

# **Honeywell Metropolis Works Licensee Performance Review**

**February 22, 2006**

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# Introduction

## Hermann Ortega

Vice-President, Integrated Supply Chain

Honeywell Specialty Materials

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# Improving Metropolis Performance

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## Key Objectives:

- Establishing Leadership
- Implementing Work Processes and Structure
- Driving Accountability
- Improving Infrastructure



# Improving Performance Overview

Turner Plunkett

Director, Integrated Supply Chain

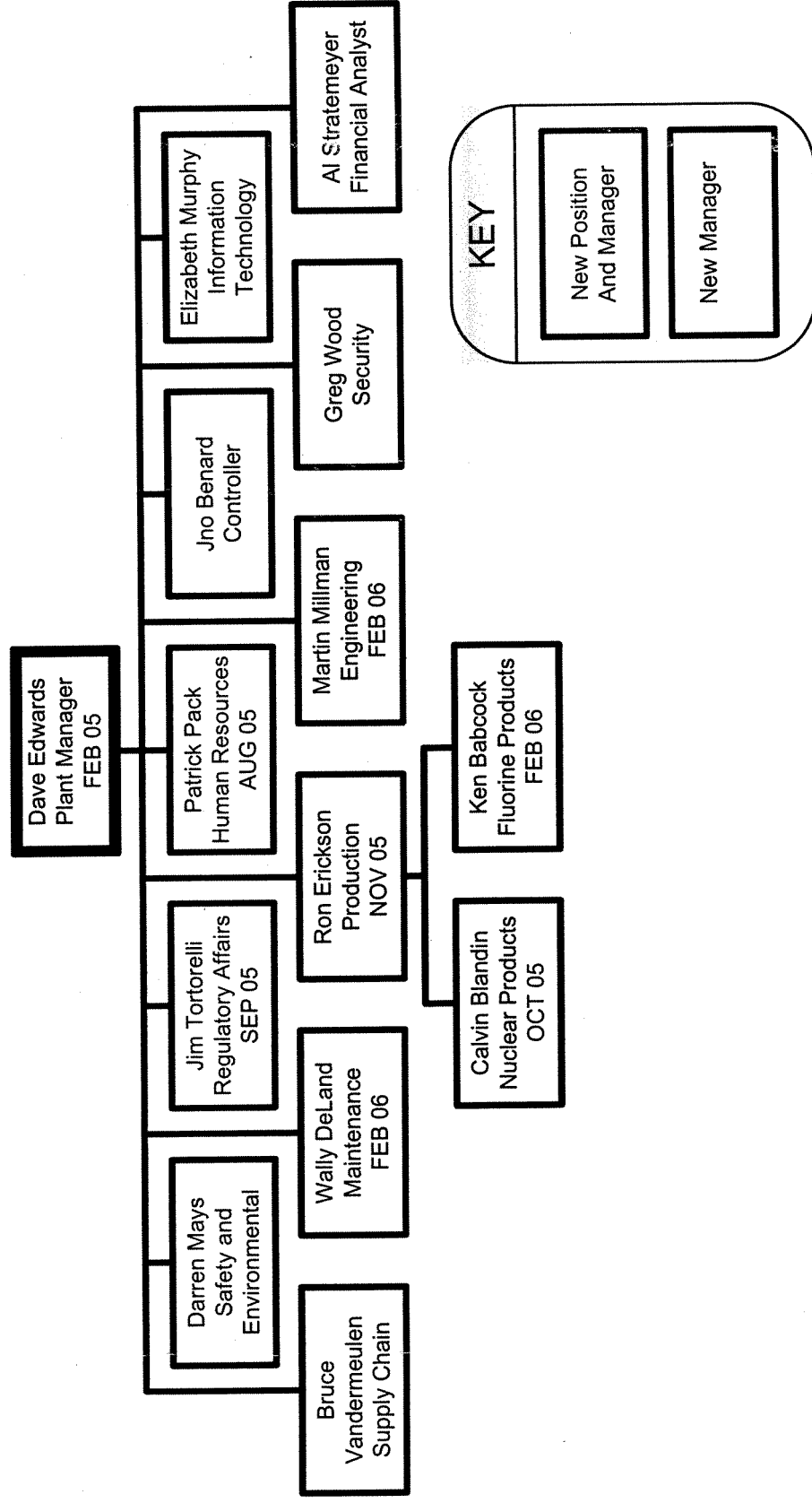
Firestone Products, Honeywell Specialty Materials

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# Establishing Leadership Team

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# **Establishing Leadership: Increasing Organizational Effectiveness**

