequency. The second challenge was common to both Salem Units 1 and 2 and consisted of reconfiguration of the control room air conditioning system. In both cases the events were reviewed and appropriate corrective actions were taken. No adverse trends were identified.		




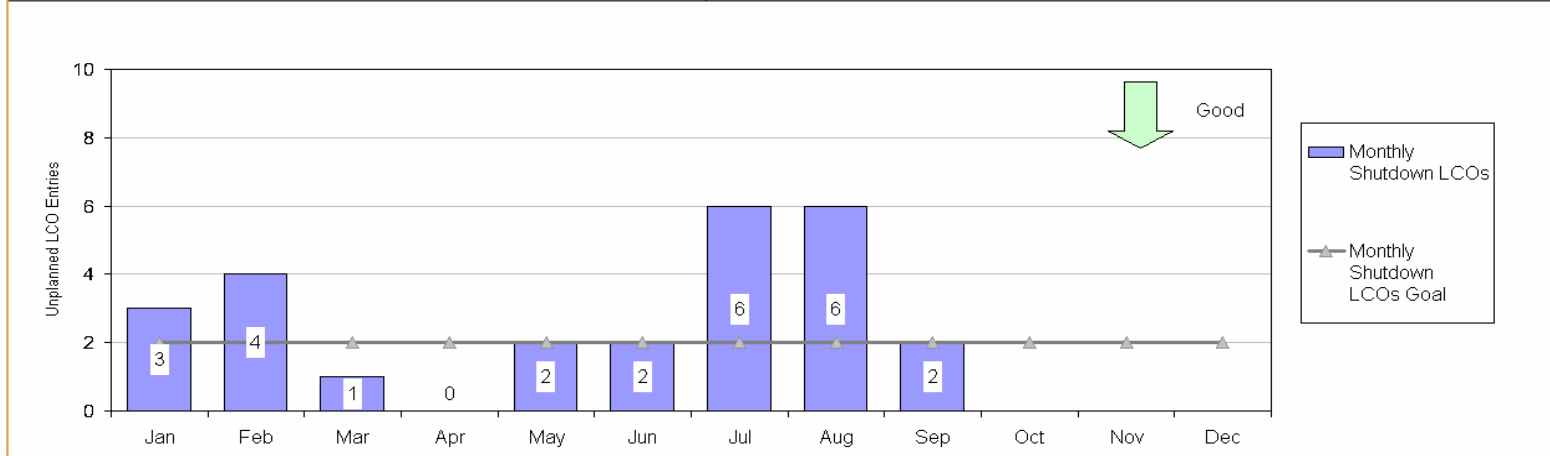
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 2 OPERATIONAL CHALLENGES		Updated: Monthly		The number of plant operational issues that warrant implementation of the Operational Challenges Response Team.
Chart Owner				
Salem Plant Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		We established a procedure to allow our operating crews to request additional assistance to address emergent issues. These are called "Operational Challenges". This metric measures the number of times each month our operators engage this assistance. Our goal is to minimize the challenges to our operating crews. By tracking and reviewing the challenges, we can investigate common causes and potential trends.		
		Analysis and Actions		
		Six operational challenges were experienced year to date. Equipment issues caused four of the challenges and were corrected by repairs and or design improvements. The fifth challenge involved the cleanup of chemical residue. The leak was eliminated and residue removed. The final challenge was common to both Salem Units 1 and 2 and consisted of reconfiguration of the control room air conditioning system. In all cases, the events were reviewed and appropriate corrective actions were taken. No adverse trends were identified.		




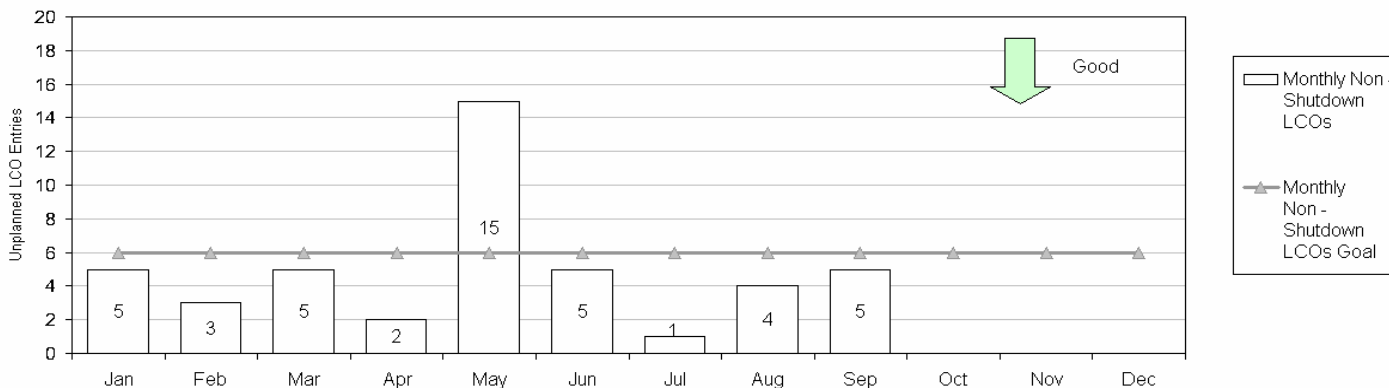
PSEG Nuclear, LLC		September 2004	Status	Definition
HOPE CREEK OPERATIONAL CHALLENGES		Updated: Monthly		The number of plant operational issues that warrant implementation of the Operational Challenges Response Team.
Chart Owner				
Hope Creek Plant Manager			Goal:	No Adverse Trend
History		Intent of Metric		
New Indicator for 2004		We established a procedure to allow our operating crews to request additional assistance to address emergent issues. These are called "Operational Challenges". This metric measures the number of times each month our operators engage this assistance. Our goal is to minimize the challenges to our operating crews. By tracking and reviewing the challenges, we can investigate common causes and potential trends.		
		Analysis and Actions		
		Six operational challenges were experienced year to date. Four challenges involved equipment deficiencies that were corrected by replacement or repair. One challenge involved instability of the transmission line, and the remaining challenge was due to diesel maintenance. Although a trend has been established, the events were reviewed and appropriate corrective actions were taken.		




