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Contractor Oversight

*Presented to
Defense Nuclear Facilities Safety Board*

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U.S. Department of Energy



Office of River Protection



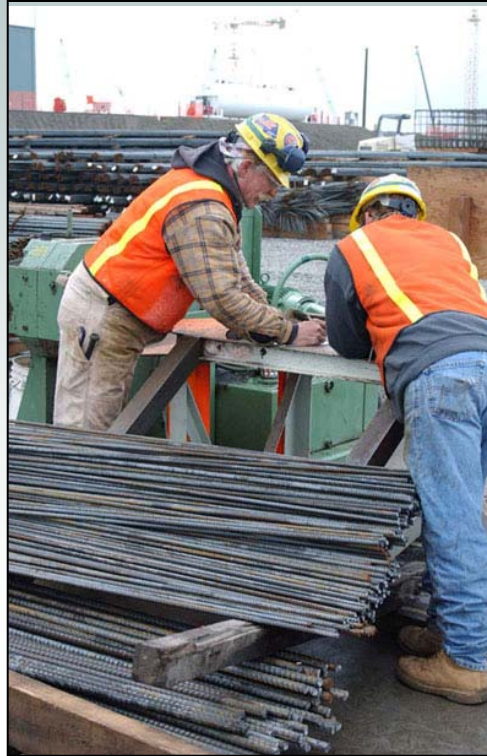
Bechtel National, Inc.

