

ESH Coordinators Briefing

OSHA Audit Status

Brookhaven National Laboratory

4/20/04

Steve Hoey Interim Manager

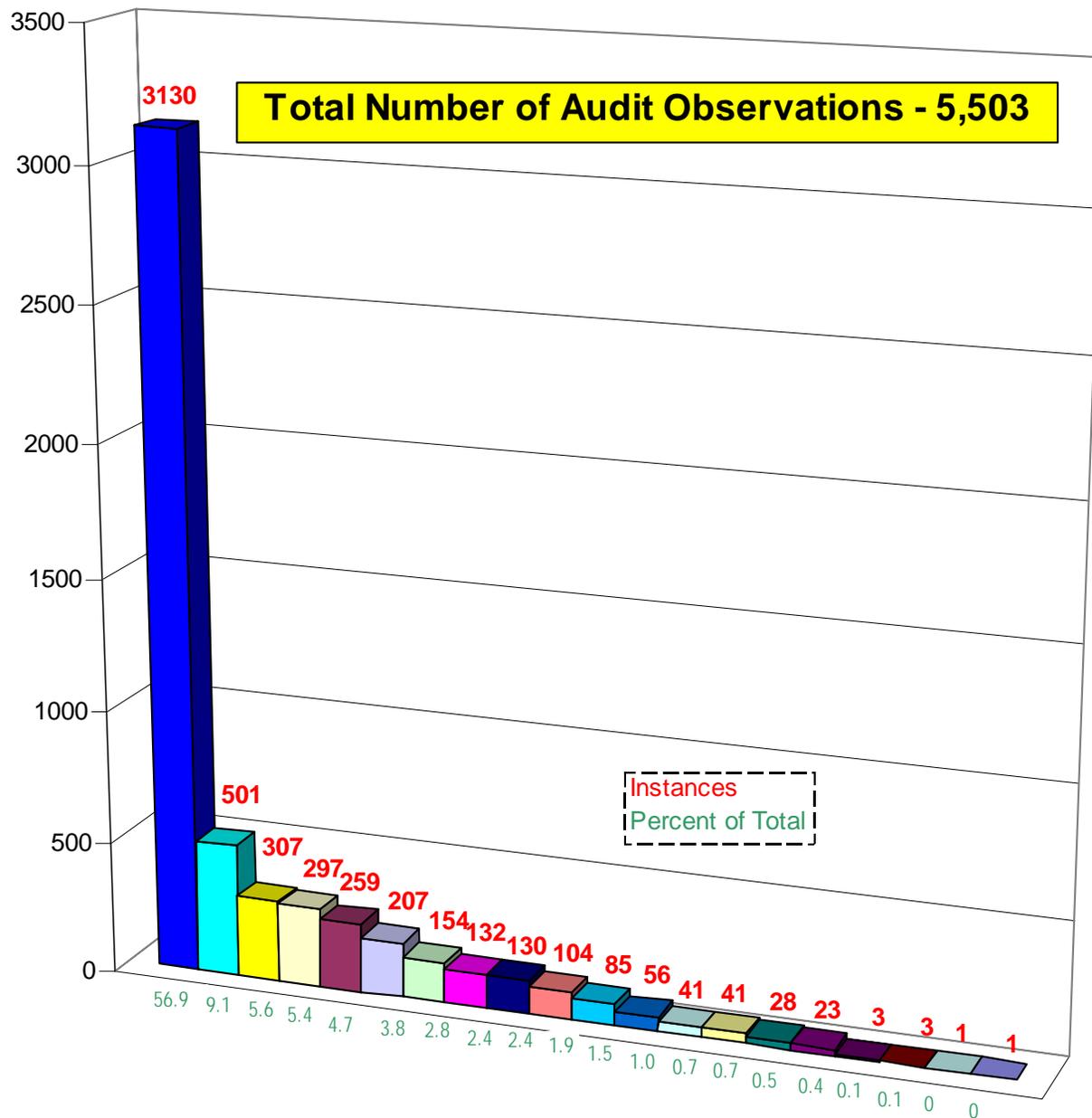
Safety and Health Services Division

BNL OSHA Cost Estimate

- Final Audit Report received from OSHA March 1
- BNL Cost estimate submitted to BAO April 2 & SC April 12.