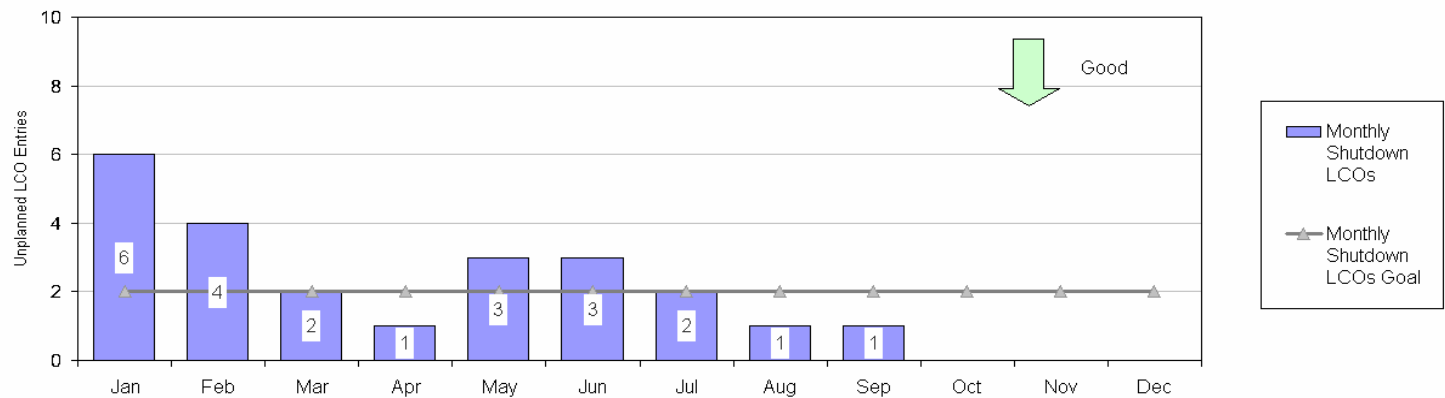
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 1 UNPLANNED SHUTDOWN LIMITING CONDITION OF OPERATION (LCO) ENTRIES		Updated: Monthly		The number of Unplanned Shutdown Technical Specification Limiting Conditions of Operation (LCOs) entered during the month.
Chart Owner				
Salem System Engineering Manager			Goal:	2 per Month
History		Intent of Metric		
Historical Data Not Available		Nuclear plants are operated under a fundamental set of rules from the Nuclear Regulatory Commission (NRC) called Technical Specifications. Certain rules require operators to enter a shutdown LCO, meaning the equipment must be fixed in a defined period of time, or unit shutdown is required. This metric measures the unplanned entries made at Salem Unit 1, compared to the expected number at top performing nuclear units (less than or equal to 2/month).		
		Analysis and Actions		
During the third quarter, there were fourteen shutdown limiting conditions of operation, including: five caused by issues associated with the containment fan cooling units (CFCUs) (factors that will be eliminated by the CFCU closed-loop cooling project); two associated with batteries; and seven other associated with maintenance.				




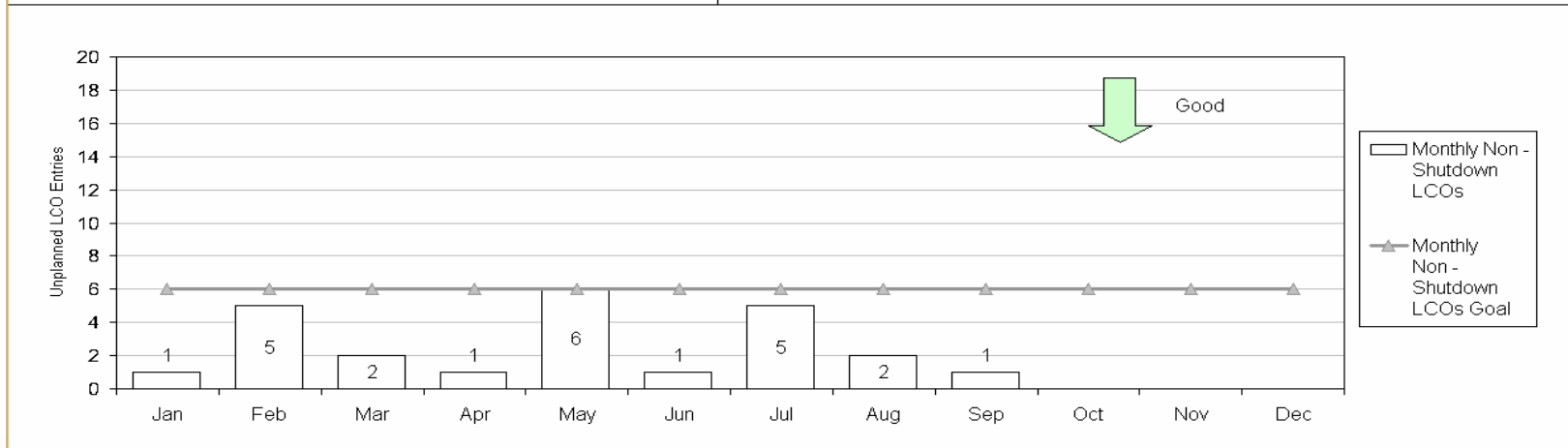
PSEG Nuclear, LLC	September 2004	Status	Definition
SALEM UNIT 1 UNPLANNED NON-SHUTDOWN LIMITING CONDITION OF OPERATION (LCO) ENTRIES	Updated: Monthly		The number of Unplanned Non-Shutdown Technical Specification Limiting Conditions of Operation (LCOs) entered during the month.
Chart Owner			
Salem System Engineering Manager		Goal:	6 per Month
History	Intent of Metric		
Historical Data Not Available	Nuclear plants are operated under a fundamental set of rules from the Nuclear Regulatory Commission (NRC) called Technical Specifications. Certain rules require operators to enter a non-shutdown LCO, meaning the equipment must be fixed in a defined period of time, or you are required to take compensatory measures. This metric measures the unplanned entries made at Salem Unit 1, compared to the expected number at top performing nuclear units (less than or equal to 6/month).		
	Analysis and Actions		
The unfavorable performance in May was primarily due to monitoring and instrumentation issues. A multi-year capital improvement project is underway to upgrade the monitors. Nuclear instrumentation issues were addressed during the refuel outage.			




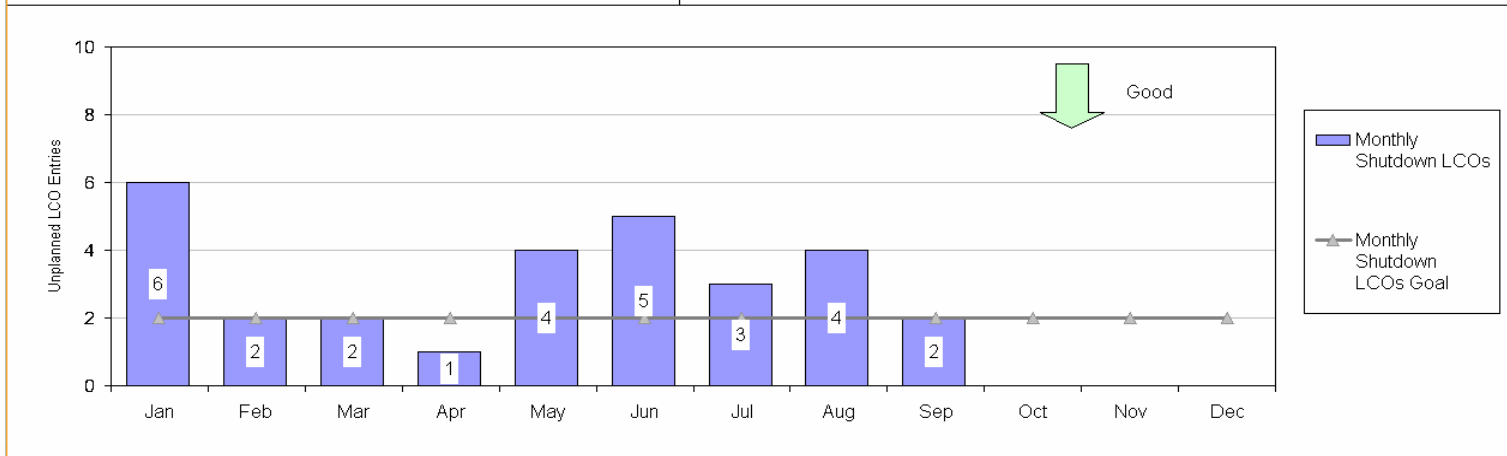
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 2 UNPLANNED SHUTDOWN LIMITING CONDITION OF OPERATION (LCO) ENTRIES		Updated: Monthly		The number of Unplanned Shutdown Technical Specification Limiting Conditions of Operation (LCOs) entered during the month.
Chart Owner				
Salem System Engineering Manager			Goal:	2 per Month
History		Intent of Metric		
Historical Data Not Available		Nuclear plants are operated under a fundamental set of rules from the Nuclear Regulatory Commission (NRC) called Technical Specifications. Certain rules require operators to enter a shutdown LCO, meaning the equipment must be fixed in a defined period of time, or unit shutdown is required. This metric measures the unplanned entries made at Salem Unit 2, compared to the expected number at top performing nuclear units (less than or equal to 2/month).		
		Analysis and Actions		
		Performance outlined in the third quarter has met monthly goals.		




