

# EQ Program Health Reporting Concepts

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2008 EQ Technical Meeting  
Tuscon, AZ.

# Topics

Monitoring EQ Program Health  
Program Compliance  
Program Effectiveness  
Program Health Reports  
Beyond Program Health Reports  
Going Forward Recommendations

# Monitoring Program Health

- Program Health is a measure of the following program elements or characteristics:
  - Program Infrastructure
  - Program Staffing & Experience
  - Program Implementation
  - Program Performance
- Program Health is a Measure of a Program's:
  - Compliance, and
  - Effectiveness

# Monitoring Program Health

- EQDB Issued a Topical Survey on Monitoring EQ Program Health in March 2008.
- Monitoring the state of Compliance and Effectiveness of a Program involves input from several sources or activities throughout the reporting period.
- Program Health Reports simply integrate the results of these efforts and communicate them to management.

# Program Compliance

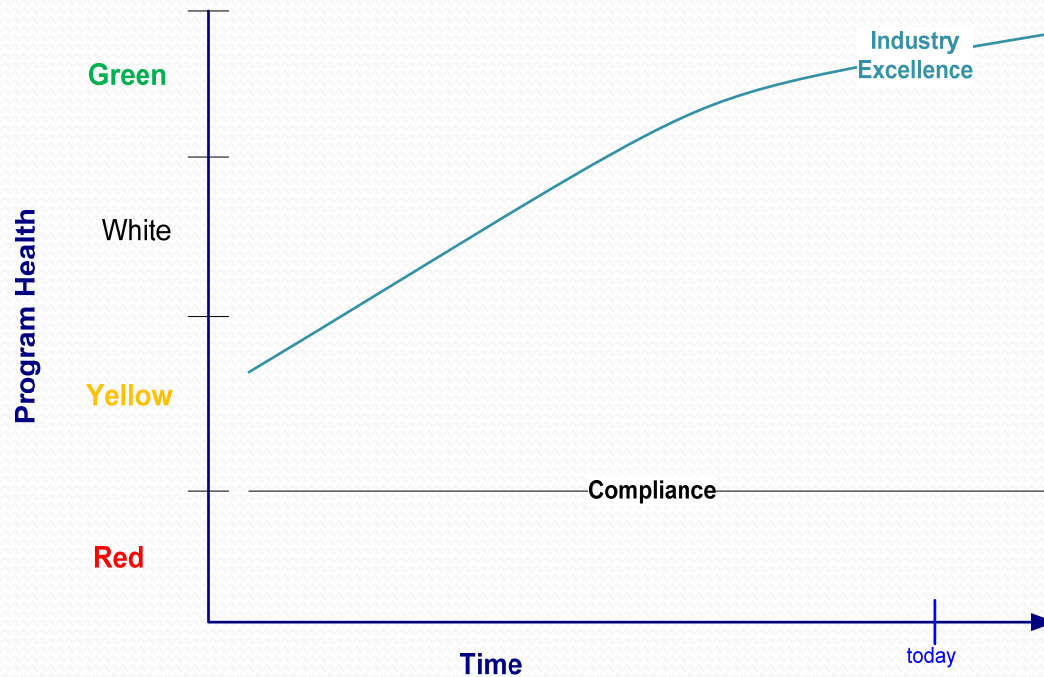
- Compliance is “Binary”
- Compliance covers:
  - Regulatory
  - Procedural
  - Quality Assurance
  - Commitments
- Concept of “Non-Compliance” Applies to:
  - Entire Program
  - Program Documentation
  - Installed Equipment

# Program Compliance

- Program Compliance Can Be Monitored Using:
  - Current / Past Data
  - Existence of Required Regulatory Elements (e.g. 50.49)
  - Existence of Required Procedural & QA Elements
  - Existence of on-going Commitment Elements
  - Lack of Evidence related to Non-Compliance
    - Corrective Action Program
    - NRC Violations
    - QA Findings & INPO AFI's
    - Self Assessments & Peer Reviews
- But this doesn't tell you where the program is going.....or how much "margin" you have.....

# Program Compliance

- Compliance Metrics alone are not adequate for monitoring program health



# Program Compliance

- Question:

So When is an EQ Program in “Non-Compliance”?

- Answer:

When it becomes ineffective in performing its primary mission to establish and maintain the qualified status of EQ equipment & components.

- In other words: An EQ Program is in Non-Compliance whenever there are wide spread Documentation or Hardware Issues that are directly related to the ineffectiveness of the Program.



# Program Compliance

- An EQ Program that is not in Compliance does NOT automatically mean that plant isn't safe to operate.
- An EQ Program can be in full Compliance even with Documentation or Component Issues that aren't the result of an ineffective EQ program. For example:
  - Human Performance Issues (failure to follow procedures)
  - New Information from Vendors or OE

# Program Compliance

- Equipment can meet 50.49 and remain fully qualified for a limited period of time even if the program is non-compliant.

