Final Minutes of the Tier I Working Group Meeting FY 2010 Q4 held November 5, 2010
Safety and Health Services Division
Brookhaven National Laboratory

Attendees

J. Biemer, L. Bowerman, P. Carr, R. Colichio, C. Conrad, D. Cubillo, M. Delph, J. Dowd, R. Dunlop, N. Felock, J. Flannigan, A. Frosina, D. Galligan, J. Giambalvo, G. Guerra, S. Kane, K. Klaus, P. Martino, A. Moodenbaugh, D. Passarello, M. Rankine

Agenda

1. Year-end Wrap-up of FY 2010 Tier I Inspection Findings
2. Finalization of Tier I Database Categories/Subcategories
3. Tier I and Integrated Facility Management (IFM)
4. Open Discussion (Issues & Good Practices)

Introduction

The following points were made by S. Kane:

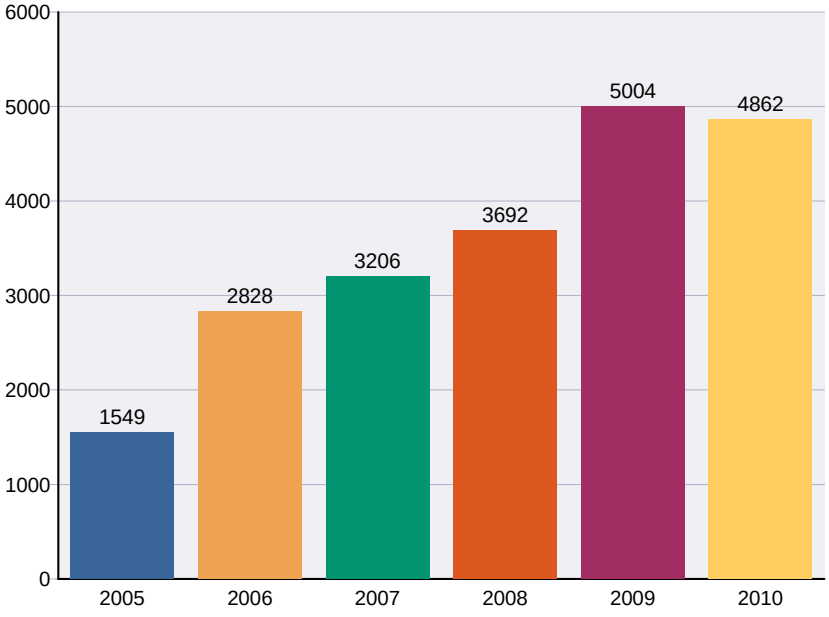
1 This is a working group where we work through what it is best to do to improve the Tier I process and what we can do for the Laboratory in order to make it safe.

2 Some of the new Facility Project Managers joined the Working Group, and until last month they were working in their own departments and had nothing to do with Tier I's.

2.1 Now they are part of the Facility Complex organization where they have Tier I responsibilities and will have to enter their Tier I findings on the website (https://intranet.bnl.gov/esh/shsd/seg/Tier1Data.aspx).

3 We have been revising how we categorize the Tier I findings in anticipation of the new database management system which is expected to be online in April 2011.

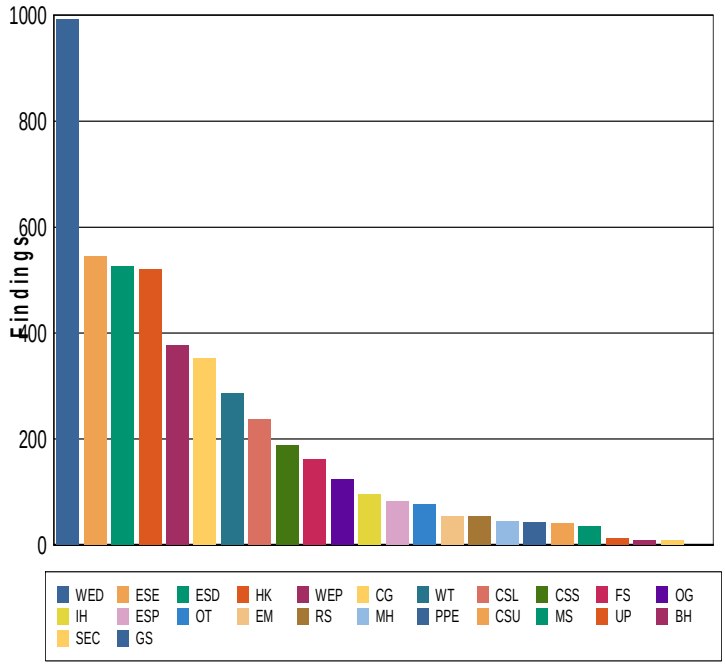
Data Rollup of Tier I Findings by Fiscal Year