Safety – Quality

Design



Procurement



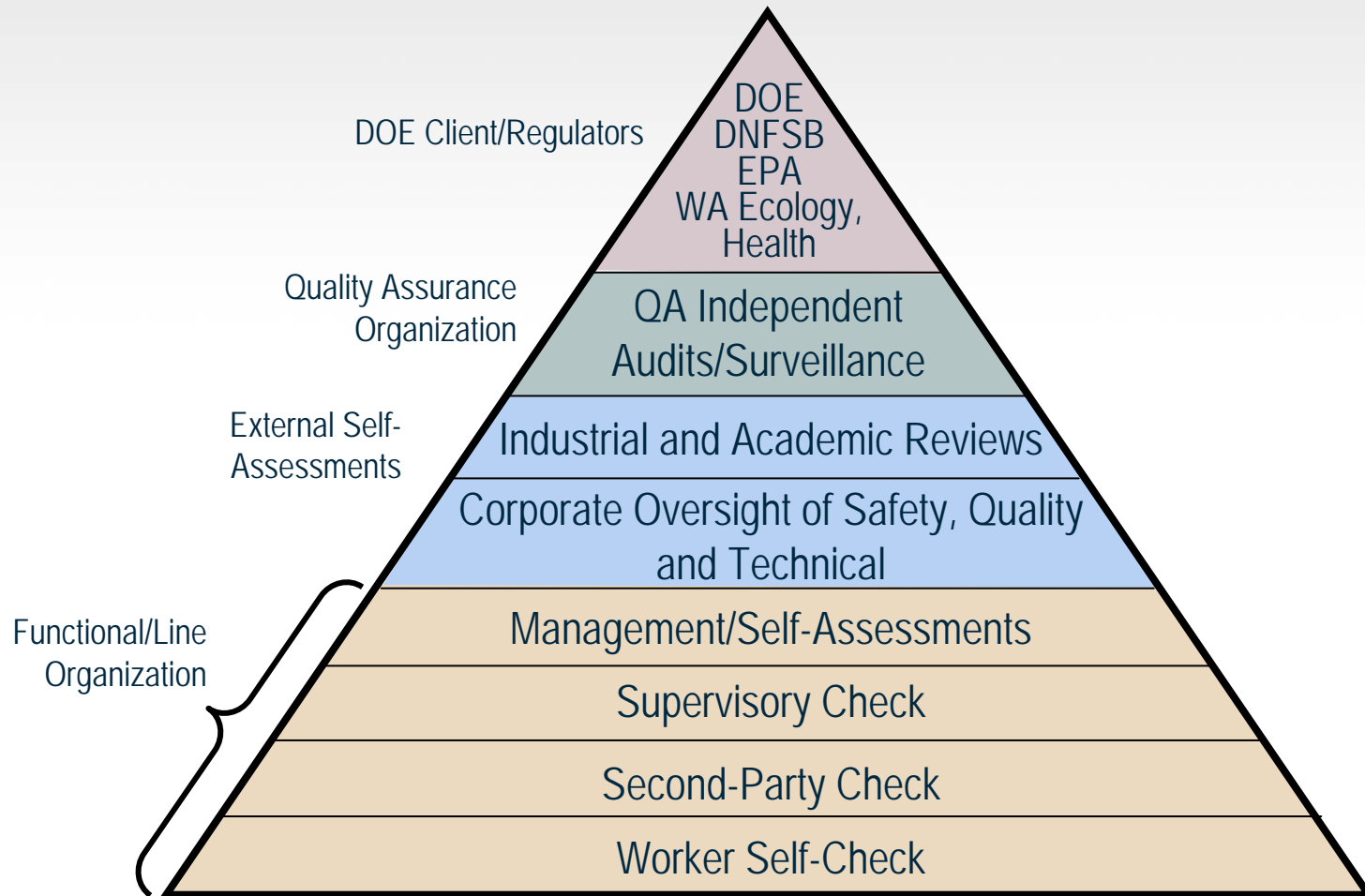
Construction



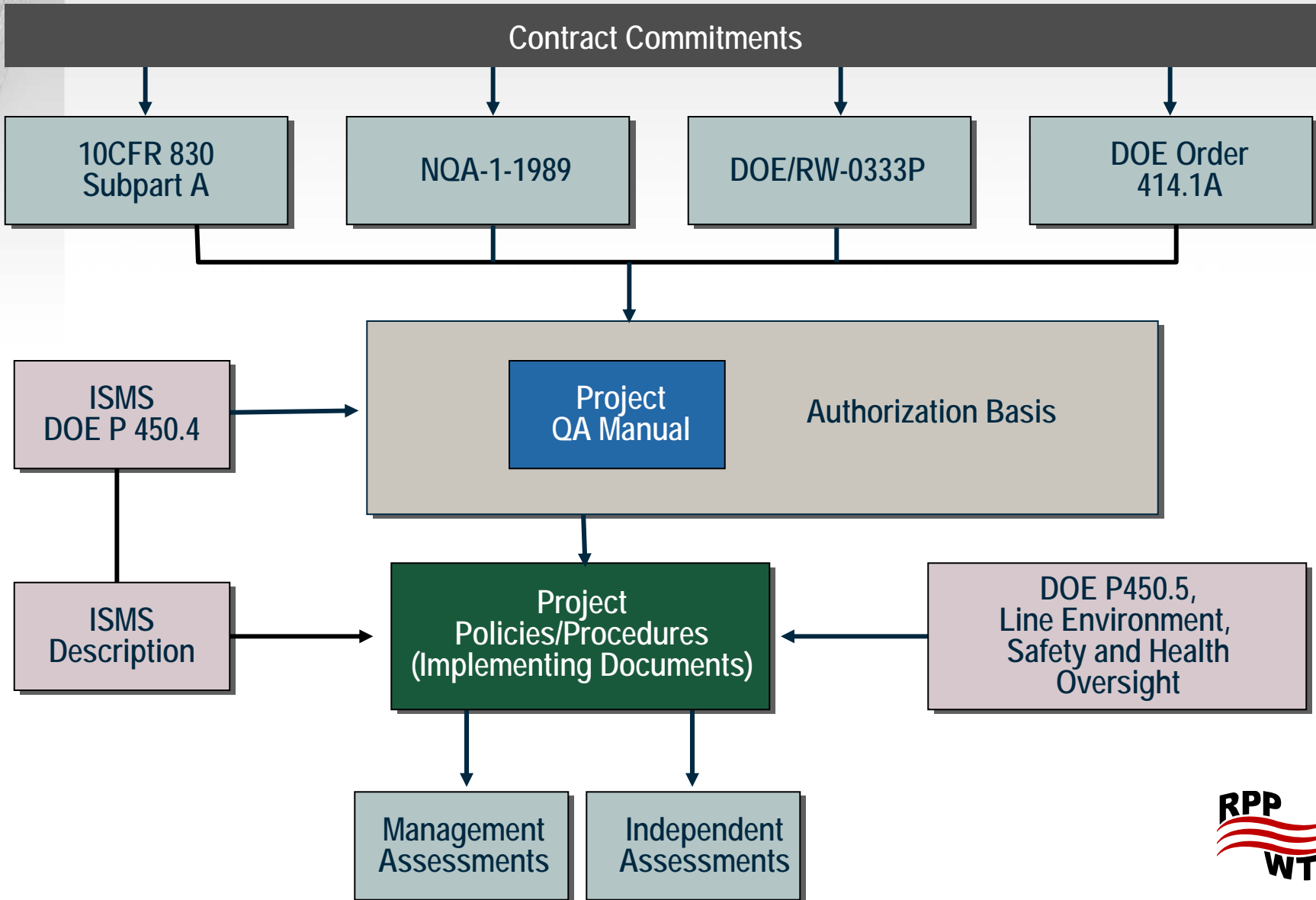
WTP Project Success Factors

- *Safety*
 - *Quality*
 - *Compliance*
 - *Technical*
 - *Schedule*
 - *Cost*

Oversight Hierarchy



Requirements Flow To Assessment Process



Contractor quality and safety expectations

- Identify deficiencies and opportunities for improvement
- Develop corrective actions that fix the issue and prevent recurrences
- Maintain a continuous-improvement approach
- Deliver a project that meets objectives of safety, quality, compliance, technical, cost, and schedule

ISMS is an intrinsic value

WTP Self-Assessments

Self-Assessments performed in 2003

