

# Brookhaven National Laboratory

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**Fiscal Year 2005**



## Brookhaven Science Associates Second Quarter Performance Summary

**Presentation to BHSO**

**May 31, 2005**



# Abbreviations and Acronyms

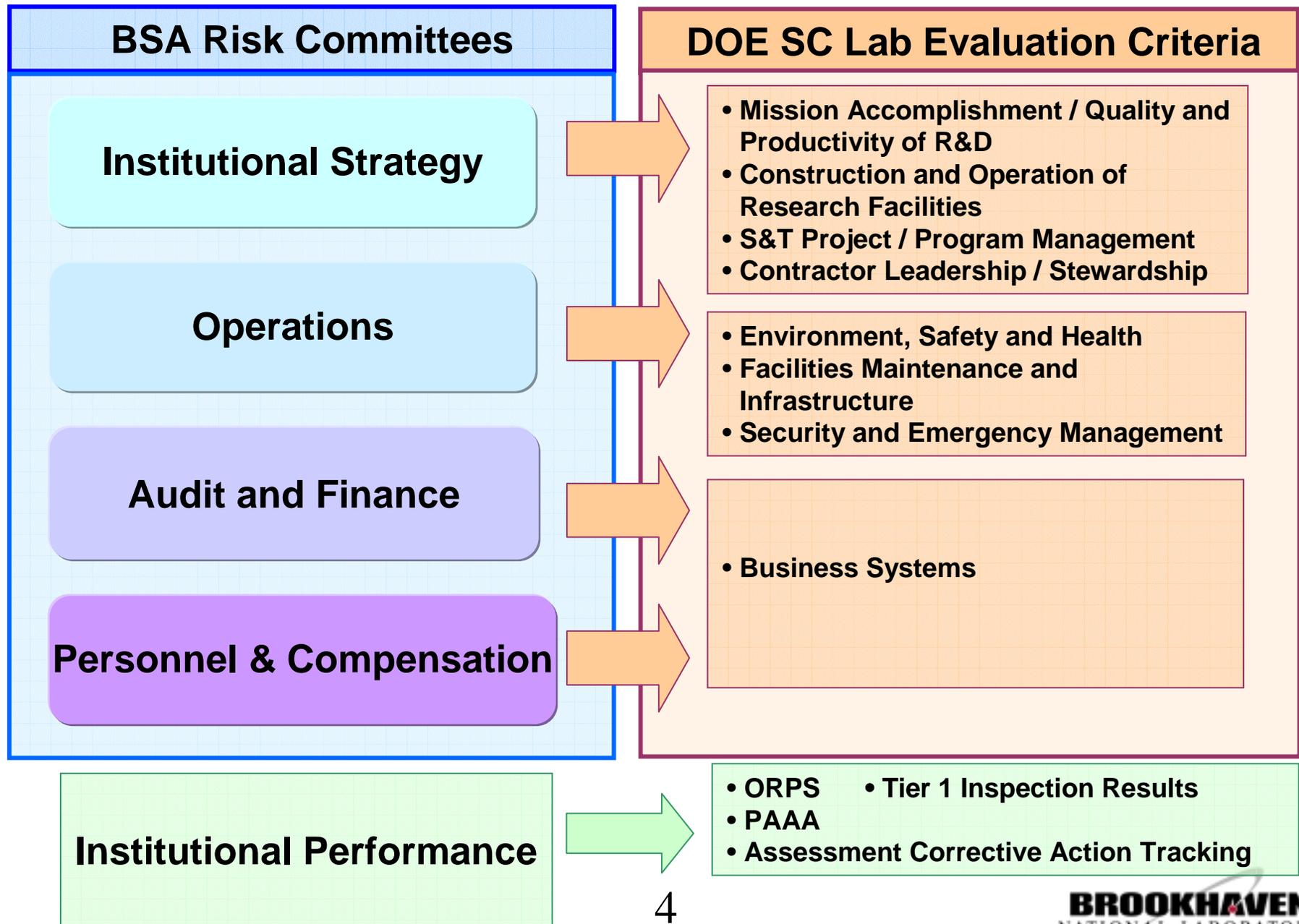
ADS	Activity Data Sheet	F&O	Facilities & Operations Directorate
AGS	Alternating Gradient Synchrotron	FDA	Food and Drug Administration
ALARA	As Low As Reasonably Achievable	FUA	Facility Use Agreement
ALD	Associate Laboratory Director	FY	Fiscal Year
ANLE	Argonne National Laboratory East	GFSI	Government Furnished Supplies and Information
ATS	Assessment Tracking System	GPP	DOE General Plant Projects
BES	Basic Energy Science	HEPA	High-Efficiency Particulate Air
BGRR	Brookhaven Graphite Research Reactor	HR	Human Resources
BHSO	Brookhaven Site Office	HRP	Housing Reconstruction Project
BLDG	Building	IA&O	Internal Audit and Oversight Office
BNL	Brookhaven National Laboratory	I&C	Instrumentation and Calibration
BSA	Brookhaven Science Associates	IG	Inspector General
C-AD	Collider-Accelerator Department	IO	Independent Oversight
CAP	Corrective Action Plan	IP	Intellectual Property
CD	Critical Decision	I&SM	Isotopes and Special Materials
CFN	Center for Functional Nanomaterials	ISO	International Standards Organization
CFR	Code of Federal Regulations	ISSM	Integrated Safeguards and Security Management
CRADA	Cooperative Research and Development Agreement	ITD	Information Technology Division
CSF	Central Steam Facility	JRA	Job Risk Analysis
CTAP	Communications and Trust Advisory Panel	LBNL	Lawrence Berkeley National Laboratory
DART	Days Away, Restricted, or Transferred	LDRD	Laboratory Directed Research and Development
DOE	Department of Energy	LIPA	Long Island Power Authority
DOELAP	Department of Energy Laboratory Accreditation Program	LTRA	Long Term Response Action
EAP	Employee Assistance Program	MII	Maintenance Investment Index
EBIS	Electron Beam Ion Source	MRI	Magnetic Resonance Imaging
EEO	Equal Employment Opportunity	MS	Management System
EH	DOE Office of Environmental Policy and Guidance	NEPA	National Environmental Policy Act
EM	DOE Environmental Management	NFPA	National Fire Protection Association
EMS	Environmental Management System	NIST	National Institute of Standards and Technology
ESDC	Empire State Development Corporation	NSF	National Science Foundation
ES&H	Environment, Safety and Health	NSLS	National Synchrotron Light Source
ESH&Q	Environment, Safety, Health, and Quality	NTS	Non-compliance Tracking System
EVMS	Earned Value Management System	NYPA	New York Power Authority
EWMS	Environment and Waste Management Services	NYSDEC	New York State Department of Environmental Conservation

# Abbreviations and Acronyms (cont.)

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OA	DOE Office of Independent Oversight and Performance Assurance	STP	Sewage Treatment Plant
OFCCP	Office of Federal Contract Compliance Program	SUNY	State University of New York
OHSAS	Occupational Health and Safety Assessment Series	TCEAP	Transportation Compliance Evaluation/Assistance Program
OMC	Occupational Medicine Clinic	TRC	Total Recordable Case
OPSEC	Operations Security	TRU	Transuranic Waste
ORNL	Oak Ridge National Laboratory	WP&C	Work Planning & Control
ORPS	Occurrence Reporting and Processing System		
OSHA	Occupational Safety and Health Administration		
PAAA	Price Anderson Amendment Act		
PET	Positron Emission Tomography		
PNNL	Pacific Northwest National Laboratory		
POC	Point of Contact		
PPM	Procurement and Property Management		
R&D	Research and Development		
R2A2	Roles, Responsibilities, Accountability and Authority		
RCD	Radiological Control Division		
RCRA	Resource Conservation Recovery Act		
RIF	Reduction In Force		
RHIC	Relativistic Heavy Ion Collider		
RI	Infrastructure Reliability Index		
RSB	Research Support Building		
RSVP	Rare Symmetry Violating Processes		
SAP	Sample and Analysis Plan		
SBMS	Standards Based Management System		
S&T	Science and Technology		
SC	DOE Office of Science		
SCDHS	Suffolk County Department of Health Services		
S/CI	Suspect/Counterfeit Item		
SLAC	Stanford Linear Accelerator Center		
SPDES	State Pollution Discharge Elimination System		
SPI	Standard Practice Instruction		

# Laboratory Quarterly Performance Review: Agenda

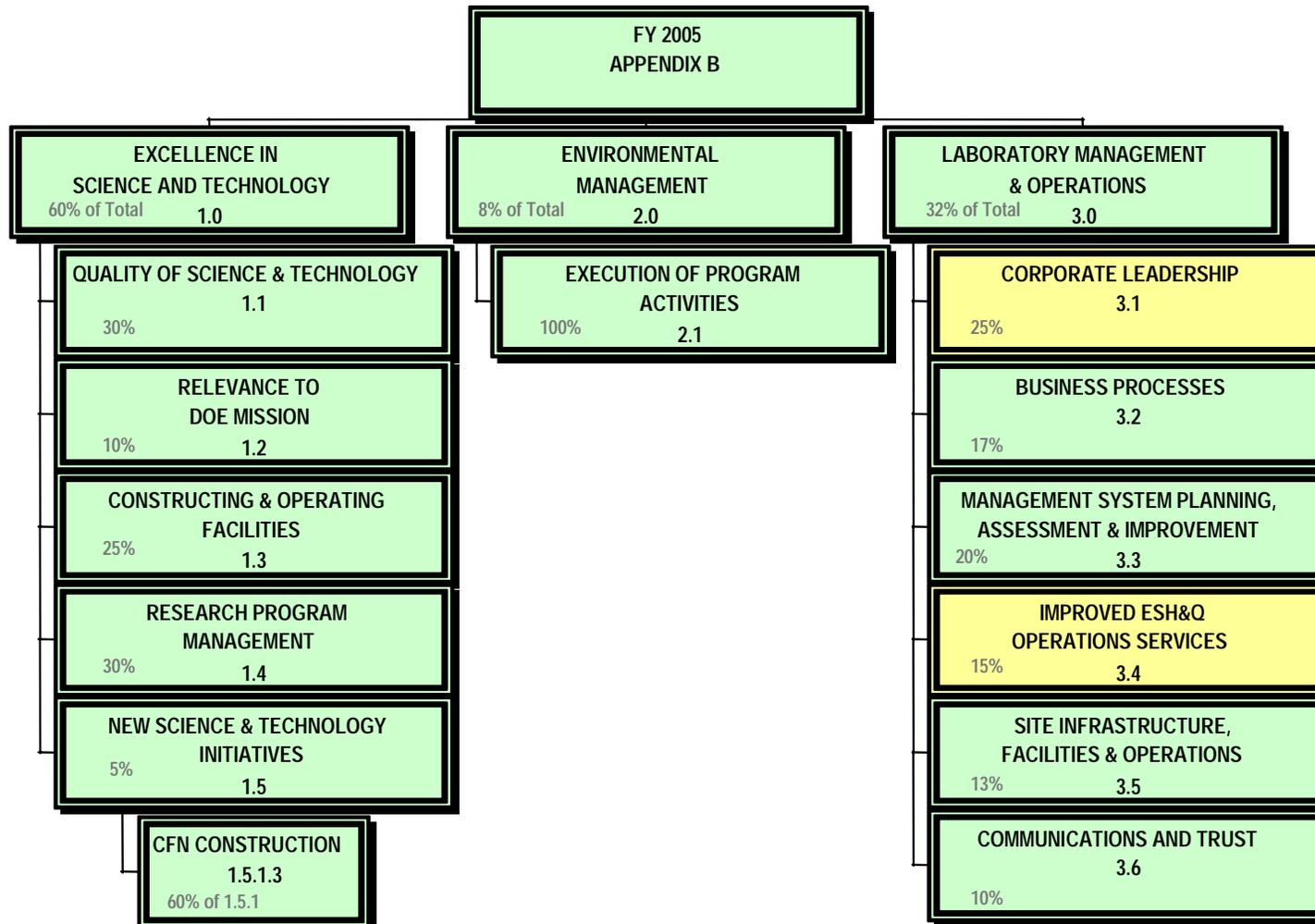


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# Contractual Performance Measures

## Status

# FY 2005 BSA APPENDIX B STRUCTURE



Measure evaluated by BHSO quarterly

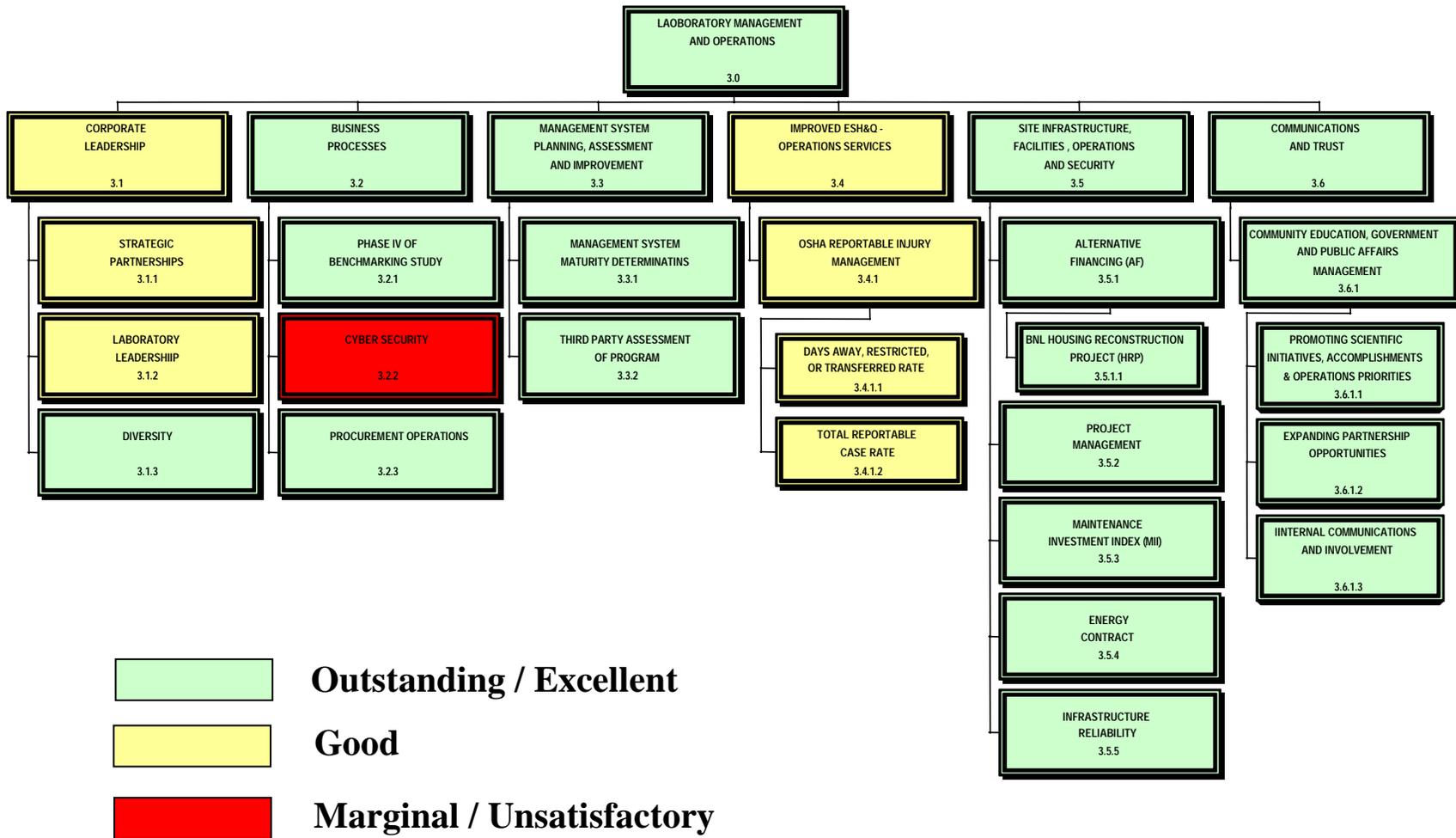


**Outstanding / Excellent**

**Good**

**Marginal / Unsatisfactory**

# 3.0 Laboratory Management and Operations Structure



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**Institutional Strategy  
Performance**

**Institutional Strategy Risk Committee**

**Point of Contact: Peter Bond  
(631) 344-4063**

Mission Accomplishment/Quality and Productivity of R&D

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Mission Accomplishment/Quality and Productivity of R&amp;D</b>						
Integrated Planning, S. Ozaki X5590	Green	3.1.1 Strategic Partnership	<i>Under development</i>			
		3.1.2 Laboratory Leadership				
Intellectual Property, P. Bond X4063	Green	None				
Science and Technical Information, P. Bond X4063	Green	None				
Work for Others, P. Bond X4063	Yellow	None				

### Management System Assessment

**Stewards Assessment:** Green

- The integrated planning management system is relatively mature.
- Pat Looney was hired as the ALD for Policy and Strategic Planning and will assume full-time responsibilities in July. He will oversee planning, LDRD, program development, and technology transfer functions, and the growth of funding from non-DOE sources.

