Northeast Nuclear Energy Rope Ferry Rd. (Route 156), Waterford, CT 06385

Millstone Nuclear Power Station Northeast Nuclear Energy Company P.O. Box 128 Waterford, CT 06385-0128 (860) 447-1791 Fax (860) 444-4277

The Northeast Utilities System

AUG | 6 1999

Docket No. 50-336 50-423

B17849

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

Millstone Nuclear Power Station, Units No. 2 and 3 Second Quarter Backlog Performance Report for 1999

Please find enclosed the 1999 second quarter performance report for Millstone Units No. 2 and 3. This transmittal represents the fourth report on Millstone Station's performance since restart of Millstone Unit No. 3 and the first status update for Millstone Unit No. 2.

The format and content of the current version of the report has been revised. Northeast Nuclear Energy Company (NNECO) has discontinued reporting assessments of performance on the 15 key issues identified during recovery. Performance monitoring for these key issues was initially used as a means of measuring progretoward restart readiness at the Millstone Station. Following restart of Millstone Unix No. 3, performance monitoring for these key issues continued as a demonstration of Millstone Station's commitment to sustaining performance levels achieved during the recovery process. While continuous improvement is our goal, acceptable and sustained performance has been achieved in the key issue areas, as documented in our previous reports. NRC and internal oversight assessments also support this action.

Additionally, NNECO has discontinued reporting on the status of corrective actions associated with the findings and recommendations contained in the Independent Corrective Action Verification Program (ICAVP) final report for Millstone Unit No. 3. The balance of outstanding corrective actions are tracked within the Millstone Station Corrective Action Program and are prioritized along with the balance of routine, emergent work and backlog reduction initiatives.

NNECO views the changes described above as essential to ensuring a balance of resources which maintains continued emphasis on the Millstone Station operational focus goals for safe and event free operation of Millstone Unit Nos. 2 and 3.

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The format changes described above satisfy two of NNECO's previous commitments associated with the quarterly submittal of the backlog performance reports. Both commitments, involving reporting of key issues performance and progress on ICAVP final report findings, originated in NNECO letters, references (1) and (2) below, as commitment numbers B17159-04 and B17287-01. With these changes to the report's format, NNECO will continue to meet our commitment to provide quarterly reports on the status of open level 4 discrepancy reports by reporting on the progress towards completion of the ICAVP discrepancy report related corrective actions in the backlog performance updates.

There are no regulatory commitments contained within this letter.

If you have any questions concerning this submittal, please contact Mr. David A. Smith at (860) 437-5840.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

R. P. Necci Vice President - Nuclear Oversight and Regulatory Affairs

Enclosure: (1)

cc: H. J. Miller, Region I Administrator

D. P. Beaulieu, Senior Resident Inspector, Millstone Unit No. 2

R. B. Eaton, NRC Senior Project Manager, Millstone Unit No. 2

A. C. Cerne, Senior Resident Inspector, Millstone Unit No. 3

J. A. Nakoski, NRC Project Manager, Millstone Unit No. 3

⁽¹⁾ NNECO Letter, M. L. Bowling, Jr., "Millstone Nuclear Power Station, Unit No. 3, Backlog Management Plan," dated March 31, 1998, (B17159).

⁽²⁾ NNECO Letter, M. L. Bowling, Jr., "Millstone Nuclear Power Station, Unit No. 3, Backlog Management Performance Update - Second Quarter 1998," dated June 30, 1998, (B17287).

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<u>B17849</u>

Enclosure

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Millstone Nuclear Power Station, Units No. 2 and 3

Second Quarter Backlog Performance Report for 1999

August 1999

BACKLOG PERFORMANCE REPORT

Second Quarter 1999

The purpose of this Backlog Performance Report is to provide the progress achieved in the disposition of work items that have been included in the backlog of deferred work in several work management categories for both Millstone Units No. 2 and 3. These work management categories include Configuration Management Discovery, Engineering Backlog, Total Corrective Action Assignments, ICAVP DR Corrective Action Assignments, Corrective Maintenance AWOs, Open Operability Determinations, Operator Work Arounds, Control Room Panel Deficiencies, Temporary Modifications, and NCRs. This Backlog Performance Report reflects the status of the deferred recovery backlog, the accumulation of post recovery new backlog, and adjustments to performance targets and the Backlog Management methodology functional requirements. Several targets have been modified to reflect the 1999 Operational Focus Goals for Millstone Station.

Backlog Management performance is evaluated two ways - reduction of recovery deferred backlog that existed as the units entered into Mode 2, as well as additional post restart backlog that has accumulated. Both perspectives are presented in the attached Key Performance Indicators for each work management category, where appropriate.

Background - Unit 2

The original targets for dispositioning the backlog of deferred work are described in the "Restart Backlog Management Plan" issued in December, 1998. Specific targets previously identified included the disposition of UIRs prior to mode 2 entry following RFO13, the disposition of ICAVP Discrepancy Reports (DRs) prior to entry into mode 2 following RFO13, and the disposition of remaining recovery backlog within six months after RFO13. The target for the disposition of DR's, which was also identified as a commitment, was revised to reflect completion by December 31, 2001, via "Backlog Management Plan Commitment Change" letter B17690, dated March 30, 1999. The targeted completion for remaining non - ICAVP recovery backlog is being revised via this update to be dispositioned no later than December 31, 2001. This target was revised based on an Engineering resource loading analysis performed in conjunction with Unit 3 backlog. This adjustment is appropriate in that it allows a continued focus on safe, event-free operation of both units rather than focus on those backlog items which are not safety significant.

Background - Unit 3

The Millstone Unit No. 3 "Backlog Management Plan" was issued, March 31, 1998. A subsequent update was issued on June 30, 1998, with additional information. The plan provides a structured approach to successfully manage and disposition the deferred

Backlog Performance Report, Second Quarter 1999 Page 2 of 10

backlog, population while maintaining a management focus on safe, event free operation of Unit No. 3.

The original plan for dispositioning the backlog of deferred work was described in the "Backlog Management Performance Update - Second Quarter," issued on June 30, 1998. That plan reads, "Backlog of Deferred Work will be dispositioned prior to entry into Mode 2 following RFO6 plus 6 months except for DR corrective actions and corrective actions related to previous UIRs and OIRs." This requirement was revised based on the Engineering resource loaded schedule as part of the first quarter 1999 Backlog Management update, and is planned to be dispositioned prior to June 30, 2002. The management team will continue to closely monitor the progress as overall station backlogs continue to trend towards industry standards.

The previous commitment in place for DR corrective actions to be dispositioned prior to entry into Mode 2 following RFO6 was revised to reflect completion by March 30, 2000, via "Backlog Management Plan Commitment Change" letter B17690, dated March 30, 1999.

Line Self-Assessment

Routine review of Key Performance Indicators by Unit Management assesses performance against goals. Appropriate action plans are established if performance is not meeting management expectations.

A Unit 3 self-assessment of the effectiveness of the Deferred Backlog Management Plan implementation, originally scheduled to be performed in the first quarter of 1999, has been rescheduled due to conflicts with refueling outage preparations to the third quarter of 1999, (3CAD-SA-99-01 "Deferred Backlog Reduction Effectiveness"). Lessons Learned will be applied to Unit 2.