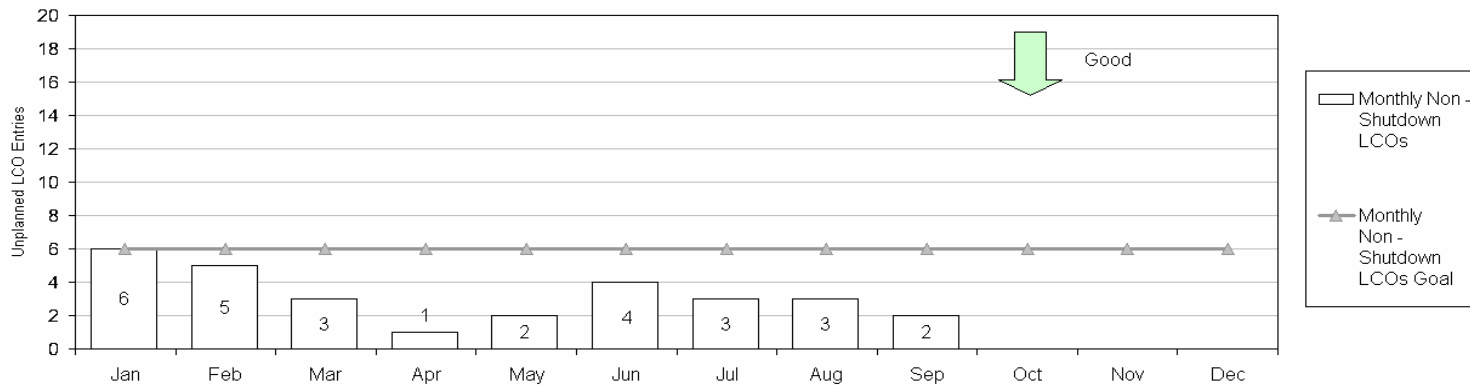
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 2 UNPLANNED NON-SHUTDOWN LIMITING CONDITION OF OPERATION (LCO) ENTRIES		Updated: Monthly		The number of Unplanned Non-Shutdown Technical Specification Limiting Conditions of Operation (LCOs) entered during the month.
Chart Owner				
Salem System Engineering Manager			Goal:	6 per Month
History		Intent of Metric		
Historical Data Not Available		Nuclear plants are operated under a fundamental set of rules from the Nuclear Regulatory Commission (NRC) called Technical Specifications. Certain rules require operators to enter a non-shutdown LCO, meaning the equipment must be fixed in a defined period of time, or you are required to take compensatory measures. This metric measures the unplanned entries made at Salem Unit 2, compared to the expected number at top performing nuclear units (less than or equal to 6/month).		
		Analysis and Actions		
		Unplanned Non-shutdown Entries are meeting the goal.		




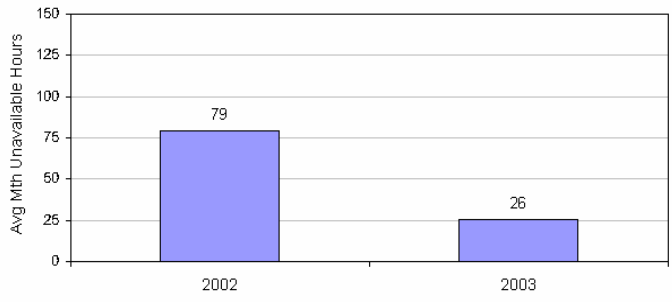
PSEG Nuclear, LLC	September 2004	Status	Definition
HOPE CREEK UNPLANNED SHUTDOWN LIMITING CONDITION OF OPERATION (LCO) ENTRIES	Updated: Monthly		The number of Unplanned Shutdown Technical Specification Limiting Conditions of Operation (LCOs) entered during the month.
Chart Owner		Goal:	2 per Month
Hope Creek System Engineering Manager			
History	Intent of Metric		
Historical Data Not Available	Nuclear plants are operated under a fundamental set of rules from the Nuclear Regulatory Commission (NRC) called Technical Specifications. Certain rules require operators to enter a shutdown LCO, meaning the equipment must be fixed in a defined period of time, or unit shutdown is required. This metric measures the unplanned entries made at Hope Creek, compared to the expected number at top performing nuclear units (less than or equal to 2/month).		
	Analysis and Actions		
Challenges with the service water system were the primary cause of this metric being above goal. A multi-year capital improvement project for the service water system is being developed.			

