

## Memo

**Date:** September 15, 2011  
**To:** Record  
**From:** M. Zarcone (Physics Department ESH Coordinator)  
A. Moodenbaugh (CMP/MS Department ESH Coordinator)  
**Subject:** Memorandum of Understanding – Work Planning and Control/Planning and Control of Experiments, Training, and other Safety Related Issues between the Physics Department and the Condensed Matter Physics and Material Sciences (CMP/MS) Department

**Effective Dates of this MOU:** October 1, 2011 – September 30, 2012

This memo establishes the agreement between the Physics Department and the CMP/MS Department of the Basic Energy Sciences Directorate as to the responsibilities for Work Planning and Control for Experiments and Operations, Training and other Safety Related Issues (in compliance with the SBMS Subject Areas) in those areas used by CMP/MS personnel and/or equipment housed in the Physics Department, Building 510. The intent is to ensure that all work in these areas is covered and that the responsibility for these areas is clearly understood by both organizations.

For the purpose of this MOU, CMP/MS personnel includes BNL employees, guests, visitors, contractors, or others that gain entrance to BNL through the CMP/MS Department or are organizationally included in the CMP/MS Department in the BTMS or Human Resources database.

**Work Planning and Control for Experiments and Operations responsibility for CMP/MS personnel in offices and laboratories in Building 510 is defined as follows:**

The CMP/MS Department will ensure that all work conducted in Building 510 by its personnel is covered by Work Planning and Control for Experiments and Operations in accordance with Laboratory and Department Policy. This includes one or more of the following as appropriate:

1. ESRs for work in bldg. 510 under the aegis of CMPMS Department are reviewed and approved by the CMPMSD ESR Committee, where either or both of the PO ESH coordinators will be involved in the review process, with signature approval. Additionally, the PO ESH representatives can, when they desire, designate additional committee members. It is possible that PM personnel may perform some work under PO ESRs. In such a case, the PM worker would be added to the PO ESR and PO rules would apply.
2. Alternatively, if PO dept. ESH coordinators request it, PM ESRs may be primarily reviewed by the PO ESSH committee, with participation of CMPMSD ESH

committee and approval by PO committee and management as well as PM ESH coordinator and management.

3. Standing or Job Specific Work Permits that have been reviewed and approved by the Physics Department's Work Control Manager.
4. Inclusion on a list of Authorized Personnel, specifically:
  - a. The Machine Shop Authorized Users List,
  - b. Authorized Electrical Workers List,
  - c. Authorized Crane or Forklift Users Lists,
  - d. LOTO Authorized Workers List,
  - e. Qualified Laser Operators List,
  - f. MPMS Authorized Users List, or
  - g. Rotating Anode Authorized Users List.

All personnel working in a Physics Department Building must comply with the BNL's Work Planning and Experimental Safety Review Policies.

#### **Experimental Safety Review Approvals**

Experimental Safety Review Forms that are generated by CMP/MS personnel for work to be done in Building 510 must be reviewed and approved by the Physics Department's Experimental Safety Review Coordinator and the ESSH Committee (if required) in their capacity as the Experimental Safety Review Committee. The CMP/MS ESH Coordinator will be involved in the review process of CMP/MS ESRs as a full member of the Experimental Safety Review Committee.

Alternatively, ESRs for work in building 510 may be reviewed and approved by the CMP/MS Department's Experimental Safety Review Committee where either or both of the Physics Department's ESH Coordinators will be involved in the review process of CMP/MS Department's ESRs.

Review of procedures for performing work covered in an ESR, laser SOPs, interlock systems, etc. will be reviewed and approved by the ESR Coordinators or ESR Committees as deemed appropriate.

The Experimental Safety Review Coordinator may, at his discretion, grant permission to the Principal Investigator to perform some or all of the work covered by an ESR pending full review by the ESR Committee. This permission is documented, usually by electronic mail.