Nuclear Oversight Assessment

Nuclear Oversight periodically assesses the deferred backlog work-off process and overall post-restart plant performance in these areas. A review of the Unit Deferred Items Committee for Unit 3 and the process for prioritizing or canceling backlog items, found discussions and dispositions of individual items to be appropriate. Additionally, Nuclear Oversight agreed with all cancellations observed.

Performance - Unit 2

Table 1 represents the Deferred Items Baseline for the initial post recovery Unit 2 entry into Mode 2 on May 9, 1999, and the Deferred Items Quarterly Status as of June 30, 1999. Table 2 represents the Performance Status and Targets by Work Management Category. Also attached are the associated Key Performance Indicators. Backlog Performance Report, Second Quarter 1999 Page 3 of 10

Initial progress towards trending to goals is mixed with some reduction in recovery backlog and the addition of emergent new backlog. Overall reduction of the recovery backlog is over 12% in a less than two month period. Areas for improvement include Temporary Modifications and Operator Work Arounds, which are recognized by the Station Management Team.

Performance - Unit 3

Table 3 represents the Deferred Items Baseline and the Deferred Items Quarterly Status as of June 30, 1999. Table 4 represents the Performance Status and Targets by Work Management Category. Also attached are the associated Key Performance Indicators.

Most backlog management goals are being met. Overall reduction of the recovery backlog is over 63% for the four quarters following Unit 3 Mode 2 entry. The exception is Temporary Modifications. This area is recognized by the Station Management Team as key to ensuring an operational focus and action is being taken to improve performance, specifically planned modifications scheduled for upcoming online equipment outages

Backlog Performance Report, Second Quarter 1999 Page 4 of 10

Table 1

Unit 2 Deferred Items Baseline and Quarterly Status

Work Management Category Bins	As of 5/9/99	As of 6/30/99
Corrective Action Assignments	2620	2292
Corrective Maintenance Work Orders (AWOs)	502 (2)	421
Temporary Modifications	10	10
Operator Work Arounds (OWAs)	12	11
Control Room Panel Deficiencies	24	13
Configuration Management Discovery (UIRs)	128	115
Engineering Backlog (1)	644	553
ICAVP DR Corrective Action Assignments	638	609
Operability Determinations	18 (3)	15
Non-Conformance Reports	0	0
Total Recovery Backlog Items	4596	4039

(1) Engineering backlog consists of EWAs, EWRs, MMODs, DCRs, PDCEs, PAs, and PDCRs.

(2) Revised to include future outage backlog

(3) Operability Determinations category added in this submittal

Backlog Performance Report, Second Quarter 1999 Page 5 of 10

Table 2

Second Quarter 1999 Recovery Backlog Performance Status and Targets by Work Management Category - Millstone 2

Work	Deferred	Category Status	Future Targets
Management Category	Recovery Backlog Status	(including Near Term Targets)	
	(as of 6/30/99)		
Corrective Action	328 / 2620	Restart targets of no MID13	Reduction in total
Assignments	(12.5%)	assignments, no overdue Level 1 CR investigations and \leq 3 % overdue AITTS	open CR AITTS 3 months following
	completed		restart
		 1st Quarter target of maintaining the total open CR AITTS steady has essentially been met with a slight increase 	 All deferred Corrective Actions dispositioned by 12/31/2001
Corrective	81 / 502	• Restart targets of no MID13 AWOs and \leq	≤ 400 Power Block
Maintenance Work Orders	(16.1%)	350 On PRA Risk Significant Systems were met	and <280 On PRA Risk Significant
(AWOs) -	completed	 Restart target of ≤ 500 Power Block AWO's was not met 	Systems *
Temporary	0 / 10	 Restart target of ≤ 10 Temporary 	• < 10 Temporary
Modifications	completed	Modifications was met	Modifications *
		 13 total existing 	
Operator Work	1 / 12	 Restart target of < 10 OWAs was not met 	
Arounds (OWAs)	(8.3%)	 11 presently existing 	
	completed		
Control Room Panel Deficiencies	11/24	 Restart target of ≤ 10 CRPs was not met 	 ≤ 10 CRPs open *
	(45.8%)		
	completed		
* revised to be con	sistent with 1999 (Operational Focus Goals	
Configuration	13 / 128	Restart target of no open LB/DB Items	All UIRs
Management Discovery	(10%)	was met	dispositioned by 12/31/2001
(UIRs)	completed		

* revised to be consistent with 1999 Operational Focus Goals

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Management Category	Deferred Recovery Backlog Status (as of 6/30/99)	Category Status (including Near Term Targets)	Future Targets
Engineering Backlog	91/644	engineering items dispositioned was met	Support RFO13
	(14.1%)		Modifications schedule
(Includes: EWA, EWR, MMOD, DCR, PDCE, PDCR, PMR)	completed		 Disposition all Engineering backlog by December 31, 2001.
(Note DCNs, RIEs included as they ar	re daughter produc	cts of	
	re daughter produc	 A gradual reduction in the number of open DR assignments is being shown 	 Disposition all DR by December 31, 2001
included as they an the above categori ICAVP DR Corrective Actions Operability	re daughter produc es) 29 / 638 (4.5%)	 A gradual reduction in the number of open DR assignments is being shown Near term target of a gradual reduction in 	by December 31, 2001Recovery OD
included as they an the above categori ICAVP DR Corrective	29 / 638 (4.5%)	 A gradual reduction in the number of open DR assignments is being shown 	by December 31, 2001

Backlog Performance Report, Second Quarter 1999 Page 7 of 10

Table 3

Work Management Category Bins	As of 6/29/98	As of 06/30/99
Corrective Action Assignments (non DR)	3915	1320
Corrective Maintenance Work Orders (AWOs)	583	135
Temporary Modifications	15	9
Operator Work Arounds (OWAs)	15	4
Control Room Panel Deficiencies	5	0
Non-Conformance Reports (NCRs)	57	22
Configuration Management Discovery	864	322
Engineering Backlog	777	405
ICAVP DR Corrective Action Assignments	838	371
Operability Determinations	28 includes 7 USQs	10 includes 3 USQs
Total Deferrable Items	7097	2598

Unit 3 Deferred Items Baseline and Quarterly Status

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Table 4

Work Management Category	Deferred Recovery Backlog Status (as of 6/30/99)	Category Status (including Near Term Targets)	Future Targets
Corrective Action	2595 / 3915	• 3139 outstanding assignments (total new	Continued
Assignments	(66.3%)	work and recovery backlog)	reduction in total open CR AITTS
	completed	 Near term targets of a continued reduction in total open CR AITTS was not maintained during the RFO6 (May, June 1999) time period 	 All deferred Corrective Actions dispositioned by 6/30/2002
Corrective	448 / 583	 135 outstanding remaining recovery 	• < 400 Power
Maintenance Work Orders	(76.8%)	backlog of which 19 are scheduled for a future outage. Total recovery backlog	Block *
(AWOs)	completed	plus new non-outage backlog is 351 AWO's. 138 AWO's in the total backlog remain for PRA risk significant systems	 ≤ 250 on PRA Risk Significant Systems *
Temporary Modifications	6/15	• 16 total Temporary Modifications existing	 ≤ 10 Temporary
	completed		Modifications *
Operator Work Arounds (OWAs)	11/15	5 total existing	• ≤ 10 OWAs *
	completed		
Control Room Panel Deficiencies	5/5	 4 total existing. Target was < 10 by 	 ≤ 10 CRPs open '
	completed	12/98, and was met	
		 Target of no CRPs open > 1 cycle has been met 	
Non- Conformance Reports (NCRs)	35 / 57	Target is no overdue NCR corrective	No overdue NCR
	(61.4%)	actions. Performance was satisfactory upon close of guarter	corrective actions
	completed	 CRs are now used in place of NCRs per the revised Corrective Action program and will be tracked via CR goals 	 The NCR backlog will be dispositioned by 6/30/2002