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- Dedicated Regulatory Affairs Manager (SEP 05)
  - Responsibilities include: Health Physics, Procedures, QA
- Production Manager for All Operations (NOV 05)
  - Nuclear Products & Fluorine Products
- Health Physics (HP) Positions (NOV 05)
  - Added one technician and two principal specialists
- Restructured Maintenance Department (JAN 06)
- Training Leader (JAN 06)
- Procedures Leader (FEB 06)
- Engineering Manager (FEB 06)
  - Responsibilities include: Technical Dept. & Process Safety Support

# Implementing Work Processes/Structure

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- Procedures Upgrade
- Corrective Action program
  - Root Cause Analysis
- Safety Committee and Oversight
- Procedure Controls
- Management Control and Reporting Systems



# Management Control and Reporting System

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Area	Day	2/10	2/11	2/12	2/13	2/14	2/15	2/16
Safety	Plan	0	0	0	0	0	0	0
	Actual	0	0	0	0	1	0	
HP	Plan	0	0	0	0	0	0	0
	Actual	0	0	0	0	0	0	
Environmental	Plan	0	0	0	0	0	0	0
	Actual	0	0	0	0	0	0	
Xxxxxxxx	Plan	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual		yyy	yyy	yyy	yyy	yyy	yyy
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual	yyy	yyy		yyy	yyy	yyy	
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual	yyy	yyy	yyy				
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual	yyy	yyy	yyy				
Distillation	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual		yyy	yyy				
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual	yyy	yyy		yyy	yyy	yyy	yyy
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual				yyy	yyy	yyy	yyy
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual				yyy	yyy	yyy	yyy
Xxxxxxxx	SIOP	xxx	xxx	xxx	xxx	xxx	xxx	xxx
	Actual				yyy	yyy	yyy	yyy

# Driving Accountability and Culture Change

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- Plant Past
  - Nearly 50 years of Operating History/Culture
  - Chemical Plant with a Nuclear Product
- Establishing Expectations
  - NRC Licensee Culture
  - Safety Conscious Work Environmental ("SCWE")
  - Conduct of Operations
- Plant Future
  - Nuclear Facility with a Chemical Process

# Incorporating External Knowledge

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- Increased Involvement in Nuclear Industry
  - INPO (SPAC)
    - Technical Advisory Meeting
    - Human Performance Training
  - NRC
    - Registered for Regulatory Information Conference
  - Other Nuclear Resources
    - Nuclear Industry Training & Consultants
    - Independent Review Board Roll-out
    - Independent Causal Investigations
    - Nuclear Energy Institute



# Incorporating External Knowledge

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- Increased Morristown & Honeywell Specialty Materials Presence
  - Special Emphasis Teams (internal/external experts)
    - General Health & Safety Audits
    - Environmental Program Audits
    - HP Program Audits
    - Bioassay Program Review
    - IH Program Review
    - Site Radiation Survey
    - Fire Safety Audit