### Contract Measures

- Measure 3.1.1 Strategic Partnerships
- Measure 3.1.2 Laboratory Leadership

### Risk Measures

Risk measures are under development.

### Assessment Status/Results

None

### Objectives for Next Quarter

- Prepare for SC's five-year business planning meeting scheduled for 5/16/05.
- Complete Institutional Strategy High Risk Event and Barrier analysis.
- Update Ten-Year Site Plan by the end of May.
- Send out ADS call for FY06 funding.

### Issues

- The DOE SC is expected to modify the approach and processes for evaluating the performance of the laboratory and contractor. This probably will impact how BNL establishes, evaluates, and reports on the contract performance measures (i.e., Critical Outcome Performance Measures).

### Management System Assessment

Steward Assessment: **Green**

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

Risk measures are under development.

### Assessment Status/Results

- Drafted a questionnaire, now being reviewed, for gauging licensee satisfaction with IP processes.  
Patent Applications filed by BSA: **6**  
U.S. Patent(s) Issues to BSA: **4**  
Licensing Agreements Put in Place: **7**  
New CRADAs: **4**  
CRADA Amendments Adding New Work and Increasing Funding: **1**  
New Work for Non-Federal Sponsor Projects: **1**  
New Proprietary User Agreements: **1**

### Objectives for Next Quarter

- Consider developing a web-based IP training tool is under consideration.
- Complete development of subject areas SPI 6-04, SPI 6-07 and SPI 6-08.

### Issues

- Additional IP staff resources are needed.

### Management System Assessment:

**Steward Assessment:** Green

- This management system is relatively mature.
- In the last quarter a new "Author Statement Form" was developed that is expected to improve the effectiveness and efficiency of the publication processes.

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

Risk measures are under development.

### Assessment Status/Results

Under development

### Objectives for Next Quarter:

- Under development

### Issues:

- None

## Institutional Strategy Risk Committee

Mission Accomplishment/Quality and Productivity of R&D

### Management System Assessment

Stewards Assessment: **Yellow**

- The Laboratory needs to pursue and attract additional funding from non-DOE sponsors. Pat Looney, the newly appointed ALD for Policy and Strategic Planning (discussed under the Integrated Planning Management System) is expected to improve our ability to identify opportunities.
- Last quarter BNL organized a panel discussion on University-National Laboratory Collaborations and roundtable on Working with BNL at the annual meeting of the National Council of University Research Administration. BNL was been asked to provide a follow-up presentation.
- Seven BNL scientists were registered as new Community of Science (COS) users.

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

Risk measures are under development.

## Work for Others Management System

### Assessment Status/Results

- Under development

### Objectives for Next Quarter

- See discussion for RSVP base lining under Science and Technical User Facilities Operations and Maintenance.
- Continue registering BNL scientists as COS users.
- Continue distributing information related to funding opportunities.

### Issues

- The Laboratory must pursue and attract additional funding from non-DOE sponsors

**S&T Project/Program Management**

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>S&amp;T Project/Program Management</b>						
Science and Technical Program Management, P. Bond X4063	Yellow	None	Under Development			

### Management System Assessment

#### Steward Assessment: **Yellow**

- If adopted, the FY06 presidential budget will entail substantial cuts and significantly impact the Laboratory's Imaging Program.
- P. Bond continues to act as the interim Deputy Director for Science & Technology and ALD for Life Sciences.

### Contract Measures

#### Selected S&T Accomplishments:

##### High Energy & Nuclear Physics:

- In searching for a new form of matter not seen since the Big Bang, RHIC scientists are using a new experimental probe, collisions between two beams of copper ions, to understand the phenomena observed at RHIC. The intermediate size copper nuclei are expected to generate an intermediate energy density that is lower than that produced by colliding two beams of gold ions but greater than that obtained from colliding gold ions with deuterons, as was done in previous RHIC runs.

##### Basic Energy Sciences:

- Researchers demonstrated the feasibility of growing high-quality thermoelectric thin films comprised of the layered cobaltate  $\text{Ca}_3\text{Co}_4\text{O}_9$  on ordinary silicon wafers. The films that exhibit superior thermoelectric properties could be used to build new devices.
- BNL with collaborators from Bar-Ilan and Harvard Universities grew ultrathin films of organic chain molecules on the surface of liquid mercury and demonstrated that they form ordered structures. These results help build a foundation for studies of molecular electronics.

##### Basic Energy Sciences (cont.):

- A theoretical study of an iron-sulfur complex isolated from a bacterial enzyme reveals a higher predicted chemical reactivity than that of industrial catalysts currently used for producing hydrogen and controlling air pollutants. The next challenge is to use the enzyme or synthesizing a biomimetic model of its active site, a nanoscale engineering project.

##### Life Sciences:

- The FDA accepted an Investigational New Drug Application for "vigabatrin/GVG to treat addiction" from Catalyst Pharmaceutical Partners. This will permit a clinical trial, designed to assess the safety of the interaction of this potential therapeutic drug and cocaine. Catalyst's interest in GVG is based on two small-scale human clinical trials conducted by BNL and the New York University, and preclinical research using the drug as a potential treatment for addiction.
- BNL's MRI and PET were used to track the uptake and distribution of trace amounts of cocaine in pregnant monkeys. Significant differences were observed in where and how fast the drug accumulates in maternal- and fetal-organs providing insights into the mechanisms underlying the harmful effects of cocaine exposure during pregnancy.

### **Quality of Science-Significant Recognition/Awards:**

- The Academy of Molecular Imaging named Joanna Fowler as its Distinguished Basic Scientist of the Year
- Bruce Gibbard, Alex Harris, and Li-Hua Yu were named Fellows of the American Physical Society
- Brookhaven Town honored Rita Goldstein and Lisa Miller for their contributions to science

### **Risk Measures**

Risk measures are under development.

### **Assessment Status/Results**

The following reviews were conducted in the second quarter:

- BSA S&T Steering Committee (March 24<sup>th</sup> and 25<sup>th</sup>)
- US Atlas Project Manager's Review
- Nuclear Physics Lab Management Budget Briefing
- High Energy Physics Lab Management Budget Briefing
- DOE/NSF Review of US LHC Software & Computing

### **Objectives for Next Quarter**

- Complete LDRD and program development mid-year review (scheduled for May and June, respectively)
- Complete selection of FY06 LDRD projects

### **Issues**

- If adopted, the FY06 Presidential budget will entail substantial cuts and significantly impact the Laboratory's imaging programs.
- P. Bond continues to act as the interim Deputy Director for Science & Technology, and ALD for Life Sciences.

**Construction and Operation of Research Facilities**

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Construction and Operation of Research Facilities</b>						
Science and Technical User Facility Operations, P. Bond X4063	Yellow	None	Under Development			

### Management System Assessment

Yellow

#### **Steward Assessment:**

- For FY05, the RHIC and NSLS are in good shape.
- The AGS part of the RSVP's costing and scheduling effort, led by Phil Pile, has been developing a plan that will withstand the scrutiny of a "Lehman"-type review. It is almost completed and costs have remained essentially constant since the effort started in earnest last July. Baseline reviews are scheduled for April.

#### **Contract Measures**

##### **Construction & Operation of Research Facilities:**

- RHIC had an extremely successful 200 GeV copper-copper run. Phenix and Phobos fully met their physics goal for the high-energy run, and Star and Brahms came close, making this an overall productive run for machine and experiments alike.
- Preparations for the EBIS Project are continuing with frequent interactions with the DOE Brookhaven Site Office and the Office of Nuclear Physics.

Outstanding

##### **Measure 1.5.1.3 CFN Construction:**

- A bid package has been prepared by CFN Project staff and the bid drawings have been prepared by the AE.
- The bid package has been reviewed and approved by DOE.
- Value engineering has been conducted to reduce the building cost. The current baseline is \$33.0 million.
- Market conditions effect material and labor costs, which can impact the CFN construction bid values.

### **BHSO Partnership Items R. Hwang / J. Eng**

- For the second quarter, BNL meeting expectations.
- As of third quarter, with knowledge of bid opening in April, year-end performance evaluation expected to be non-

### **Risk Measures**

Risk measures are under development.

### **Assessment Status/Results:**

- Work Planning and Control Review at Collider-Accelerator Division

### **Objectives for Next Quarter**

- Complete actions needed to achieve CD-0 for the NSLS II before the summer.
- Host dignitaries and decision makers to celebrate the dedication of the CFN site.
- Complete actions necessary to achieve CD-3 for the CFN. CD-3 depends on the bids, which are due 4/30/05.
- Re-establish the RSVP Baseline. The reviews are scheduled for April.

### **Issues**

- The FY06 presidential budget projects shortfalls for the operations of both the RHIC and NSLS.

**Contractor Leadership/Stewardship**

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due	
		Contract	Risk				
<b>Contractor Leadership/Stewardship</b>							
Legal, G. Fess X8629	Green	None					
Community, Education, Government and Public Affairs, M. Lynch X4747	Green	3.6.1.1 Promoting Scientific Initiatives, Accomplishments and Operations		<i>Under development</i>		5	0
		3.6.1.2 Expanding Partnership Opportunities					
		3.6.1.3 Internal Communications and Involvement					
Integrated Assessment Program, J. Tarpinian X8370	Green	3.3.1 Management System Maturity Determinations				0	0
		3.3.2 Third Party Assessment of Program					

### Management System Assessment

**Steward Assessment:** Green

The Management System performs two essential functions:

- Assists the Laboratory in managing risk (e.g., related to implementing contract requirements); and
- Minimizes exposure from on-going litigation.
- Overall, the Legal Management System is a mature management system that operates effectively. It is believed that the Legal Management System is adequately carrying out these two essential functions.

### Contract Measures

No contract measures are related to this management system.

### Risk Measure

Risk measures are under development.

### Assessment Status/Results

- There were no assessments this quarter.
- A 360<sup>0</sup> review is scheduled for FY06.

### Objectives for Next Quarter

- Host the DOE Contractors' Attorneys Association Spring conference in June.

### Issues

- There are no issues.

### Management System Assessment

Steward Assessment: **Green**

Contract Measures **Outstanding**

### **Measure 3.6.1 Community, Education, Government and Public Affairs Management**

- Completed development of following CEGPA communications/involvement and event plans:
  - CFN site dedication – slated for April 15<sup>th</sup>
  - Biodiesel Fuel Workshop – slated for April 1
  - Final draft Safety Communications and Involvement Plan – submitted to ESH&Q Asst. Lab Director for finalization
  - Action/Event plans for Natural Resources Management Plan – slated for Summer 2005
  - World Year of Physics Plan for D.C. event – slated for September 2005
- Completed events checklist and initiated use during CEGPA event planning processes
- Developed a draft SBMS subject area for web standardization currently under internal review.

### Contract Measures (cont.)

#### **Measure 3.6.1.1 Promoting Scientific Initiatives, Accomplishments and Operations**

- Implemented the following CEGPA communications/event plan:
  - Research Support Building Groundbreaking – March 10
  - NYC Urban Dispersion Project sponsored by the Department of Homeland Security – March 7 - 21
- Planned press announcement event for RHIC white papers to be held at American Physical Society meeting in April.

#### **Measure 3.6.1.2 Expanding Partnership Opportunities**

- 40 university students and two faculty members from Medger Evers participated in sampling work for NYC Urban Dispersion project.
- Partnered with Hofstra University to plan 12 hands-on activity-based sessions for 200 middle-school and high-school students. Conducted four sessions.
- Organized and held the DOE's Regional High School Science Bowl and Bridge Building competitions.
- Collaborated with NY University and Univ. of Houston to pilot an educational program utilizing video conferencing techniques to support the RSVP project.

### Contract Measures (cont.)

#### **Measure 3.6.1.3 Internal Communications and Involvement**

- Continued to develop a draft SBMS subject area for internal communications and involvement.
- Planned and facilitated several brown-bag lunch sessions and communications vehicles for budget, benefits and layoffs in response to Internal Communications Working Group's identification of these issues.
- Created and launched Safety Partnership Week web database.

### BHSO Partnership Items M. Lynch / J. Carter

- The Laboratory globally appears to be progressing toward accomplishing these measures.
- During the 3rd quarter, the Laboratory and BHSO should work together to increase awareness and knowledge of initiatives.

### Assessment Status/Results

Held meeting with Communications and Trust Advisory Panel in February to report on mid-year progress to peer group.

### Objectives for Next Quarter

- Conduct Biodiesel Workshop – April 1
- Conduct CFN site dedication – April 15
- Conduct RHIC press event at American Physical Society Meeting – April 18
- Develop event plans for CFN groundbreaking, NYPA power announcement, Peconic River completion, Economic Study announcement, QGP announcement, and Urban dispersion summer session
- Finalize SBMS subject areas for web standardization and internal communications
- Establish a workforce development/science education committee.
- Develop and initiate pilot of online employee opinion poll.

### Issues

- Second-quarter objective to launch online pilot employee opinion poll was postponed due to competing priorities, including creating and launching Safety Partnership Week web database; setting up lab-wide assessments content management system; and developing the SBMS subject area on web communications

### Management System Assessment

Steward Assessment: **Green**

### Contract Measures **Excellent**

#### Measure 3.3.1 Management System Maturity Determinations:

- Schedule for Maturity Determinations will be finalized once the Management System plans are completed, in the end of April.

**Excellent**

#### Measure 3.3.2 Third Party Assessment of Program:

- Contracts were put into place for the Third Party Team.
- Meetings were held with L. Dever to request support for a Team Member from the Office of Science.
- Meetings were held with the Team Leader and a presentation made on the proposed BSA Corporate Assurance Framework and progress addressing recommendations from the FY03/FY04 evaluations

### BHSO Partnership Items T. Baker/J. DaSilva

- The laboratory is on-track at this time.

### Risk Measures

No risk measures are directly monitored under this management system.

### Assessment Status/Results

- Restructure management system and organizational self-assessment.
- Incorporate corporate assurance into management system.

### Objectives for Next Quarter

- Update the Management System to include the corporate assurance requirements from the contract modification.
- Finalize the schedule for the Maturity Determinations or comprehensive Independent Assessments for the third and fourth quarters.
- Award the Third Party Team contracts with the DOE and contractor personnel and finalize the assessment scope and schedule.
- Evaluate the approach phase of the Management Systems (by the Third Party Review Team).

### Assessment Status

- There were no assessments this quarter
- Third-Party Evaluation - Review of the approach phase of the Management System self-assessment plans will take place in the third quarter.

### Issues

- Restructure management system and align it better with organizational self-assessment.