* revised to be consistent with 1999 Operational Focus Goals

Near term target of a 25% reduction in the number of corrective actions related to previous UIRs and OIRs by the end of 1998 has been met	•	All UIR / OIR Corrective Actions dispositioned by 6/30/2002
		010012002
 RFO6 modifications were completed prior to RFO6 restart 		Support RFO7
		modifications schedule
	•	All Engineering Recovery Backlog dispositioned by 6/30/2002
ed as		
	ed as	• ed as

(75 MSEEs are included in recovery backlog but will not be included in new work numbers due to their non LB/DB nature and, in many cases, short life span)

ICAVP DR	533 / 904	Near term target of 25% reduction in	All ICAVP DR ARS
Corrective Actions	(59%)	open DR assignments by 12/98 has been met. Some new assignments have been	dispositioned by March 31, 2000
	completed	created to manage closure of original issues	
Operability Determinations	18/28	Near term target of a gradual reduction in	Recovery OD
	(64.3%)	the total number of open ODs has been met. Currently there are 21 open	backlog will be dispositioned by
	closed	Operability Determinations.	6/30/2002
		 Open ODs were reviewed by PORC for aggregate impact prior to restart from RFO6 	
		 No ODs were greater than two years old for RFO6 restart 	

Backlog Performance Report, Second Quarter 1999 Page 10 of 10

LIST OF ACRONYMS USED

AITTS AR AWO CR CRP DCN DCR DR EWA EWR ICAVP IEE LB/DB MID13 MMOD MSEE NCR OD OIR OVA PA PDCE PDCR PDCR PDCR PMR PORC PRA RFO RIE	Action Item Tracking and Trending System action request corrective maintenance work orders condition report control room panel deficiency design change notice design change record discrepancy report engineering work assignment engineering work request Independent Corrective Action Verification Program item equivalency evaluation licensing basis/design basis mid operating cycle 13 minor modification maintenance support engineering evaluation non-conformance report operability determination open item report operator work around project assignment plant design change plant design change record plant modification request Plant Operations Review Committee probabilistic risk assessment refueling outage replacement item evaluation

Appendix:

Key Performance Indicators (attached)

APPENDIX

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Backlog Performance Report, Second Quarter 1999

Key Performance Indicators

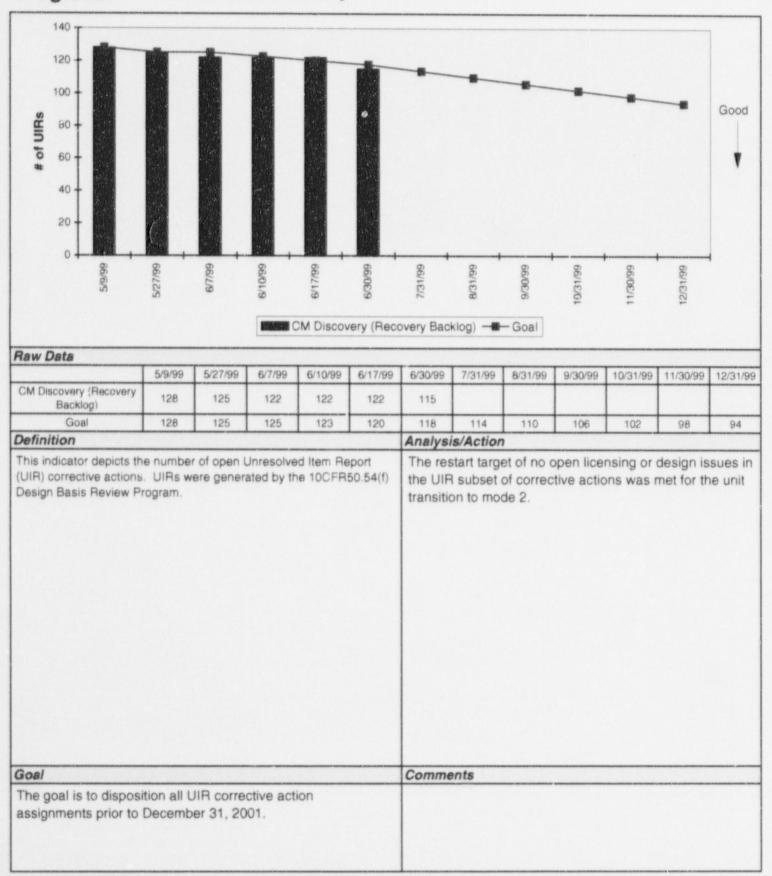
Millstone Unit No. 2

A-1	Configuration Management Discovery
	Engineering Backlog
A-3	Corrective Action Assignments
A-4	DR Corrective Action Assignments
A-5	Corrective Maintenance AWOs
A-6	Open Operability Determinations
	Operator Work Arounds
A-8	Control Room Panel Deficiencies
A-9	Temporary Modifications

Millstone Unit No. 3

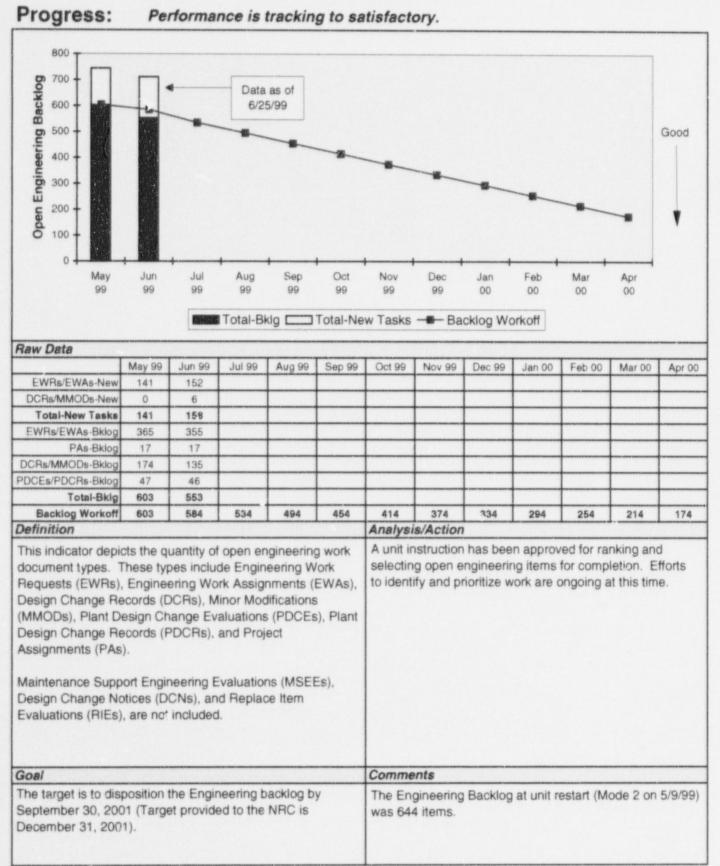
B-1	Configuration Management Discovery
	Engineering Backlog
B-3	Corrective Action Assignments
B-4	DR Corrective Action Assignments
B-5	Corrective Maintenance AWOs
B-6	Open Operability Determinations
B-7	Operator Work Arounds
B-8	Control Room Panel Deficiencies
B-9	Temporary Modifications
B-10	NCRs

