
Supplier Quality Oversight

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Quiz

INPO's Principles for a Strong Nuclear Safety Culture

1. Everyone is personally responsible for nuclear safety.
2. Leaders demonstrate a commitment to safety.
3. Trust permeates the organization.
4. Decision-making reflects safety first.
5. Nuclear technology is recognized as special and unique.
6. A questioning attitude is cultivated.
7. Organizational learning is embraced.
8. Nuclear safety undergoes constant examination.

- What are the three “basic” attributes that make nuclear technology special and unique?
 1. Large amount of fuel stored in a “small” location
 2. Fissionable, radioactive material
 3. Decay heat

Lesson Learned: Many suppliers do not understand this nor the other principles. We must educate them.

Why is Supplier Safety Performance Important to Westinghouse?

- Westinghouse considers industrial safety as a leading indicator of an organization's performance... simply put, if you are not working safely, you are not performing well.
- Your safety performance is an indicator of:
 1. Continuous Improvement Focus
 2. Tolerance for Events
 3. Organizational Effectiveness
 4. Culture & Management Oversight Effectiveness
 5. Procedure Use & Adherence
 6. Risk-Taking Behaviors



Simple Example with Profound Implications

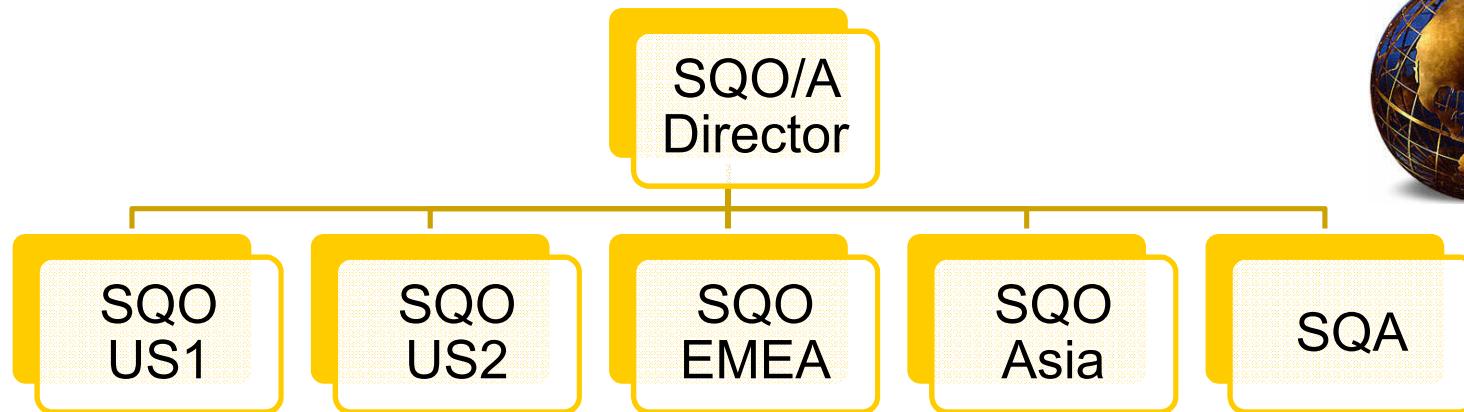


I observe one of your employees not wearing safety glasses, as required by your procedures.

- My immediate reaction is:
 - This organization likely has inadequate management oversight and reinforcement → impact on quality?
 - This organization may have a procedure compliance issue that could affect product quality.
 - This organization may have a risk-taking culture that could affect product quality.



Westinghouse Oversight Organization



Responsible for the assessment, qualification, oversight and development of suppliers, globally, including:

- Performing new and existing supplier qualifications.
- Commercial Grade Surveys.
- Maintenance of the Westinghouse Qualified Suppliers List.
- Perform supplier surveillance and source inspection.
- Document and manage supplier issues and Corrective Action Requests.
- Develop supplier quality risk analysis and development plans.

