



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

November 4, 2004

Mr. J. V. Parrish  
Chief Executive Officer  
Energy Northwest  
P.O. Box 968; MD 1023  
Richland, Washington 99352-0968

**SUBJECT: COLUMBIA GENERATING STATION - SUMMARY OF THE MEETING WITH  
ENERGY NORTHWEST COMPANY TO DISCUSS OPERATIONAL ISSUES AND  
ENERGY NORTHWEST IMPROVEMENT INITIATIVES**

Dear Mr. Parrish

This refers to the public meeting conducted at the Energy Northwest Company's office complex at 3000 George Washington Way, Richland, Washington, on October 28, 2004. The purpose of this meeting was to discuss operational performance and initial operator examination issues related to Columbia Generating Station. The meeting attendance list and a copy of the handout provided during the meeting are enclosed.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

William B. Jones, Chief  
Project Branch E  
Division of Reactor Projects

Docket: 50-397  
License : NPF-21

Enclosures:

1. Attendance List
2. Energy Northwest Handout

Energy Northwest

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cc w/enclosures:

W. Scott Oxenford (Mail Drop PE04)  
Vice President, Nuclear Generation  
Energy Northwest  
P.O. Box 968  
Richland, WA 99352-0968

Albert E. Mouncer (Mail Drop PE01)  
Vice President, Corporate Services/  
General Counsel/CFO  
Energy Northwest  
P.O. Box 968  
Richland, WA 99352-0968

Chairman  
Energy Facility Site Evaluation Council  
P.O. Box 43172  
Olympia, WA 98504-3172

Douglas W. Coleman (Mail Drop PE20)  
Manager, Regulatory Programs  
Energy Northwest  
P.O. Box 968  
Richland, WA 99352-0968

Gregory V. Cullen (Mail Drop PE20)  
Supervisor, Licensing  
Energy Northwest  
P.O. Box 968  
Richland, WA 99352-0968

Chairman  
Benton County Board of Commissioners  
P.O. Box 190  
Prosser, WA 99350-0190

Dale K. Atkinson (Mail Drop PE08)  
Vice President, Technical Services  
Energy Northwest  
P.O. Box 968  
Richland, WA 99352-0968

Thomas C. Poindexter, Esq.  
Winston & Strawn  
1400 L Street, N.W.  
Washington, DC 20005-3502

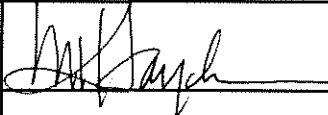
Energy Northwest

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Bob Nichols  
Executive Policy Division  
Office of the Governor  
P.O. Box 43113  
Olympia, WA 98504-3113

Lynn Albin, Radiation Physicist  
Washington State Department of Health  
P.O. Box 7827  
Olympia, WA 98504-7827

## PUBLIC MEETING ATTENDANCE

<b>LICENSEE/FACILITY</b>	Energy Northwest Columbia Generating Station
<b>DATE/TIME</b>	October 28, 2004
<b>LOCATION</b>	Walkley Room, Energy Northwest Office Complex
<b>NAME (PLEASE PRINT)</b>	<b>ORGANIZATION</b>
Dr. Bruce Mallett	NRC Region IV
Art Howell	NRC Region IV
William Jones	NRC Region IV
Tony Gody	NRC Region IV
Zach Dunham	NRC Region IV
Ron Cohen	NRC Region IV
Tom McKernon	NRC RIV
David Ayres	NRC RII
Ken Clark	NRC RII
Marian K. Hayden	 Energy Northwest

**NRC Public Meeting  
October 28, 2004  
3:00PM**

<u>NAME</u>	<u>Control Room Supervisor TITLE</u>	<u>ENW COMPANY</u>
Jim Preslot		
Danielle Carlson	Admin. Assistant	Energy Northwest
Doug Coleman	Mgr, Reg. Programs	ENW
BRIAN GARDNER	MGR, PERFORMANCE	EN
Johanna Berkeley	DOH REP program Managers	Wa State DOH
Tim Lewis	KEPR-TV REPORTER	KEPR-TV
JESSICA GWAIN	KVEW-TV	KVEW
Dan Jordheim	Crew A STA/IA	EN
Tom Lynch	Cps Mgr	EN
Brent Ridge	CMS Mgr.	EN
GARY SHINDENITE	Ops Support Spec	ENW
Greg Cullen	Licensing Supervisor	ENW
CHRIS MAXWELL	OPERATIONS	ENW
John Bekhazi	Maintenance Mgr (Acting for PGM)	ENW
Mike Humphreys	Eng. General Mgr.	ENW
Iuge Borland	RPM	ENW
Mike Keller	Operations	ENW
DARNELL HARPER	OPERATIONS	ENW
TIM LINDSLEY	TRAINING	ENW
MYRON BAIRD	OPERATIONS	ENW
LEONARD HARVILK	FFTF Ops	FM
Carl King	CHEMISTRY MGR	EN
Fred Klaus	Program Mgr	EMD WA STATE
Donna Macauley	EXEC. ASST.	ENW
Tom Rogers	REP Program Coord	Franklin Co E.M.
Dave Schumann	Operations	ENW
Jeff Powers	Sys Engineer	ENW
Carl E Golithly	Ops Training	ENW
Nel Patroa	Trn. Spec 3	EN
Dave Brown	Operations	EN
Jeff St John	report, <del>task</del>	Trichselwald
Marianne Callie	QA Supervisor	EN
Kelly Butz		