Backlog Management Configuration Management Discovery Millstone 2

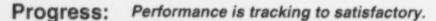


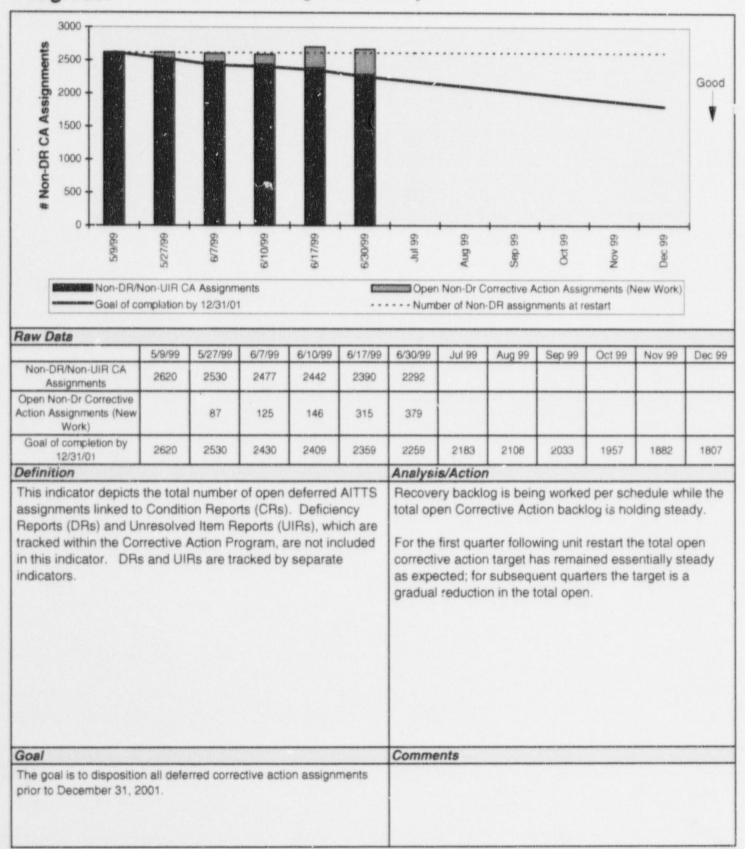
Progress: Performance is satisfactory.