# Improving Infrastructure

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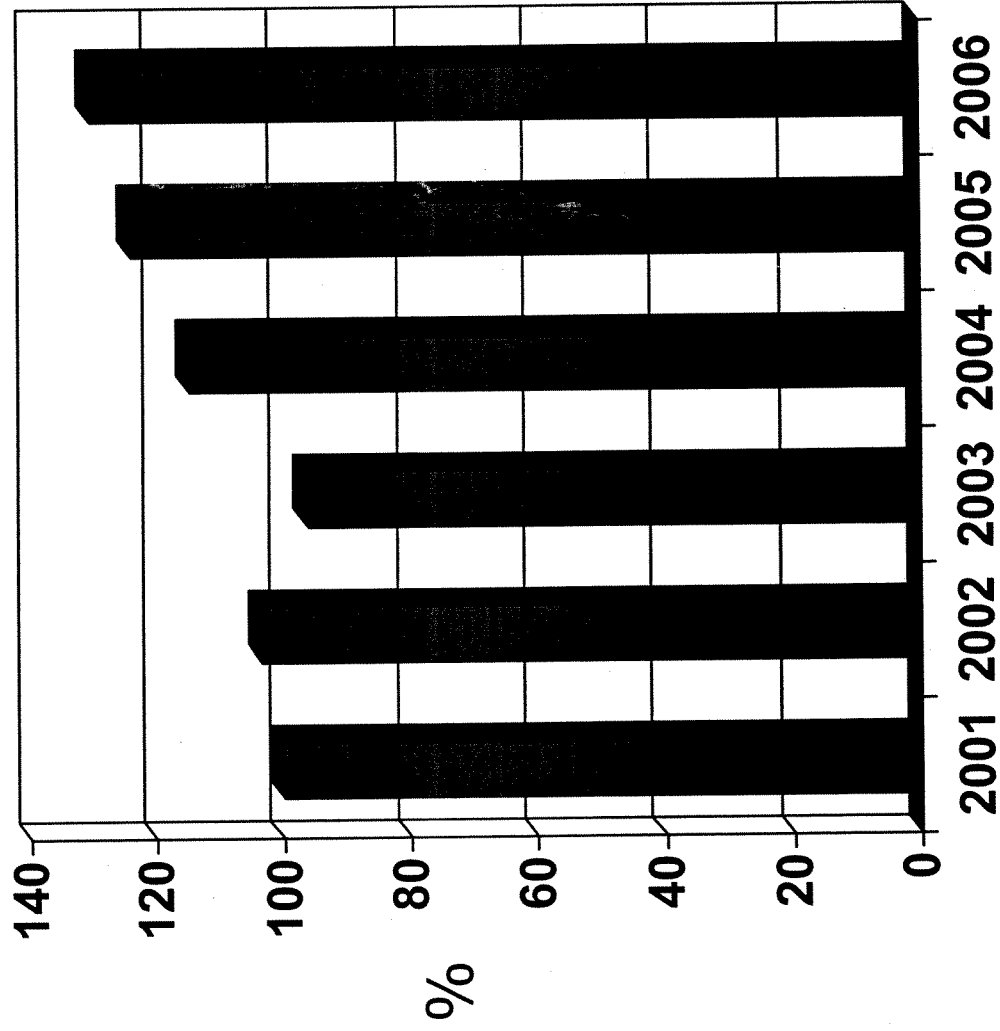
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- Increasing Spending
  - Annual Operating Expenses
    - Ramped up from 2003
  - Capital Expenditure
    - Doubled since 2003
  - Maintenance Spending
    - Significant increases
- Pending License Renewal Application
  - Honeywell making long-term investment in the facility
  - Demonstrated commitment to improving operations

# Financial Commitment to MTW:

## Annual Operating Expenses Indexed to 2001

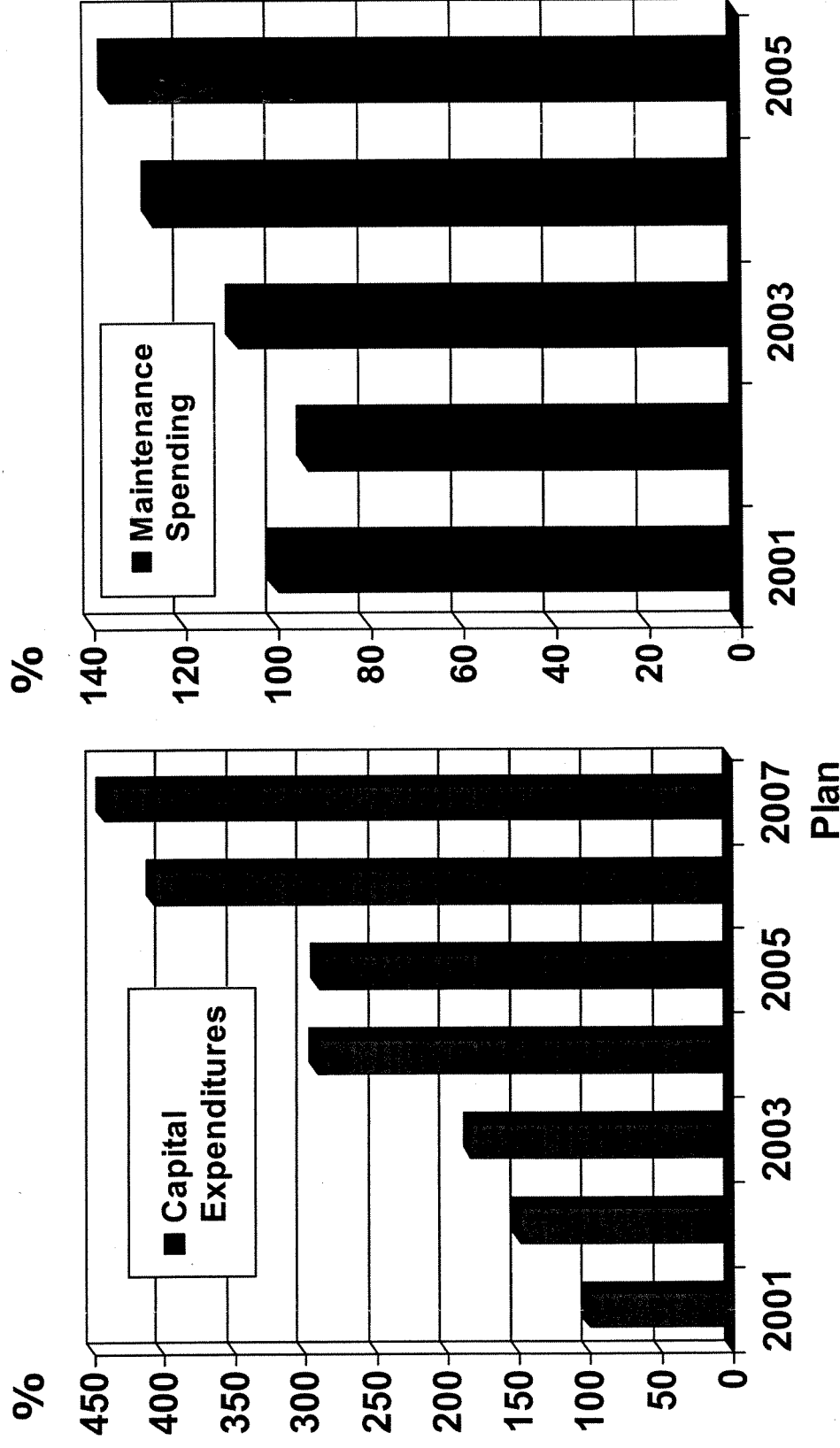
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# Capital Expenditures & Maintenance Spending Indexed to 2001