- Results for 2530 Citations = 5503 instances
 - \$5,459,794
 - Contingency 1,637,938
 - Grand Total 7,097,732 (includes recommendations)
 - Actual Number submitted to Congress (minus 154k in Recommendations)

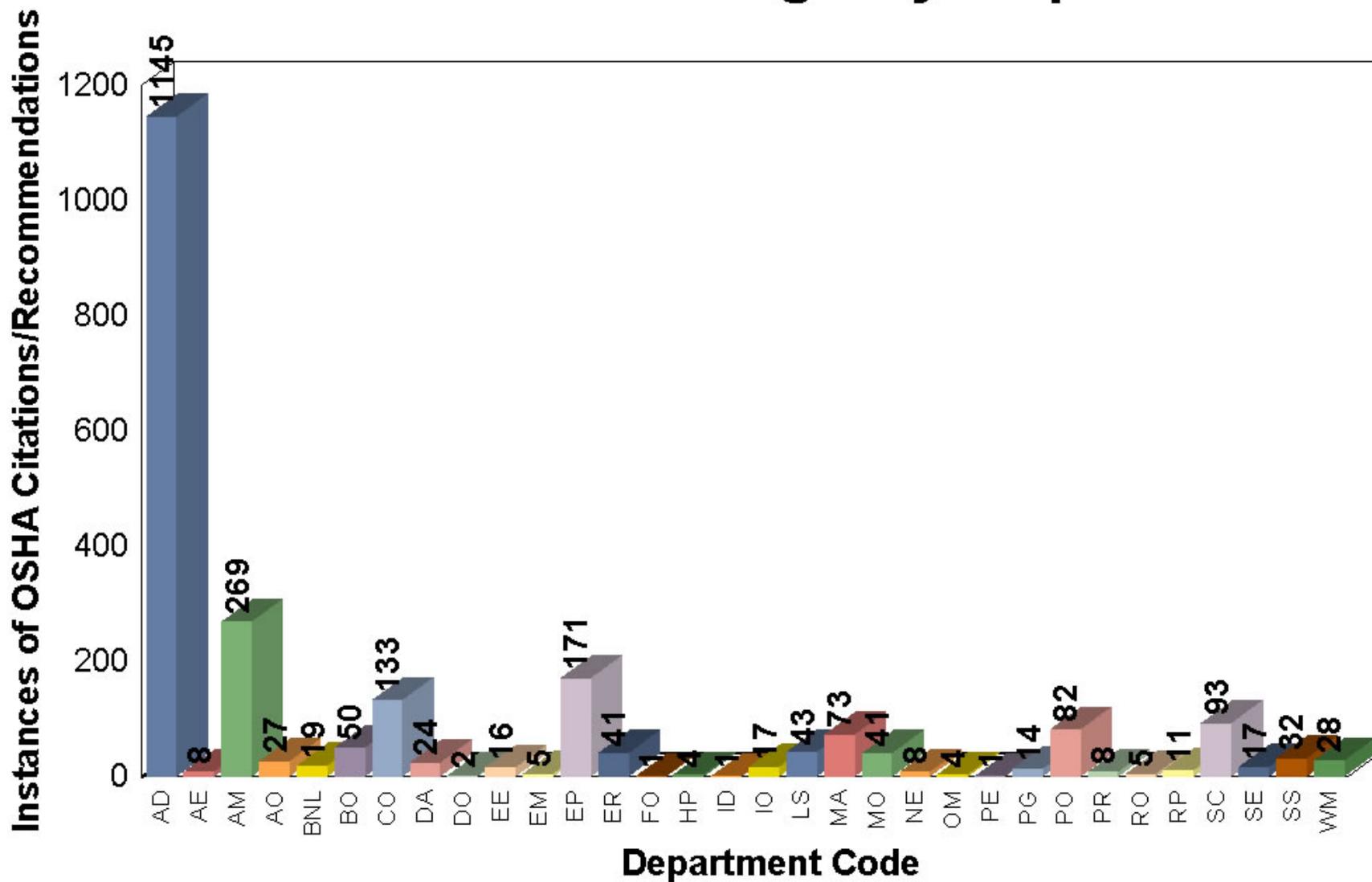
$$-\$5,302,539 + 30\% = \mathbf{6,893,300}$$