- 105 Management Assessments, including Engineering, Construction, Procurement, QA, Training, Operations, Industrial Safety, Environment & Nuclear Safety, Research & Technology
- 10 Project QA Audits completed; 3 in progress
- 730 Project QA Surveillances of project activities and corrective action follow-ups
- 87 Supplier QA Program Qualification Audits and Surveys
- 706 Supplier Quality Verification visits

WTP External Self-Assessments

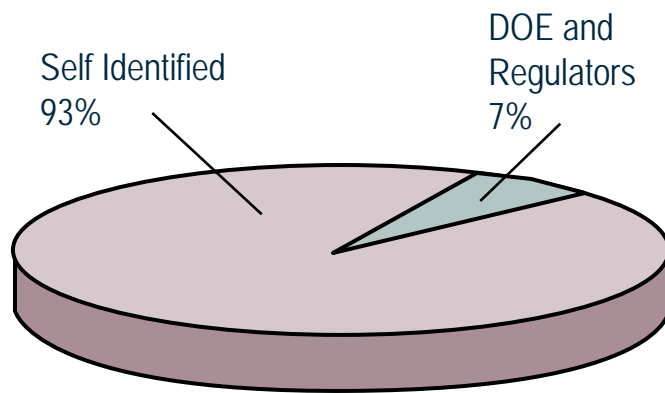
Utilizing corporate, industrial and academic experts

- Engineering and Nuclear Safety – 60 assessments, ~10,000 hours
- Construction – 10 assessments, ~ 800 job-hours
- Procurement – 6,000 job-hours
- Research and Technology– 3 Peer Reviews, 380 hours