NRC Public Meeting

October 28, 2004

3:00PM

<u>NAME</u>	<u>TITLE</u>	<u>COMPANY</u>
Laura Dovey	COMM. COOR.	EN
Rich Meyers	Operations	EN
Bob Sherman	Nuclear Engineer	BPA
John C Hansen	Trn Mgr	ENW
Dan Richey	Ops/Engr	ENW
Scott Oxenford	VP Generation	ENW
Dustin Greenwood	OPS	ENW
CURTIS MOORE	EP SUPERVISOR	ENW
RICHARD P OWAN	OPS	ENW
Pat Campbell	Licensing	ENW
Mark Westergren	Training	ENW
Stu Bruce	TRAINING	ENW
Roberto H. Torres	Quality Manager	ENW
DONALD S. FELDMAN	System Engineering MGR	ENW
DEANNA HENRY	EMERGENCY MANAGER	OREGON DEPT OF ENERGY
John Pielli	TRAINING	ENW
Michael Arroy	Training Spec	EN
AS Fehnestad	TABS Supervisor	EN
Robin Feuerbacher	Rx/Fuels Engr. Manager	EN
A. S. MOUNCEY	VP-CORP. SVCS	EN
Cheryl Whitcomb	CEO Office	ENW
Shari Jee	Assistant Ops Manager	EN
Greg Knudson	Training Supervisor	EN
Bred Beck	EN COMM	EN
Shawn St Germain	OPERATIONS	EN
John P CARLSON	Operations	EN
David L Whitcomb	Program manager/Retired	-
Rachael McDonald	Reporter	NW Public Radio
CHIP WOOD, Ph.D.	FR WOOD & ASSOCIATES	-
Fordham, E. W	Reg Director, CO	WA Dept of Health
STEVE SCAMMEN	RESOURCE PROTECTIO	EN
J. Reddy	CRS	EN
Mark Navlty	OPS	EN

DALSI MAND	Work Control Manager	EN.
Kathy Martin	Training Specialist	EN
Dale Atkinson	D.R. Tech Svc	EN
Vic Peters	CEO/CWO	EN
Craig Sly	Licensing	EN
Mat Hedges	Reg Services	EN
Don Hague	Outage Mgr.	EN
ROGER O. GREGORY	CRS	EN
Bryce Linville	Ldrship Training	EN
Bill Shaffer	Staff Asst.	EN



## Welcome/Introductions

*Public Meeting  
NRC/Energy Northwest  
October 28, 2004*

## *Agenda*

### OPENING REMARKS

- NRC
- ENERGY NORTHWEST

*Bruce Mallett  
Vic Parrish*

### COLUMBIA PLANT OPERATIONS

*Tom Lynch*

-----15 Minute Break-----

### QUEST FOR EXCELLENCE

*Scott Oxenford*

### CLOSING REMARKS

- ENERGY NORTHWEST
- NRC
- PUBLIC COMMENTS/QUESTIONS

*Vic Parrish  
Bruce Mallett*



## *NRC Opening Comments*

*Bruce Mallett  
Regional Administrator  
NRC Region IV*

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## *Energy Northwest Opening Comments*

*Vic Parrish  
CEO/CNO*

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# *Columbia Operations*

*Tom Lynch  
Manager – Operations  
Columbia Generating Station*

# *Columbia Operations*

## *Agenda*

- *Columbia plant status*
- *Recent events and causes*
- *Actions taken and in progress to improve performance*

## *Columbia Plant Status*

- *On-line for 68 days*
- *Hydrogen water chemistry modification in progress*
- *Control Room upgrade in progress*
- *Maintaining "Black Board" concept*

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## *Recent Events and Causes*

- *June 10: Control rod mis-positioning*
  - *Understanding, application, and enforcement of expectations*
- *July 30: Alert following plant shutdown*
  - *Emergency Preparedness classification issues*
- *August 15: Plant shutdown*
  - *Water inventory management*
- *August 17: Plant shutdown*
  - *Failure to follow written instructions*

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## *What I saw*

- *Supervisors were not fully engaged in details of in-field work*
- *Supervisors were not consistently upholding standards and expectations*
- *Over-emphasis on individual contributor problems*
- *Standards and expectations were not crystal clear*
- *Department was accommodating and accepted mixed performance, both internally and externally*

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## *What we have done*

- *New Operations Manager*
- *Reorganized direct reports, crew manager and support manager*
- *Clarifying roles and responsibilities*
- *Engaging Operations Support staff in daily activities*
- *Engaging training personnel in daily activities*
- *Eliminating process bottlenecks*
- *Empowering Shift Managers*
- *Demonstrating accountability, Operations leadership*
- *Challenging the organization*

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## *What we did in the short term*

- ▣ *Required supervisors to conduct pre-job briefs*
- ▣ *Established and enforced in-field coaching expectations, documentation, and trending*
- ▣ *Accountability established for results of event investigations*
- ▣ *Clarified expectations for work performance*
- ▣ *Individuals and supervisors held accountable*
  - *Revoked qualifications of individuals involved*
- ▣ *Operations Department improvement plan*
- ▣ *Counseling, procedure revisions, training*

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## *Our focus for the long term*