Backlog Management Engineering Backlog

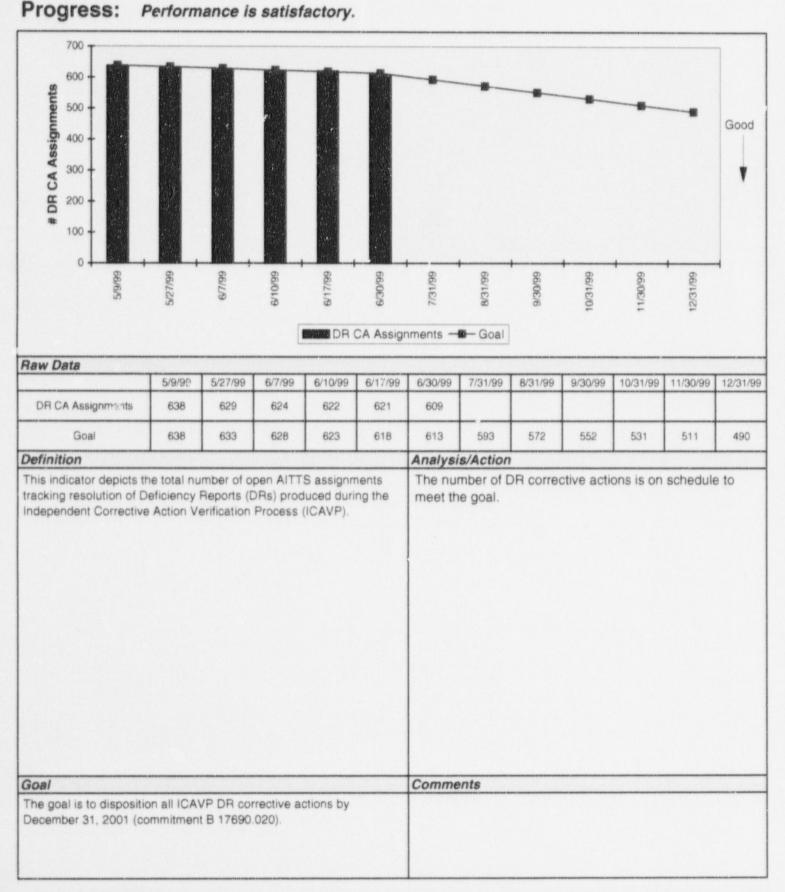


Backlog Management Corrective Action Assignments Millstone 2

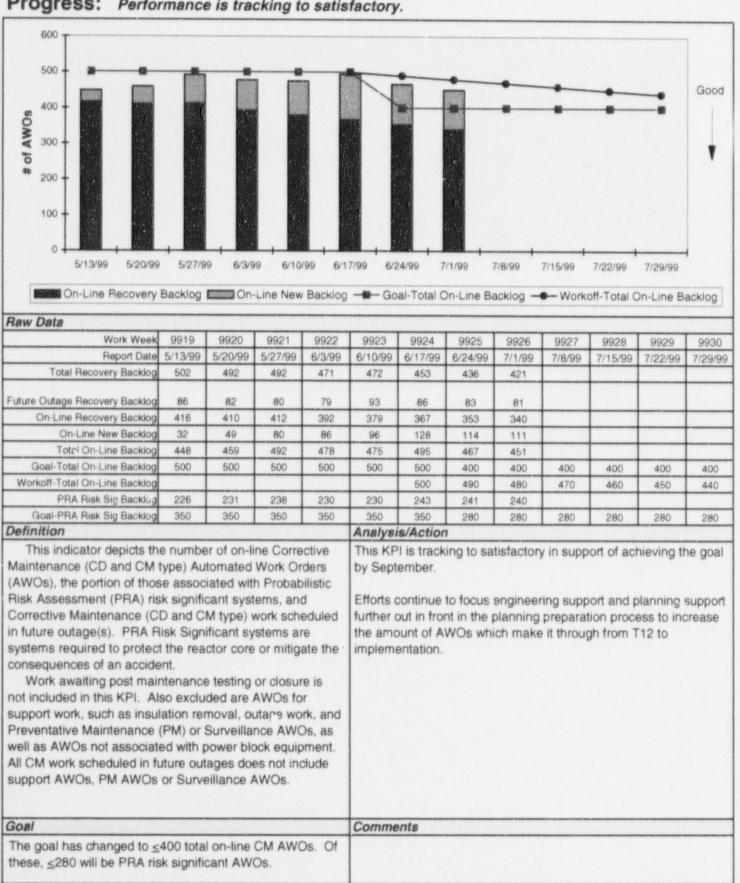




Backlog Management DR Corrective Action Assignments Millstone 2



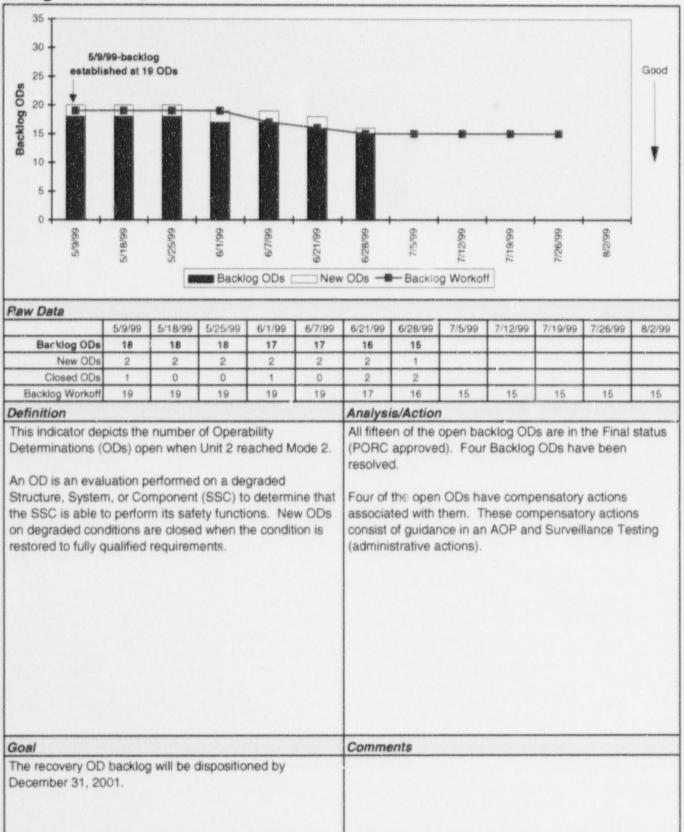
Backlog Management Corrective Maintenance AWOs



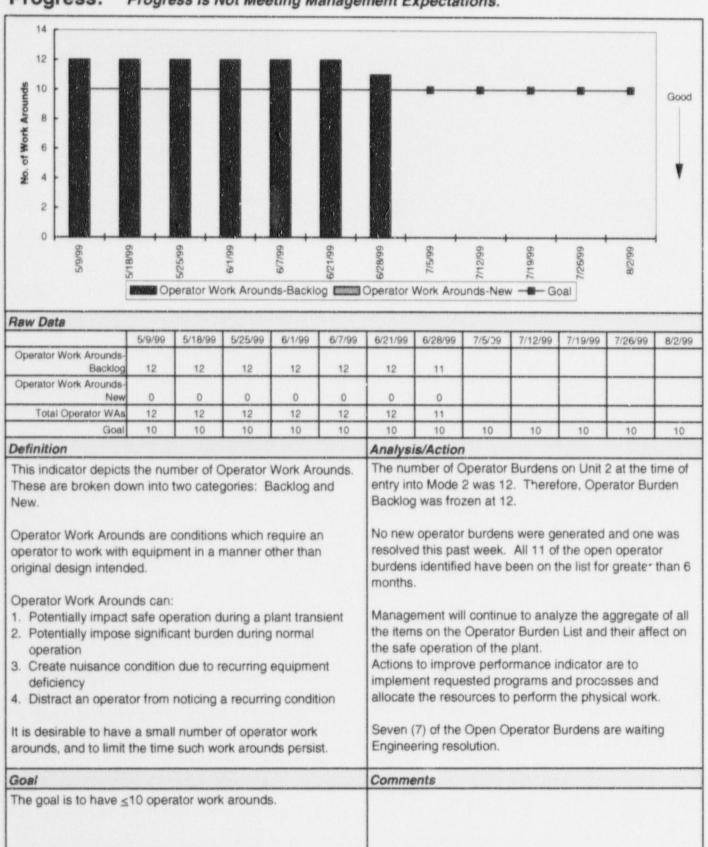
Backlog Management Open Operability Determinations

Millstone 2

Progress: Progress is Satisfactory

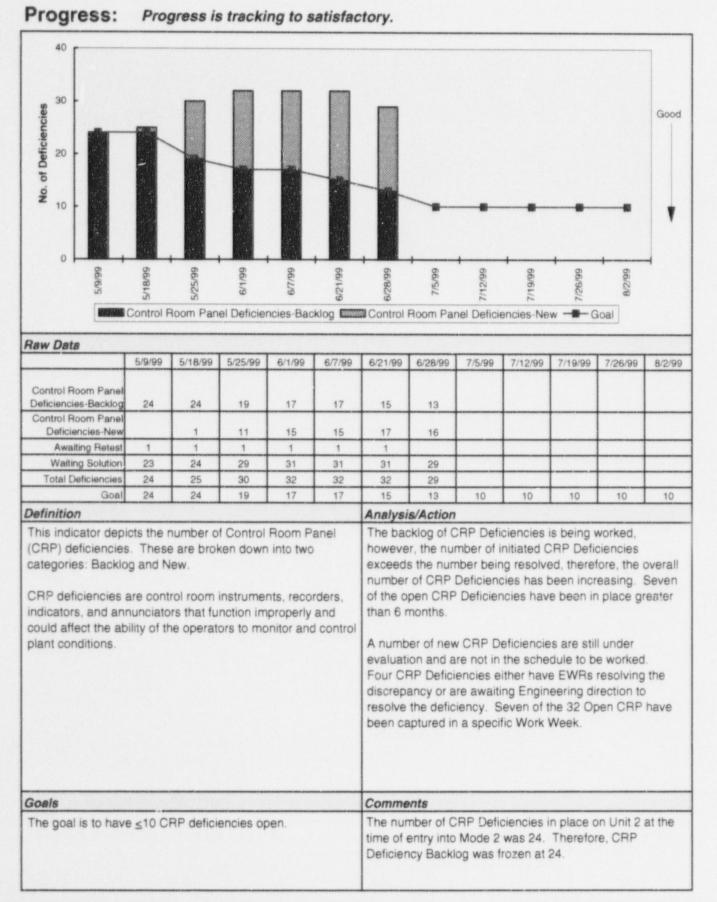


Backlog Management Operator Work Arounds

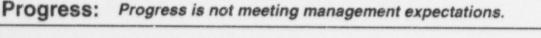


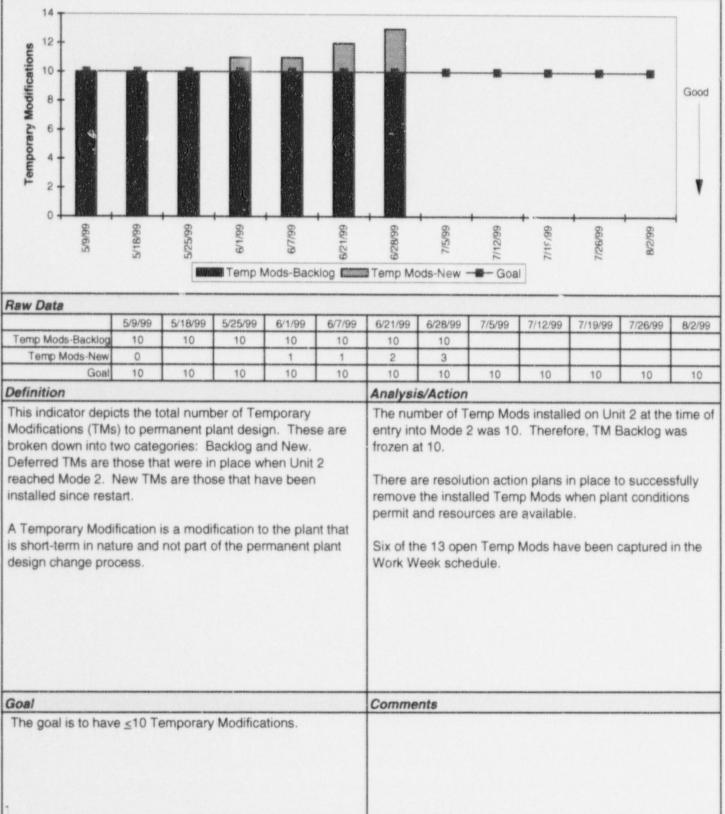
Backlog Management Control Room Panel Deficiencies