Growing Demand, Growing Supply Base

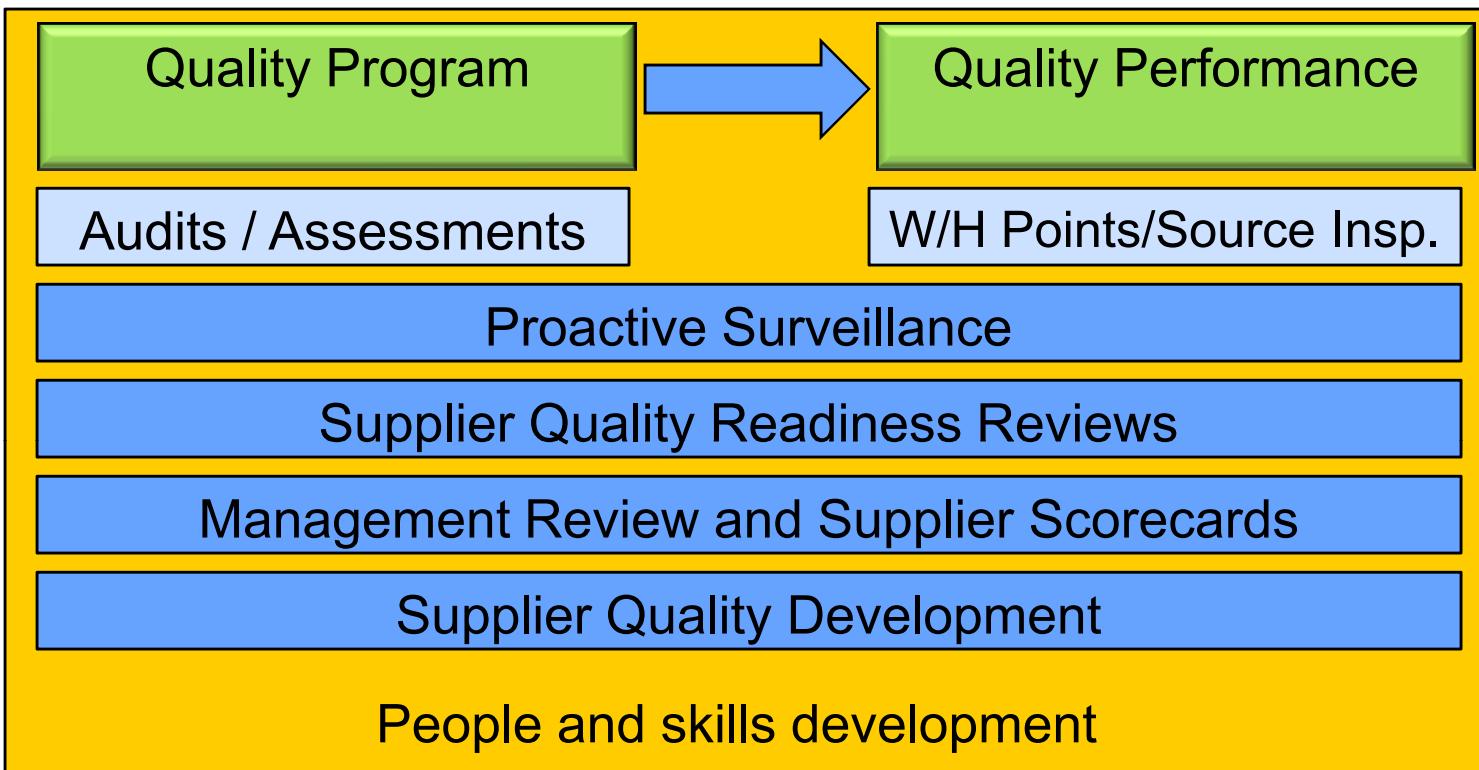
- Westinghouse is engaged in various-sized projects, product delivery, and service initiatives world wide.
 - Vogtle, V.C. Summer, Haiyang, and Sanmen AP1000 New Plant Construction
 - Mechanical Components and I&C for new plant construction at UAE and Shin Kori
 - Replacement steam generator and major plant modifications
 - Worldwide outage services and plant upgrades
 - Major engineering services contracts
 - Operating plant I&C upgrades
 - PWR and BWR fuel delivery to fleet

Supplier Oversight Summary

- Oversight and control of suppliers is critical to industry success.
 - First of a kind scope / new suppliers represent a new level of challenge.
 - Flow down of requirements and ensure implementation
 - Quality program effectiveness as a foundation for product quality
- Westinghouse is proactively and systematically evaluating our process and driving continuous improvement
- Driving oversight and early action to [predict and prevent](#) supplier quality issues
 - Multiple processes
 - Frequent review
 - Systematic monitoring & trending
 - Proactive oversight



Holistic Approach to Supplier Oversight



Implementing a layered system that provides for proactive intrusion to enable predict and prevent behaviors / actions.