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# Licensee Performance Review

Dave Edwards, Plant Manager

Metropolis Works Facility

Honeywell Specialty Materials

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# Program Areas Needing Improvement: 2004 and 2005 LPR

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Areas	2004 LPR	2005 LPR
Safety Operations	Procedural Adherence	Procedural Adherence
	Procedure Quality Control Room Operations	
Radiological Controls	Radiological Protection Implementation	None
Facility Support	Emergency Response	Corrective Action Program
	Corrective Action Program License Requirement Implementation	Procedure Management
Special Topics	None	None

Performance Area 1 of 3

# Procedural Adherence

Procedural Compliance Issues  
Actions to Improve Compliance  
Efforts Yielding Results

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# Procedural Compliance Issues

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- 2005 Violations Were All Procedural Issues
  - Taking More Time Than Expected for Recent Procedural and Cultural Changes to Produce the Anticipated Results
- Reasons for Compliance Issues
  - Inconsistent Procedure Quality
    - Highly-Detailed v. Less Formal
  - Insufficient Operator And Engineer Input Into Procedures
  - Shortage of MTW Dedicated Staff for Procedure Development
- Incomplete Implementation of Management Expectations
  - Resistance to Increased Formality of Procedures
  - Ineffective Management Oversight
  - Personnel Changes and Vacancies