The following points were made by S. Kane:

1. We had slightly fewer findings in FY 2010 than in FY 2009.
2. If we have more findings, it indicates that the Tier I teams are doing their job and are finding what is out there to be found.

Data Rollup of FY 2010 Q4 Tier I Findings by Category

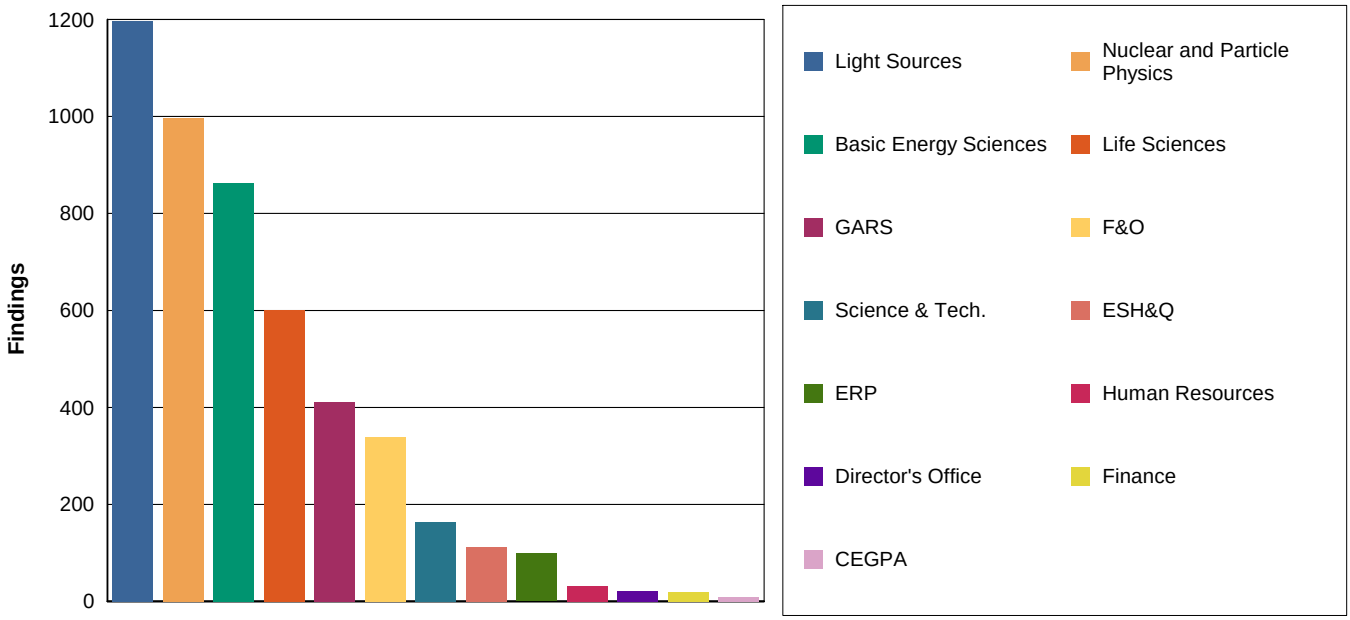


WED	Working Environment: Department	992
ESE	Electrical Safety: Equipment	544
ESD	Electrical Safety: Distribution	526
HK	Housekeeping	521
WEP	Working Environment: Plant	376
CG	Compressed Gas/Cryogenics	352
WT	Waste	287
CSL	Chemical Safety: Labeling	237
CSS	Chemical Safety: Storage	189
FS	Fire Safety	161
OG	Outside and Grounds	123
IH	Industrial Hygiene Issues	96
ESP	Electrical Safety: Programmatic	81
OT	Other	76
EM	Environmental	54
RS	Radiation Safety	53
MH	Material Handling and Equipment Safety	45
PPE	Personal Protective Equipment	43
CSU	Chemical Safety: Use	41
MS	Machine Shop Safety	35
UP	Unsafe Practices	13
BH	Biohazards	9
SEC	Security	8
GS	General Safety	0

The following points were made by S. Kane:

1 The highest number of findings, by almost a factor 2, is in Working Environment: Department.