- ▣ *Aggressively lead the plant to achieve excellence*
- ▣ *Provide clear priorities and direction for other department activities affecting operations*
- ▣ *Achieve consistency between control room crews*
- ▣ *Relentless implementation of standards and expectations*
- ▣ *Improve housekeeping and industrial safety*
- ▣ *Eliminate the desire for scheduling flexibility*
- ▣ *Hold other departments accountable for implementing standards*
- ▣ *Take leadership role in processes such as work management, equipment reliability, ALARA, and work progress meetings*

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## *Where we are going*

### *Operations Performance Improvement Plan*

- *Defines what excellence in Operations looks like*
  - *Operationally focused; strong self-assessments; organizational alignment; coaching; strong corrective action program; strong work management; strong equipment reliability*
- *Identifies gaps to excellence in Operations*
- *Identifies tasks that will close gaps*
- *Validated by Conger & Elsea common cause analysis results*

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## *Where we are going - the details*

### *Operations Performance Improvement Plan*

- *Leadership and alignment improvements*
- *Control room conduct and professionalism improvements*
- *Training improvements*
- *Operations' role in work management improvements*
- *Human performance improvements*
- *Workforce staffing plan*

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## *Measuring Effectiveness*

- *Internal Performance Indicators*
- *External Audits*
- *Operations Event Free Clock Resets*
- *Management Oversight (Field and Training Observations)*
  - *Trending and resolution of observation data*
- *I will verify*

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## *Training Connection to Performance*

- *Results of recently administered Initial Licensed Operator (ILO) exam indicate poor performance*
- *Immediate OM/PGM/VP concern*
- *Developed plan and presented to CEO*

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## *What we did*

- *Formed assessment team led by Stew Ebnetter to investigate*
- *Assessment performed to identify the extent of condition of behavioral and knowledge concerns*
- *Focused on currently qualified operators*

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## *Scope of Assessment*

- *Reviewed – CRs, PERs, self-assessments, Quality reports, training observations, training evaluations, events, clock resets, INPO assist visits, safety culture survey, crew PTLs*
- *Developed interview questions*
- *Interviewed 30 operators/instructors*
- *Developed immediate actions*

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## *Currently Qualified Operators*

- *Simulator scenarios and written examinations were presented to a sampling of on-shift Operations personnel*
- *No prior notification or preparation*
- *On-shift personnel successfully passed all scenarios and examinations*

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## *Assessment Team Conclusions*

- *We are operating Columbia safely*
- *However, operations are not error free*
- *No programmatic weaknesses of training program identified*
- *Provided recommendations about current training activities*
- *Extent of condition linkage to ILC in Emergency Preparedness classification and notification knowledge, and instant SRO knowledge*

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## *Assessment Team Activities*

- *Presented results to Corporate Nuclear Safety Review Board*
- *Ebnetter comment – Operators are capable of and focused on protecting public health and safety*

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## *Initial Licensed Operator Exam Results*

### *Preliminary Root Cause*

- *Insufficient management oversight*
- *Inadequate assessment of class makeup*
- *Weak class evaluation throughout training process*
- *Exam content*

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## *Assessment of Other Training Programs*

- *Multi-disciplined team led by Quality Manager reviewed skill/knowledge concerns identified in NRC inspections, LERs, PERs, Quality audits, self-assessments, etc.*
- *Focus: Determine if there were undetected training deficiencies*

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## *Assessment of Other Training Programs*

### *Conclusions*

- *Did not identify any significant knowledge or training deficiencies that were not already being addressed through the SAT process or through current improvement plans*
- *Recommendations captured and actions assigned*

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## *Independent Evaluations Conducted*

- *INPO organizational effectiveness assist*
- *Assessment of Operations Training extent of condition*
- *Assessment of other training programs*
- *Conger & Elsea common cause analysis*
- *INPO common cause analysis of human performance issues*

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## *Overall Conclusions*

- *Unsatisfactory individual and organizational performance in initial license class*
- *Results indicate Operations and Training management leadership shortfalls*
- *Initial license class issues do not extend into other operations training programs*
- *No additional weaknesses in other accredited programs*

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## *Summary*

- *Operations' focus remains on nuclear safety*
- *We have confidence operators and support personnel have the training and knowledge to operate Columbia in a manner that assures the health and safety of the public*
- *We understand our issues*
- *Bottom Line – Leadership, crystal clear expectations, accountability, and enforcement of standards*

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*---15 Minute Break---*

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## *Quest for Excellence*

*Scott Oxenford*  
*Vice President - Generation*

## *Agenda*

- *Brief History*
- *Our Vision*
- *Starting with Leadership*
- *Where we are*
- *Where we are heading*

## *Brief History*

- *Jan 03*     *Benchmarking Trip to McGuire*
- *July 03*    *Gap Analysis/Strategy Outlined*
- *Fall 03*     *Strategy/Actions Finalized*
- *Oct 03*     *Engineering Re-organization*
- *Nov 03*     *QFE Rolled Out*
- *Jan 04*     *Maintenance Re-organization*
- *Jan 04*     *New Work Control Process  
and Organization*

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## *What QFE is meant to be*

*From the QFE Plan Introduction:*

*"The objectives of the Quest for Excellence are twofold. First, it's a detailed action plan for implementing changes in the work we do and how we do it. Second, it's a roadmap for **long-term cultural and behavioral change** in terms of how we think about, plan for, and conduct activities at Columbia Generating Station."*