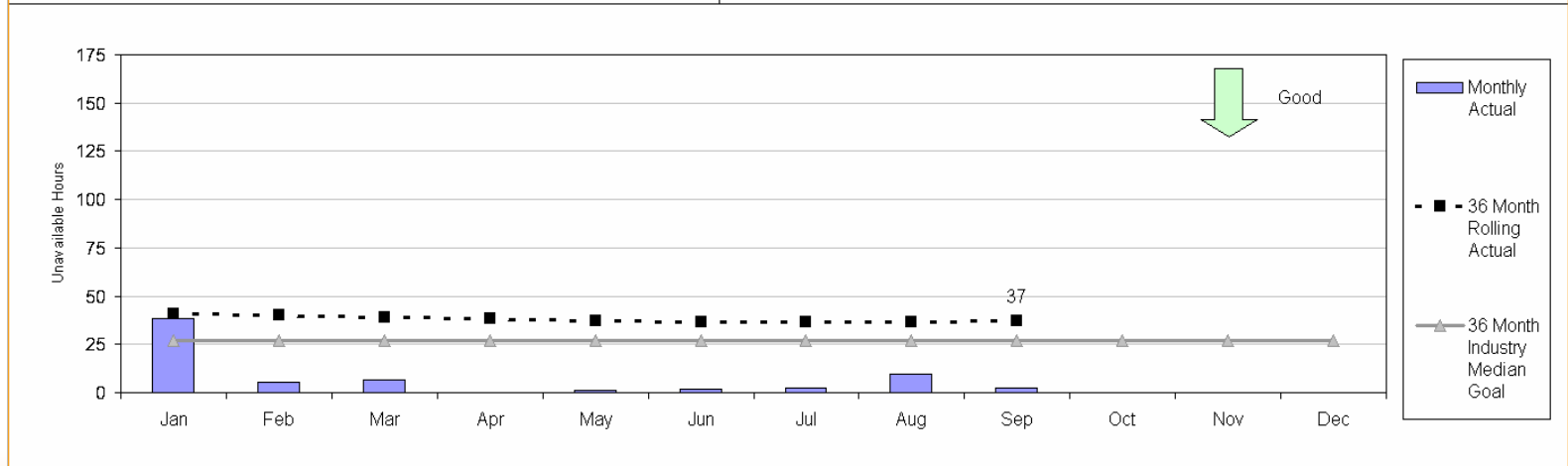



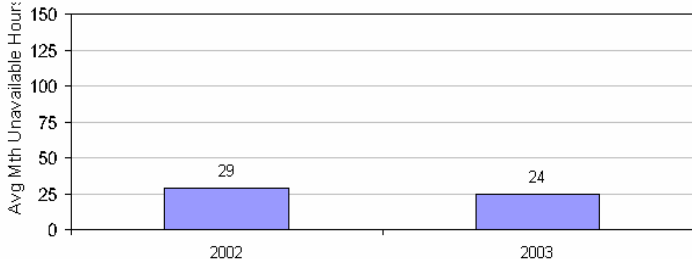
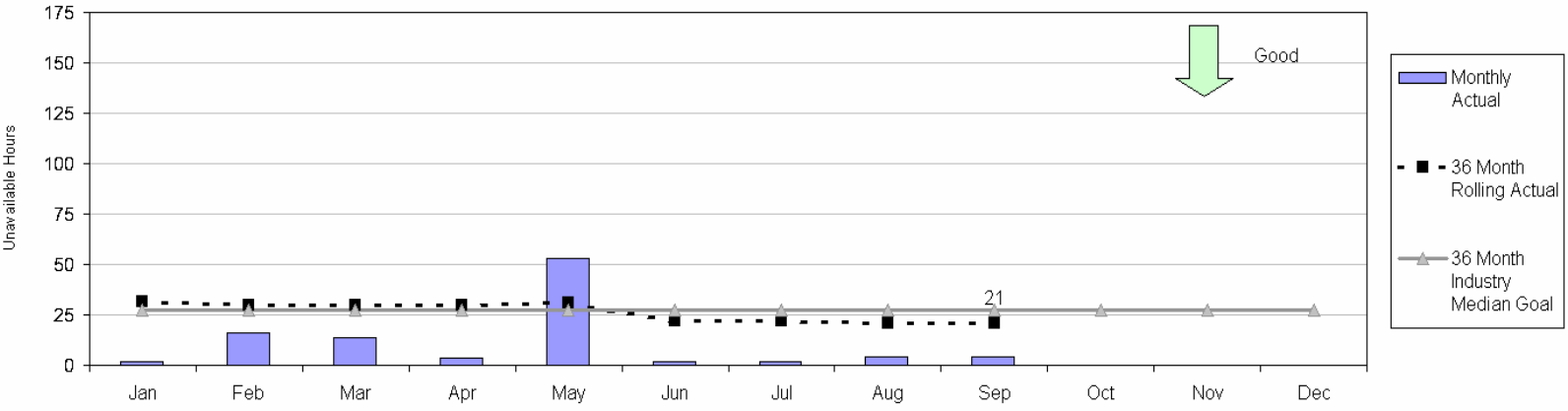
PSEG Nuclear, LLC	September 2004	Status	Definition
HOPE CREEK UNPLANNED NON-SHUTDOWN LIMITING CONDITION OF OPERATION (LCO) ENTRIES	Updated: Monthly		The number of Unplanned Non-Shutdown Technical Specification Limiting Conditions of Operation (LCOs) entered during the month.
Chart Owner			
Hope Creek System Engineering Manager		Goal:	6 per Month
History		Intent of Metric	
Historical Data Not Available		Nuclear plants are operated under a fundamental set of rules from the Nuclear Regulatory Commission (NRC) called Technical Specifications. Certain rules require operators to enter a non-shutdown LCO, meaning the equipment must be fixed in a defined period of time, or you are required to take compensatory measures. This metric measures the unplanned entries made at Hope Creek, compared to the expected number at top performing nuclear units (less than or equal to 6/month).	
		Analysis and Actions	
		Unplanned Non-shutdown Entries are meeting the goal.	


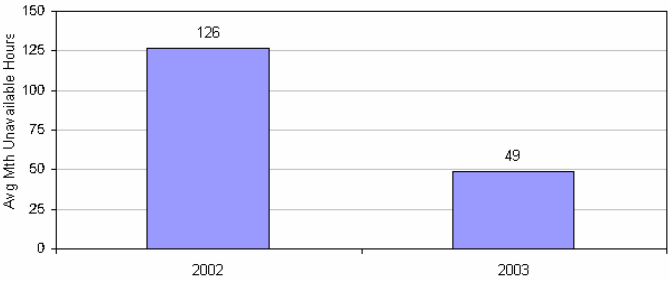
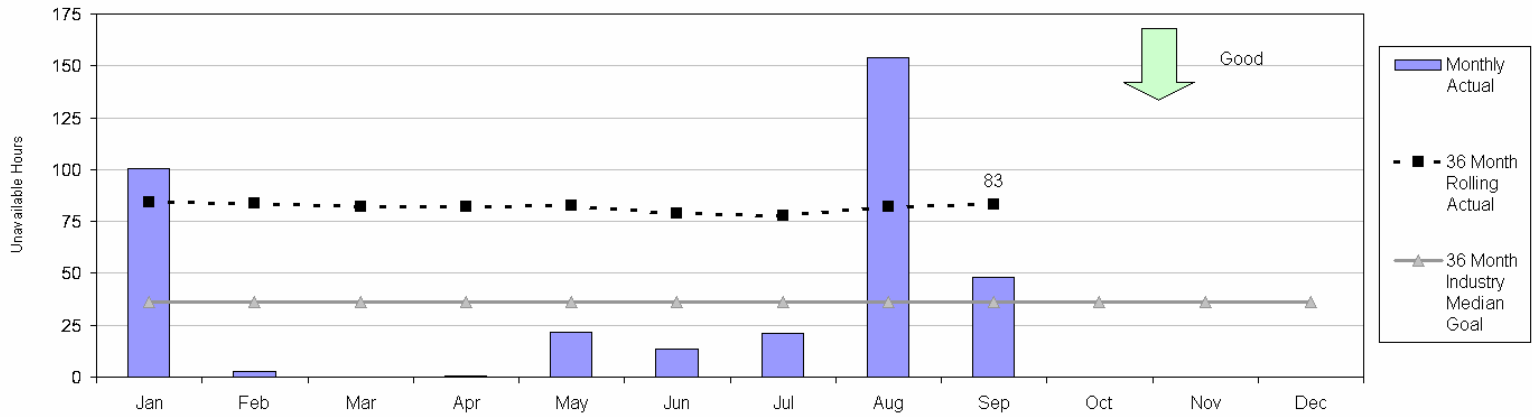



PSEG Nuclear, LLC	September 2004	Status	Definition
SALEM UNIT 1 EMERGENCY DIESEL GENERATOR UNAVAILABILITY	Updated: Monthly		The sum of the planned and unplanned hours that the Emergency Diesel Generators were not available.
Chart Owner		Goal:	27 hours per month (36 month rolling average)
Salem System Engineering Manager			