2 The second highest number of findings is in Electrical Safety: Equipment.
  2.1 This category includes what gets plugged into an outlet or plugged into a disconnect box, i.e., user equipment, science equipment, buffers, grinders, or sanders.
3 The third highest number of findings is in Electrical Safety: Distribution.
  3.1 This category includes what is found in the infrastructure, such as knockouts missing in boxes or pendants being used where that type of wiring should not be used.
4 Housekeeping had the fourth highest number of findings, but in spite of the Housekeeping initiative the findings don't appear to be getting written up.
5 Working Environment: Plant was next and includes infrastructure issues, such as more cowbags, stairs crumbling.
6 Compressed Gas/Cryogenics is finally up there.
  6.1 There were initiatives last fiscal year dealing with Compressed Gas; in particular, compressed gas storage and utilization and looking at static inventories.
  6.2 The number of findings shows the Tier I teams are taking a serious look at this issue.

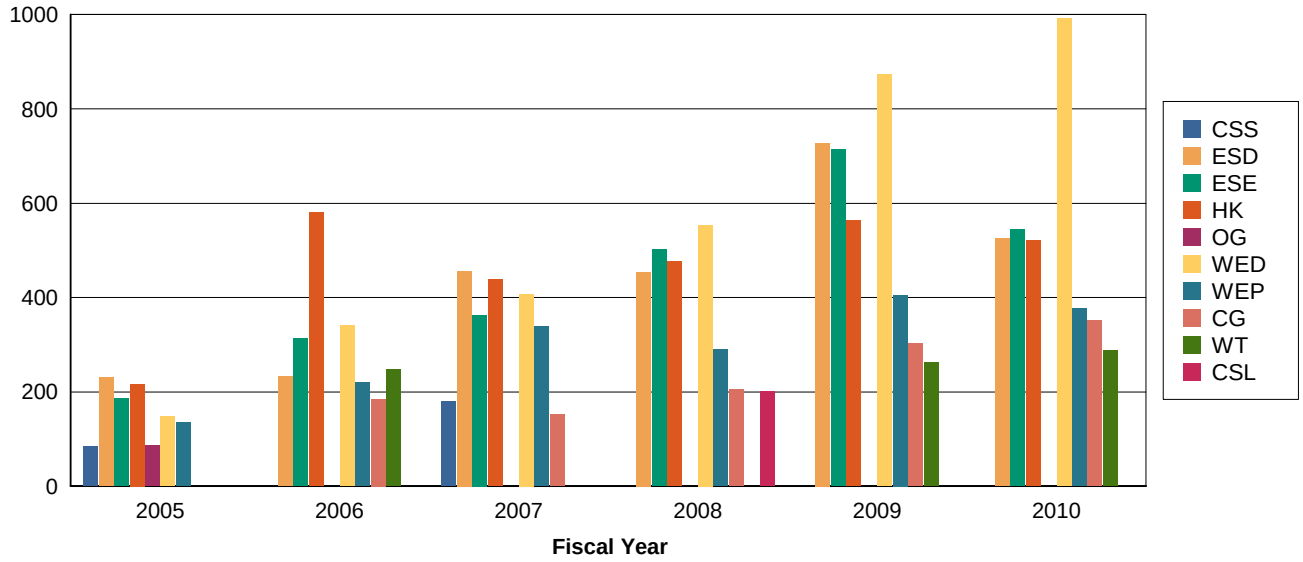
Data Rollup of FY 2010 Q4 Tier I Findings by Directorate