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## *Our Vision*

*To be an industry leader in Operational Excellence where . . .*

- *We are actively committed to Safety*
- *We seek out our problems and eliminate them*
- *We plan and execute our work*
- *We are confident our equipment is reliable*
- *Our signature means quality and commitment*

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## *Columbia Leadership*

- *First Who...Then What*

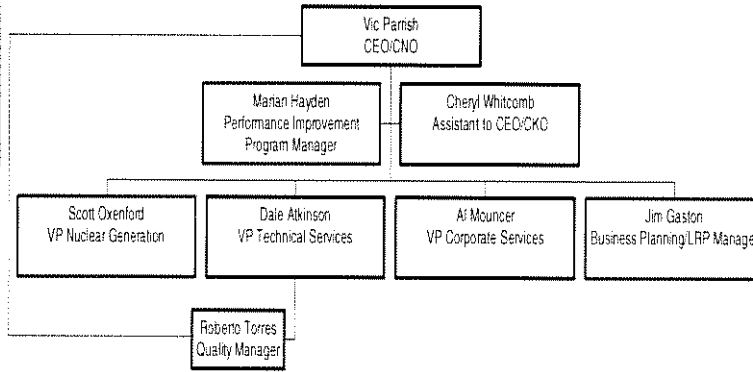
*"If we get the right people on the bus, the right people in the right seats, and the wrong people off the bus, then we'll figure out how to take it someplace great."*

*-Jim Collins, Good to Great*

14

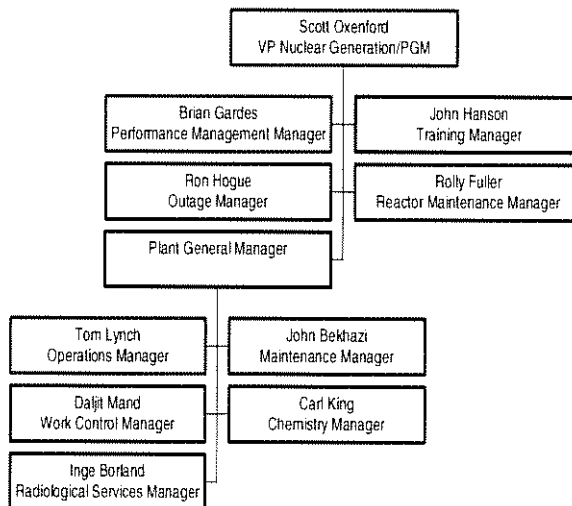


# Columbia Leadership



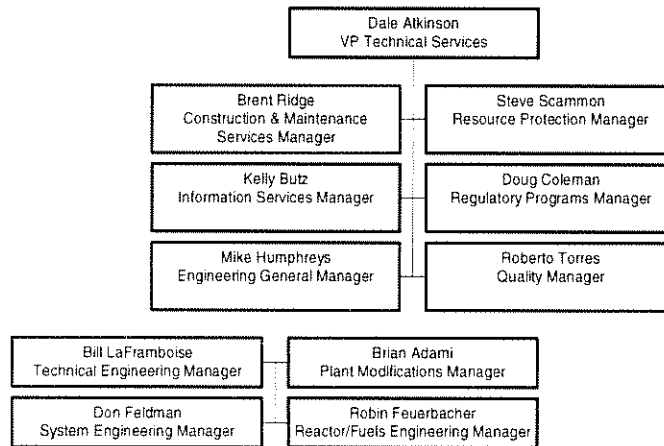
35

# Columbia Leadership



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## Columbia Leadership



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## Organizational Alignment

*"The station is clearly aligned around operational focus. Workers at all levels of the organization understand the importance of safe and reliable plant operations."*

*-INPO Organizational Effectiveness Assist Visit Debrief, September 2004*

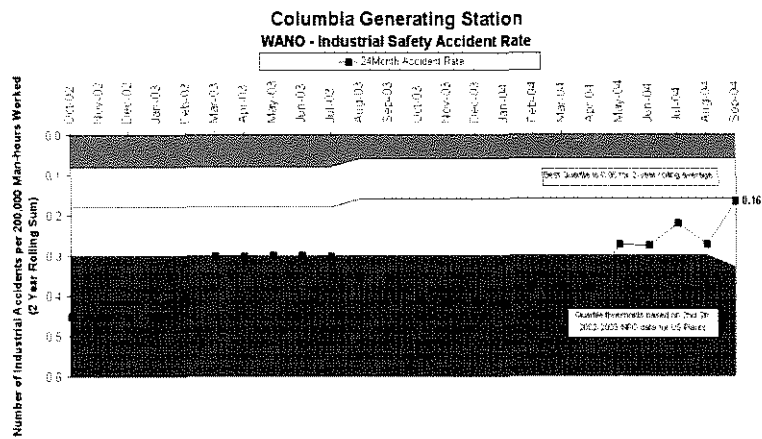
18

## Our Vision

- **We are actively committed to Safety**
  - ACES Safety Program
  - Integrated Risk Management
  - Operational Decision Making Model
  - Daily Operational Focus Meeting
  - Environmental Management System Certification