OSHA Audit Status - Distribution of Instances

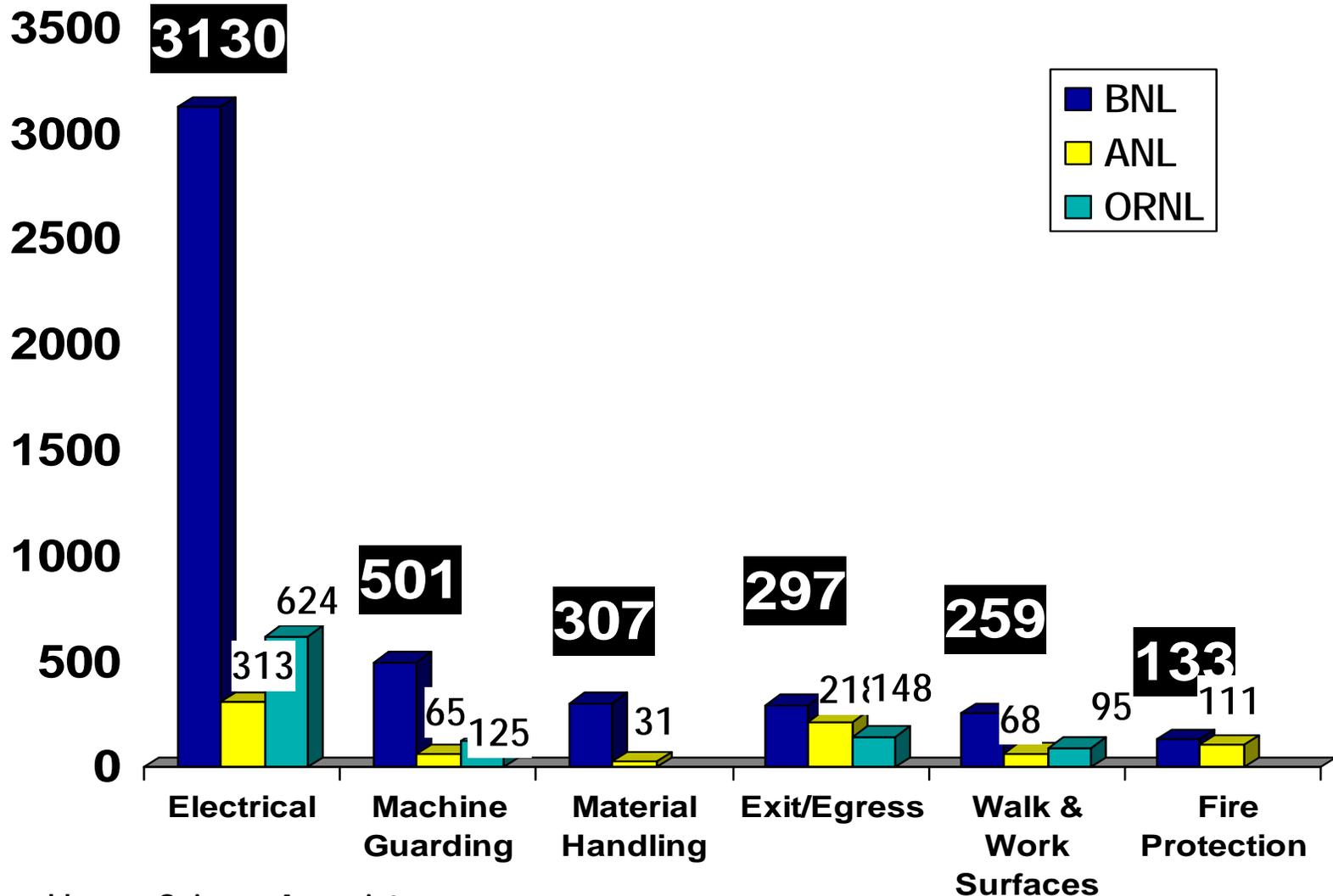


- S - Electrical - 56.9%
(3130 Instances)
- O - Machinery & Machine Guarding - 9.1%
(501 Instances)
- N - Materials Handling/Storage - 5.6%
(307 Instances)
- E - Exit Routes, Emergency/Fire Prevention - 5.4%
(297 Instances)
- D - Walking Working Surfaces - 4.7%
(259 instances)
- J - General Enviro. Controls - 3.8%
(207 Instances)
- Recommendations (no standard cited) - 2.8%
(2.8 Instances)
- L - Fire Protection - 2.4%
(132 Instances)
- K - Medical/First Aid - 2.4%
(130 Instances)
- H - Hazardous Materials - 1.9%
(104 Instances)
- Z - Toxic and Hazardous Substances - 1.5%
(85 Instances)
- I - Personal Protective Equipment - 1.0%
(56 Instances)
- General Duty Clause - 0.7%
(41 Instances)
- Construction Standard (29 CFR 1926) - 0.7%
(41 Instances)
- R - Special Industries - 0.5%
(28 Instances)
- P - Hand & Portable Powered Tools 0.4%
(23 Instances)
- G - Occupational Health & Enviro. Control - 0.1%
(3 Instances)
- Q - Welding, Cutting & Brazing - 0.1%
(3 Instances)
- F - Powered Platforms, Manlifts - 0%
(1 Instance)
- C - Other - 0%
(1 Instance)

BNL's OSHA Findings by Dept/Div.



Frequent General Industry Hazards Cited



Subpart S – Electrical Breakdown

Regulation	Description	Instances
1910.302	Electric Utilization Systems	1
1910.303	General Requirements	1620
1910.304	Wiring design and protection	128
1910.305	Wiring methods, components, and equipment for general use	1366
1910.307	Hazardous (classified) locations	13
1910.334	Use of Equipment	2
		Total 3130