# **Actions to Improve Compliance**

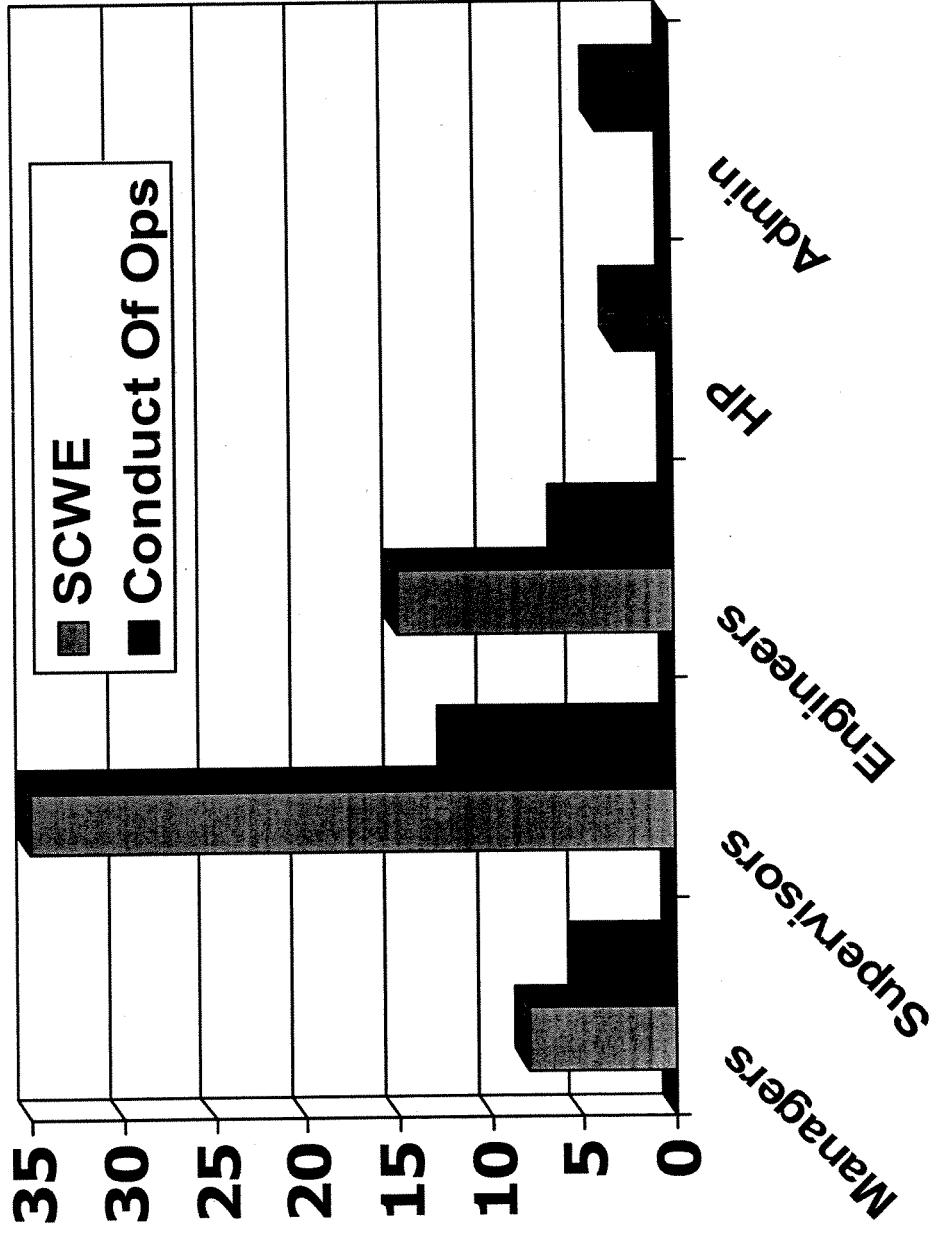
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- **Complete Procedures Upgrade**
  - Full-time Procedure Development Staff
    - Facilitate User Input
    - Procedure Revision Process
  - Consistent Procedure Format and Style Site-Wide
- **Focus on Compliance/Management of Change**
  - Formal Shift Turnover Process
  - Internal Audits
  - Management Walk-Arounds
  - Training
- **Develop Long-Range Compliance Strategy**

# Completed SCWE & CON OPS Training

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More Classes Scheduled, Hourly SCWE Rollout in March

# Efforts are Yielding Results:

## Four Examples

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- Operator Shutdown Production
  - Recognized Inadequate Emergency Response Staff
  - Halted Production
- Operator Rescheduled Work Until Procedure Approved
  - Planning change of G-114 refrig when discovered procedure missing.
  - Delayed work until temporary procedure issued; issued permanent procedure.
- Supervisor Delayed Scheduled Work Pending Procedure Approval
  - Temporary procedure for Nash Pump Shutdown had expired.
  - Delayed work until correctly reissued; issued permanent procedure.
- Improved Control Room Formality
  - Response to Inattentiveness Issues
  - Positive Third-Party Comments on Improved Formality

**Employees are recognizing compliance issues, internalizing compliance philosophy, and taking appropriate actions.**



Performance Area 2 of 3

# Corrective Action Program

Corrective Action Program Issues  
Improvements in Corrective Actions  
Monitoring Corrective Actions

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# Corrective Action Program Issues