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**Operations  
Performance**

**Operations Risk Committee**

**Point of Contact: Michael Bebon  
(631) 344-3434**

# Operations Risk Committee

## Environment, Safety & Health

The following high-risk events are monitored:

- Loss of ISO 14001 certification
- Significant regulatory violation/enforcement action
- Major chemical-, biological-, or radiological-release to the environment

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Environment, Safety &amp; Health</b>						
Environmental Management System, J. Tarpinian X8370	Green	None	Environmental Performance Index Composite	NEPA - (0) Non-conformances, (4) observations; Internal Lab-wide EMS ISO 14001 Assessment - System is maintained, (5) minor non-conformances NYSDEC RCRA Inspection - (2) minor violations; NYSDEC SPDES Inspection - (0) deficiencies; SCDHS Inspections (SPDES/STP) - Pb detected above SCDHS guidelines at the CSF Outfall	3	1
			Targeted Assessments			
Environmental Restoration, M. Bebon X3434	Green	2.1.1 Project Completion and Other Key Milestones	None			

# Operations Risk Committee

## Environment, Safety & Health

The following high-risk events are monitored:

- Significant regulatory violation/enforcement action
- Fatality or serious injury to employee, guest, contractor, or member of the public
- Significant exposure of employee, guest, contractor, or member of the public to hazardous/toxic chemicals, biological agents, or radiation

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Environment, Safety &amp; Health (Cont.)</b>						
Facility Safety, J. Tarpinian X8370	Yellow	None	ORPS events whose root causes are linked to faulty or lack of design review = 0 Targeted Assessments - Machine Guarding Verification	Machine Guarding Verification Assessment of F&OD – Verification of required actions completed		
Hazardous Materials Transportation Safety, J. Tarpinian X8370	Yellow	None	ORPS transportation events = 1 Targeted Assessments - None this quarter		2	0
Occupational Medicine, W. Hempfling X2878	Green	None	Biological Monitoring: Occupational exposure to asbestos, cadmium, lead, and noise = No detectable overexposures or adverse health effects from current or recent exposure to asbestos, cadmium, or lead in CY04. Infrequent instances of hearing loss with pot			
Quality Management, J. Tarpinian X8370	Green	None	None		5	0

# Operations Risk Committee

## Environment, Safety & Health

The following high-risk events are monitored:

- Major PAAA incident or fine
- Loss of DOELAP Accreditation/NIST Traceability for I&C Radiation Fields
- Loss or theft of classified matter or nuclear material
- Significant exposure of employee, guest, contractor, or member of the public to hazardous/toxic chemicals, biological agents, or radiation
- Significant regulatory violation/enforcement action

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
Environment, Safety & Health (Cont.)						
Radiological Control J. Tarpinian X8370	Green	None	PAAA Trend Analysis Report - NTS Non-Compliance PAAA Reportable = 0	Radiation Safety Training – 0 Concerns, 0 Findings, 1 Observations; Posting and Labeling Program - 4 Noteworthy Practices, 0 Concerns, 0 Findings, 3 observations	7	1
			Targeted Assessments			
			Material Balance Report - Inventory Balance Acceptable			
			ALARA: Projecting < 1,000 mRem/yr Worker Dose			
			Targeted Assessments			

The following high-risk events are monitored:

- Fatality or serious injury to employee, guest, contractor, or member of the public
- Malevolent act against an employee, guest, contractor, or member of the public

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Environment, Safety &amp; Health (Cont.)</b>						
Standards Based Management System, J. Tarpinian X8370	Yellow	None	None		0	0
Training and Qualifications, W. Hempfling X2878	Green	None	Required Training Completed: Employees = 97%, Guests & Contractors = 87%			
Work Planning and Control, M. Bebon X3434	Yellow	None	ORPS events whose root causes are linked to faulty or lack of work, planning and control = 2		19	0

The following high-risk events are monitored:

- Fatality or serious injury to employee, guest, contractor, or member of the public
- Catastrophic loss/damage to facilities
- Loss of DOE ISM Certification
- Significant regulatory violation/enforcement action
- Significant exposure of employee, guest, contractor, or member of the public to hazardous/toxic chemicals, biological agents, or radiation

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due	
		Contract	Risk				
<b>Environment, Safety &amp; Health (Cont.)</b>							
Worker Safety & Health J. Tarpinian X8370	Yellow	3.4.1 OSHA Reportable Injury Management	Tier 1 Inspection Data - (21) Findings Lab-wide related to Fire Safety, (449) Findings Lab-wide related to Safety			48	2
		3.4.1.1 Days Away, Restricted, or Transferred Rate					
		3.4.1.2 Total Reportable Case Rate	Targeted Assessments - None this quarter				
			Tests Performed (Interlock, HEPA, Hoods ) - 32 HEPA Systems Tested				
			Construction Safety - Non-Conformances = 0 (F&O Data)				

# Operations Risk Committee

Environment, Safety & Health

## Management System Assessment

Steward Assessment: **Green**

- Environmental Performance Index (EPI) is declining
- Assessment indicates a well-functioning, compliant system, with only minor improvements needed.

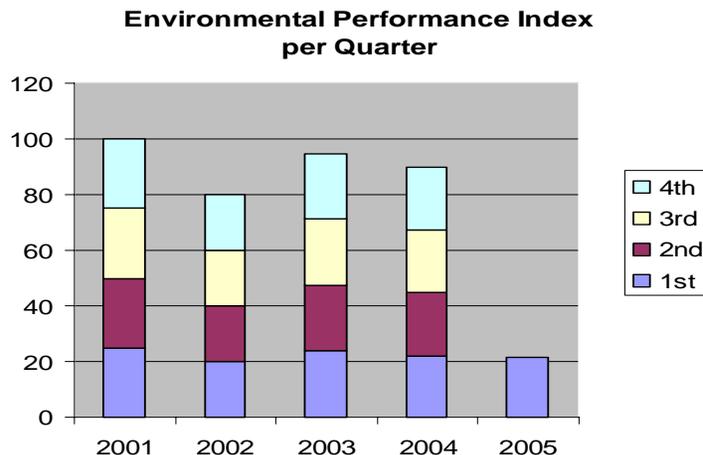
## Contract Measures

No contract measures are related to this management system.

## Risk Measures

Environmental Performance Index): **Green**

- 2001 was used as the reference year.



# Environmental Management System

## Assessment Status/Results

### Self Assessment Activities

- Quarterly review of EWMS SAP indicates objectives are being met
- Programmatic Assessments (w/BHSO's Observation)
  - NEPA
    - Zero Non-conformances, four observations identified
- Internal Lab-wide EMS ISO 14001 Assessment
  - System is being maintained
  - Five minor non-conformances identified

### External Assessments

- NYSDEC RCRA Inspection
  - Two minor labeling violations (universal waste)
- NYSDEC SPDES Inspection
  - No deficiencies noted
- SCDHS Inspections (SPDES/STP)
  - Lead detected above SCDHS's guidelines at the CSF Outfall

## Objectives for Next Quarter

- ISO 14001 surveillance audit by external registrar
- Environmental Monitoring Programmatic Assessment
- Predictive maintenance review of essential equipment by Waste Management

## Issues

- Continued progress with Legacy Projects/Waste
- Transportation of radioactive waste
- SPDES toxicity testing

### Management System Assessment

Steward Assessment: **Green**

Contract Measures **Outstanding**

#### Measure 2.1.1 Project Completions and Other Key Milestones:

- DOE resolved several GFSI responsibilities that represented our largest threat to on-time completion.
- Field work has been impaired by the weather, but we are still on track to complete major projects by end of April.
- A few small jobs will run into May and June, but in all cases there is a significant margin between work package completion and FY05 milestone completion.
- Five work packages complete, 10 on track for completion prior to or during June.

#### BHSO Partnership Items L. Hill / R. Rimando

- Monthly work package status reports provided to DOE; no exceptions or comments received.

#### Risk Measures

No risk measures are directly monitored under this management system.

### Objectives for Next Quarter

- LTRA transition - DOE is working with BNL on moving the LTRA responsibilities from the EM to the SC
- Completion of all field work by the end of June.

### Issues

- Work Package 177 (TRU Waste) constrained by the DOE's GFSI responsibility.

### Management System Assessment

**Steward Assessment:** Yellow

- Some documentation not complete, or not current with requirements.

### Contract Measures

No contract measures are related to this management system.

**Risk Measure** Green

**ORPS Events:** There were no ORPS events whose root causes are linked to a faulty design review, or lack of one.

### Assessment Status/Results

- Revision is underway of legacy documents and preparation of new subject areas to incorporate requirements
- Notice of Proposed Rulemaking, 10 CFR Part 851, Worker Safety and Health, posted
- Machine Guarding Verification Assessment of F&OD – Verification of required actions completed

### Objectives for Next Quarter

- Continue revising legacy documents and preparing new subject areas that incorporate requirements.
- Assess Machine Shop Safety.

### Issues

- Lagging behind the schedule for preparing and updating requirements documentation due to competing priorities.

**Management System Assessment**

**Steward Assessment:** Yellow

**Contract Measures**

No contract measures are related to this management system.

**Risk Measure** Yellow

**ORPS Events:** There was one transportation-related ORPS event. Liquid was observed leaking from two of seven railcar shipments of soil that were shipped to Envirocare. The water collected from the railcars had a pH of 12.3. Concentrations of Cs-137 and Am-241 were detected at low levels but were not quantifiable. Radiological surveys of the railcars found no external contamination.

**Assessment Status/Results**

- The program's documentation is being upgraded following major changes to the 49CFR173 on transportation, and to include recommendations from the DOE TCEAP assessment.
- Rail transportation will be added to the subject areas to cover working on tracks.
- The program's documentation is being upgraded to reflect major changes to the 49CFR173 in defining radioactive materials.

**Objectives for Next Quarter**

- The four subject areas, now under revision, will be reduced to two.
- A contingency recovery procedure ( ATS # 2000.1.20) is being prepared to help in the ORPS situation described in this briefing.
- ATS items from the internal self assessment and the DOE's TCEAP assessment will be completed. Future self assessments will follow the TCEAP criteria.

**Issues**

- The POC is reviewing DOE O460.2A, Departmental Materials Transportation and Packing Management.

# Occupational Medicine Management System

## Management System Assessment

### **Steward Assessment:** Green

- Highly skilled clinic staff have up-to-date certifications and training.
- BNL's workforce is healthy fit for duty.
- There is a very low burden of occupational illness in the workforce.

## Contract Measures

No contract measures are related to this management system.

## Risk Measures Green

**Employee Assistance Program:** Total contacts, personnel attending workshops, and management consultations = 190

**Biological Monitoring:** Occupational exposure to asbestos, cadmium, lead, and noise = No detectable overexposures or adverse health effects from current or recent exposure to asbestos, cadmium, or lead in CY04. Infrequent instances of hearing loss with potential contribution by BNL occupational noise in CY04.

## Assessment Status/Results

- Accreditation Association for Ambulatory Health Centers application is due in June 2005.
- There is ongoing benchmarking of BNL's lost work experience following occupational injury (percentage of injuries associated with lost time and duration of absence).
- Records are kept of the number and type of clinically significant findings from OMC health screening examinations.

## Objectives for Next Quarter

- Implement the recently drafted standardized procedures whereby line management requests fitness for duty evaluations by OMC, and receives the results of these evaluations.
- Clarify for employees and line management the difference between voluntary and mandatory examinations.

## Issues

- Assuring that medical surveillance examinations are requested and performed whenever mandated by regulations.
- Increase the utilization of EAP services.

### Management System Assessment

Steward Assessment: Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

No risk measures are directly monitored under this management system.

### Assessment Status/Results

- Tracking and trending of lower tier information was expanded to include Tier One information.
- A project plan was prepared for developing and implementing the Event Management Process.
  - Provide guidance using a graded approach to determine when and how to verify effectiveness of ORPS corrective actions.
  - Facilitate modification of the Critique Process.
  - Determine and implement appropriate actions to address findings from the Lessons Learned assessment.
- Revised vendor terms and conditions to include the S/CI requirements.
- Provided vendors with information and identification cards to help identify and comply with S/CI requirements.

### Objectives for Next Quarter

- Increase involvement in CFN's procurement.
- Require annual program review of the contract and possible update 5/25/05.
- Work to support other management systems in that received a "yellow" assessment.

### Issues

- This management system utilizes other management systems that received a "yellow" assessment.
- This management system maintains the description of the Quality Program used for compliance and PAAA.

### Management System Assessment

**Steward Assessment:** Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

**PAAA Trend Analysis** - NTS Non-Compliance

PAAA Reportable = 0 Green

**Material Balance Report:** Inventory Balance

Acceptable Green Green

**ALARA:** Projecting <1,000 mRem/yr worker dose

**Targeted Assessments:** Green

Quarterly Surveillance of QA reports

Radiation Safety Training – 0 Concerns, 0 Findings, 1 Observations

Posting and Labeling Program - 4 Noteworthy Practices, 0 Concerns, 0 Findings, 3 Observations

### Assessment Status/Results

- Sealed Sources Surveillance– Minor discrepancy found between Major Source Database and field for “*Exempt*” sources – Does not represent a risk to laboratory
- Continue to integrate Isotopes and Special Materials (I&SM) Group processes into RCD including assessment activities
- Perform “Make or Buy” evaluations for Facility Support and Internal Dosimetry
- Completed JRAs for FS Representatives and I&C Group for implementation of OHSAS 18001

### Objectives for Next Quarter

- Continue to revise radiological subject areas, divisional procedures, and the BNL Radiological Control Manual.
- Integrate Isotopes and Special Materials (I&SM) Group processes into RCD including assessment activities.
- Sponsor Accelerator Radiation Protection Training during third quarter.

### Issues

- Proposed 10CFR835 Amendment for accountable thresholds for sources

### Management System Assessment

**Steward Assessment:** Yellow

- Achievement of "Next State" goal is in jeopardy.

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

No risk measures are directly monitored by this management system, however, this MS is a key element in mitigating risk.

### Assessment Status/Results

- New staff were assigned to manage requirements and the process for mapping prime contract clauses is being developed; this will require collaboration with MS Stewards.
- The establishment of the SBMS on new software was completed, and the system moved to a BNL-based platform on 3/31/05.
  - Requirements data is being validated.

### Objectives Next Quarter

- Begin mapping contracts requirements.
- Complete development/revision of content.

### Issues

- Commitment dates for reviewing and updating the content have not been met by Stewards and POCs.
- Continued support of MS Stewards and POCs is needed.

## Training and Qualifications Management System

### Management System Assessment

**Steward Assessment:** Green

- Laboratory's training statistics remain solid.

### Contract Measures

No contractual measures are related to this management system.

### Risk Measures

**Training Completed:** Green

BNL Employees: 97%

Guest & Contractors: 87%

### Assessment Status/Results

- 50% of Laboratory's JTA process evaluation complete.

### Objectives for Next Quarter

- Conduct Annual Customer survey.
- Implement the revised employee refresher training.

### Issues

- Need to formalize more job- and procedure-training at the worker level.

### Management System Assessment

Steward Assessment: **Yellow**

### Contract Measures

No contract measures are related to this management system.

Risk Measure **Yellow**

**ORPS Events:** There were 2 ORPS events with inadequate WP&C as the root cause:

(1) Storm Water Runoff from Bermed Soil Remediation Area: Storm-water runoff from a soil contamination area at the former Hazardous Waste Management Facility broke through a berm constructed to contain run-off and flooded onto a construction haul road .

Approximately 200 to 1,000 gallons of run-off left the controlled area. Field In-situ Object Counting System analyzed five samples collected; results ranged from 3,600 to 17,450 pico curies per liter of Cesium-137. There were no personnel contaminations nor radiation exposures from this event

(2) Groundwater Flooding in Building 670: A Field Engineer entering Bldg 670 via the east door, stepped down into approximately 4 to 6 inches of water and observed flooding in the building. He pressed the emergency stop button for the building/treatment system. It was determined that approximately 3,500 gallons of ground water had flooded the building. The building is designed to contain this amount of water. There was no environmental release and no contamination of personnel. The critique of the incident revealed that the extraction pump of the ground water treatment system was inadvertently placed in manual mode. Under this condition, it does not automatically shutdown when a high level alarm is received.

### Assessment Status/Results

- Assessment program is being redesigned
- Specific performance indicators are being developed
- WP&C Manager Survey - Information from WP&C Managers on assurance of implementation is being evaluated
- Two newly assigned WP&C Managers were trained
- DOE Order 420.2B Safety of Accelerator Facilities, dated 7/23/04 – This will go into contract with the March 05 Modification
- WP&C Manager Survey - A procedure survey was given to these Managers
- Electrical Safety Review discussion at WP&C Manager Meeting
- Revised Work Permit to include Land Use Institutional Controls

### Objectives for Next Quarter

- Controlled Substances – Move to Science and Technical Program Management System (Administrative)
- The following assessments are planned for the remainder of FY 2005:
  - Steward assessment of NSLS Department
  - Steward assessment of the Physics Department
  - Steward assessment of the Environmental & Waste Management Services Division.
  - Work Control Managers Quarterly Meetings
  - WP&C POC assessments and training
  - Independent review of WP&C and development of improvement plan (Restructure WP&C)
  - Training on Human Performance Initiative

### Issues

- Implementation of the WP&C process is inadequate.

# Operations Risk Committee

Environment, Safety & Health

## Worker Safety & Health Management System

### Management System Assessment

Steward Assessment:

Yellow

### Contract Measures

Good

#### **Measure 3.4.1. OSHA Reportable Injury Management:**

- Communication between various levels of workers and managers has improved through the use of Laboratory media.
- Safeguards and Security has expanded its enforcement of traffic-related issues.