The following points were made by S. Kane:

1 Light Sources (now Photon Sciences) is way ahead of the other directorates in their number of findings.
2 Nuclear and Particle Physics is closing the gap.
3 Basic Energy Sciences with the third highest number of findings is continuing to do a nice job.
4 Life Sciences had the fourth highest number of findings.
5 F&O had the fifth highest number of findings, and one has to question why the number of findings is so low considering that F&O has so many facilities.
  5.1 Perhaps the method by which F&O does their Tier I's needs to be improved.

Data Rollup of Tier I Findings by Top 7 Categories by Fiscal Year



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The following points were made by S. Kane:

1 In 2010, Work Environment – Department (WED) was again the lead finding.
2 Electrical Safety – Department (ESD) and Electrical Safety – Equipment (ESE) are still up there, but they had fewer findings than in 2009.
3 Housekeeping is next.
4 The number of findings in Compressed Gas is increasing; people are looking at themselves more critically.
5 Overall, this was a good year and departments are doing a really nice job looking at themselves, seeing what they can control, and are addressing the issues.

Tier I and Integrated Facility Management (IFM)

The following points were made by S. Kane:

1 The Facility Complex Organization is an integral part of the Tier I program.
  1.1 The facility complexes have spaces that they own and occupy, i.e., mechanical equipment rooms, offices, shops. For these areas not associated with a particular department, they need to have a Tier I program.
2 A Facility Complex Manager has 3 or 4 Facility Project Managers working for him.
3 The Tier I Subject Area states that the line organizations are responsible for the periodic self-inspection of their work areas.
  3.1 The purpose of a Tier I inspection is to look for ESSH&Q vulnerabilities and identify lack of conformance to the standards imposed under 10CFR851, i.e., OSHA.
  3.2 The line organization's responsible manager designates the Team Leader and determines the level of training required by team appointees who must be able to recognize hazards and compliance violations.
    3.2.1 For example, the Chemistry Department wants people attuned to chemical hazards whereas the Physics Department does not deal that much with chemicals, but deals with high voltage and significant mechanical equipment.

3.3 The Core Team may vary but should include the ESH Coordinator, Facility Support Rep, Environmental Compliance Rep, F&O Facility Project Manager or designee, and Subject Matter Expert.
3.4 When possible, the Core Team should include the Principal Investigator/Supervisors, line managers, and workers.
3.5 The Team Leader or designee is responsible for coordinating, scheduling, conducting, and documenting/recording inspections.
3.6 The responsible individuals/organizations are responsible for addressing the findings and closing them out in a timely manner.

4 The new database, a module in Maximo, will automatically create work orders once the Tier I findings are entered, thereby promoting better work flow.

5 Tier I findings' memos sent to P. Eterno should also be sent to the Facility Project Manager.

6 A team member brought up that a posting for four ESH reps includes in its description that these people will be responsible for ESH inspections, health and safety audits and inspections, and tracking corrective actions.
6.1 The question was asked if these positions were specifically for Tier I's or general multi-topic assessments, but as S. Kane did not participate in the job description, he did not know what the people who wrote the description had in mind.

Finalization of Tier I Database Categories and Subcategories

The following points were made by S. Kane:

1 The categories and subcategories reviewed quite thoroughly at the last meeting resulted in consolidation of some subcategories and removal of others.

2 "Chemical Safety: Labeling" was narrowed down as folks had suggested.

3 Under "Chemical Safety: Storage", a question which still needs to be answered is whether acids are considered corrosives or if the subcategory should state "corrosives and acids".
3.1 "Face velocity checks not current" will be added.

4 Under "Compressed Gas/Cryogens", the first item is "Cylinders stored on carts".
4.1 One of the members mentioned that he thought that if carts had brakes, then cylinders could be stored on these carts.
4.2 In checking with Mike Gaffney, Subject Matter Expert, he suggested that this subcategory be rewritten as "Cylinders stored on non-approved and/or unsecured carts".