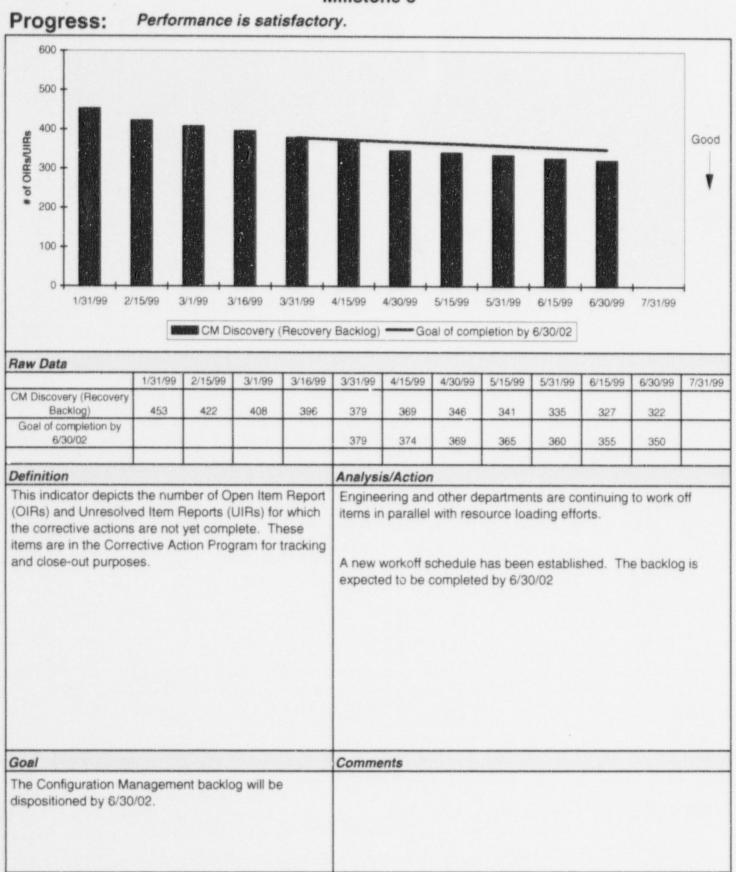


Backlog Management Temporary Modifications

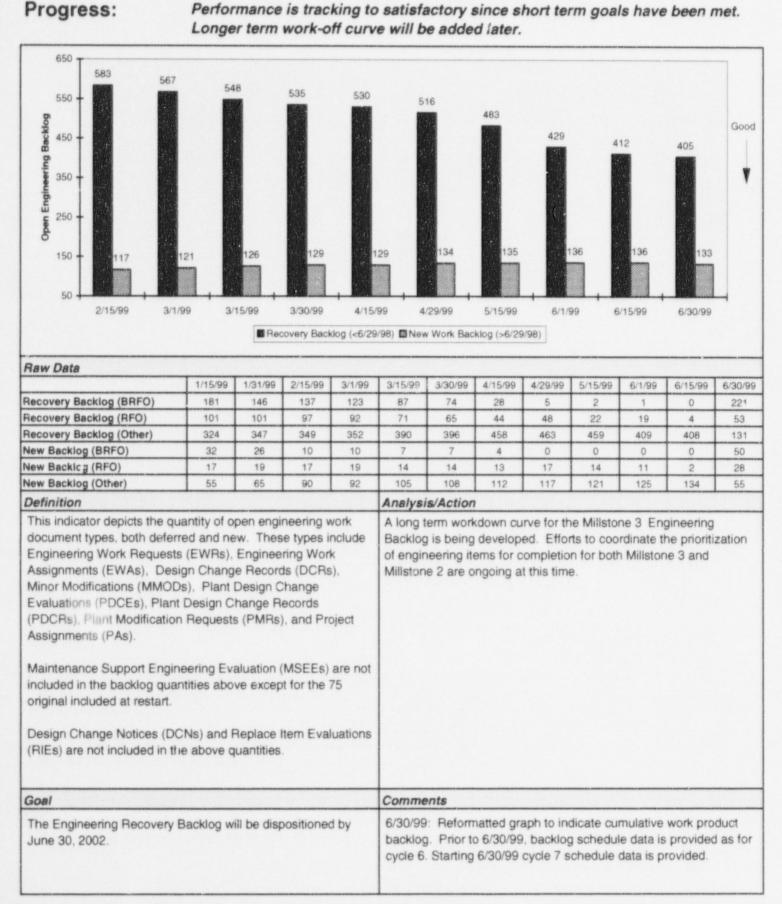




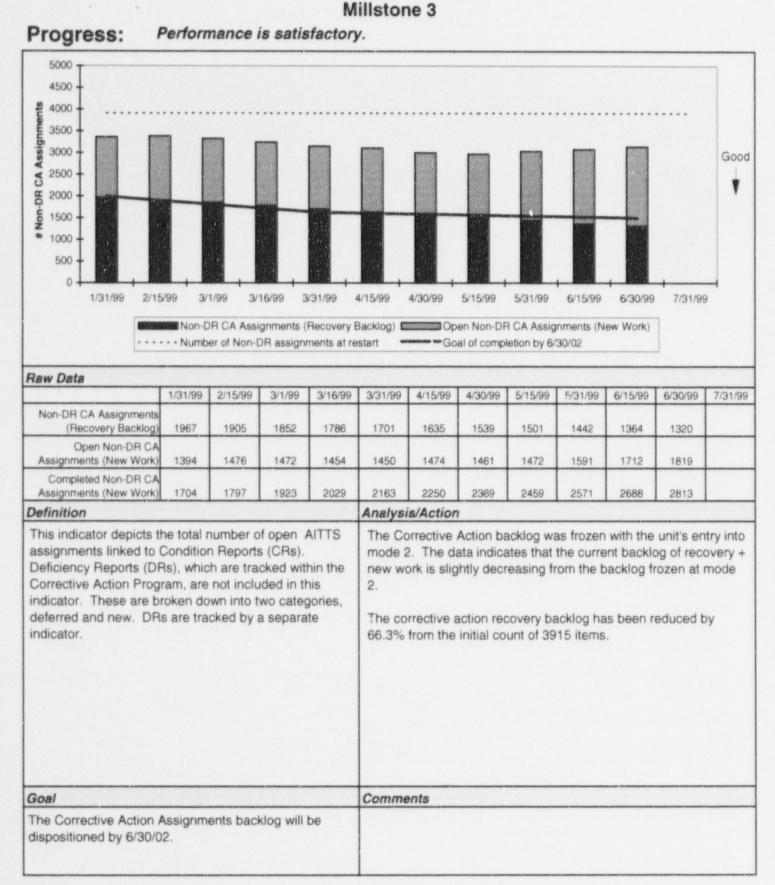
Backlog Management Configuration Management Discovery