For example:

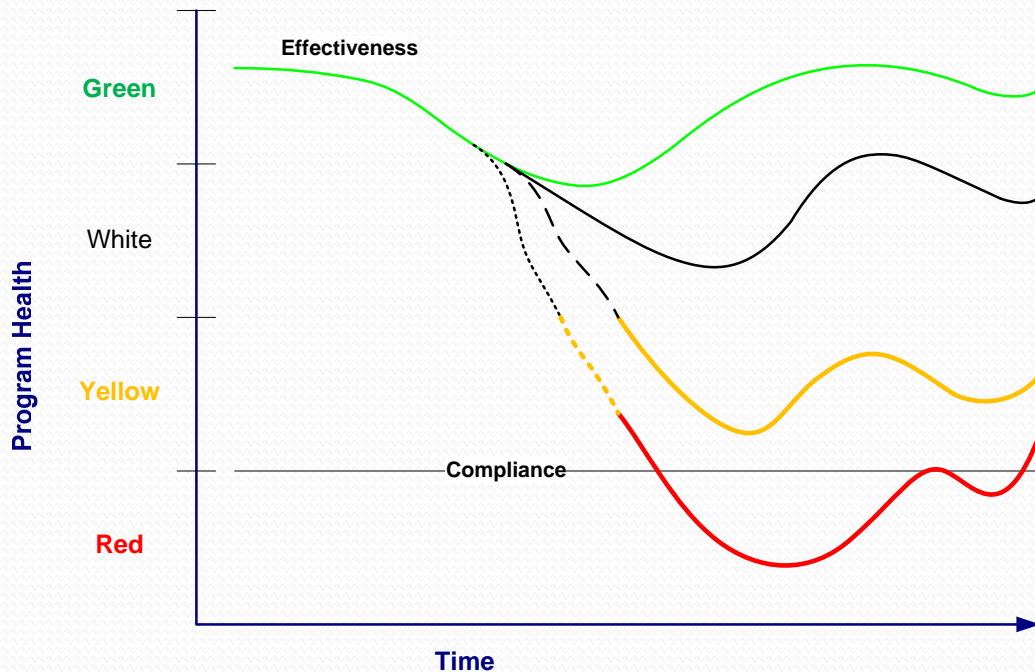
When Knowledge and/or Compensatory Actions are used to offset the known Program weaknesses and deficiencies.

# Program Effectiveness

- Effectiveness Influenced or Changed by Many Factors:
  - Changes in Program Personnel
  - Changes in Program Staffing Levels / Resources
  - Changes in Site Management
  - Changes in Site Priorities / Focus Areas
  - Changes in Critical Oversight (internal & external)
  - Changes in O&M Budgets
  - Changes in Program Design Inputs
  - Changes in Program Infrastructure & Interfaces
  - Changes in Site Processes / Procedures

# Program Effectiveness

- Program Health is Dynamic and Cyclic in Nature
  - Health changes because Program Effectiveness varies with time
  - Part of the normal life cycle of any engineering program



# Program Effectiveness

- What are the key elements in sustaining program effectiveness?
  - Continuous Improvement Initiatives, and
  - Early Detection of Adverse Trends or CAQ, and
  - Determining the Underlying Causes & EOC, and
  - Effective and Timely Corrective Action(s),  
and last but not least.....
  - Management Engagement and Support

# Program Effectiveness

- No Single Review Element (by itself) can tell you the true state of your program unless it has already failed.
  - NRC Inspections
  - INPO/WANO
  - Peer Reviews
  - QA Oversight
  - Self Assessments or Benchmarking
  - Trend Reviews (CAP or Backlog)
  - Plant Walkdowns or Field Verification
- Health Reports need to integrate information from all of these sources and more.

# Program Effectiveness

- To accurately determine the current health and predict where the program will be 1-2 reporting cycles from “now” requires:
  - PIs that are forward looking or address known precursors.....
  - Knowledge of the “health” of related programs
    - Configuration Management
    - Corrective Action Program
    - Operating Experience
    - Maintenance
  - Knowledge of the “health” of program design inputs
  - Knowledge of the “health” of program interfaces

# Program Effectiveness

- Sources for Forward Looking Performance Indicators:
  - Precursors to program decline (from INPO EPG-02)
  - Results of SA's, Audits, or Surveillances that target:
    - Health of related programs (e.g. CM, CAP, OE, PM, etc.)
    - Health / stability of design inputs
    - Health / effectiveness of interfaces
  - Results of Environmental Monitoring
  - Trending Failures of EQ equipment
  - Others???



# Program Health Reports

- EQ Program health reports need to be:
  - Predictive to the greatest extent possible
  - Written for the “end user” (e.g. MGMT & PHC)
  - Short & Concise
- Program Health reporting must be focused toward securing management attention and support for:
  - Issue resolution,
  - Corrective and preventive actions, as well as
  - Continuous improvement initiatives.

# Program Health Reports

- HELP with Management's Understanding
  - Provides a vehicle to describe the current health and predicts the future health of the program using:
    - Forward looking indicators
    - Trending
    - Presence of Precursors to Program decline
  - Provides input to Management on what is needed to sustain or improve Program Health:
    - Action Plans
    - Resources
    - Alignment and Prioritization

# Beyond Program Health Reports

- PHRs Are Used with Other “Communication Tools”
  - PHC & Management presentations
  - Corrective Action Program
  - Focused & Snapshot Self Assessments
  - Benchmarking
  - QA Audits & Surveillance Reports
  - Meetings
- Include EQ Issues in System Health Reports
  - Provides More Exposure to Management
  - Reflects Site Alignment

# Beyond Program Health Reports

- Major Action or Recovery Plans may need even more
  - Formal Project Plans
  - Project Status Reports
  - Integration with Business Plan (Site / Department)
  - Integration with Site Improvement Initiatives
  - Inclusion on the Station Priority or Issues List
  - Articles in Site Newsletter / Communications
  - Periodic Briefings to SRI

# Going Forward

## Recommended Actions:

- Develop training material on Program Health Reporting for new EQ Program Owners
- Develop a standard set or suite of performance indicators for EQ Programs.
  - Specifically Focus on Forward Looking Indicators
  - Capture Precursors to Program Decline
  - Based on Readily Available Information