5 Under "Electrical Safety: Distribution", "electrical distributions panels/disconnects blocked", the Working Group suggested that criteria added.
5.1 There is really not a simple answer as the criteria depends on the voltage level, what's behind the worker, i.e., is the surface behind the worker grounded versus there is nothing behind the worker for 10 feet.
5.2 In general, for most of the voltages that people will encounter, the minimum dimensions are: 36" in front (42" if 480 V), 30" width, and 6.5 feet high.
5.3 If you see items encroaching on this space, look for a label that may say "reduced clearance here and work planning needed".

6 Under "Electrical Safety: Equipment", as the lab is constantly purchasing large amounts of electrical equipment, make sure that the new equipment has either a NRTL certification or a BNL EEI tag.

7 The "Electrical Safety: Programmatic" category will be deleted as the programmatic items were put elsewhere and only "Other" remained.

8 At the last Working Group meeting, the categories under "Environmental" were consolidated and many changes were made to the subcategories.
8.1 The attendees are asked to take another look at the changes made to this category.

9 Under Fire Safety, the Working Group wanted the criteria for the location of emergency lighting.
9.1 Per Joe Levesque, this criteria is "exit corridors and stairs for spaces with more than 2 exits, and exterior egress at different levels."
9.2 "Width equal to or greater than width of doorway" was added as a parenthetical for "Stairways, hallways, passageways/aisles and access to emergency exits not free of obstruction or inadequately lit".

10 The Housekeeping category included some items listed under the BNL Housekeeping Standard.
10.1 The following redundant items will be removed: item 3 (Egress paths not kept clear, i.e., floors, aisles, emergency egress), item 12 (Proper width of aisles and corridors not maintained), and item 14 (Stairways, hallways, passageways/aisles and access to emergency exits not free of obstruction or inadequately lit).
10.2 The note for item 12 is moved to Fire Safety, item 16.

11 The Industrial Hygiene category includes ergonomic concerns which Tier I teams should be looking for.
    11.1 Strains are the cause of probably more than half the number of lost time injuries here at BNL and it is not just people in the trades that are getting affected.
12 Machine Shop Safety has a few subcategories, and two of the more important items “anti restart devices not installed on machines” and “machine guarding non-compliant” will be included when the Machine Safety Subject Area is reissued.
    12.1 All the pertinent OSHA requirements will be included in the Subject Area, and a year after issuance of this Subject Area S. Kane will begin locking out machines that do not meet the requirements.
    12.2 Concerning machines not being secured, during the Site Office’s surveillance conducted in August 2010, in the three or four machine shops which were examined, there were multiple machines in multiple shops which were found not to be secured.
        12.2.1 The question that was asked is how can these occurrences be missed on the Tier I inspection.
13 Under Material Handling and Equipment Safety, ladders are a perennial issue.
    13.1 In May 2010, there was a citation for a forklift that was 6 months out of inspection, and multiple departments had used this forklift.
        13.1.1 The first step in the inspection checklist is to check that the inspection is current. If this step was not checked, it is doubtful that the rest of the items on the checklist were checked.
        13.1.2 If you see a forklift in your department, please make sure its inspection is current.
    13.2 “Pressure or compressed gas system not reviewed” refers to whatever the system is hooked up to.
14 Under “Outside and Grounds”, exterior lighting issues are a big deal now that it is starting to get dark earlier.
    14.1 Look at refuse containers; if they are not in a good area they start to fall over.
    14.2 Look at pests/rodents/feral cat issues.
15 For “Personal Protective Equipment” (PPE), look to see if people are not using PPE or if there is evidence that PPE is not being used.
    15.1 For example, look to see if there are insulated gloves and face shields near Dewars.
    15.2 The PPE requirements for labs will be released soon. There will be an implementation period, and during your Tier I’s you can help direct folks towards compliance with the requirements.
16 Under “Security”, “unsecured/free access to buildings during off-hours” will be removed as Tier I inspections are conducted during the workday.
    16.1 The only problems related to buildings left unsecured that could be identified on a Tier I are if bricks/rocks/other door stops are left outside and are intended to keep the door open. In such cases, please remove the bricks/rocks/door stops on your Tier I’s.
        16.1.1 Some of the lab doors lead directly to the outside, and some folks don’t want to have to walk around to enter the building, so they prop open the lab door.
        16.1.2 Other people have guests who come after 5, and as they don’t have a key, the door is left propped open.
    16.2 At the last Tier I Working Group meeting, checking that the doors are able to be locked was discussed.
    16.3 M. Delph brought up the issue of buildings not being secured after hours.
    16.4 He is not seeing even one third of the buildings found to be unsecured being reported on Tier I’s.
    16.5 If doors being left unsecured are not mechanical issues, then it is personnel issues and would fall under Integrated Safeguards & Security Management (ISSM). In this case the ISSM points of contact (POCs) have to get the word out to their staff to lock their offices and buildings when they leave for the day and they should not prop doors open. [Addendum: The ISSM POC list on the web needs to be updated.]
    16.6 Incident reports are being sent to the Facility Project Managers.
    16.7 So far, there have been no losses associated with unsecured buildings.
    16.8 An attendee mentioned that for one building with 11 doors, installing automatic locks would cost $80K and Security is not ready to spend this money.
17 “Unsafe Practices” will have just “imminent danger”—those incidents requiring a stop work to be executed and “Other”.
    17.1 Currently the “Unsafe Practices” findings were those items either people were doing things unsafely or an unsafe practice and they could easily be entered under other categories.
18 Following the recommendations from the last Tier I Working Group Meeting, the “Waste”-related categories and subcategories were consolidated into one “Waste” category.