#### **Work Permit Approvals**

Work Permits that are generated by or for CMP/MS personnel or for work to be done by others in CMP/MS space in Building 510 are to be reviewed and approved by the Physics Department's Building Manager who is also the Physics Department's Work Control Manager. Permits that require signatures of an ESH Professional can be signed by the CMP/MS ESH Coordinator or the Physics Department's ESH Coordinator as deemed appropriate.

#### **Authorized User Lists**

The Physics Department's Safety & Training Office is responsible for maintaining:

- a. The Machine Shop Authorized Users List,
- b. Authorized Electrical Workers List,
- c. Authorized Crane or Forklift Users Lists,
- d. LOTO authorized Workers List, or
- e. Qualified Laser Operators List.

CMP/MS personnel may be added to these lists upon meeting the appropriate qualifications and providing adequate documentation of training.

#### **Web Request Approvals for Purchases of Chemicals and Hazardous Equipment**

The Physics Department's or CMP/MS Department's ESH Coordinator must approve all web requests for chemicals, radiation sources, lasers, or other equipment of a hazardous nature that will be brought into or reside in the Physics Department Building 510.

#### **Chemicals**

The CMP/MS Department maintains a large quantity of chemicals in some of their laboratories. The CMS/MS Department must ensure that the chemicals are purchased, used, stored, and disposed of in compliance with the appropriate subject areas. Furthermore, some hazardous chemicals require monitoring of the process and the personnel by industrial hygiene. The CMS/MS Department is responsible to ensure the proper monitoring is completed. Chemicals that require testing periodically (peroxides or others that can become unstable) are the responsibility of the CMS/MS Department.

#### **Radiation Generating Devices**

All Radiation Generating Devices (RGDs) housed in CMP/MS space in Building 510 are the responsibility of the CMP/MS Department. The CMP/MS Department will appoint a RGD Custodian who is responsible for keeping the RGDs in full compliance with the RGD Subject Area. The Physics Department will work with the CMP/MS Department to ensure all procedures and documentation are kept up-to-date and in compliance with the Subject Area.

The RCD Facility Support Personnel assigned to the Physics Department will perform the required surveys and tagging of equipment.

#### **LOTO**

No one is permitted to lock and tag equipment in the Physics Department building without being on the list of LOTO Authorized Workers that is kept in the Physics Department's Safety and Training Office. The Building Manager and ESH Coordinator are authorized to lock and tag equipment when necessary. The LOTO logbook is kept in the Safety & Training Office and all LOTO must be recorded in compliance with the Subject Area. Tags and locks are kept by the Building Manager and the ESH Coordinator.

#### **FUAs**

The CMP/MS Department will supply any information needed for the Physics Department's Facility Use Agreement (FUA) but is not required to generate a separate agreement. It is therefore required that the CMP/MS personnel operate within the safety envelope established by the Physics Department's FUA and notify the Physics Department if there is need for amending its FUA.

Inquiries concerning the Physics Department's FUA are to be directed to the Building Manager or Physics Department's ESH Coordinators.

### **Waste Management**

Disposal of hazardous waste generated by CMP/MS personnel, in compliance with BNL policy, is the responsibility of the CMP/MS waste generators and the CMP/MS Department. Any waste generated in building 510 can be disposed of through the Physics Department's waste disposal mechanisms including the Physics Department's 90-Day area and established satellite areas in the Physics Department. The Physics Department's RCD Technician and ESH Coordinators are the contacts for waste disposal.

The CMP/MS Department will include their waste generated and disposed of through the Physics Department's facilities in their waste allotment numbers. CMP/MS will also be responsible for packaging and arranging lab cleanouts of CMP/MS space. Satellite Areas will be jointly managed by Physics and CMP/MS. CMP/MS will be responsible for any non-compliance and their consequences (fines, occurrence reports, etc.).

Legacy materials including samples, chemicals, equipment, and printed materials need to be adequately stored in CMP/MSD space or be disposed of in compliance with laboratory and DOE policies.

### **Training Responsibilities**

Safety training assignments for CMP/MS personnel as required by ESRs, work permits, or otherwise will be entered into the BTMS and monitored by the CMP/MS Training Coordinator. The CMP/MS Department Chair is responsible for ensuring that all CMP/MS workers have current training in order to perform the tasks they are assigned.