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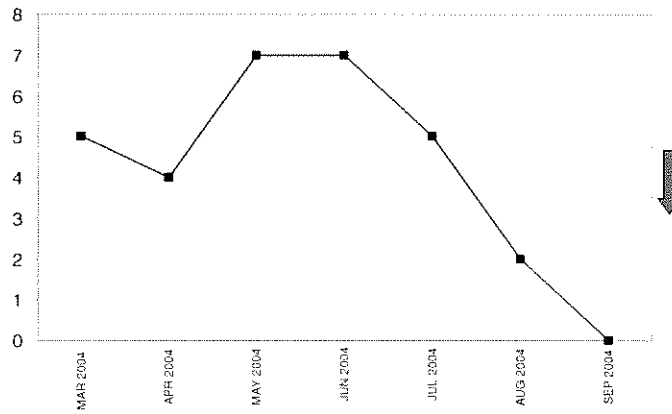
## Safety Measures



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# Safety Measures

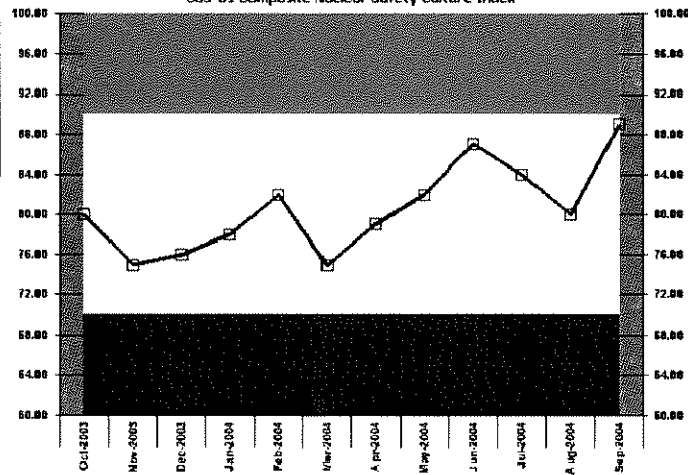
'OR.09 - Industrial Safety Events'



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# Safety Measures

'CGS-01 Composite Nuclear Safety Culture Index'

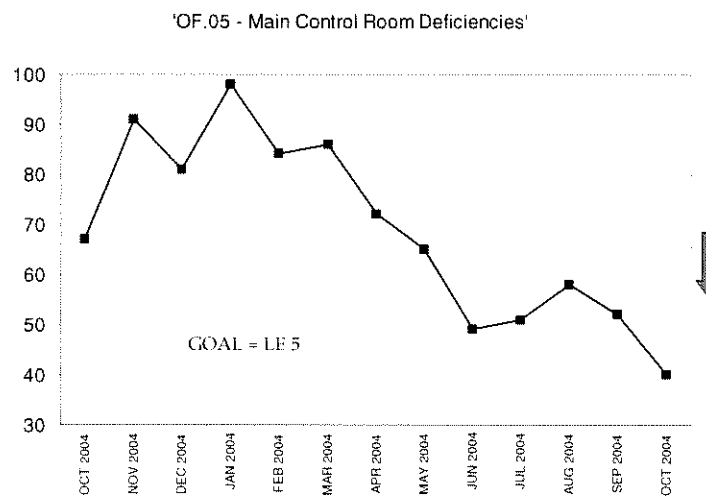


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# Safety Measures

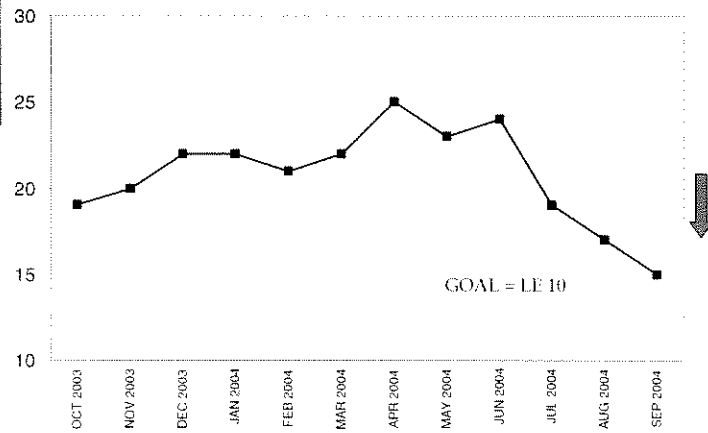
MEASURE	OWNER	VALUE	WEIGHT	TOTAL
OF.02 - Core Damage Risk	Feldman	4	4	16
OF.03 - Unplanned Limiting Condition of Operation	Lynch	4	3	12
OF.04 - M-Rule Functional Failures	Feldman	4	1	4
OF.06 - Plant Burdens	Lynch	4	2	8
OF.08 - Number of Active FAOs (Non-Outage)	Lynch	3	1	3
OF.09 - Reactivity Management Challenges	Lynch	4	4	16
RIS.01 - Radiation Exposure	Borland	3	4	12
PI.04 - Event Free Clock Resets	Gardes	1	2	2
PI.06 - Repeat Maintenance	Bekhazi	4	1	4
NRC PI - Unplanned Power Changes	Coleman	4	3	12
PERFORMANCE - SEPTEMBER 2004				89/100
<b>WHITE</b>				<b>89%</b>