#### **Measure 3.4.1.1 Days Away, Restricted, or Transferred Rate:**

Good

- BNL currently has 12 DART cases, with just over six months to go in the fiscal year. Seven additional DART cases for the fiscal year will keep the rating in the Good range.

#### **Measure 3.4.1.2 Total Reportable Case Rate:**

Good

- Performance fell off during the second quarter with 14 new recordable cases, double the number in the previous quarter.
- Progress continues in bringing the rest of BNL into the OHSAS 18001 process with the on-going evaluations of risk reduction.

### Contract Measures (cont.)

#### **Measure 3.4.1.2 Total Reportable Case Rate (cont.):**

- The Laboratory took steps to involve the casualty carrier's loss-prevention personnel in all assessments, and to develop Subject Areas to enhance performance.
- The Laboratory continues to work diligently to improve the safety culture, using considerable effort and resources to address various safety issues.

#### **BHSO Partnership Items: P. Williams/P. Kelly**

- Corrective action follow-up still is a key to effective and sustainable improvement in injury statistics.

### Risk Measures

**Tier One Inspection Data:** (21) Findings Lab-wide related to Fire Safety, (449) Findings Lab-wide related to Safety

**Tests Performed:** (32) HEPA Units Tested

**Safety Violations (F&O):** No safety violations were identified.

### Assessment Status/Results

- Two-Year Action Plan for addressing OSHA findings was implemented.
  - OSHA Compliance: Addressed 49% of OSHA findings; on schedule for completion by 02/28/06.
- Compared with the last two years, there were less weather-related DART cases largely due to delayed openings and using contractors to help in removing snow.
- Phase II OHSAS registration is proceeding.
- Electrical Safety – Revised subject areas will incorporate NFPA 70E; reviewed SLAC incident for lessons learned and improvements.
- IA&O Assessment: Construction Safety/CFN.

### Objectives for Next Quarter

- Integrate risk into all aspects of work assessment and evaluation, and strive for continual improvement.
- Continue to assess walking issues, slips, and related falls.
- Continue to implement ISM-related and OHSAS 18001 recommendations.

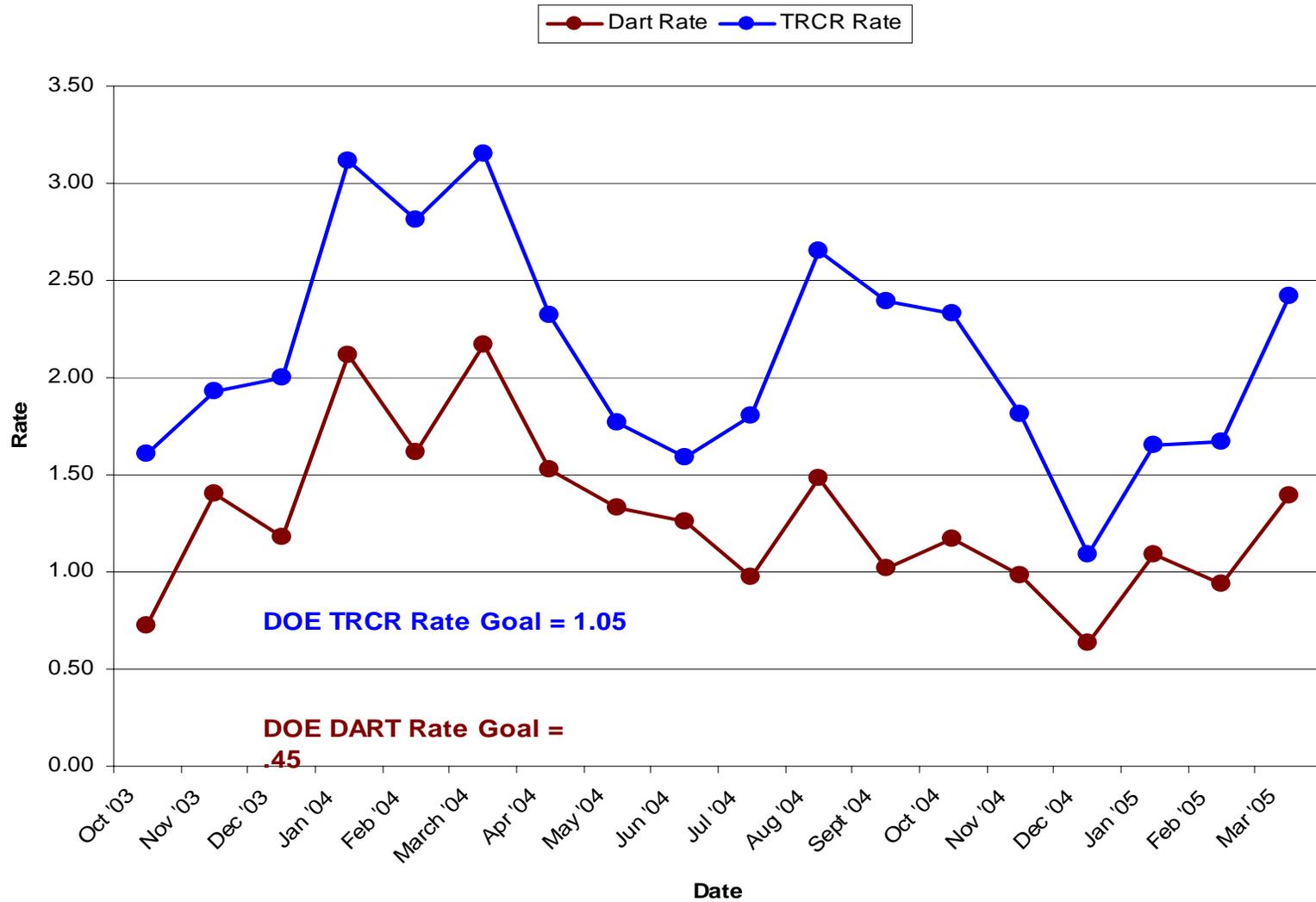
### Objectives for Next Quarter (cont.)

- Injury/Illness Analysis completed this quarter will be disseminated to the Laboratory's organizations in an effort to concentrate resources and address significant issues
- Safety improvement initiatives and behavioral objectives will be incorporated into the planning and assessment phases.
- The following assessments are scheduled for the third quarter:
  - DOE SC Type A "Type" Electrical Investigation
  - DOE SC Electrical Safety Review
  - BHSO Collaborative Assessment: Machine Guarding

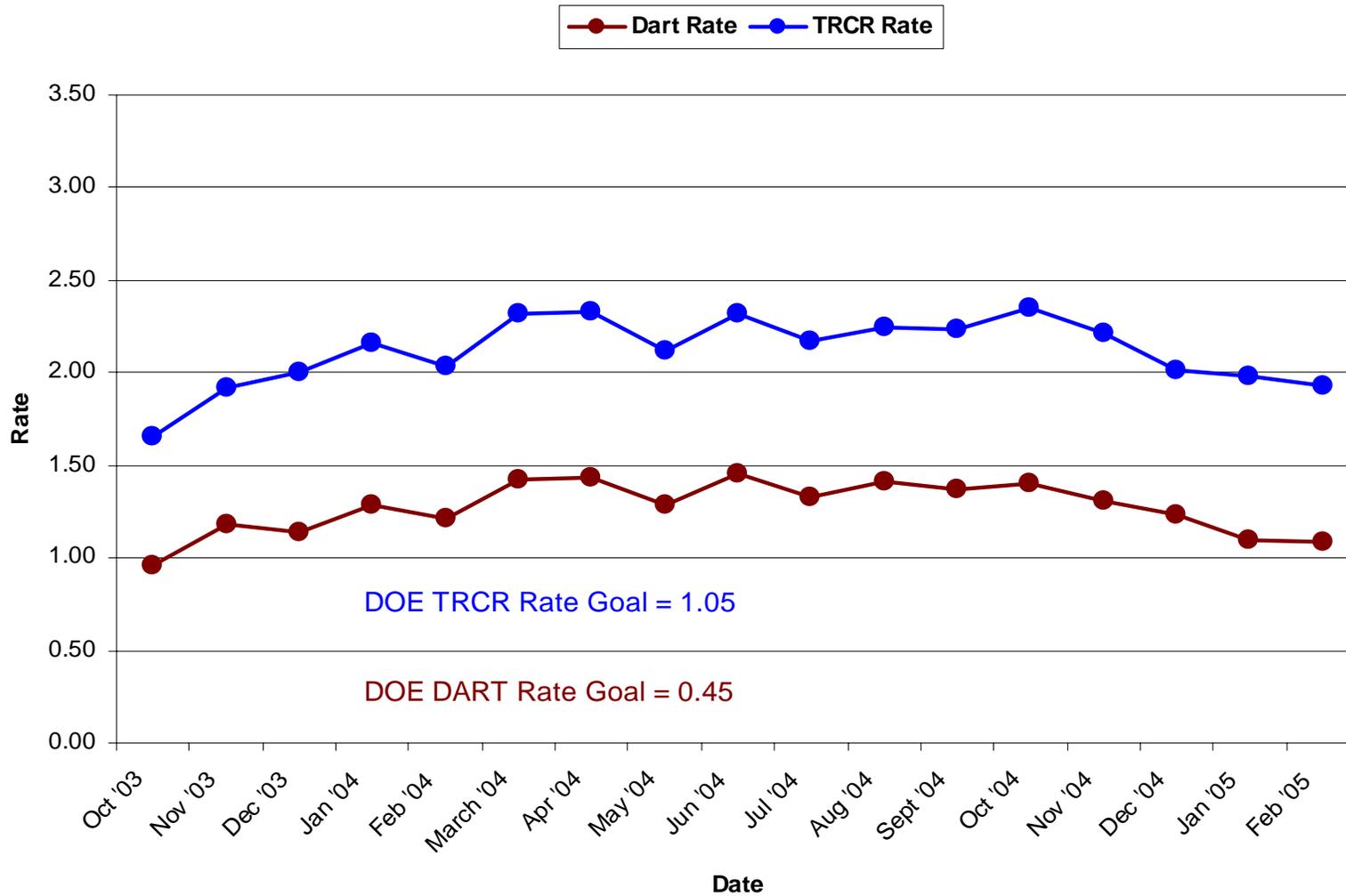
### Issues

- The 57% rate of injuries attributed to bargaining unit employees was identical to that from the last quarter; however, there were twice as many as during the first quarter.
- Preparing new subject areas and converting legacy documents into subject areas
- 36% of the injuries were reported several days late either to OMC or to the line organization.
- Long periods of cold weather and frozen ground contributed to many falls; 36% resulted from falls, and 43% of the cases were attributed to pre-existing conditions.
- 50% of the injuries were to the upper extremities; 29% were to the lower extremities as a result of falls and strains.

# Three-Month Rolling Average



# Twelve-Month Rolling Average



**Facilities Maintenance and Infrastructure**

The following high-risk events are monitored:

- Loss or theft of property
- Major operational disruption to utility's infrastructure

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Facility and Infrastructure</b>						
Facility Operations, M. Bebon X3434	Green	None	None			
Property, M. Bebon X3434	Green	None	Inventory Walk-Through = 2 Issues Identified			
Real Property Asset Management, M. Bebon X3434	Yellow	3.5.1 Alternative Financing				
		3.5.2 Project Management				
		3.5.3 Maintenance Investment Index				
		3.5.4 Energy Contract,	Preventative Maintenance Accomplished - ES&H Categories A1 & A2 = 55% December, 71% January, 89% February			
		3.5.5 Infrastructure Reliability	3.5.5 Infrastructure Reliability			

# Facility Operations Management System

### Management System Assessment

Steward Assessment: Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

No direct risk measures are monitored under this management system.

### Assessment Status/Results

- Continue to work on the program description for the management of subcontractors.
- Work with the POC for the Work Planning and Control MS and Plant Engineering's Maintenance Management Center to ensure procedures are in place to keep Building Managers informed of work in their facilities.
- Rescind the Standard Practice Instruction 5-13, Building Manager Program, by moving its contents into the Facility Operations Management System, the FUA Subject Area and/or Building Manager R2A2.

### Objectives for Next Quarter

- Conduct a Maturity Evaluation of the Management System.
- Assess the use of BNL's Facilities and Grounds Subject Area.

### Issues

- Continue to work on the program description for the management of subcontractors
- Work with the POC for the Work Planning and Control Subject Area and Plant Engineering's Maintenance Management Center to ensure procedures are put in place to keep Building Managers informed of work in their facilities.

### Management System Assessment

Steward Assessment Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

**Property Walk-Through Inspection Results:** 2 Issues were identified:

- Idle equipment was not dispositioned, and "Hold for Future Use" determination was not prepared
- Facility "User" equipment was not properly identified

### Assessment Status/Results

- Property standard operating procedures are being revised.
- New subject areas are being prepared.
- Property Walk-Through Inspection was performed - 2 Issues were identified (see Property Walk-Through Inspection Results), a corrective action plan was requested.
- A Laboratory-wide Physical Inventory is planned for October 2005.
- DOE Memorandum: Personal Property Loan Agreement Domestic- DOE-BHSO approval is required on domestic personal property loans. This requirement was communicated to all department/division property representatives and is being incorporated in the property subject area.

### Objectives for Next Quarter

- Continue revising Property standard operating procedures.
- Continue preparing new subject areas.
- Continue Property Walk-Through Inspections

### Issues

- None

### Management System Assessment

Steward Assessment: **Yellow**

### Contract Measures

**Measure 3.5.1.1 Alternative Financing (AF):** **Excellent**

- Acquisition Strategy document, including Financial Analysis is being revised in accordance with Path A metric.
- Other funding avenues are being explored. BNL personnel discussed funding scenarios with the Commissioner, Suffolk County Dept. of Economic Development & Workforce Housing.

**Measure 3.5.2 Project Management:** **Outstanding**

- Formal metric still is being prepared; It will be ready in April. GPP Program was approved 2/17/05.
- RSB Line Item progressing well.
- CFN Line Item has some cost concerns that depend on results of bidding.

**Measure 3.5.3 Maintenance Investment Index:** **Outstanding**

- Currently tracking 10% above target, however last year at this time we were at 11% above target and finished at target.
- Second-quarter data identified some non-Plant Engineering maintenance of real property from Staff Services, Emergency Management and Environmental Management.

### Contract Measure (cont.)

**Measure 3.5.4 Energy Contract:** **Excellent**

- Numerous meetings were held with various public officials to further support for extending low-cost electric power contract.
- Numerous discussions, correspondence, and meetings took place with high-level officials of LIPA, NYPA, the Empire State Development Corporation (ESDC) and the Governor's Office.
- A verbal proposal was obtained that is awaiting formal reply.
- Utility Options Study and Cogeneration Feasibility Study were completed to identify all options and issues by an outside consultant.

**Measure 3.5.5 Infrastructure Reliability (RI):** **Outstanding**

- As of 2/28/05, the Infrastructure Reliability measure was calculated to be .9996. The measure should still be able to reach Outstanding by year end.
- Events that had negative impact included a steam leak in Bldg. 490, a water-main break outside of Bldg. 901, a power outage in Bldg. 452, and a water-line freeze up in Bldg. 701.
- A broken insulator on the incoming 69KV electric feeder caused an unplanned outage. Keyspan, who owns this equipment, effected repairs.

### Risk Measures

Red

Preventive Maintenance Accomplished - ES&H  
Categories A1/A2

- 55% December
- 71% January
- 89% February

**BHSO Partnership Items:** E. Murphy / N. Narain/J. Eng

- BHSO agrees with the Expected Year-End Rating of Excellent for Contract Measure 3.5.1.
- BHSO is satisfied with the progress to date on Contract Measures 3.5.3, 3.5.4 and 3.5.5
- BHSO is concerned that BNL cannot achieve the Expected Year-End Rating of Outstanding for Contract Measure 3.5.2. The formal metric was not submitted to BHSO in April, recommend submitting it to BHSO as soon as possible.
- BNL should ensure that the FY2006 3PBP process is timely, the GPP program established early, and the metric is established no later than the beginning of the second quarter of the execution year.