19 Discussed under “Working Environment: Plant” are the following:
- 19.1 OSHA requires that all work spaces have floor loading capacities posted, but S. Kane will focus only on industrial spaces this fiscal year.
  - 19.1.1 This will not be easy because for older buildings there may not be drawings.
  - 19.1.2 For example, the file room in Bldg. 355 has a sagging floor from file cabinets and clearly exceeds the floor capacity.
- 19.2 Elevator maintenance should be tracked in Maximo.
- 19.3 With snow coming, there should be clean and anchored floor mats. The custodians should take care of this.

Open Discussion (Issues and Good Practices)

The following points were made by S. Kane and the Working Group:

1 The projected due date of the new database is April 1, 2011 and there are issues with the handoff between Maximo and Peoplesoft.
- 1.1 Currently, upgrades are being made and some QA is being done.
- 1.2 This new database is being tracked under Blueprint’s WBS 4.4: Tier I Program Improvements.

2 During this year the bugs in IFM can be worked out along with the new database system. In 2012 the system should be working as expected and can be refined, as needed.

Action for Working Group

1. Review the “Environmental” category.

Action for M. Delph

1. Update the list of ISSM points of contact.

Actions for S. Kane

1. Talk to Pete Eterno: Should Tier I reports be sent to him or to the FPM or to both? [Addendum: Tier I reports should be sent to Pete Eterno with the FPM cc’d.]
2. Arrange for Tier I training for the facility complex management team.
3. Check with Mike Gaffney – If carts have brakes, can cylinders be stored on them?
   [Mike’s response is as follows: Not all cylinders carts are designed for storage, so they should be used as per the manufacturer’s design. Typically older 3-wheel designs were not designed by the manufacturer for storage. If the cart is not prohibited for storage, then it must be secured (such as chocking the wheels) with the cylinder valve protection cap properly installed. He changed the wording to “Cylinders stored on non-approved and/or unsecured carts.“]
4. Who in the buildings can request ice melt? [Addendum: The FPM or anyone can make this request.]
5. Who can put out wet floor signs? [Addendum: The FPM or anyone.]
6. Who moves or empties cowbag containers? [Addendum: The FPM or anyone.]
7. Talk to Tom Lambertson about who is responsible for identifying areas that get high priority for snow removal.
8. Obtain clarification if acids are considered corrosives or if the subcategory should state “corrosives and acids”. [Addendum: Change the subcategory under Chemical Safety: Storage to “Corrosives (acids, bases) not stored below eye level.”]