# Safety Measures



# Safety Measures

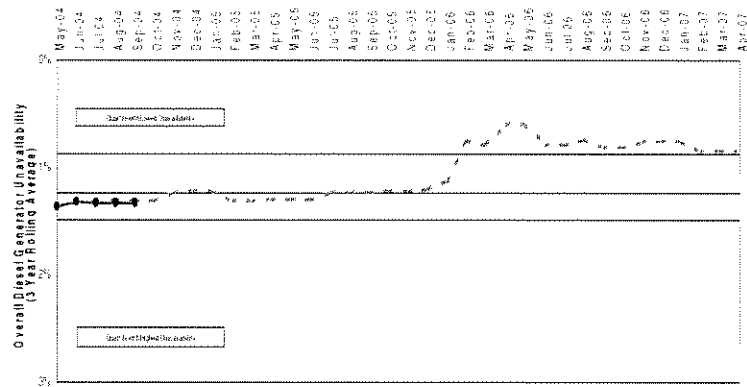
'OF.08 - Number of Active Operability Determinations (FAOs)'



GOAL = LE 10

# Safety Measures

Diesel Generator Unavailability

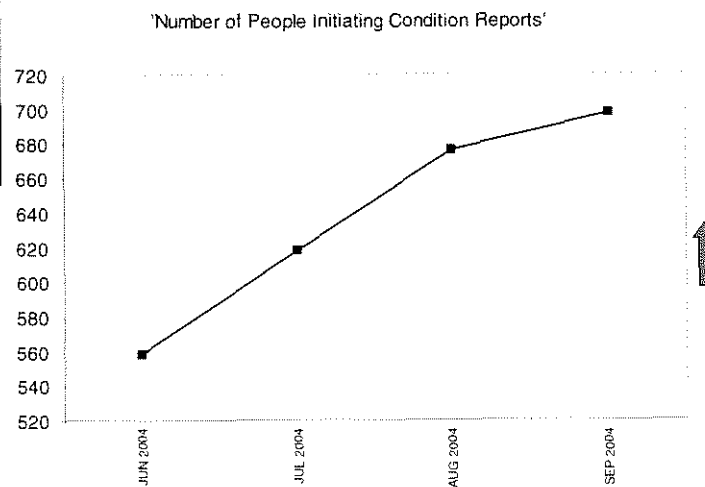


## Our Vision

- **We seek out our problems and eliminate them**
  - Identification
    - Condition Reporting Process
  - Resolution Quality
    - Focus on Most Important
    - Department CARB and Senior Management chairing CARB
    - Equipment Reliability CARB
  - Focus on Timeliness
  - Columbia Human Performance Plan

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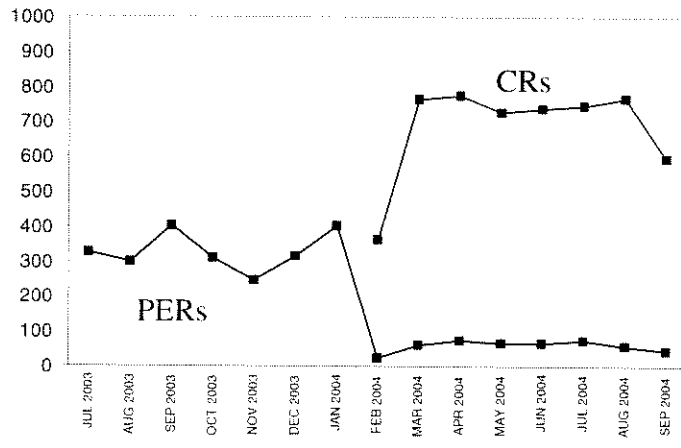
## Corrective Action Measures



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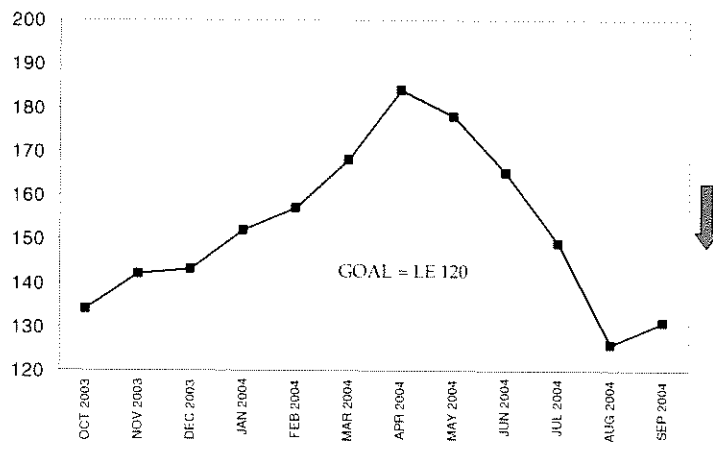
# Corrective Action Measures

'Total Problems Identified'