### Assessment Status/Results

- Evaluate and implement a plan to improve the performance of the planned A1/A2 preventative maintenance.
- Update the Project Management Subject Area to incorporate revised values for engineering requirements and assure that the EVMS is ready for the DOE certification.
- Develop and execute an implementation plan for value engineering.
- Implement Project Planning, Programming and Budgeting and Activity Data Sheet Process Corrective Actions resulting from the IO assessment ( ATS 1963).
- Review deferred maintenance backlog and determine what are its elements, and what is the impact of capital renewal as new projects are funded.
- For out-year planning, determine how Maximo will feed into maintenance planning, budgeting, and reporting.
- Conduct a configuration control assessment of Plant Engineering's As-Built process.
- Pursue the option to establish "off-site" housing facilities.
- Obtain the required DOE approvals for Alternate Financing so that a bid package can be issued.

### Objectives for Next Quarter

- Continue to pursue CD-1 along with the objectives related to Path B for Alternative Financing.
- Prepare a construction-project performance measure package for April.
- Begin construction of RSB, award CFN contract and break ground.
- Continue meetings and discussions with the various parties (LIPA, NYPA, ESDC) on the Energy Contract.
- Anticipate a formal proposal for a short-term extension of the Energy Contract (3 years) in the third quarter.
- Accomplish a majority of the FY 05 project maintenance in the next quarter.
- Ensure that by the end of the quarter, all contingency monies will be programmed for execution.
- Continue to identify non-Plant Engineering real property maintenance, which can be included.
- Submit the formal metric for Contract Measure 3.5.2.

### Issues

- The DOE's restrictions and requirements on Operating Leases pose a potential threat to the success of this Alternate Financing project.
- The lack of a DOE procedural guide for Alternatively Financed projects significantly delays the speed with which the project progresses.
- Excessive escalation of construction cost may impact the CFN.
- Deregulation of the electric industry in New York State has imposed various rules and requirements that can't be avoided, and will increase power costs substantially.
- The inability of NYPA to supply low-cost power to their customers on Long Island has resulted from various issues, as well as deregulation.
- Uncertainties in programmatic direct funding of maintenance. The FY05 estimates are based on FY04 spending. No budget data available to more accurately estimate them.

# Security and Emergency Management

The following high risk events are monitored:

- Catastrophic loss/damage to facilities
- Major cyber-security penetration with significant loss of data

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open
		Contract	Risk		
<b>Security and Emergency Management</b>					
Emergency Preparedness, M. Bebon X3434	Yellow	None	None		9
Emergency Response Services, M. Bebon X3434	Green	None	Fire Rescue Response Time to On-Site Alarms = 1.5 Minutes		
Information Resource Management, P. Bond X4063	Yellow	3.2.2 Cyber Security	Performance Measures are being developed as corrective actions to the DOE OA assessment (11/04)		

# Security and Emergency Management

The following high risk events are monitored:

- Catastrophic loss/damage to facilities
- Loss or theft of classified matter, nuclear material or radiological material
- Major loss or theft of property
- Successful terrorist attack against a designated target
- Malevolent act against an employee, guest, contractor, or member of the public

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due	
		Contract	Risk				
<b>Security and Emergency Management</b>							
Safeguards and Security, M. Bebon X3434	Yellow	None	Security Incidents - Classified Matter = 0			0	0
			Security Incidents - Nuclear Material, = 0				
			Security Incidents - Radiological Material = 0				
			Security Incidents - Buildings Unlocked = 26				
			Security Incidents - Loss or Theft of Property = 0				
			Security Alarm Reliability - Alarm Failures = 0				
			DOE Vehicles Reported Stolen/Removed without Authorization = 0				
			Security Response Time = 5.5 Minutes				

### Management System Assessment

Steward Assessment: **Yellow**

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

No risk measures are directly monitored under this management system.

### Assessment Status/Results

- Corrective Action Plan to address FY04 DOE-OA Emergency Management Assessment.
  - Completed 21 of 30 corrective actions.
- BNL's Independent Oversight PAAA Office is verifying closure of corrective actions.
- The DOE-Office of Science/BHSO is verifying completion of corrective actions.
- DOE Order 151.1B Comprehensive Emergency Management System is to be revised.

### Objectives for Next Quarter

- Continue to implement the Corrective Action Plan.
- Close out the ATS and NTS corrective actions.
- Conduct the BHSO Independent Emergency Management Assessment – Third Quarter

### Issues

- DOE Order 151.1B Comprehensive Emergency Management System is to be revised
  - Changes are significant and will require more resources
  - Increased requirements for drills

### Management System Assessment

Steward Assessment:

Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

Green

**Fire Rescue Response to On-Site Alarms:** 96% of fire response calls were completed within 4 minutes.

### Assessment Status/Results

- Incorporating inspection, testing, and maintenance of fire protection equipment schedules into Plant Engineering's Maintenance Management System to manage the work.
- Evaluate the consolidation of the Emergency Preparedness and Emergency Response Services Management Systems.
- Continue to conduct critiques of drills and emergency responses.
- Develop performance measures of the response to on-site alarms and the reliability of the site's fire-alarm system.
- Analyze the results from last year's Fire Safety Self-Assessment and prepare a corrective action plan, if needed.

### Objectives for Next Quarter

- Continue incorporating inspection, testing, and maintenance of fire protection equipment schedules into Plant Engineering's Maintenance Management System to manage the work.
- Complete upgrade of the site fire alarm system front end.

### Issues

- None.

### Management System Assessment

Steward Assessment: **Yellow**

### Contract Measures

Measure 3.2.2 Cyber Security: **Marginal**

- ITD completed the Interim Corrective Action Plan based on the DOE OA's findings. It was submitted to the BHSO on March 14, 2005.
- The DOE's Office of Independent Oversight (OA) reviewed BNL's Unclassified Cyber Security program in November 2004. It received rating of "Significant Weakness".

**BHSO Partnership Items:** T. Schlagel / R. Diem  
BHSO has no comments this quarter.

### Risk Measures

Performance measures are being developed as corrective actions to address the findings of the DOE-OA Unclassified Cyber Security Program Assessment (11/04) findings.

### Status of Initiatives

- Develop and submit Corrective Action Plan to the DOE to resolve the findings from the DOE-OA Unclassified Cyber Security Program Assessment findings.
- Implement approved Corrective Action Plan.

### Objectives for Next Quarter

- ITD is contracting with a third-party vendor to complete the Certification & Accreditation packages that also address other OA findings, i.e., Lab-wide Risk Assessment.
- ITD will meet with BHSO to discuss revising performance measure based on milestones identified in the CAP.

### Issues

- The DOE-OA Unclassified Cyber Security Assessment resulted in a Significant Weakness rating (11/04).
  - Corrective actions based on overall root-cause analysis will not allow all actions to be completed by 9/30/05 due to issues of cost and lack of personnel. The FY05 milestones can be met.
  - Any further budget revisions in the FS area will lessen ITD's ability to meet FY05 milestones.

## Safeguards and Security Management System

### Management System Assessment

Steward Assessment: **Yellow**

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

Security Alarm Reliability: Alarm Failures = 0 **Green**

Security Response Time: 5.5 minutes **Yellow**

### Security Incidents:

- Classified Matter: 0 **Green**
- Nuclear Material: 0 **Green**
- Radiological Material: 0 **Green**
- Loss or Theft of Property: 1 **Green**
- Buildings Unlocked: 26 **Green/Yellow**
- DOE Vehicles Reported Stolen/Removed without Authorization: 0 **Green**

### Assessment Status/Results

- Revised SPI for Foreign Visits and Assignments requirements; developed subject area
- Prepare OPSEC Subject Area
  - Include "Official Use Only" subject matter
- Conduct a vulnerability analysis of building security
- DOE Order 142.1 Classified Visits Involving Foreign Nationals

### Objectives for Next Quarter

- Conduct Property Protection Areas Assessment – 2<sup>nd</sup>/3<sup>rd</sup> Quarter
- IA&O to conduct Effectiveness of Integrated Safeguards Security Management System Assessment – 4<sup>th</sup> Quarter
- Continue to implement the ISSM Program

### Issues

- Revise documentation for Foreign Visits and Assignments to incorporate new requirements.

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**Audit and Finance  
Performance**

**Audit and Finance Risk Committee**

**Point of Contact: John Hauser  
(631) 344-3307**

**Business Systems**

The following high risk events are monitored:

- Material unallowable costs
- Loss of major litigation with sizable damages due

Management System	Stewards Assessment	Contract/Contract Performance Measure	Institutional Risk Performance Measure/Indicator	Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
<b>Business Systems</b>						
Acquisition Management, M. Bebon X3434	Yellow	Appendix B: 3.2.3 Procurement Operations	The number of oversights of credit card activities conducted each month (most recent data): November 2004 = 197 transactions; December 2004 = 173 transactions; January 2005 = 195 transactions		0	2

**Business Systems**

Management System	Stewards Assessment	Contract/Contract Performance Measure	Institutional Risk Performance Measure/Indicator	Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
<b>Business Systems</b>						
Administrative Support, M. Bebon X3434	Green	None	None			

**Business Systems**

The following high risk events are monitored:

- Material unallowable costs
- Exceeding congressional control levels
- Qualified or disclaimer opinion on the DOE IG SCIC Audit

Management System	Stewards Assessment	Contract/Contract Performance Measure	Institutional Risk Performance Measure/Indicator	Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
<b>Business Systems</b>						
Financial Management, J. Hauser X3307	Green	Prime Contract Terms and Conditions	Annual Report to DOE on Management Controls and Financial Management System- To be reported in 4th quarter			
			Financial Management and Control			
		Appendix B: 3.2.1 Phase IV of Benchmarking Study	Annual Cost Accounting Standards Disclosure Statement - To be reported in 4th quarter			

Business Systems

Management System	Stewards Assessment	Contract/Contract Performance Measure	Institutional Risk Performance Measure/Indicator	Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
<b>Business Systems</b>						
Records Management, P. Bond X4063	Green	None	None			

## Acquisition Management System

### Management System Assessment

**Steward Assessment:** Yellow

Development of the subject area and new procedures is progressing, but the schedule is delayed because all available personnel are dealing with multiple priorities.

**Contract Measures** Excellent

Measure 3.2.3 Procurement Operations:

- A draft Strategic Plan was outlined.

**BHSO Partnership Items:** M. Healey/R. Gordon

- As the performance measure is new, DOE had no comments at this time.
- The DOE Contracting Officer and PPM Division Manager have biweekly meetings to discuss open issues and the status of initiatives.
- Two procedures were sent to DOE for review and approval during the second quarter.
- The PPM Division Manager and the DOE Contracting Officer attended the PERT Team meeting.

**Risk Measures** Green

- The number of oversights of credit card activities conducted each month (most recent data): November 2004 = 197 transactions; December 2004 = 173 transactions; January 2005 = 195 transactions

### Assessment Status/Results

- A prime contract performance measure was developed to measure progress on establishing an Acquisition Strategic Plan
- A self-assessment noted that the existing documentation allowed some requirements to be inadequately implemented.
- The PPM documentation is being updated, including the implementation of new subject areas and internal procedures, to replace the Procurement Operations Manual.
- A Pre-Award File surveillance was initiated after a pilot period.
- Policy Flash for Discretionary Set-Aside Authority – Current documentation (internal to PPM Division) covers BNL mechanisms to comply with “Discretionary Set Aside Authority”.

### Objectives for Next Quarter

- Complete Documentation Plan
- Finalize E-Procurement Plan
- Send 12 Procedures to the DOE for approval
- Finish drafting the Strategic Plan

### Issues

- E-Procurement business rules
- Meeting the goals of the Small Business Subcontracting Plan goals
- Competing priorities affecting the completion of the subject area

### Management System Assessment

Steward Assessment: Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

There are no direct risk measures monitored by this management system.

### Assessment Status/Results

- Updated the Management System Description.
- Developed subject area, Government Vehicles.
- Rescinded the contents of SPI 05-08 Laboratory Housing and move to Staff Services Web Site.
- Made exterior improvements to the residential areas.
- Updated and improved the operational systems in three functional areas – Housing, Automotive, and Conference Scheduling.
- Worked with DOE to develop a procurement plan on the requirement for alternative fuels vehicles.
- Implemented a new contract for food services.

### Objectives for Next Quarter

- Continue work on Staff Services web page
- Replace SPI on Laboratory Housing
- Complete work on Government Vehicles subject area

### Issues

- Continue work on the development of a subject area for Government Vehicles.
- Rescind the contents of SPI 05-08 Laboratory Housing and move to Staff Services web site.
- Conduct exterior improvements to the residential areas.
- Update and improve the operational systems in three functional areas:- housing, automotive and conference scheduling.
- Work with DOE to develop a procurement plan on the requirement of alternative fuels vehicles.

# Financial Management System

### Management System Assessment

Steward Assessment: **Green**

### Contract Measures **Outstanding**

Measure 3.2.1 Phase IV of Benchmarking Study

- eProcurement - Modules were installed and internal testing completed. The next steps involve pilot testing, utilizing real BNL vendors. Initial catalogs were determined and discussions held with three suppliers. Two of them are prepared to proceed and technical details are being addressed.
- eSettlement – Modules have been installed and internal testing has been completed. The next steps involve pilot testing utilizing real BNL vendors. Approximately 15% of vendors now receive payment electronically; this number is expected to grow gradually over time.
- Budget Process Alignment - The Organizational Cost Plan Graphical Tool is in use and has proven beneficial. Repeated communications of the importance of accurate, realistic cost plans brought about improvement.
- Measuring Strategic Initiative - Complied success data on LDRD projects.

### BSHO Partnership Items: J. Hauser/J. Dasilva

•BHSO needs to make a linkage between consultant's recommendations and current state of implementation plan.

### Risk Measures

**Annual Report to DOE on Management Controls and Financial Management System**: The report is prepared in the fourth quarter of the FY.

**Financial Management and Control**: The budget, including Field Work Proposals, Exhibit 300 and Exhibit 53s, was submitted to DOE early, or on-time. Budgets and spending are within congressional control levels. **Green**

### **Annual Cost Accounting Standards (CAS)**

**Disclosure Statement**: The statement and/or its update is prepared in the fourth quarter of the FY.

### Assessment Status/Results

- DOE Inspector General Audit of the Spallation Neutron Source Project – There were no findings against BNL.

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### Objectives Next Quarter

- eSettlement - Pilot Evaluated Receipt Settlement function will be in production to create invoices from existing Purchase Orders. The payment also will be made electronically. Web-based Vendor Self-Service will be created to test the submission of invoices and to query their status using real production data.
- eProcurement - Definitive contracts will be negotiated with the two initial suppliers to create eProcurement transactions that do not require the buyer's intervention.
- Budget Process Alignment - Efforts will continue to maintain improved cost plans.
- An analysis of the LDRD data will be provided to the ALD for Policy and Strategic Planning and Integrated Planning Office.

### Issues

- None.

## Records Management System

### Management System Assessment

Steward Assessment: Green

### Contract Measures

No contract measures are related to this management system.

### Risk Measures

There are no direct risk measures monitored by this management system.

### Assessment Status/Results

• The focus for the FY is to make system improvements based on recommendations from recent self-assessments

- Update Site-wide Records Inventory in Foremost System.

All organizations were asked to update records inventory by 3/31/05. Many have completed the update. Some extensions were granted.

- Integrate Records Management into new Subject Area Development (w/SBMS) – Not Started.
- Follow-up with organizations on improvement needs – Started.

### Objectives for Next Quarter

- Meet with organizations to discuss improvement needs from the FY04 assessment
  - Engage Records Representatives in determining what processes need to be in place in their organizations to maintain the Records Inventory

### Issues

- Recent IG Audit of DOE's Records Management Program – Emphasis was on managing electronic records. May require additional BNL investment.