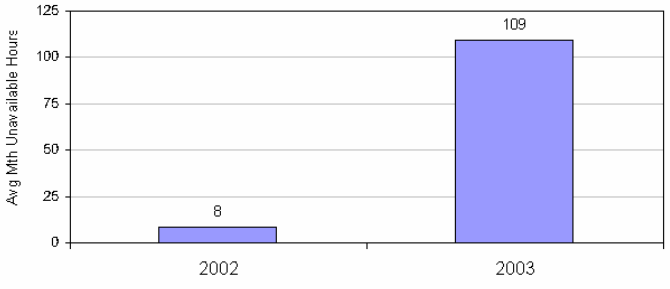
History	Intent of Metric						
 <p>Avg Mth Unavailable Hours</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Avg Mth Unavailable Hours</th> </tr> </thead> <tbody> <tr> <td>2002</td> <td>79</td> </tr> <tr> <td>2003</td> <td>26</td> </tr> </tbody> </table>	Year	Avg Mth Unavailable Hours	2002	79	2003	26	<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Emergency Diesels are out of service, compared against the industry median. The total represents the sum of the unavailable hours of the three Emergency Diesel Generators at Salem Unit 1. This is a long-term trend of our performance.</p>
Year	Avg Mth Unavailable Hours						
2002	79						
2003	26						
Analysis and Actions							
<p>This metric illustrates our performance on a 36 month rolling average. Each diesel generator is taken out of service for at least one planned maintenance window during an 18 month operating cycle. All maintenance over the last year has been planned, thus demonstrating progress to achieving our goal.</p>							

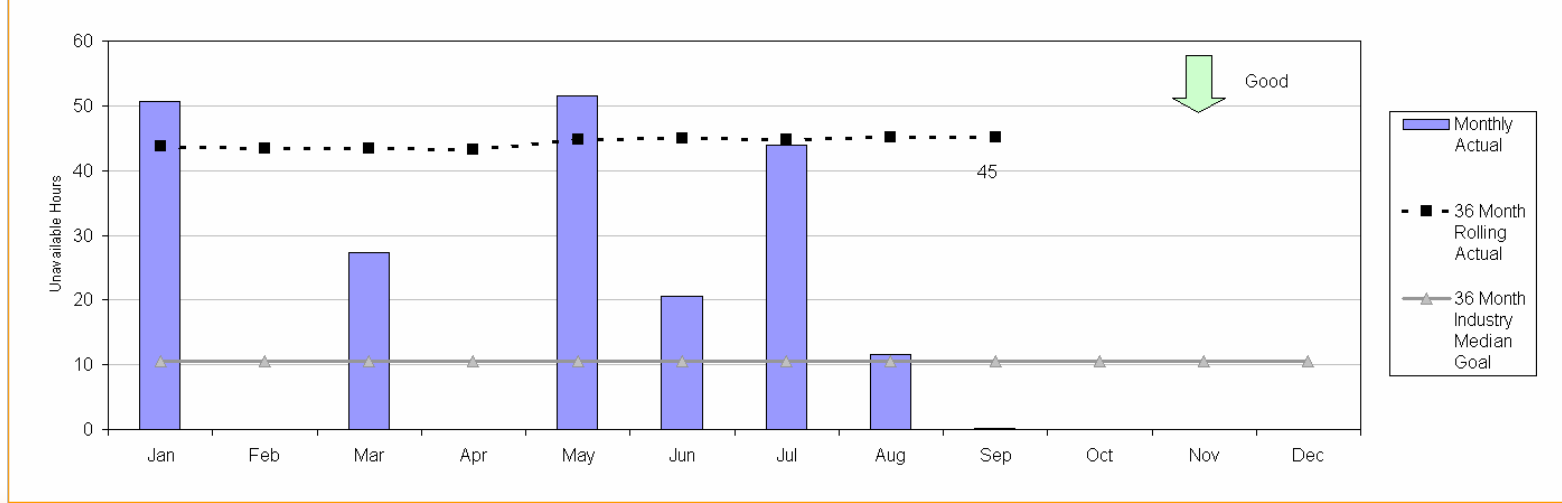



PSEG Nuclear, LLC		September 2004	Status	Definition																																																				
SALEM UNIT 2 EMERGENCY DIESEL GENERATOR UNAVAILABILITY		Updated: Monthly		The sum of the planned and unplanned hours that the Emergency Diesel Generators were not available.																																																				
Chart Owner			Goal:	27 hours per month (36 month rolling average)																																																				
Salem System Engineering Manager																																																								
History		Intent of Metric																																																						
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Year	Avg Mth Unavailable Hour																																																							
2002	29																																																							
2003	24																																																							
		Analysis and Actions																																																						
		Diesel unavailability hours are currently meeting the goal.																																																						
 <p>Unavailable Hours</p> <table border="1"> <thead> <tr> <th>Month</th> <th>Monthly Actual</th> <th>36 Month Rolling Actual</th> <th>36 Month Industry Median Goal</th> </tr> </thead> <tbody> <tr><td>Jan</td><td>2</td><td>35</td><td>30</td></tr> <tr><td>Feb</td><td>15</td><td>32</td><td>30</td></tr> <tr><td>Mar</td><td>12</td><td>30</td><td>30</td></tr> <tr><td>Apr</td><td>5</td><td>30</td><td>30</td></tr> <tr><td>May</td><td>55</td><td>30</td><td>30</td></tr> <tr><td>Jun</td><td>2</td><td>25</td><td>30</td></tr> <tr><td>Jul</td><td>2</td><td>25</td><td>30</td></tr> <tr><td>Aug</td><td>5</td><td>25</td><td>30</td></tr> <tr><td>Sep</td><td>5</td><td>21</td><td>30</td></tr> <tr><td>Oct</td><td></td><td>25</td><td>30</td></tr> <tr><td>Nov</td><td></td><td>25</td><td>30</td></tr> <tr><td>Dec</td><td></td><td>25</td><td>30</td></tr> </tbody> </table>					Month	Monthly Actual	36 Month Rolling Actual	36 Month Industry Median Goal	Jan	2	35	30	Feb	15	32	30	Mar	12	30	30	Apr	5	30	30	May	55	30	30	Jun	2	25	30	Jul	2	25	30	Aug	5	25	30	Sep	5	21	30	Oct		25	30	Nov		25	30	Dec		25	30
Month	Monthly Actual	36 Month Rolling Actual	36 Month Industry Median Goal																																																					
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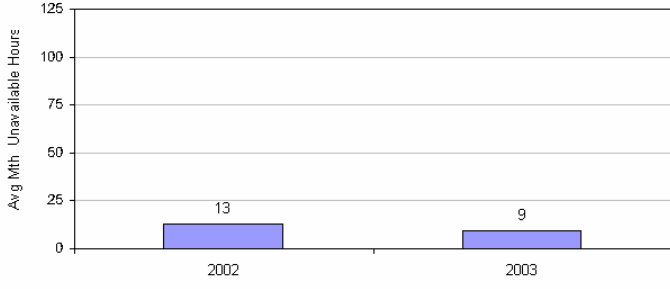
PSEG Nuclear, LLC		September 2004	Status	Definition
HOPE CREEK EMERGENCY DIESEL GENERATOR UNAVAILABILITY		Updated: Monthly		The sum of the planned and unplanned hours that the Emergency Diesel Generators were not available.
Chart Owner			Goal:	36 hours per month (36 month rolling average)
Hope Creek System Engineering Manager				
History		Intent of Metric		
		<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Emergency Diesels are out of service, compared against the industry median. The total represents the sum of the unavailable hours of the four Emergency Diesel Generators at Hope Creek. This is a long-term trend of our performance.</p>		
		Analysis and Actions		
		<p>This metric is tracking above goal due to three unplanned maintenance windows in 2002. All maintenance performed this year, with the exception of thirty hours, has been planned maintenance designed to improve system reliability.</p>		
				