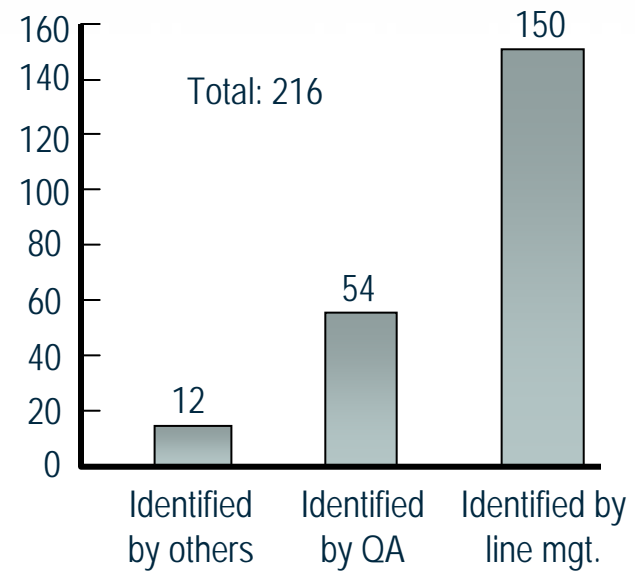
Identification of Findings

January 2003 through November 2003

Percentage of rolling total



Number of findings



2003 improvements in WTP Assessment Program

Working with the DNFSB and DOE:

- Increased quality and depth of Self-Assessments
- Increased utilization of technical experts

Our Assessment Program meets DOE proposed Policy 226.1

WTP Internal Oversight – Technical Staffing

WTP is an Engineer-Procure-Construct project, not a Management and Operations contract. More than 1,100 engineers on the job.

Technical skills are already in place for:

- Engineering
- Research & Technology
- Construction
- Commissioning
- Procurement
- Safety Assurance
- Quality Assurance

Oversight staff have a mix of both technical and programmatic competencies to support the performance of assessments

Oversight Organization Staffing

Quality Assurance

- Registered Professional Engineers
- Degreed Engineers – MS and BS
- Former NRC Licensed Senior Reactor Operators
- Extensive QA/QC engineering, construction & operations experience
- Current staff of 46 Quality Assurance Engineers, 40 Quality Control Inspectors and 31 Shop Inspectors