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**Personnel and  
Compensation  
Performance**

**Personnel and Compensation Risk  
Committee**

**Point of Contact: William Hempfling  
(631) 344-2878**

# Personnel and Compensation Committee

## Business Systems

The following high risk events are monitored:

- Failure to timely file reports with IRS, DOE, or Department of Labor
- Failure to obtain DOE approval for required elements of the Total Compensation Plan
- Failure to offer competitive Total Compensation Plan

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Business Systems</b>						
Human Resources, W. Hempfling X2878	Green	3.1.3 Diversity	Timely reporting of Form 5500 - To be reported in the 4th quarter			
			Timely reporting of Summary Annual Report - To be reported in 4th quarter			
			Timely reporting of Summary Plan Description - Future report			
			Timely reporting of Coverage Test for 401(a) and 401(k) - Reported annually			
			Timely DOE approval on Total Compensation Plan: Annual (October); Upon significant change in benefits - To be reported in 1st quarter in FY06			
			Targeted Assessment: Annual Market Analysis - To be reported in 4th quarter			

# Personnel and Compensation Committee

## Business Systems

The following high risk events are monitored:

- Organizing drive by non-represented employees
- Work stoppage by an on-site union
- Significant violation of anti-discrimination or employment laws
- An act or workplace violence resulting in significant injury or death to employee, contractor or visitor

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Business Systems (Cont.)</b>						
Human Resources, W. Hempfling X2878 (Cont.)	Green		Review of employee relations issues - Reporting by exception upon discovery of a significant issue			
			Review of labor relations status - Reporting by exception upon discovery of a significant issue			
			Number of Human Rights Complaints = 0 year to date			
			Staff Development Courses: Personnel participation in Conflict Management, Facing the Tough Stuff, Intervention, Introduction to EEO, Affirmative Action and Diversity Management, Labor Relations Seminar, Salary Review Workshop, and Sexual Harassment = 34			

The following high-risk events are monitored:

- An act or workplace violence resulting in significant injury or death to employee, contractor or visitor
- Injury, illness, exposure or PAA violation resulting from inadequate training or qualification for assigned work

Management System	Stewards Assessment	Performance Measures/Targeted Assessments		Targeted/Integrated Assessment Results	ATS # Open	ATS# Past Due
		Contract	Risk			
<b>Business Systems (Cont.)</b>						
Occupational Medicine, W. Hempfling X2878	Green	None	Employee Assistance Program: Total contacts, personnel attending workshops, and management consultations = 190			
Training and Qualifications, W. Hempfling X2878	Green	None	Required Training Completed: Employees = 97%, Guests & Contractors = 87%			

## Human Resources Management System

### Management System Assessment

**Steward Assessment:** Green

- Not all requirements are mapped
- Supervisors Manual needs reviewing and updating to include current requirements

### Contract Measures

**Measure 3.1.3 Diversity:** Excellent

- The Draft Diversity (DV) Engagement Practices checklist was reviewed at 3/17/05, Diversity Management Steering Committee meeting; feedback was provided.
- The timeline for completing the recommendations outlined in 2001 Hewitt Diversity Emphasis Study was established.
- Recruitment at the Black & Hispanic Physicists conference, the Black Engineer Society, and several historical Black Colleges and Universities was aligned with the S&T strategic goals.
- Phase II of Diversity Educational Awareness Training pilot program for BES employees is underway. Training for Religious Awareness is scheduled for 5/25/05.

### BHSO Partnership Items S. Kendall/ P. Palladino

- Although employment opportunities are limited, conference attendees should continue to promote the Laboratory and obtain business cards for future use.
- At the FY mid-year, conduct customer surveys to evaluate success of training, effectiveness of instruction, value of content related to job and suggestions for improvement.

### Risk Measures

Review of employee relations issues - Reporting by exception upon discovery of a significant issue Green

Review of labor relations status - Reporting by exception upon discovery of a significant issue Green

Number of Human Rights Complaints = 0 year to date Green

Staff Development Courses: Personnel participation in Conflict Management, Facing the Tough Stuff, Intervention, Introduction to EEO, Affirmative Action and Diversity Management, Labor Relations Seminar, Salary Review Workshop, and Sexual Harassment = 34 Green

## Assessment Status/Results

- Two of six subject areas were reviewed/updated and the other four subject areas are on target.
- GAO EEO Audit on Personnel Actions and Concerns – Variations were noted.
- OFCCP Compliance Evaluation of the Affirmative Action Program – Evaluation was closed with no non-compliances noted.

## Objectives for Next Quarter

- Seek feedback from Policy Council/Level 1 Managers about the DV Engagement Practices checklist. Recommend implementation of Section I from checklist. (Measure #1)
- Complete Phase II of Diversity Education Awareness Training for BES personnel.

## Issues

- RIF will require a workforce re-structure plan.
- Double-digit increases in medical benefits.
- The current hiring freeze will limit employment opportunities for members of protected class groups. Early identification of targeted opportunities must occur.
- DV Training is conducted in small groups, and the DV staff is already stretched to the limit. Additional resources are required to continue delivering training.

## Occupational Medicine Management System

### Management System Assessment

#### **Steward Assessment:** Green

- Highly skilled clinic staff have up-to-date certifications and training.
- BNL's workforce is healthy fit for duty.
- There is a very low burden of occupational illness in the workforce.

### Contract Measures

No contractual measures are related to this management system.

### Risk Measures Green

**Employee Assistance Program:** Total contacts, personnel attending workshops, and management consultations = 190

**Biological Monitoring:** Occupational exposure to asbestos, cadmium, lead, and noise = No detectable overexposures or adverse health effects from current or recent exposure to asbestos, cadmium, or lead in CY04. Infrequent instances of hearing loss with potential contribution by BNL occupational noise in CY04.

### Assessment Status/Results

- Accreditation Association for Ambulatory Health Centers application is due in June 2005.
- There is ongoing benchmarking of BNL's lost work experience following occupational injury (percentage of injuries associated with lost time and duration of absence).
- Records are kept of the number and type of clinically significant findings from OMC health screening examinations.

### Objectives for Next Quarter

- Implement the recently drafted standardized procedures whereby line management requests fitness for duty evaluations by OMC, and receives the results of these evaluations.
- Clarify for employees and line management the difference between voluntary and mandatory examinations.

### Issues

- Assuring that medical surveillance examinations are requested and performed whenever mandated by regulations.
- Increase the utilization of EAP services.

## Training and Qualifications Management System

### Management System Assessment

**Steward Assessment:** Green

- Laboratory training statistics remain solid.

### Contract Measures

No contractual measures are related to this management system.

**Risk Measures** Green

### Training Completed:

BNL Employees: 97%

Guest & Contractors: 87%

### Assessment Status/Results

- 50% of laboratory's JTA process evaluation are complete.

### Objectives for Next Quarter

- Conduct an Annual Customer survey.
- Implement revised employee refresher training.

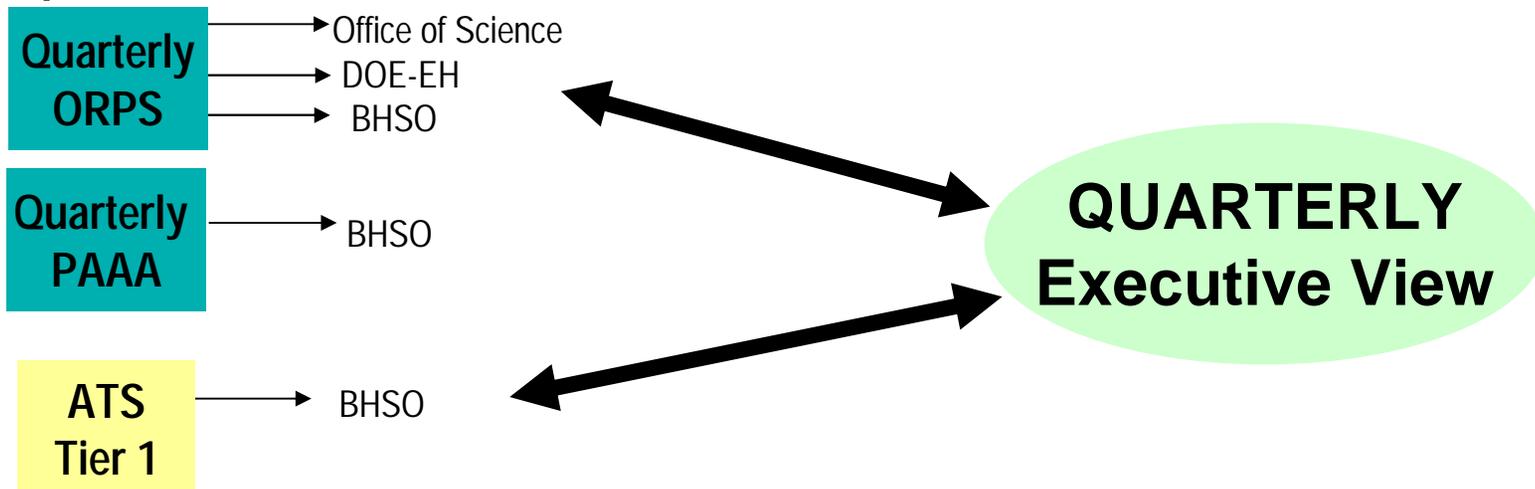
### Issues

- Need to formalize more job and procedure training at the worker level.

## Institutional Performance

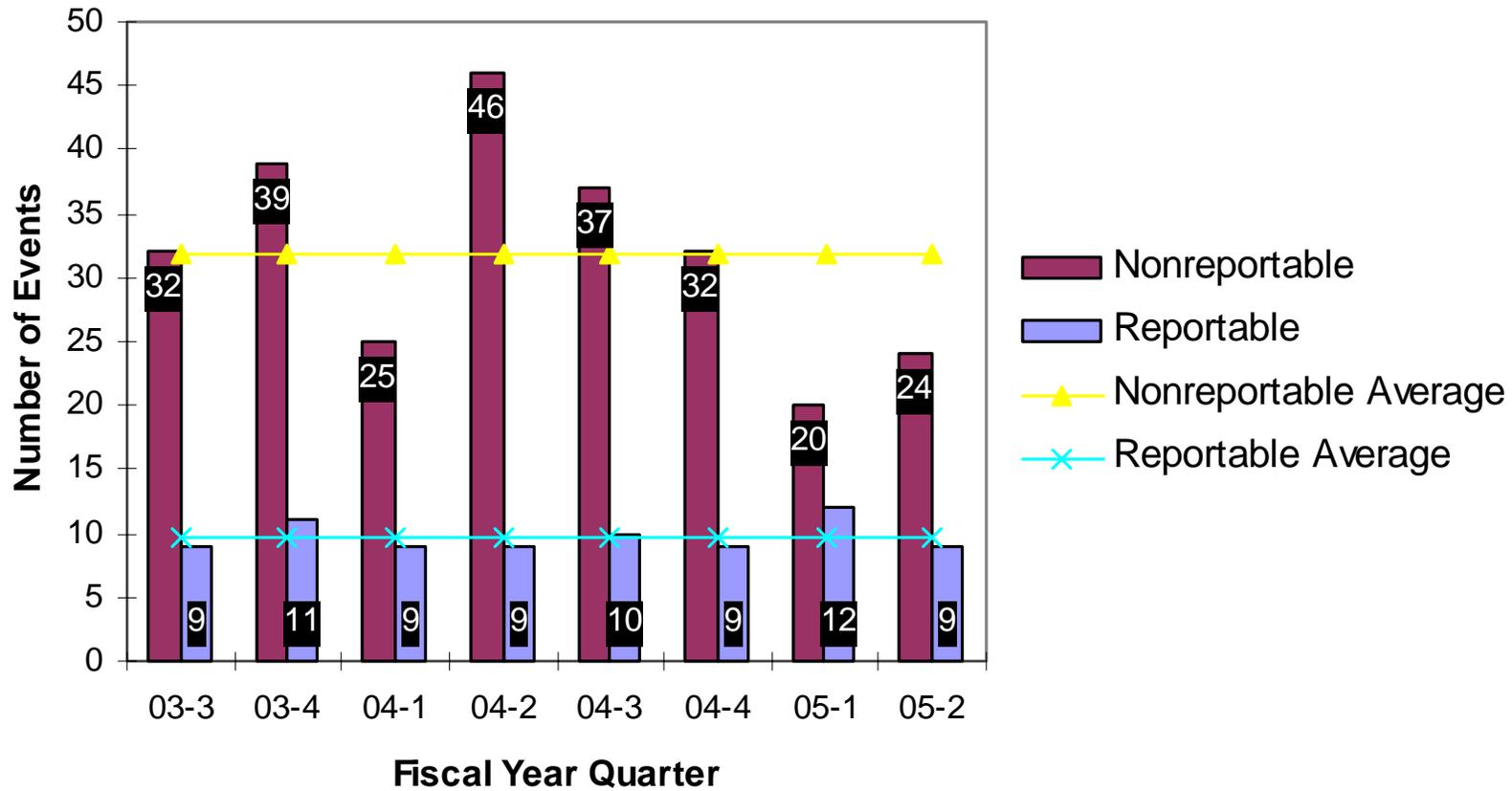
- ORPS
- PAAA
- Assessment/Corrective Action Tracking
- Tier 1 Inspection Results