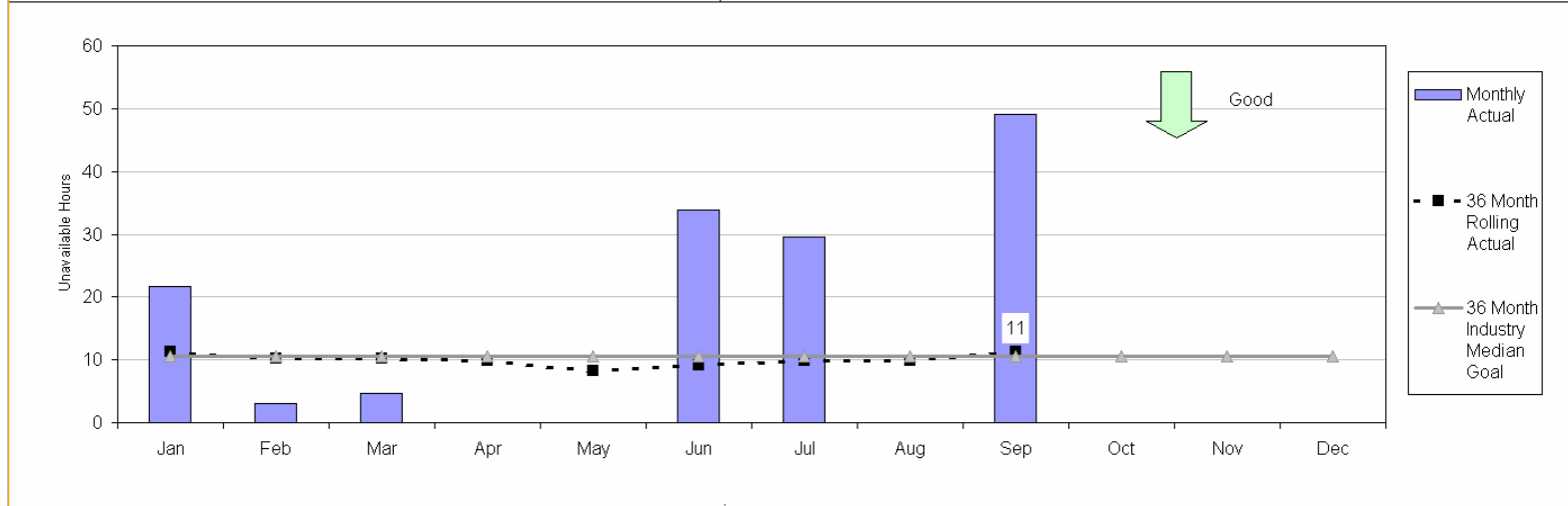
PSEG Nuclear, LLC	September 2004	Status	Definition
SALEM UNIT 1 AUXILIARY FEEDWATER SYSTEM UNAVAILABILITY	Updated: Monthly		The sum of the planned and unplanned hours that the Auxiliary Feedwater Systems were not available.
Chart Owner		Goal:	11 hours per month (36 month rolling average)
Salem System Engineering Manager			


History	Intent of Metric
	<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Salem Unit 1 Auxiliary Feedwater System is out of service compared against the industry median. The total represents the sum of the three Auxiliary Feedwater Systems on Salem Unit 1. This is a long-term trend of our performance.</p>
	Analysis and Actions
	<p>This metric is tracking above goal due to one unplanned maintenance window in 2003 and emergent and planned maintenance on the steam admission valve on the turbine driven auxiliary feedwater pump in 2004. Additional maintenance on this system is planned. Testing and monitoring will be performed to ensure that the corrective actions are effective.</p>

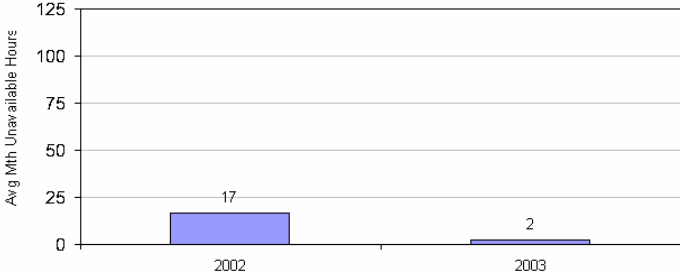


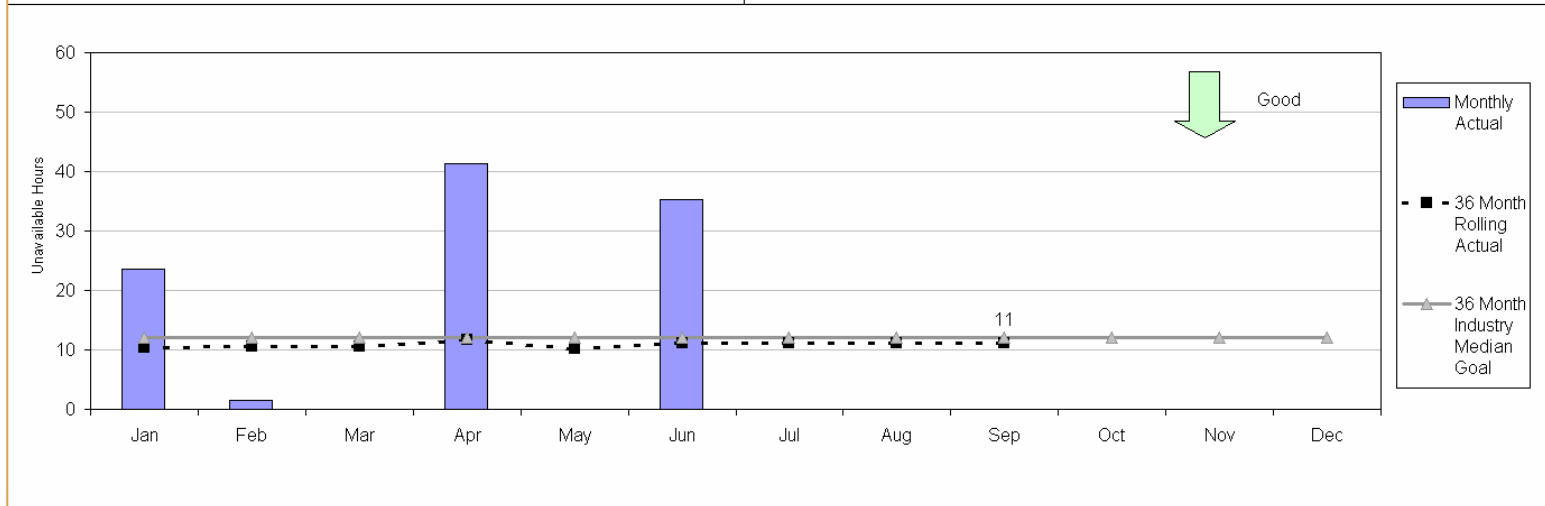
PSEG Nuclear, LLC	September 2004	Status	Definition
SALEM UNIT 2 AUXILIARY FEEDWATER SYSTEM UNAVAILABILITY	Updated: Monthly		The sum of the planned and unplanned hours that the Auxiliary Feedwater Systems were not available.
Chart Owner		Goal:	11 hours per month (36 month rolling average)
Salem System Engineering Manager			