Notification, entering JTAs in the BTMS, tracking, annual reviews of the JTAs, etc. of General Employee, Supervisory, computer, career and all other trainings are the responsibility of the CMP/MS Department and the BES Directorate.

All CMP/MS workers in the Physics Department's Building are required to take the Physics Department Specific Training (PO-RadAlara) or an equivalent training developed by the CMP/MS Department.

### **Audits**

All corrective actions as the result of external audits (DOE, NYS DEC, Suffolk County, OSHA, BNL, etc.) in the CMP/MS space are the responsibility of the CMP/MS Department. Physics Personnel will assist the CMP/MS Department as appropriate.

Internal Audits will be conducted by the Physics Department with CMP/MS assistance as appropriate for the following on an annual basis:

- a. Chemicals
- b. Hazard Placards
- c. Radioactive Sources
- d. Noise & Hearing
- e. Satellite Area
- f. Dose rates/TLDs

Other audits are possible as may be directed by Laboratory Management or the Physics Department's ESSH Committee.

### **NRTL**

Each Department is responsible for its own electrical equipment with regard to approvals by a Nationally Recognized Testing Laboratory (NRTL). This includes ensuring any new, in-service, or stored equipment has an appropriate NRTL label or is approved by an Authority Having Jurisdiction (AHJ) as required by BNL policy.

### **Machine Shops**

The CMP/MS Department is responsible to keep all of its machine shops OSHA and BNL compliant. This includes guards, signs, and in proper working order.

### **Accident/Incident Investigation**

All accidents/incidents that occur in the CMP/MS space or involving CMP/MS personnel in 510 are to be investigated according to BNL policies. The Physics Department will assist or conduct the investigation if requested by the CMP/MS Department.

Accidents/Incidents that are reportable (ORPS, PAAA Violations, DEC non-compliances, 10CFR851 violations, etc.) will be the responsibility of the CMP/MS Department for the notifications, investigations, reports, and responding to Laboratory or external Committees. The Physics Department will provide support as necessary.

Any injuries of CMP/MS personnel resulting in DART cases will not be included in Physics Department statistics.

### **Environmental Management Systems (EMS)**

All CMP/MS activities in the Physics Department Building will be included in the Physics Department's EMS. Documentation, Management Reviews, etc. will be the responsibility of the Physics Department.

### **OSHAS 18001**

JRAs, FRAs, Documentation, Management reviews, and registration for CMP/MS personnel will be the responsibility of the Physics Department. The BES Directorate will assist as needed.

Any new JRAs that are specifically for CMP work will be developed by the CMP/MSD. As established JRAs are reviewed by the CMP/MSD they must include their personnel in Building 510 to eventually transition all responsibility to the CMP/MS Department.

### **Self-Assessment Plans and Evaluations**

The CMP/MS Department will have the responsibility to develop its own Self-Assessment Plan and Self Evaluation to include its personnel and space in Building 510. The Physics Department will support this effort as needed.

### **Points of Contact**

The CMP/MS Department will inform its personnel in Building 510 of its POC for:

- a. Transportation
- b. Radiation Generating Devices
- c. ISSM
- d. ESRs
- e. Lessons Learned
- f. Training

- g. ESH Coordinator
- h. Other

**Authority for Building 510 Use**

The Physics Department has the authority to refuse or limit the equipment that can be brought into the building and limit the number of people in its offices or laboratories. The Physics Department has the authority to prohibit experiments or other work that is not provided for in the FUA or it deems unsafe.

Approved: T. Ludlam  
(T. Ludlam, Physics Department Chair)

Date: 9/15/11

Approved: P. D. Johnson  
(P. Johnson, CMP/MS Department Chair)

Date: 9/16/11

**Distribution:**

- T. Ludlam, Chair, Physics Department
- P. Johnson, Chair, CMP/MS Department
- J. Misewich, ALD for Basic Energy Sciences
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