Comparison between BNL, ANL and ORNL

- BNL included more and older buildings,
- BNL team had more inspectors for a longer period of time,
- ORNL and ANL excluded EM, ANL excluded Bechtel Facilities,
- BNL provided more effective logistical support, which improved team's process (upfront data, pre-identified)
- BNL was one of the last labs to be audited, OSHA teams becoming more efficient with DOE labs
- Composition of the team is more aligned with BNL's hazards

Audit Findings (OSHA Data)

DOE Lab	Number of Citations	Buildings Inspected	Citations per building	Auditors	Days on Site	Different OSHA Standards	Top Five Standards Cited at Each Site
ORNL	1646	156	10.55	19	12	205	Electrical, Egress & Fire protection, Toxic & Hazardous Substances, Machine Guarding, Walking and Working surfaces
ANL	1431	135	10.6	23	9	205	Electrical, Toxic & Hazardous Substances, Hazardous Materials, Egress & Fire Protection, Medical
TJNL	258	93	2.7	13	4	56	Electrical, Hazardous Materials, Egress & Fire Protection, environmental Controls, Toxic & hazardous Substances
PPPL	253	38	6.6	13	4	86	Electrical, Machine Guarding, Walking & Working Surfaces, Environmental Controls, Medical
Ames	DNA	10	DNA	9	3	70	Electrical, Hazardous materials, Toxic & Hazardous Substances, Egress & Fire Protection, Machine Guarding
PNNL	440	44	10	20	7	157	Electrical, Egress & fire Protection, Toxic & Hazardous Substances, Hazardous Materials, Machine Guarding
BNL	5503 4803*	474	11.6 10.13	22	17	321	Electrical, Machinery and Machine Guarding, Materials Handling and Storage, Egress & Fire Protection, Walking-Working Surfaces