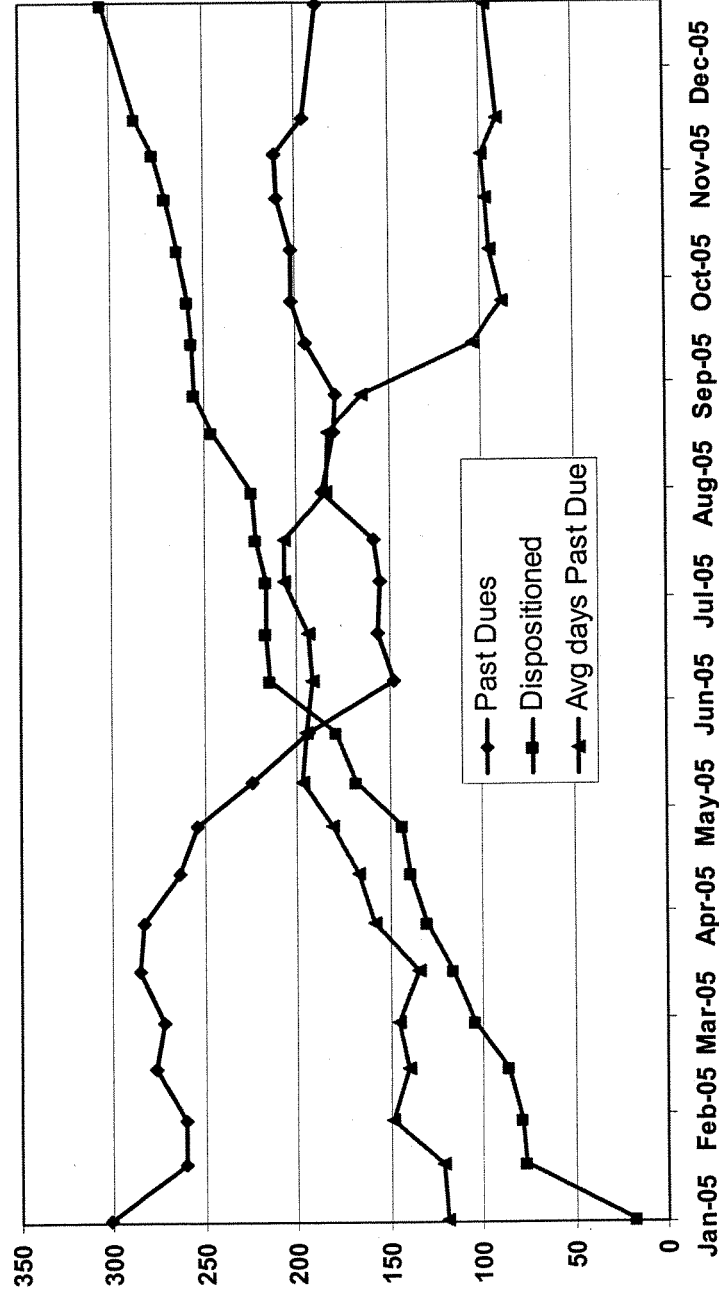
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- Electronic Corrective Action Tracking System (eCATS)
  - Over-population of eCATS
  - Action Tracking Tool, Not Assessment Tool
  - Difficult to Track and Trend Inputs to eCATS
  - Difficult to Use and Sometimes Provides Insufficient Information for Tracking Purposes
- Timing of Implementation of Corrective Actions
  - Some Items Have Taken Longer Than Expected to Complete
- Commitment Tracking
  - Weakness in Identifying, Tracking, Prioritizing, and Sustaining Commitments

# Corrective Action Item Progression

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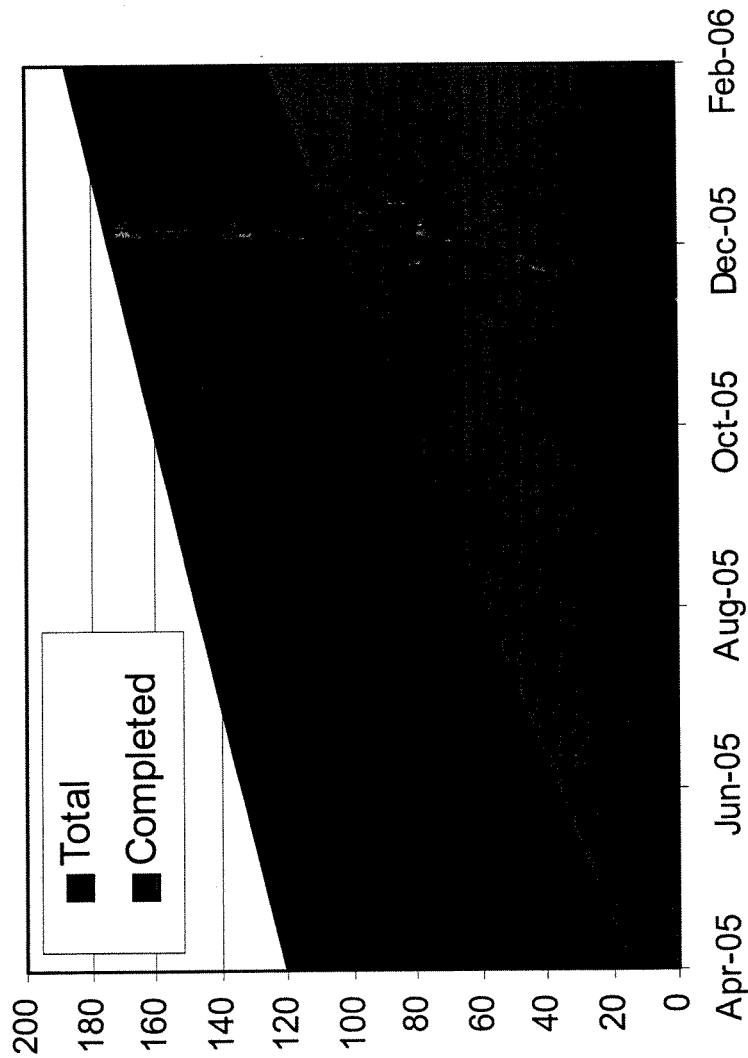