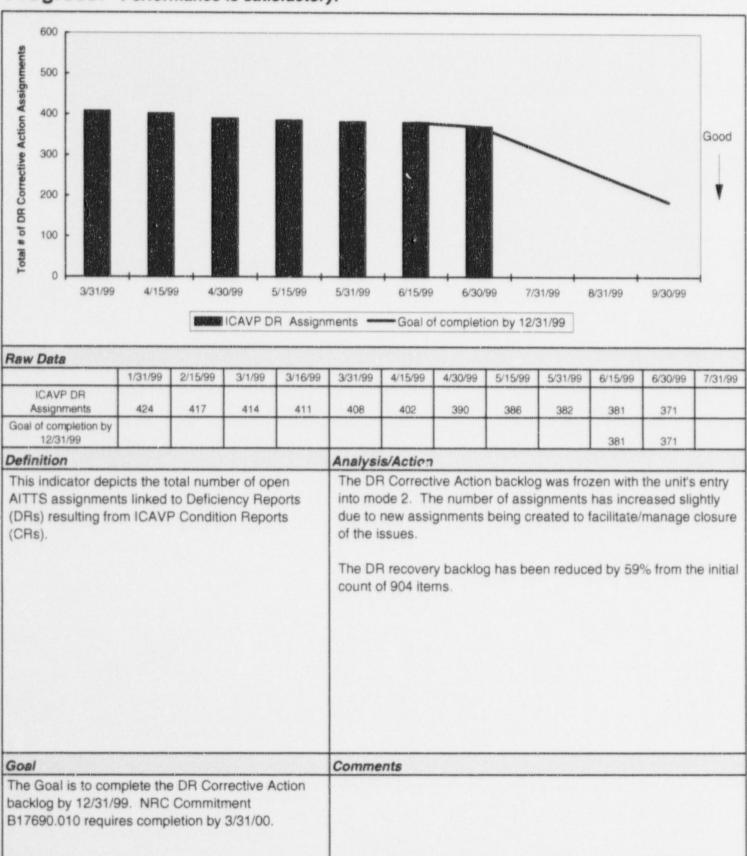
Backlog Management Engineering Backlog



Backlog Management Corrective Action Assignments

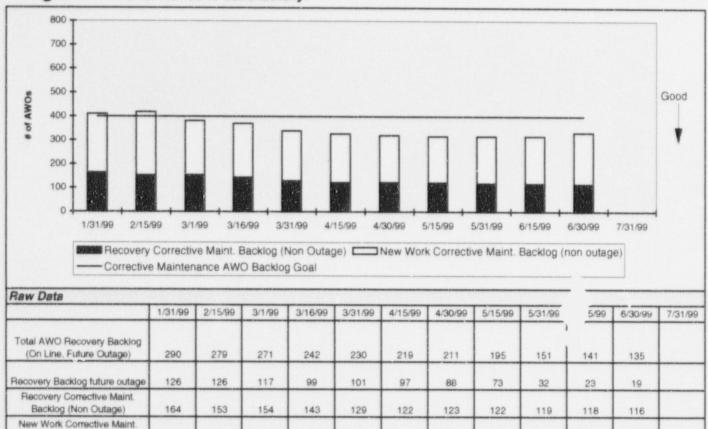


Backlog Management DR Corrective Action Assignments



Backlog Management Corrective Maintenance AWOs

Millstone 3



Progress: Performance is satisfactory.

This indicator depicts the number of on line Corrective Maintenance (CM) Automated Work Orders (AWOs), the portion of those associated with Probabilistic Risk Assessment (PRA) risk significant systems, and CM work schedule in future outage(s). PRA Risk Significant systems are systems required to protect the reactor core or mitigate the consequences of an accident.

246

410

189

250

400

265

418

180

250

400

227

381

164

250

400

227

370

145

250

400

Work awaiting post maintenance testing or closure is not included in this KPI. Also excluded are AWOs for support work, such as insulation removal, outage work, and Preventative Maintenance or Surveillance AWOs, as well as AWOs not associated with power block equipment. Power Ascension AWOs are not included and are tracked by a separate KPI. All CM work schedule in future outage(s), does not include support Automated Work Orders (insulation removal etc.), Preventative Maintenance (PM) or Surveillance (SV) AWOs. Analysis/Action

210

339

140

250

400

205

327

135

250

400

198

321

127

250

400

The AWO backlog was frozen at 583 AWOs with the unit's entry into mode 2. The Organization is scheduling the AWOs into the 12 week rolling window schedule and the next refueling outage.

14 of the Refueling AWOs have been scheduled for RFO7.

195

317

127

250

400

198

317

127

250

400

199

317

134

250

400

216

332

138

250

400

Goal

The goal has changed to ≤400 Total On-Line Corrective Maintenance AWOs per unit. Of these 400, ≤250 will be PRA risk significant AWOs.

Comments

Backlog (non outage)