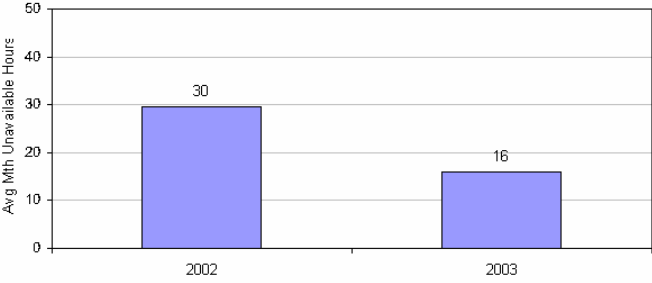
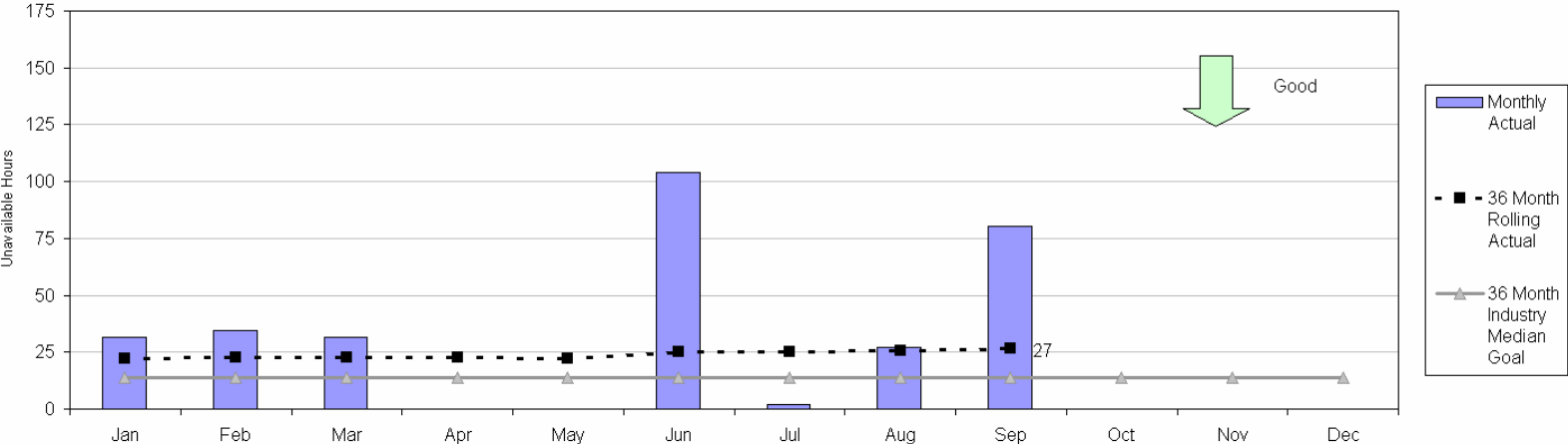
History	Intent of Metric
	<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Salem Unit 2 Auxiliary Feedwater System is out of service compared against the industry median. The total represents the sum of the three Auxiliary Feedwater Systems on Salem Unit 2. This is a long-term trend of our performance.</p>
	Analysis and Actions
	<p>During the current year, planned maintenance has been performed to maintain system reliability.</p>


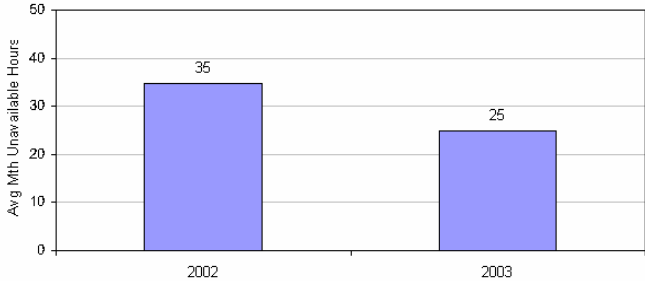


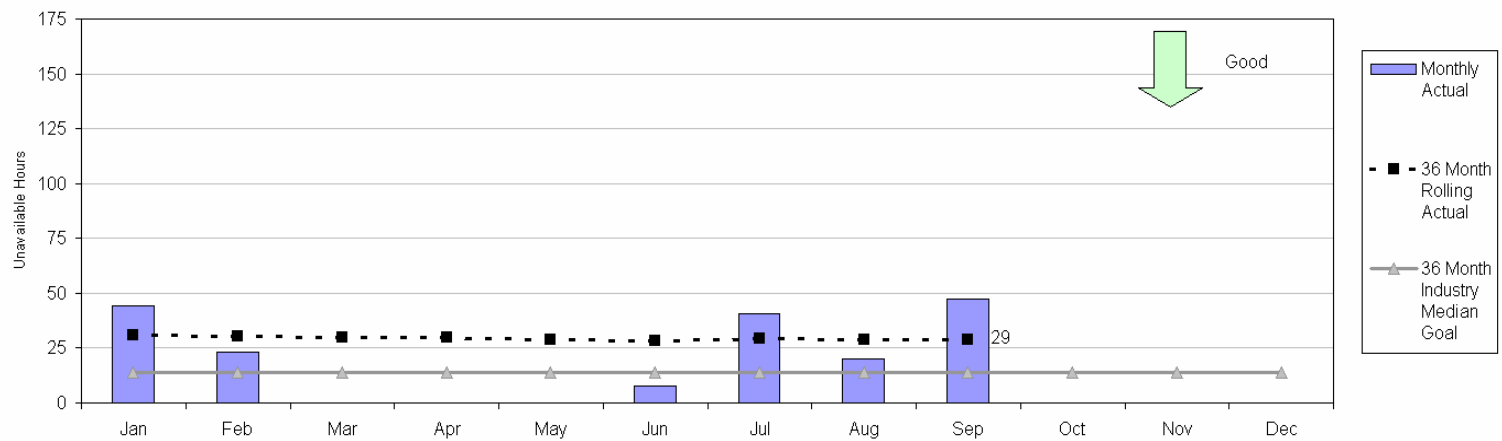
PSEG Nuclear, LLC	September 2004	Status	Definition
HOPE CREEK RESIDUAL HEAT REMOVAL SYSTEM UNAVAILABILITY	Updated: Monthly		The sum of the planned and unplanned hours that the Residual Heat Removal Systems were not available.
Chart Owner		Goal:	12 hours per month (36 month rolling average)
Hope Creek System Engineering Manager			

History	Intent of Metric
	<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Hope Creek Residual Heat Removal Systems are out of service compared against the industry median. The total represents the sum of the both Residual Heat Removal trains at Hope Creek. This is a long-term trend of our performance.</p>
	Analysis and Actions
	<p>During the current year, planned maintenance has been performed on this system to meet goal.</p>