**Despite Weaknesses in Corrective Action Program, We Are Making Progress (e.g., Avg. Days Past Due Halved in Last Six Months)**

# Progress on Completing Commitments

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NRC Commitments



**Develop Long-Range Compliance Strategy with NRC: Transition  
From Making New Commitments to Improving Compliance**

# Improvements to

## **Corrective Action Program**

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- Anticipated Software Replacement for eCATS
  - OMNIWare Program in Honeywell Specialty Materials
  - Allows assigning of responsibilities, initiation of investigations, trend analysis, & prioritization
  - Improved system response time and access
- Capture of Corrective Actions
  - Corrective Actions Captured and Assigned in MTW 2006 Plan
  - Training for Managers and Supervisors
- Corrective Actions Management
  - Assess Resources for MTW 2006 Plan to Implement.
  - Dedicated Resource to Monitor Corrective Action Program

# **Improvements to Corrective Actions (continued)**

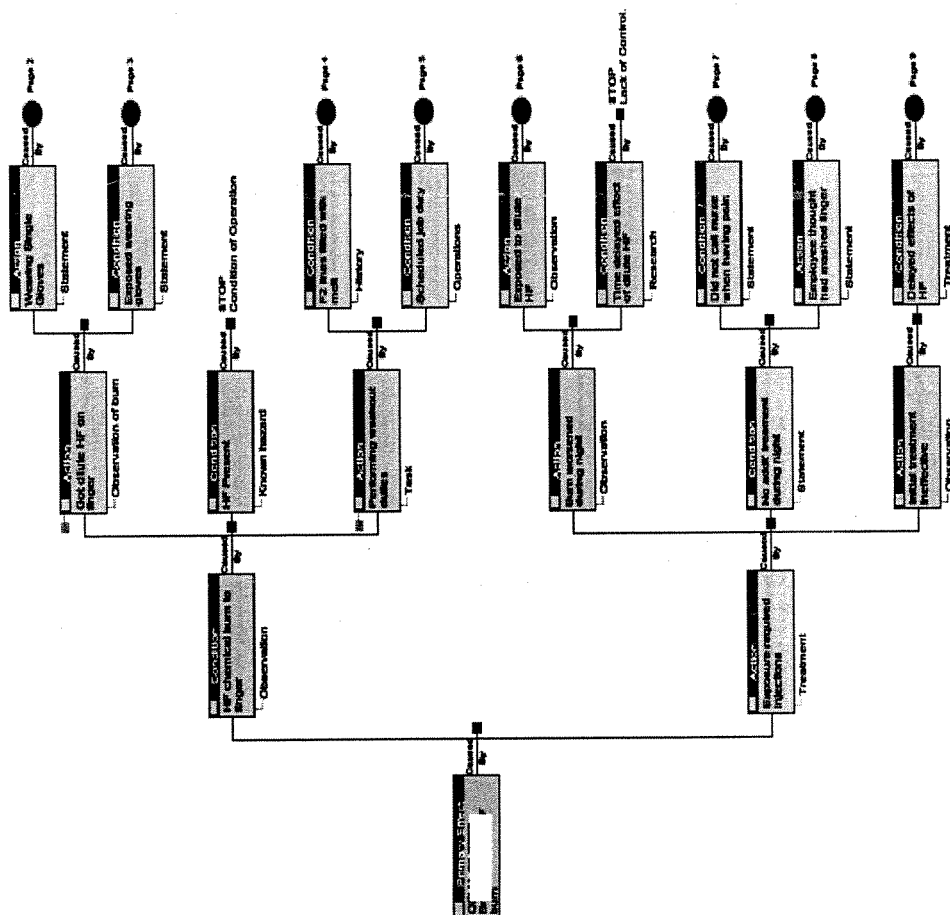
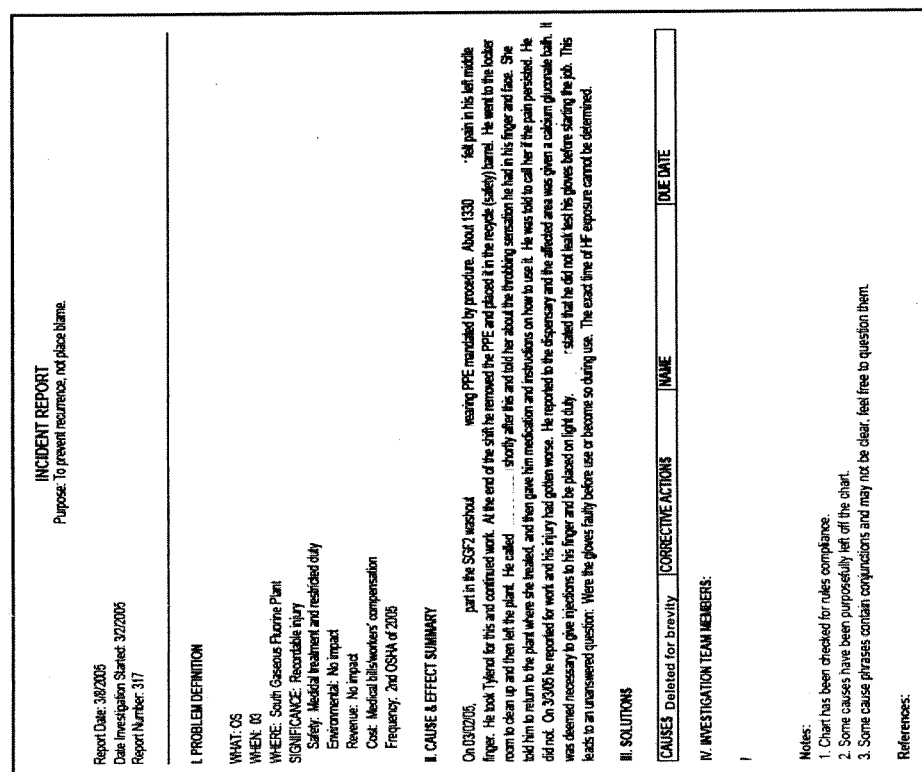
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- Causal Analysis Ability
  - Apollo Root Cause Analysis
    - Trained 26 Employees to Lead Root Cause Analyses
  - Five Why Root Cause Analysis
  - Independent Consultant Causal Analysis
  - Triangle of Prevention ("TOP")