### Requirement

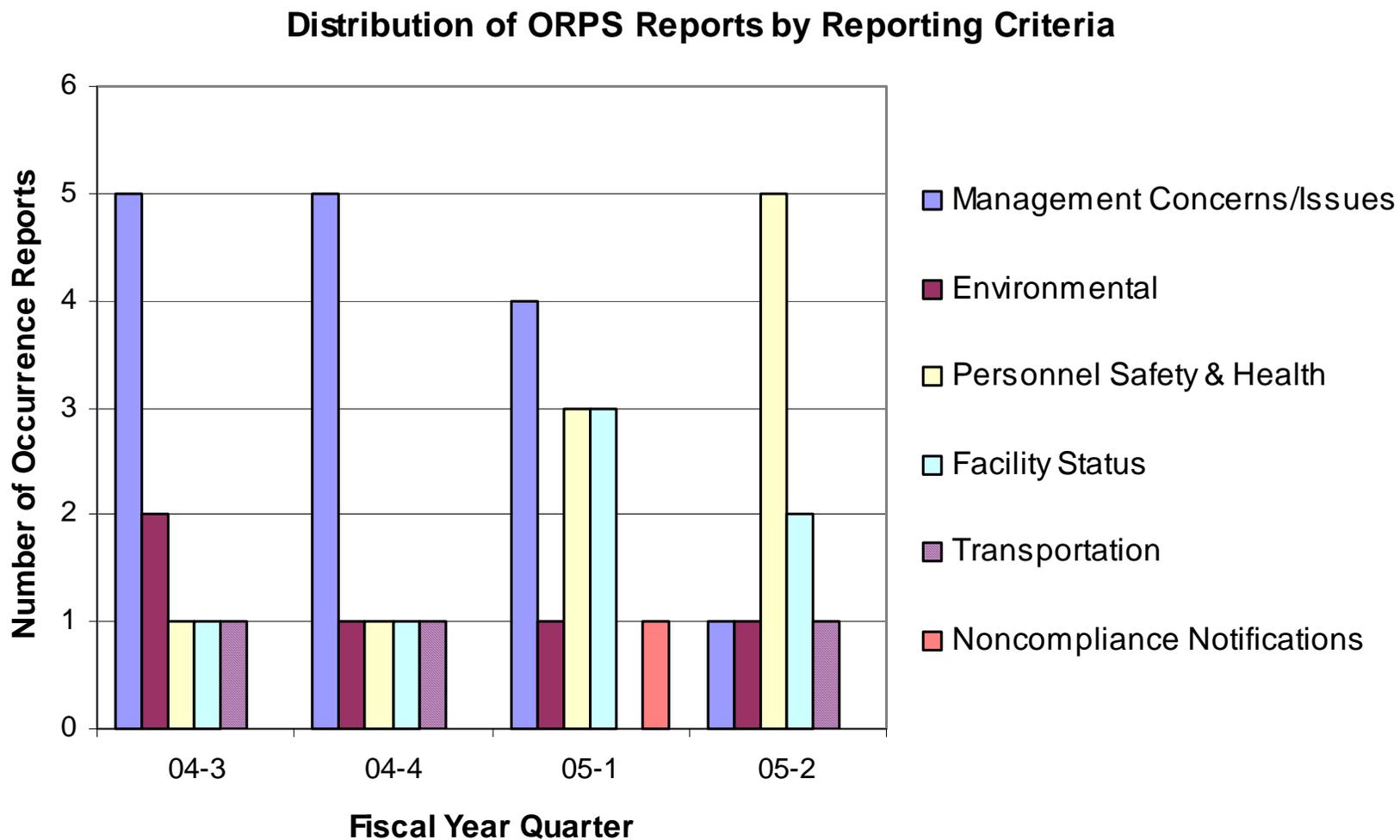


# ORPS Reportable and ORPS Nonreportable Events

## ORPS Reportable and ORPS Nonreportable Events

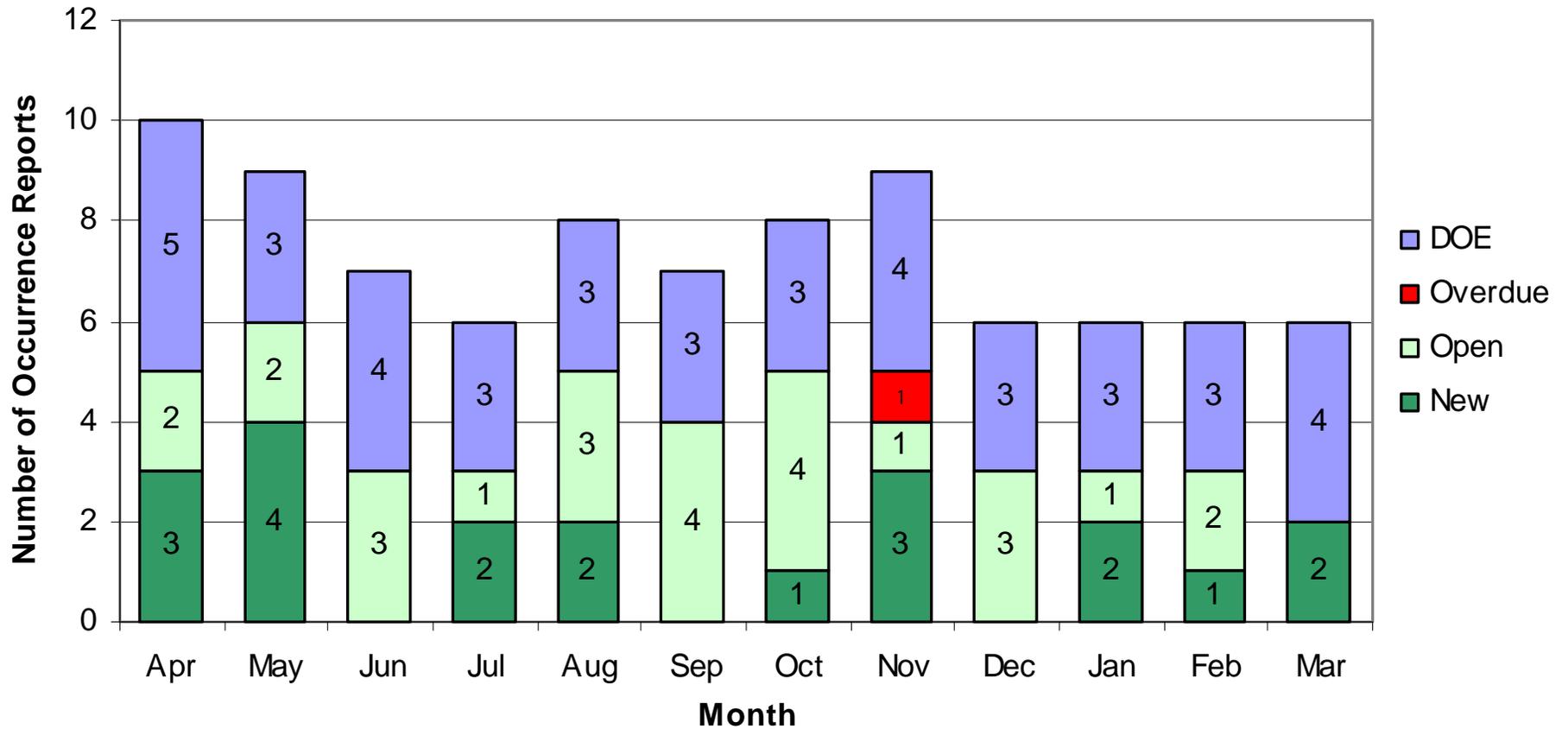


## Distribution of ORPS Reports by Reporting Criteria

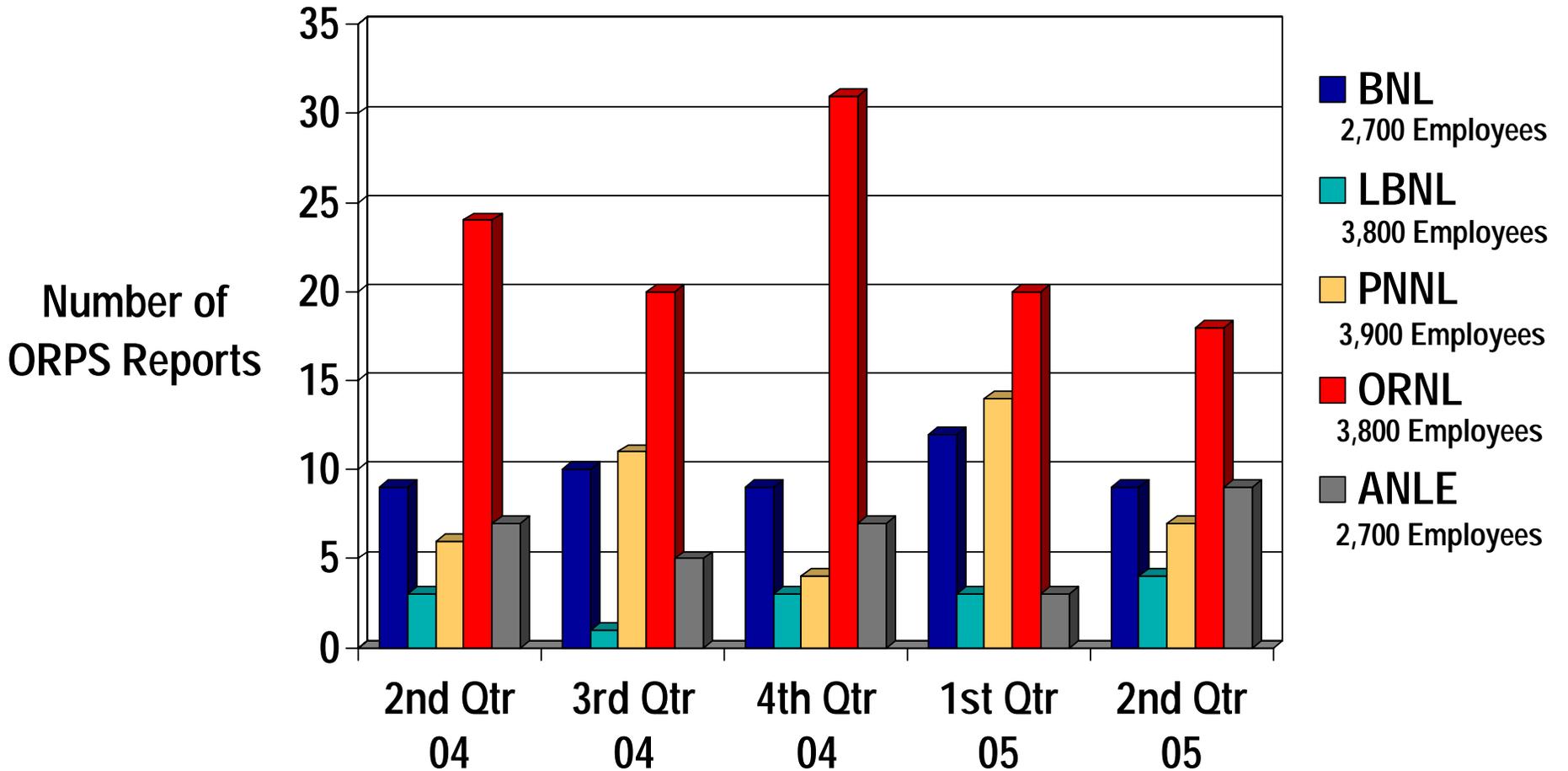


# BNL ORPS Report Status

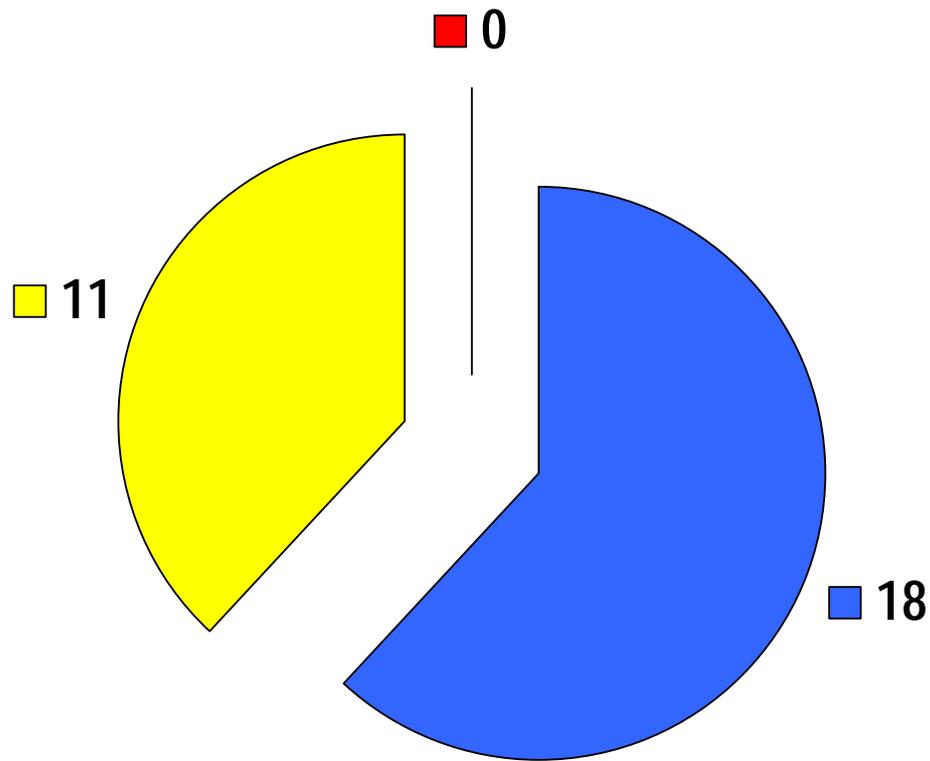
## Status of BNL ORPS Reports



# Multi-Purpose Science Laboratories ORPS Comparison – FY 04/05



# Results of Second Quarter FY05 PAAA Review



■ No PAAA Noncompliance

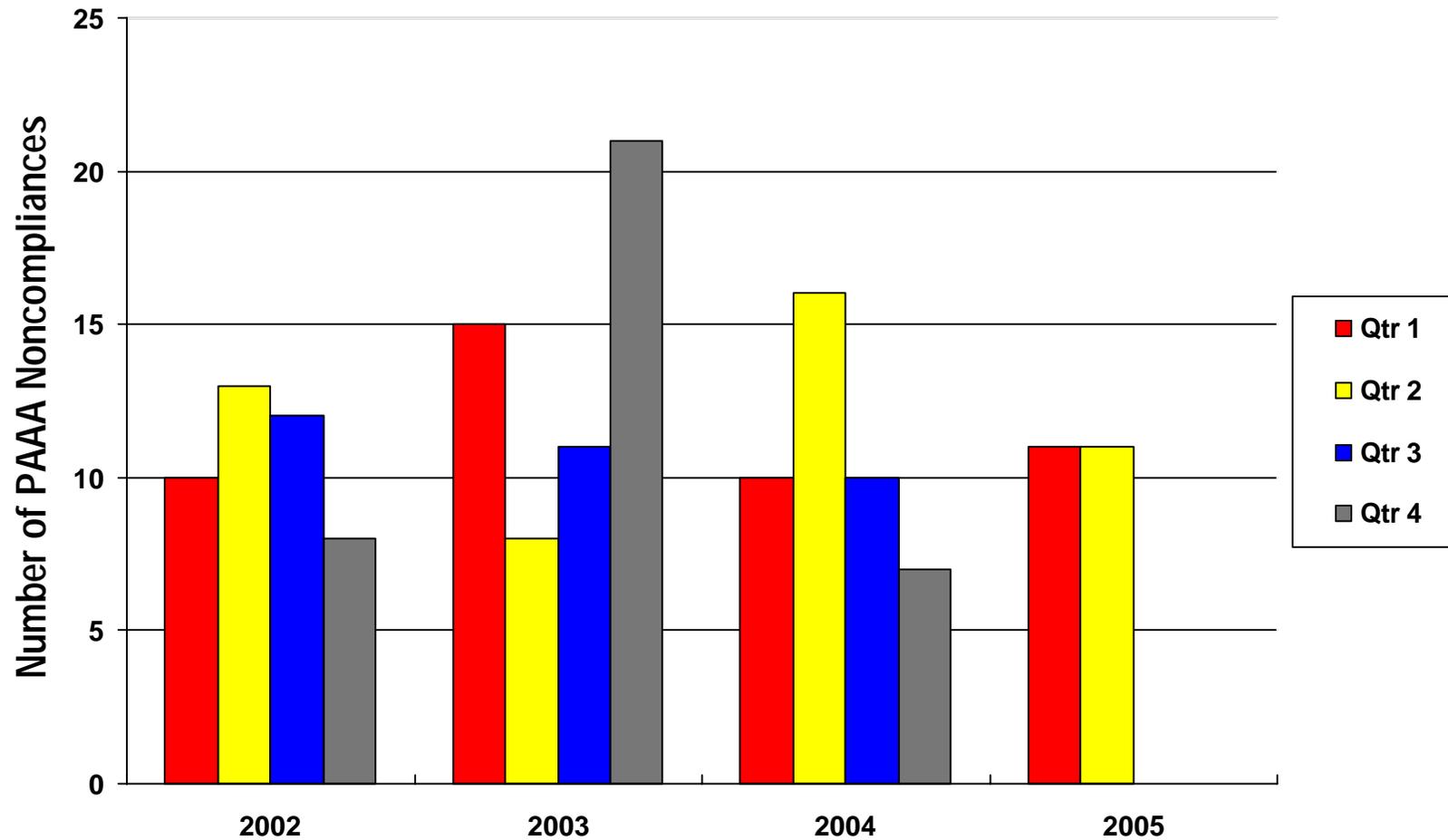
■ Nonreportable PAAA  
Noncompliance  
PAAA-Non-reportable

■ NTS  
Noncompliance  
PAAA Reportable

## The Process

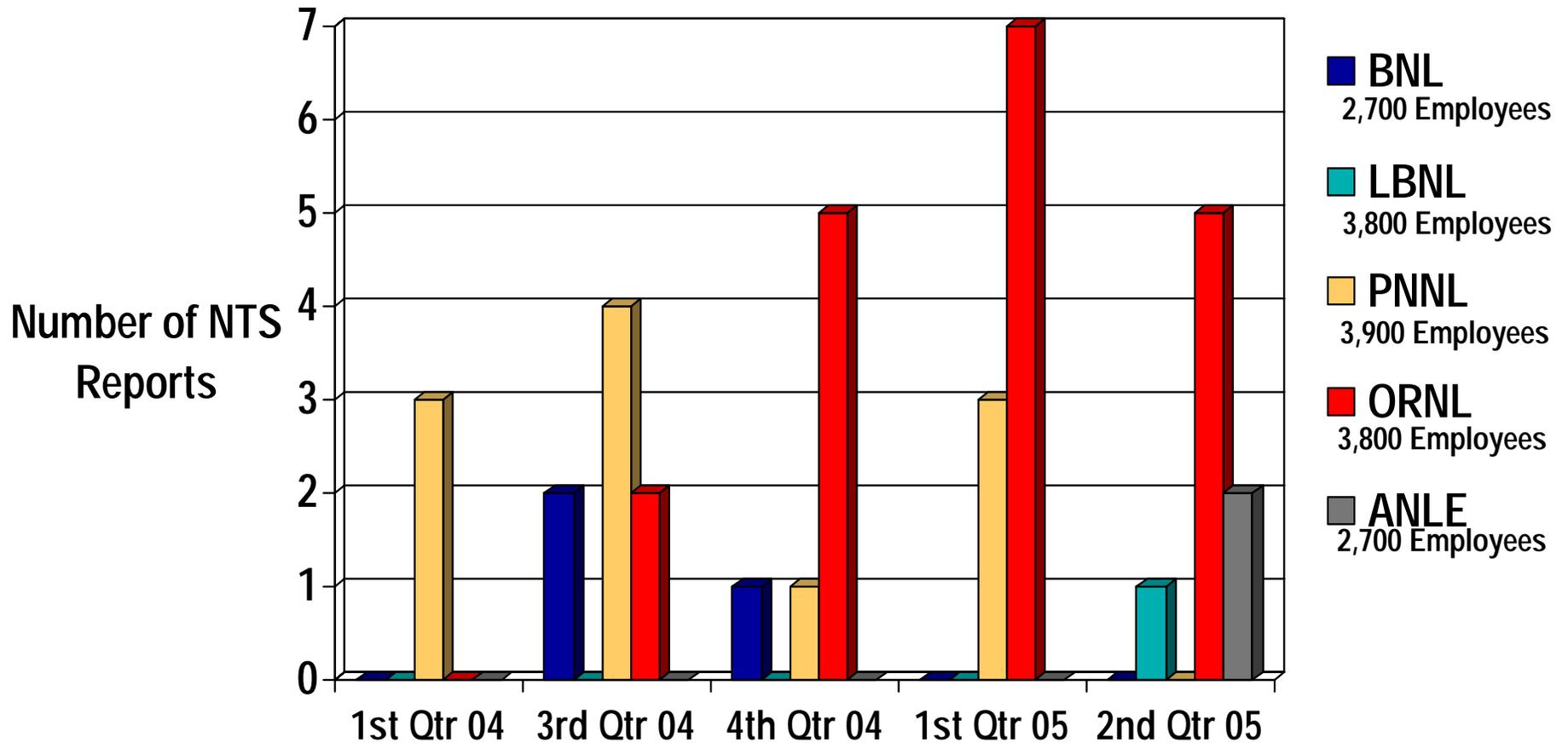
- Line organizations Prescreen for PAAA
- Forward to Lab PAAA Coordinator for review
- Potentially reportable issues go to PAAA Board for Vote