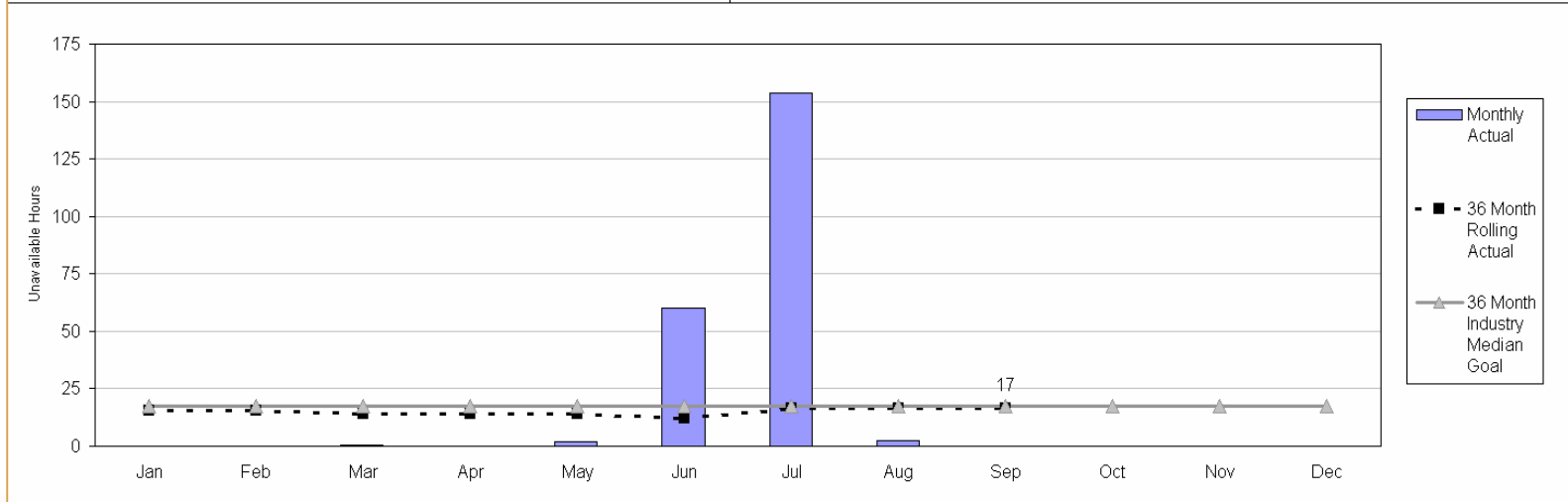
PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 1 CHEMICAL VOLUME CONTROL AND SAFETY INJECTION SYSTEM UNAVAILABILITY		Updated: Monthly		The sum of the planned and unplanned hours that the Chemical Volume Control and Safety Injection Systems were not available.
Chart Owner				
Salem System Engineering Manager			Goal:	14 hours per month (36 month rolling average)
History		Intent of Metric		
		<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Salem Unit 1 Chemical Volume Control and Safety Injection Systems are out of service compared against the industry median. The total represents the sum of the four trains on Salem Unit 1. This is a long-term trend of our performance.</p>		
		Analysis and Actions		
		<p>This metric is tracking above goal due to historical performance issues. During the current year, all maintenance with the exception of some maintenance in June, was scheduled to improve system reliability.</p>		
				

PSEG Nuclear, LLC		September 2004	Status	Definition
SALEM UNIT 2 CHEMICAL VOLUME CONTROL AND SAFETY INJECTION SYSTEM UNAVAILABILITY		Updated: Monthly		The sum of the planned and unplanned hours that the Chemical Volume Control and Safety Injection Systems were not available.
Chart Owner				
Salem System Engineering Manager			Goal:	14 hours per month (36 month rolling average)
History		Intent of Metric		
		<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the Chemical Volume Control and Safety Injection Systems are out of service compared against the industry median. The total represents the sum of the four trains on Salem Unit 2. This is a long-term trend of our performance.</p>		
		Analysis and Actions		
		<p>This metric is tracking above goal due to historical performance issues. During the current year, all maintenance was scheduled to improve system reliability.</p>		



PSEG Nuclear, LLC	September 2004	Status	Definition
HOPE CREEK HIGH PRESSURE INJECTION AND REACTOR CORE ISOLATION COOLING SYSTEM UNAVAILABILITY	Updated: Monthly		The sum of the planned and unplanned hours that the High Pressure Injection and Reactor Core Isolation Cooling Systems were not available.
Chart Owner			
Hope Creek System Engineering Manager		Goal:	18 hours per month (36 month rolling average)

History	Intent of Metric						
<table border="1"> <caption>Avg Mth Unavailable Hours</caption> <thead> <tr> <th>Year</th> <th>Avg Mth Unavailable Hours</th> </tr> </thead> <tbody> <tr> <td>2002</td> <td>19</td> </tr> <tr> <td>2003</td> <td>2</td> </tr> </tbody> </table>	Year	Avg Mth Unavailable Hours	2002	19	2003	2	<p>Nuclear plants are designed with a series of redundant safety systems and equipment. This allows equipment to be removed from service for maintenance. This metric monitors the amount of time the High Pressure Injection and Reactor Core Isolation Cooling Systems are out of service compared against the industry median. The total represents the sum of both systems at Hope Creek. This is a long-term trend of our performance.</p>
Year	Avg Mth Unavailable Hours						
2002	19						
2003	2						
	Analysis and Actions						
	<p>The system unavailability was impacted by planned maintenance and an original design discrepancy which was discovered and corrected.</p>						



Engineering Support of Operational Decision Making

Michael Gallagher

Vice President – Engineering & Technical Support



Improvement Initiatives

Improvement initiatives were developed during the reorganization of Fall 2003

Engineering was focused on each Station to improve Operational Focus

The number of System Engineers was increased and the function was strengthened

Design Engineering initiated quality programs and developed special training

Technical Rigor Training Conducted

Operational Decision Making Improvements

The recent Hope Creek Pipe Failure has led to a review of the operational decision making process

Our process is being improved based on industry best practice

Interim actions are in place until the process is finalized

A review of operability determinations at Salem has been completed. Hope Creek reviews will be completed before startup

Other recent key decisions will be reviewed utilizing the operational decision making process

Human Performance

Michael Brothers

Vice President – Site Operations



Human Performance

Human performance is being addressed via the successful implementation of our five Business Focus Areas

Specific accountability is established in our business plan, coaching log book and key Focus Area metrics

Procedure Compliance

Procedure compliance expectations have been reiterated by the Plant Managers

The number of technical non-compliance notifications remains low and the trend is improving

The number of administrative non-compliance notifications has dropped since the beginning of the year

The Role Of Quality Assessment

John Carlin

Vice President – Nuclear Assessment



The Role of Quality Assessment

Required by Regulation

- Maintain independence
- Assess QA Program compliance

Organizational Conscience

- Maintain independent Quality Organization
- Go beyond minimum requirements
- Identify and investigate potential trends
- Assess overall performance

QA's Role in the Five Business Plan Key Areas

Assess effectiveness of key improvement initiatives

Validate accuracy of key performance metrics

Assess completeness of Business Plan Action Item Closures

QA Improvement Initiatives

Completed

- Established integrated site quarterly exit meetings
- Increased the focus on performance
- Delivered more concise results
- Established an escalation process for QA issues

Planned

- Increased Power Board of Director oversight of QA
- Survey QA site stakeholders
- Train site personnel on QA purpose and fundamentals



Chris Bakken

President & CNO – PSEG Nuclear