# Apollo Root Cause Analysis (FMEA Format)

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# Monitoring Corrective Action Program

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- Verification and Validation of Corrective Actions
  - Metrics Monitored at Plant Manager's Weekly Staff Meeting (e.g., Overdue Corrective Actions)
  - OMNIware Trending, Tracking, & Analysis
  - Internal Follow-up Audits for Effectiveness



Performance Area 3 of 3

# Procedure Controls

Procedure Controls Issues  
Actions to Improve Controls

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# Procedure Control Issues

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- Weaknesses In This Area Similar To Procedural Adherence Issues
- Inconsistent Focus on Managing and Controlling Procedure Changes
  - Shortage of MTW Dedicated Staff for Procedure Control
- Incomplete Implementation of Management Expectations
  - Personnel Changes and Vacancies
  - Ineffective Management Oversight

# Improvements in Procedure Control

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- Dedicated Procedure & Document Control Staff
  - Subject Matter Experts for Procedure Control Process
  - Focus on Procedure Management
  - New Document Control System
    - Documentum - Software & Training
    - Help With Procedure Tracking/Review Cycles
- Focus on Compliance with Management of Change Procedures
  - Internal Audits
  - Training Leader

# Looking Back, Moving Forward

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- Accomplishments in 2005:
  - Successfully Addressed the Following Areas:
    - Emergency Planning
    - Radiation Protection
    - Control Room Operations
    - License Requirement Implementation
  - Analysis, Planning, & Initial Actions Lay Foundation For:
    - Procedural Compliance
    - Corrective Action Program
- Goals for 2006:
  - Complete Procedural Compliance
  - Effective Corrective Action Program
  - Sound Procedure Controls

# Concluding Remarks

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- Made Substantial Progress in Many Areas
  - Establishing Leadership
  - Implementing Work Processes and Structure
  - Driving Accountability
  - Improving Infrastructure
- Investments in People and Procedures Are Percolating Through Organization
- Redouble Efforts to Improve Procedural Adherence and Controls
- Continue Efforts to Develop and Implement Effective Corrective Action Program

<b>Creating a Culture That Will Deliver Safe and Reliable Operation</b>
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**End of Presentation**

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