# PAAA Noncompliance Per Fiscal Year Quarter



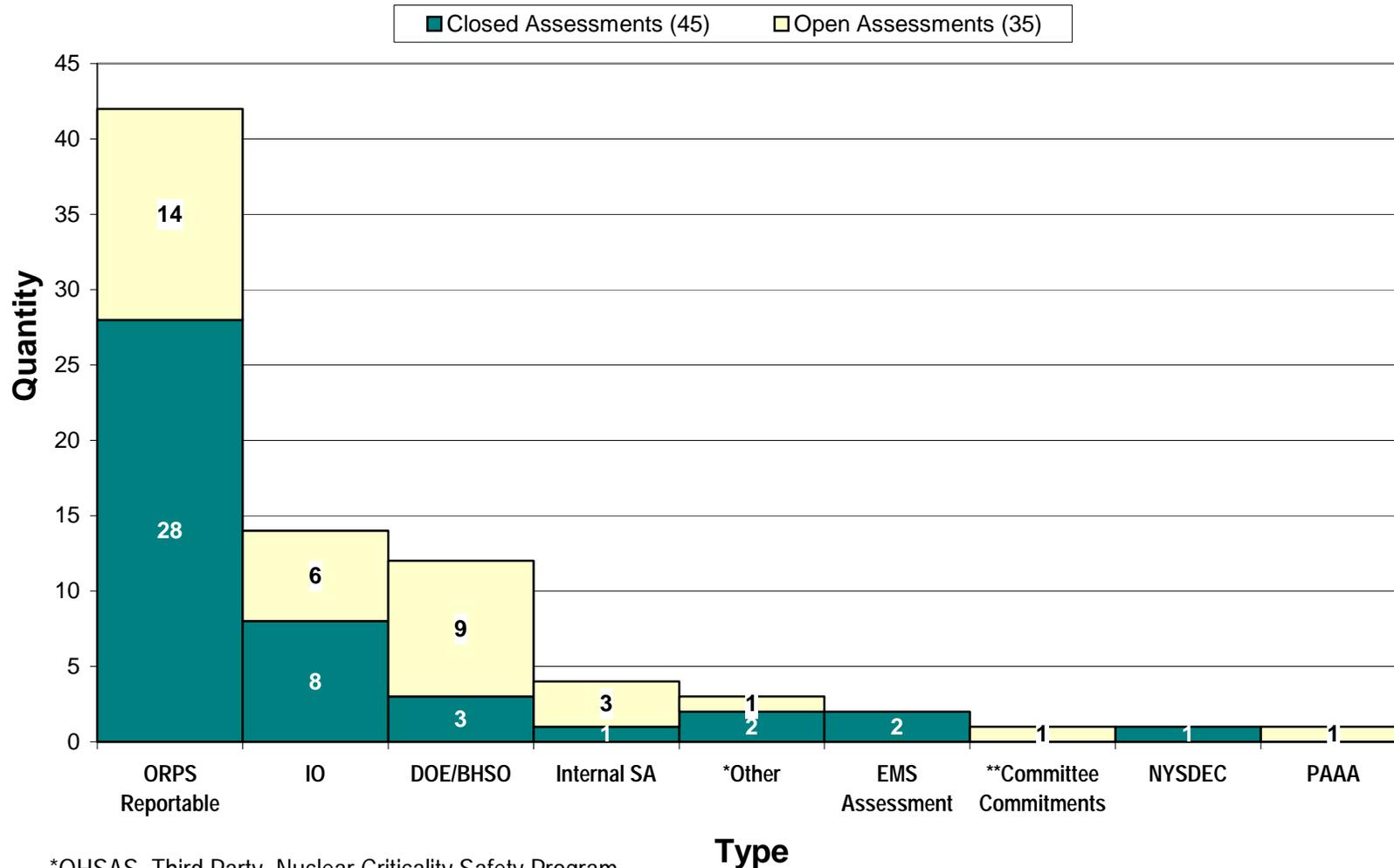
Fiscal Year 2002 - 2005

# Multi - Purpose Science Laboratories NTS Comparison – FY 04/05



# Assessments Tracked in ATS by Type - Conducted 01/01/2004 through 03/31/2005

Entered 2<sup>nd</sup> Qtr FY05 - 13  
Total Entered - 80

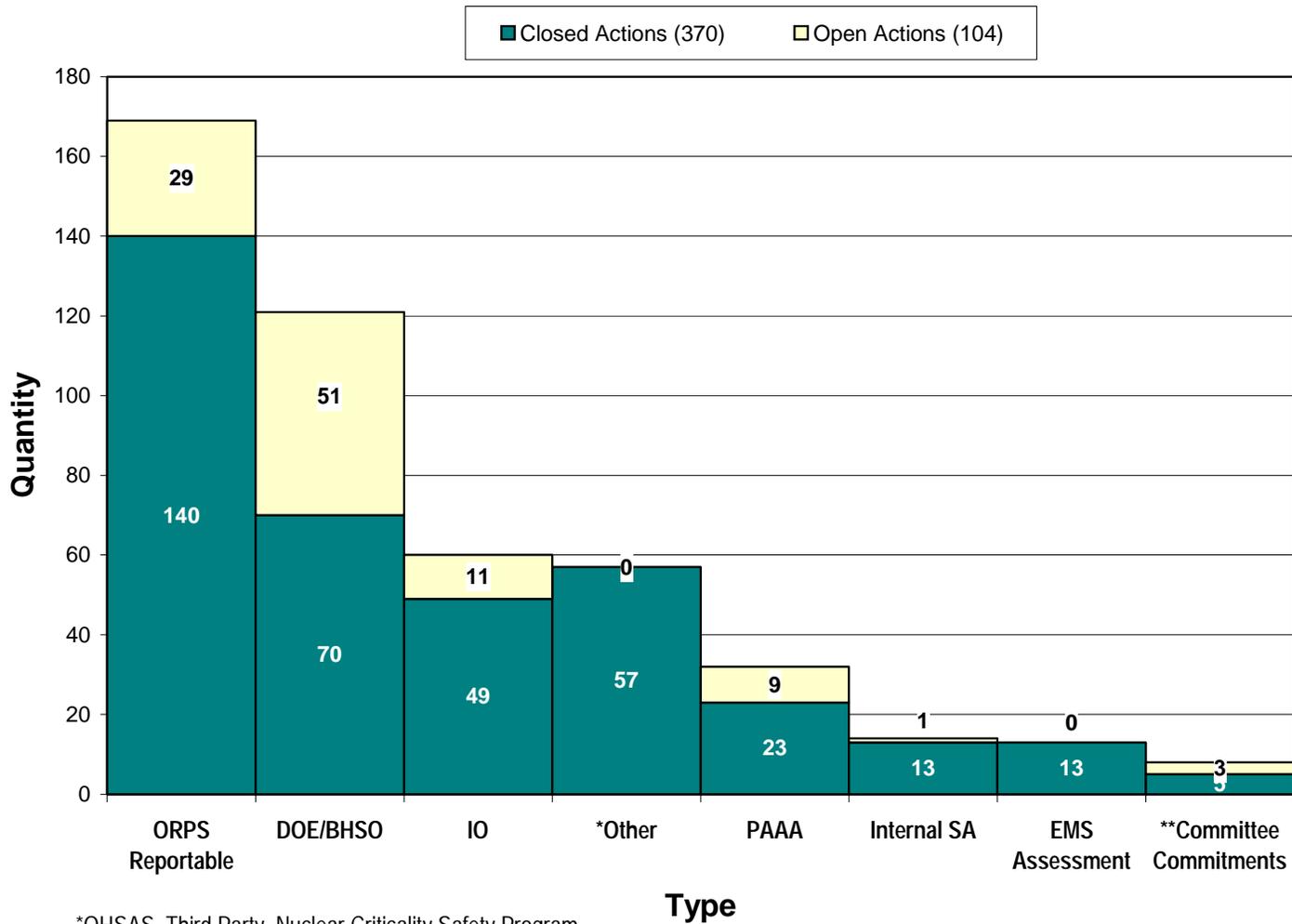


\*OHSAS, Third Party, Nuclear Criticality Safety Program

\*\* Laboratory Environment Safety & Health Committee

# Actions Tracked in ATS by Type - Conducted 01/01/2004 through 03/31/2005

Entered 2<sup>nd</sup> Qtr FY05 - 43  
Total Entered - 474

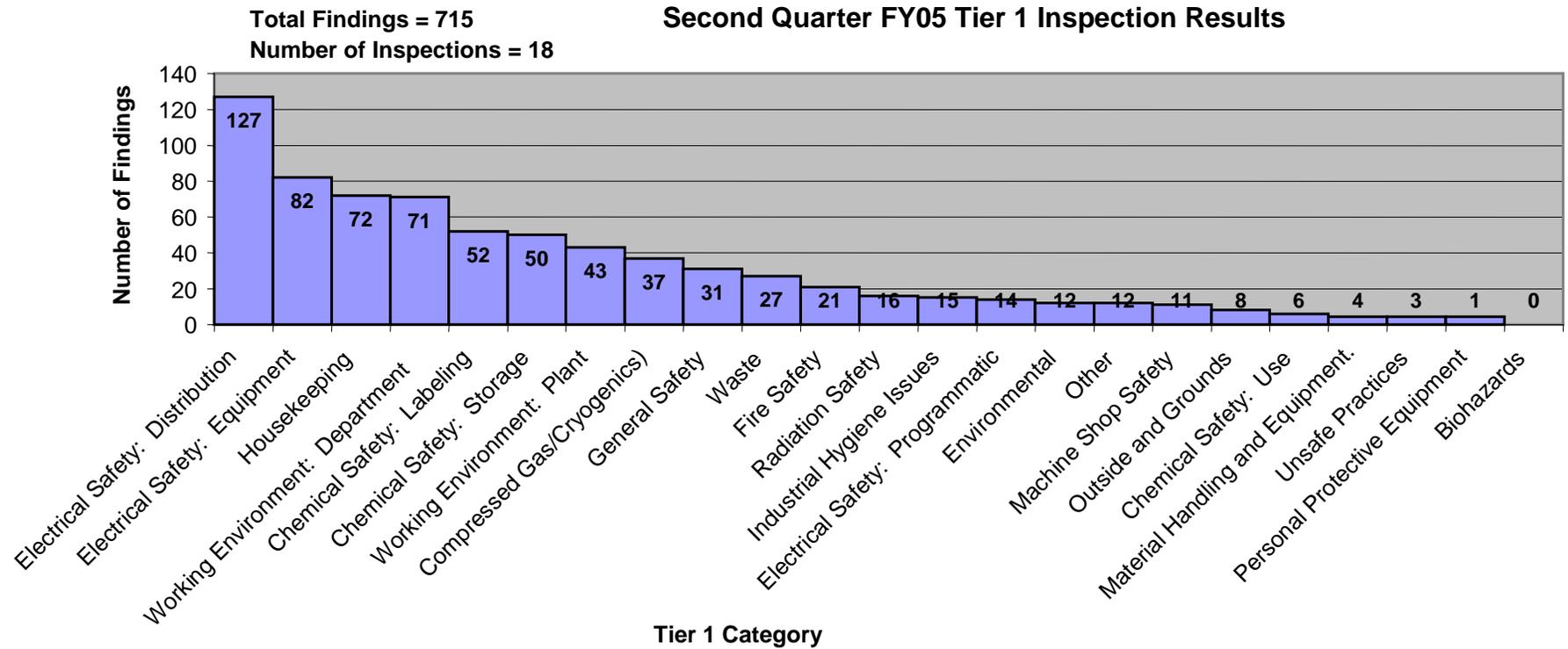


\*OHSAS, Third Party, Nuclear Criticality Safety Program

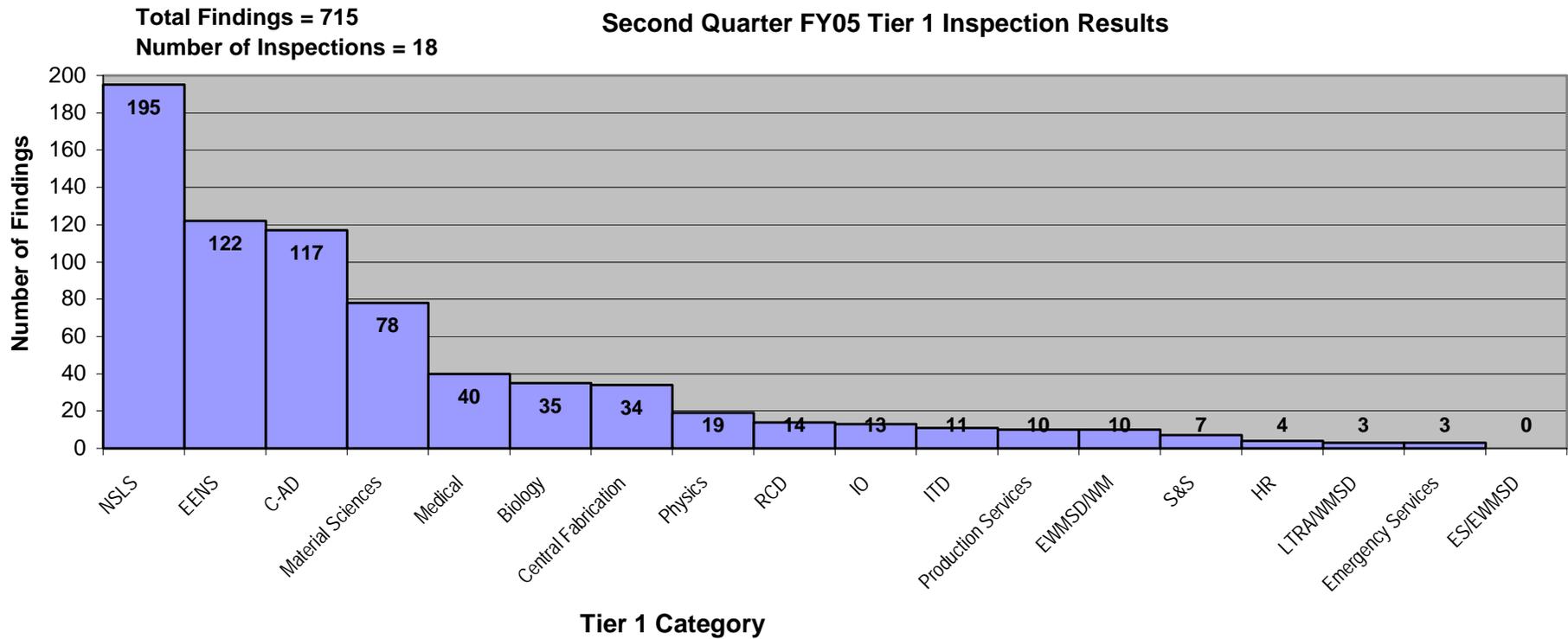
\*\* Laboratory Environment Safety & Health Committee

Type

# Second Quarter FY05 Tier 1 Inspection Results



# Second Quarter FY05 Tier 1 Inspection Results



# Second Quarter FY05 Tier 1 Inspection Findings

Second Quarter FY05 Tier 1 Inspection Findings  
 Organization Percent of Total Findings for the Top Four Categories