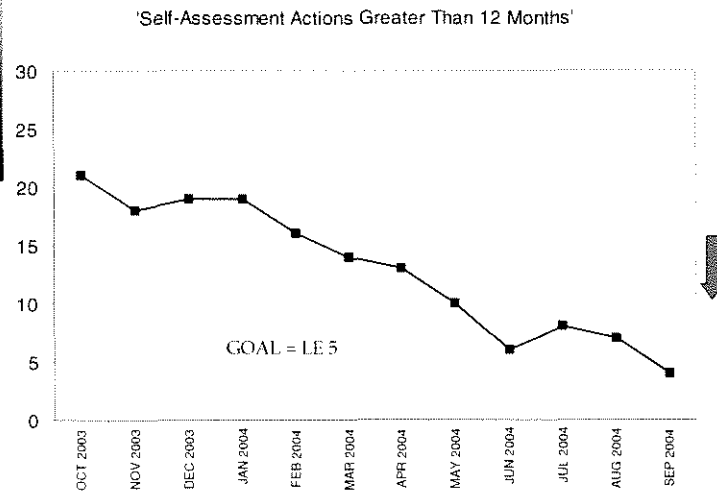
# Corrective Action Measures

'Corrective Action (OPEN) Average Age'





## Corrective Action Measures



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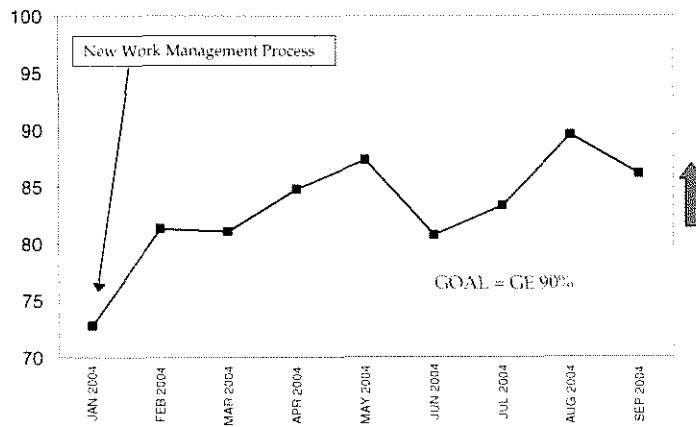
## Our Vision

- *We plan and execute our work*
  - *Maintenance Re-organization*
  - *Work Control/Work Management*
  - *Engineering Re-organization*
  - *Engineering Fix-it-Now (E-FIN) Team*
  - *Reactor Maintenance*

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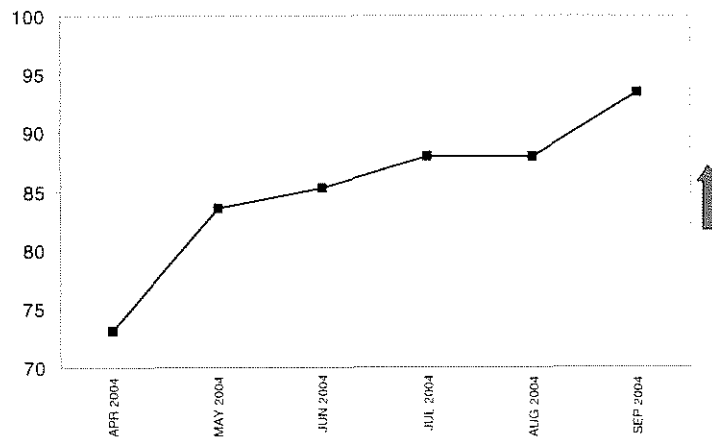
# Work Management Measures

'OR.06 T-1 Schedule Adherence'

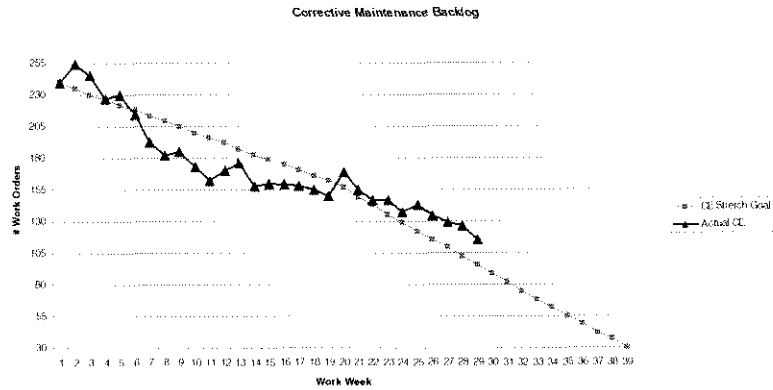


# Work Management Measures

'OR.05 T-3 Work Scope Stability'

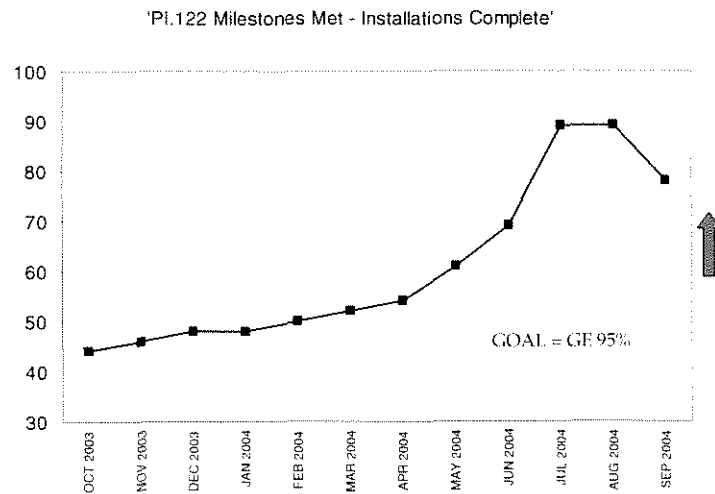


# Work Management Measures



Corrective maintenance is the classification of any work on power block system structures, or components (SSCs) where the SSC has failed or is significantly degraded to the point that failure is imminent (within its operating cycle) (Material) and no longer conforms to or is incapable of performing the SSC's design function.