BNL OSHA Findings

Laboratory Corrective Action Plan (status)

- CAP submitted 1/24/04
- Required to be updated with OSHA final data incorporated (pending)
- Updated CAP will focus on addressing all items and future “cultural changes”
- BAO’s expectation is that all findings will be “addressed” (BNL contract calls for OSHA compliance and always has).

BNL OSHA Findings

Laboratory Corrective Action Plan (status)

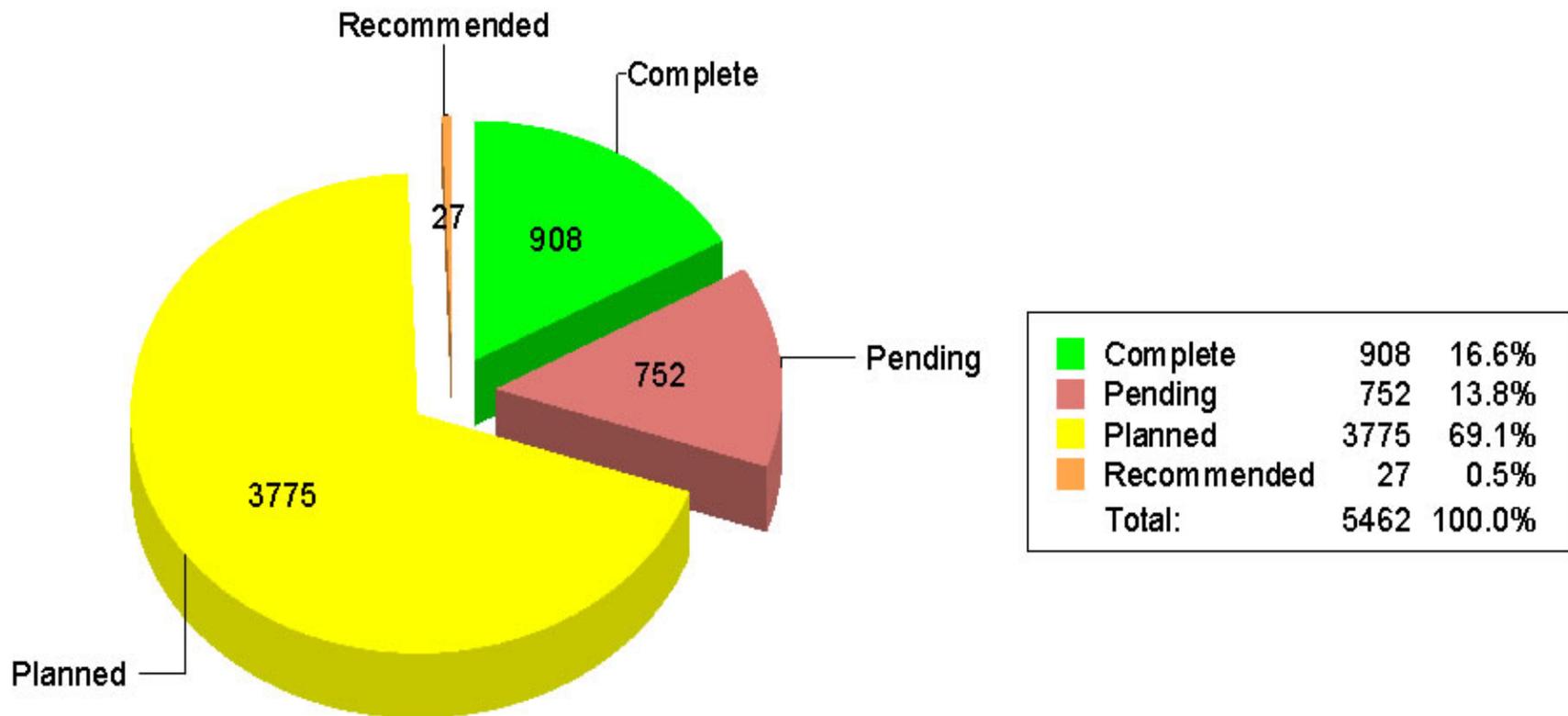
■ CAP Strategy:

- ✓ Correct all "high hazard" citations (5 identified)
- ✓ Aggressively fix "quick fix" items
- ✓ Establish database to track and report status
- ✓ Prioritize each item (>quick fix) by hazard level, corrective action and who is responsible
- ✓ Identify those that will require new funding (ADS's)
- ✓ Identify those that will there will be a push back on, exemptions, equivalency or not valid citation.
- ✓ Defensible cost estimate
- ✓ Establishing additional initiatives to improve safety culture (long term).
- ✓ Complete remaining open items.

BNL OSHA Findings (what has been done to date)

- PE "Swat Team" & Depts/divisions corrected many deficiencies during assessment (200k + spent).
- PE continuing to complete established work orders.
- Cost Estimate Completed and submitted.
- Compliance Suite data base established and populated.
- Request to SC for \$2,577k, received 800k plus potential for additional \$200K for FY04.
- Periodic reporting (monthly and Quarterly) to DOE.
- Initial exemption cases identified.

OSHA "Final" Report Abatement Status



BNL OSHA Findings Path Forward

- Plant Engineering is implementing work plans focusing on six major areas: cranes, eyewashes, machine guarding, electrical deficiencies, Life Safety, Walking/working surfaces
- Depts/Divisions continue to fixing low/no cost “quick fix” “programmable” findings & provide status to SHSD
- Compliance suite access for Depts/Divisions to track and trend closure of items.
- Remaining items will be prioritized (ESH risk prioritization model) and completed as resources become available (ADS’s developed or modified)
- Future funding requests through office of Science and/or Congress?
- Depts/Divisions identify any new OSHA deficiencies during Tier 1’s

BNL OSHA Findings (exemptions)

- 700 instances (one citation) for temporary wiring in the RHIC ring, cited erroneously. Currently negotiating with OSHA (0k)
- Temporary Wiring (361 instances/500k)
- Power strips (98 instances/33k)
- Guarding of live parts (104 instances/2000k)
- Labeling (667 instances/682k)
- Fire Extinguisher inspection frequency (one citation/one instance)(277k)

BNL OSHA Findings Path Forward (long term-hazard identification)

- Need to improve our ability to recognize hazards that are compliance issues
 - Tier 1 inspection standard to be upgraded to a Subject Area (Underdevelopment -Complete 6/30)
 - Hazard identification training will be required, OSHA 10 & 30 for some of Tier 1 team members (10 hr available on-site in June)
 - Laboratory collection of tier 1 data will need to be established for tracking/trending/analysis
 - Depts/Divisions review (as part of Safety Improvement Plans) their tier 1 programs and corrective action backlog status

BNL OSHA Findings Path Forward (long term-culture improvements)

- Directorates Safety Improvement Plans (attributes)
 - Written expectations and goals
 - Associated metrics including flow-down of accountability, increased management visibility, observation training, OSH reviews, leadership training.
 - Increased employee involvement and communication, employee safety committees
 - Review of Tier 1 program
- Laboratory Initiatives
 - Aggressive performance measures (orbach goals)
 - 18001 (pilot organizations and future lab rollout)
 - Traffic Safety Initiative