Non Outage Corrective Maint. Backlog (Recovery & New Work

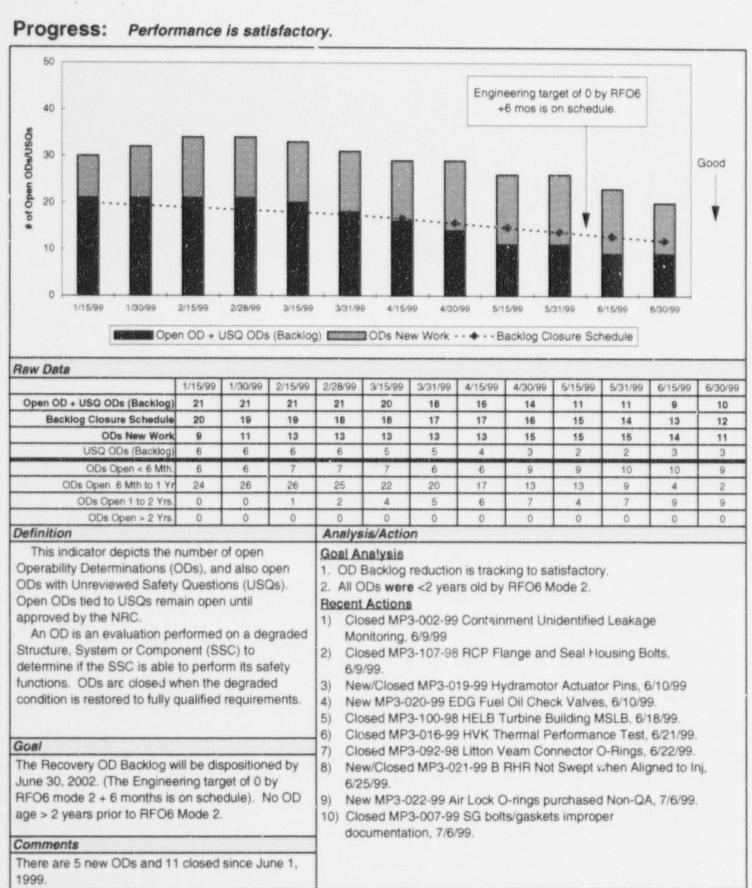
PRA Risk Significant AWOs

PRA Risk Significant AWO Backlog Goal

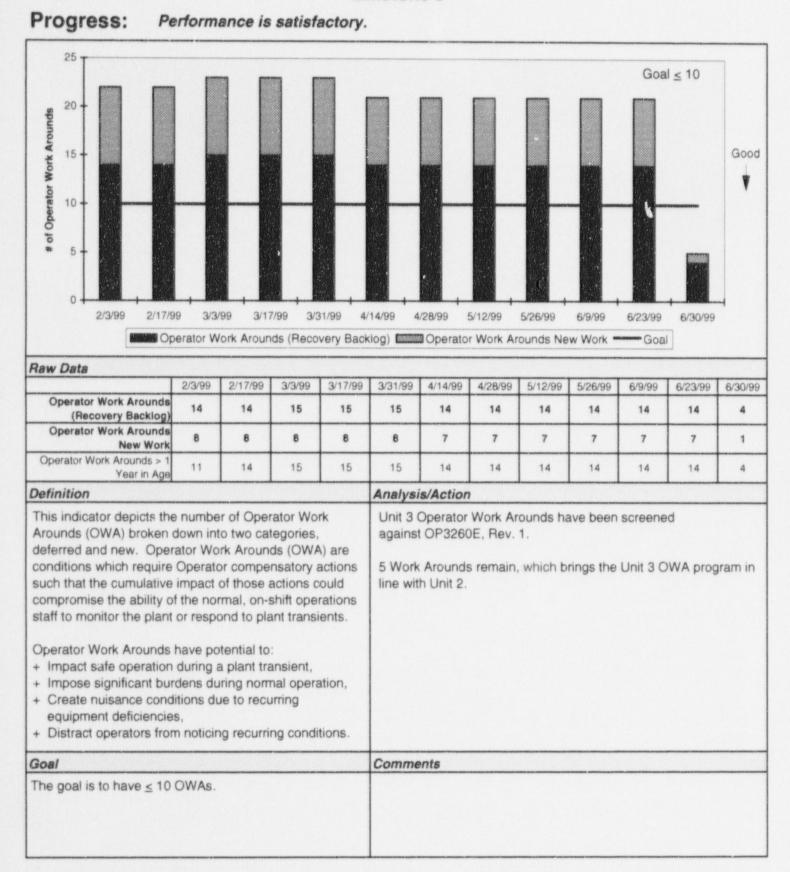
Corrective Maintenance AWO Backlog Goal

Definition

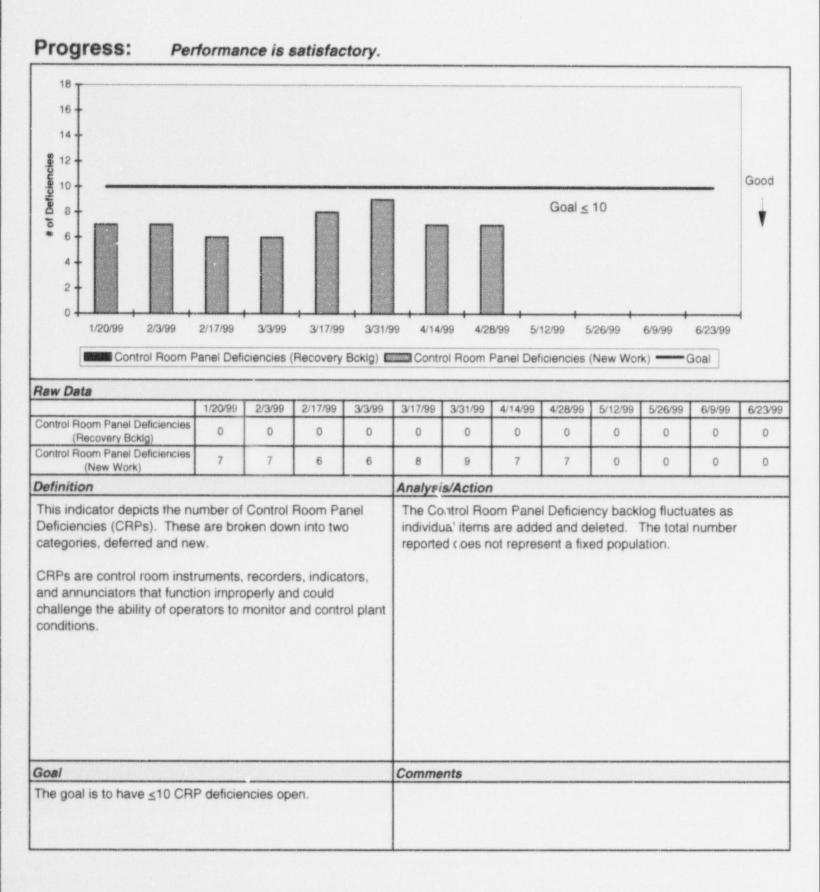
Backlog Management Open Operability Determinations



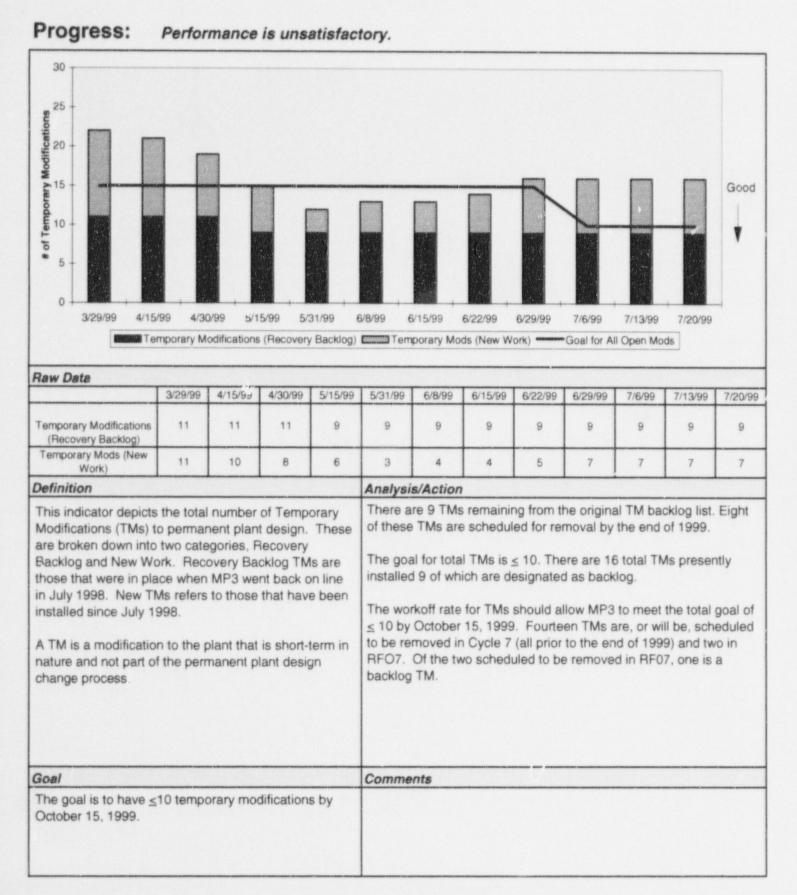
Backlog Management Operator Work Arounds Millstone 3



Backlog Management Control Room Panel Deficiencies Millstone 3



Backlog Management Temporary Modifications Millstone 3



Backlog Management NCRs