# Work Management Measures

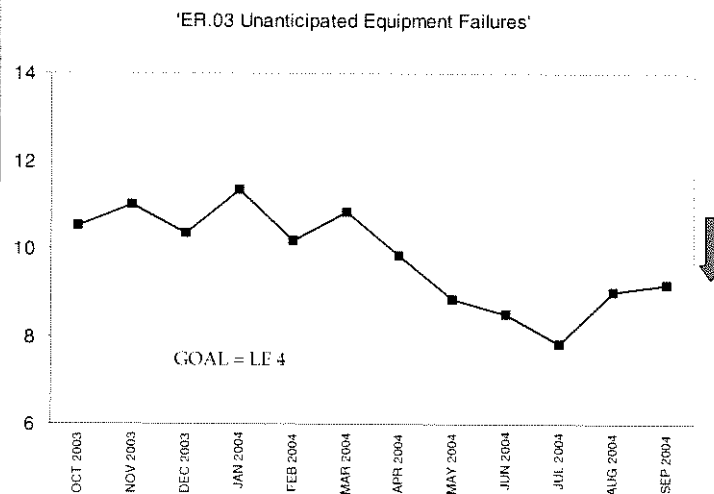


## Our Vision

- *We are confident our equipment is reliable*
  - *System and Design Engineers Shielded from Daily Perturbations*
  - *Engineering Efficiency*
  - *Intolerance for Rework*
  - *Craft Ownership*
  - *Single Point Vulnerabilities Initiative*
  - *Equipment Reliability CARB*

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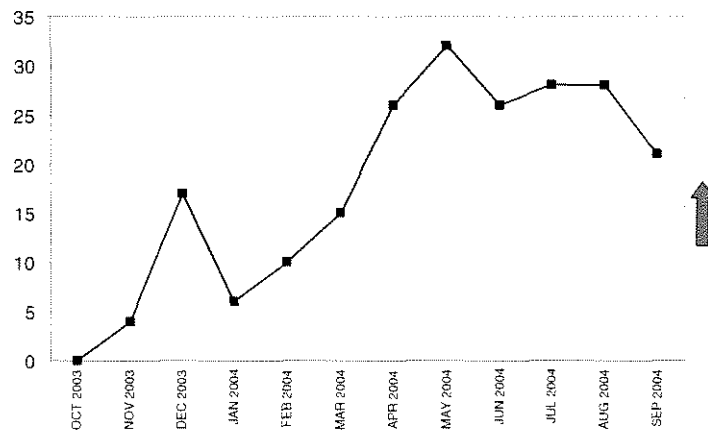
## Equip. Reliability Measures



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## Equip. Reliability Measures

'ER.8 - EPMT Catches Before Failure'



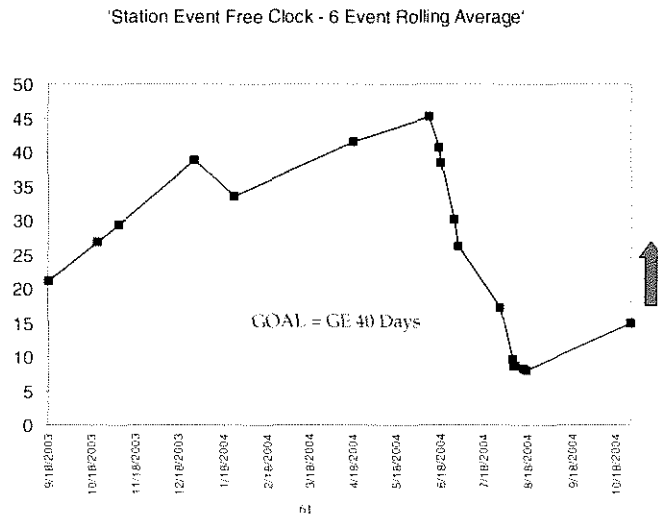
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## Our Vision

- ***Our signature means Quality and Commitment***
  - *Engineering Review Board*
  - *Activity Review Board*
  - *GL 91-18 Training*
  - *Focus on Accountability*

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## Work Quality Measures



## QFE Lessons Learned

- *Human Performance Initiative Timeliness*
- *Limited Training Initiatives*
- *Observations and Coaching*
- *Formality of our Accountability Processes*
- *Cause determinations need improvement*

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## *Moving Forward*

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- *QFE is a Living Program*
  - *Check and Adjust as Necessary*
  - *It is an evolutionary process*
- *Enhanced Alignment and Focus*
- *Enhanced Rigor in Key Expectations and our Accountability Process*

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## *Summary*

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- *We are not satisfied with our performance*
- *We understand our gaps to excellence and are committed to closing them*
- *We have measures in place to monitor effectiveness*
- *We are developing a “learning” culture*

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## *Energy Northwest Closing Comments*

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*Vic Parrish  
CEO/CNO*

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## *NRC Closing Comments*

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*Bruce Mallett  
Regional Administrator-  
NRC Region IV*

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*Public Comments/Questions*

*Open Floor*