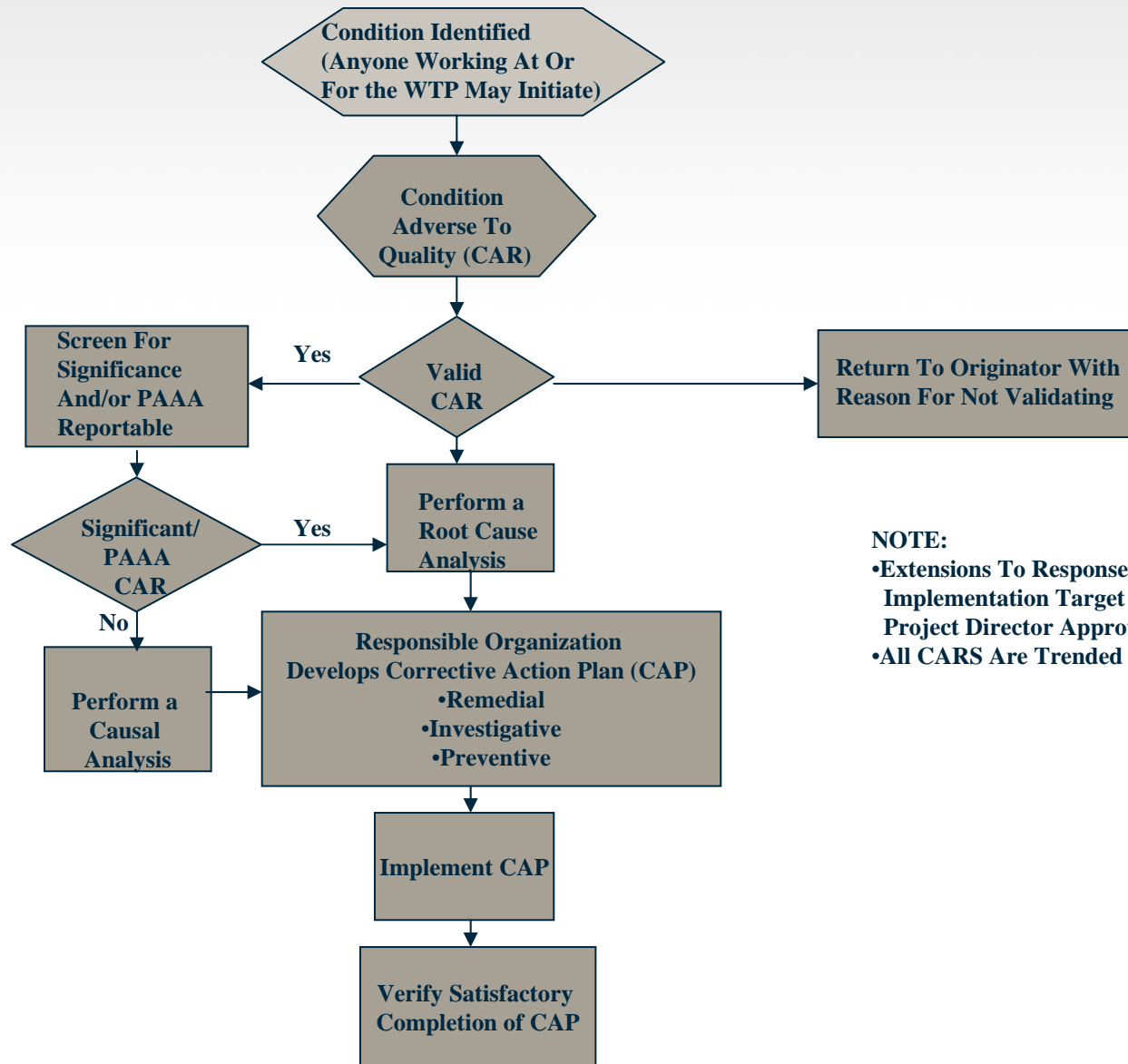
Safety Assurance

- Registered Professional and degreed Engineers
- Certified Safety Professionals, Industrial Hygienists, Health Physicists
- Fire Protection Engineers
- Current staff of 29 Safety Assurance Engineers

WTP Corrective Action Program

- Independent from other Hanford contractors and DOE-RL office
- Fully integrated within the project
 - accessible by all employees
 - provides real-time data—web-based
- Driven by senior management
 - Quality Safety Council chaired by Project Director
- Tracking and analysis reveals trends for improvements
- Mature process
 - quarterly trend reports
 - annual corporate assessments
 - includes Root Cause Analysis as a sub-process
(now in Six-Sigma analysis)

WTP Corrective Action Program



NOTE:

- Extensions To Response Due Date Or Implementation Target Date Require Project Director Approval.
- All CARS Are Trended

WTP Corrective Action Program

- Anyone working for or at the Waste Treatment Project may initiate a:
 - Condition Adverse to Quality Report (CAR) or
 - Recommendation and Issue Tracking Action Item (RITS)
- All CARs are reviewed for significance and PAAA applicability
- Root Cause Analysis is performed for all significant or PAAA CARs
- Causal Analysis is performed for all other CARs
- Only Project Director can grant extensions for response or target implementation dates
- All Corrective Action Plans (CAPS) independently verified for complete implementation
- All CARs trended for common cause and/or opportunities for continuous improvement
- Corrective Action Program is evaluated by DOE-ORP twice/year with positive results

Challenges

- Qualified Suppliers
 - Few domestic suppliers have established NQA-1 programs
 - Domestic supplier capacity insufficient for project needs
 - Foreign supplier programs usually limited to ISO-9000
 - Small number of qualified suppliers impacts competitive bidding process
 - Sub-tier supplier qualifications

Challenges

- Qualified Suppliers
 - 90% of suppliers evaluated for Q procurements require BNI assistance
 - Average of 4 QA Manual submittals before meeting procurement requirements
 - QA Manual reviews average 8 job-hours
 - Average 2-to-3 visits to a supplier for qualification
 - visits average 80 job-hours each to get on Approved Supplier List
 - Average of 3 problem resolution visits after award
 - supplier visits average 40 job-hours
- (not including shop inspections)

Summary

- WTP project has a robust Self-Assessment process in place
- Self-Identification of findings is encouraged and fostered
- Process incorporates and expects continuous improvement
- Bechtel National, Inc. works with DOE and regulators to improve the quality of final product and ensure the WTP works as advertised