Example of applying the strategy

- Supplier essentially new to nuclear
- Building FOAK equipment
- Audit in late 2010 revealed several organizational effectiveness gaps
 - QA program
 - Planning & scheduling
 - Witness / Hold points
 - Management oversight
 - Communication
 - Schedule compliance
- Resulted in a stop work order
- Westinghouse deployed resources to bring the supplier into compliance
- Regular management review meetings commenced
- Continuous assessment of progress and risk (safety, quality, delivery, and cost)
- Assigned an issue manager to drive corrective and improvement actions
- Introduced HuP and Nuclear Safety Culture
 - Targeted executive management to drive the improvements
- Provided resources to train, coach, and mentor
- Deployed a quality, manufacturing, and procurement team of experts to assess the supplier

Example of applying the strategy

- Documented a comprehensive supplier improvement plan
- Continued to monitor performance
- Etc.
- **Outcome:** substantial improvement in supplier performance.

Key Elements for Success:

- Substantial management review
- Many readiness reviews completed
- Substantial quality oversight throughout the process
- Significant focus on development
- Westinghouse management alignment and commitment

- **Key Lessons Learned:**

- Do not focus solely on the QA manager / organization
 - The QA manager often times does not have the organizational influence to effect significant change
- Engage the QA manager, the Operations manager, and the Plant Manager (minimum)
- Utilize a cross-functional team within your organization
 - Quality
 - Supply Chain Management
 - Projects
 - Engineering



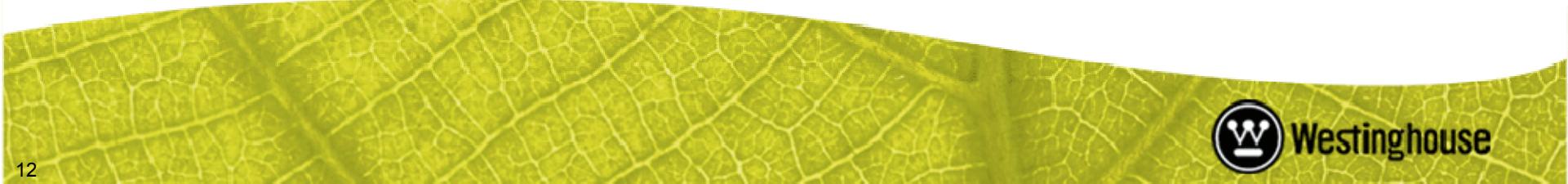
Operating Experience and Lessons Learned

- **Suppliers** – First of a kind scope for large proportion of supply base presents a new level of challenge.
- **People and Leadership**
 - **Standards/Expectations** – Mgt observation & reinforcement
 - **Training , Qualification & Proficiency** – Continuous attention
- **Process and Tools**
 - **Proactive intrusion** to establish risks and leading indicators
 - **Procedure Implementation** – Detailed guidance drives consistency
 - **Frequency, Intrusiveness & Observation** – Tailored
 - **Systematic Monitoring & Trending** – Fact-based and predictive
 - **Proactive Supplier Readiness & Development** – Issue prevention
 - **Executive Engagement and Intervention** – Visibility and involvement in critical supplier performance issues

US Industry Observations and Lessons Learned

- **Data points observed and/or shared with Westinghouse:**

- “Common” supplier quality program gaps, as observed by Westinghouse today:
 - Commercial dedication
 - Part 21
 - Non-conformance system
 - Corrective action program
 - Internal and supplier audits
 - Human Performance
 - Nuclear Safety Culture



Summary

- Oversight and control of suppliers is critical to industry success
- Proactive and aggressive approach to predict and prevent issues is paramount
- Sustained vigilance is required



Questions?

