

See "Instructions for Filling out the Work Permit" contained in the Work Planning and Control for Experiments and Operations Subject Area.

1. Work request WCC fills out this section. Standing Work Permit

| | | | |
|--|---------------------|-----------------------------|------------------------------------|
| Requester: P. Giannotti | Date: 8/22/12 | Ext.: 3815 | Dept/Div/Group: Physics/PHENIX |
| Other Contact person (if different from requester): | | | Ext.: |
| Work Control Coordinator: P. Giannotti | Start Date: 8/22/12 | Est. End Date: 8/22/12 | |
| Brief Description of Work: Install Power Meter modules on the Rack Room East & West HVAC condensers | | | |
| Building: 1008 | Room: Assembly Hall | Equipment: Electrical Panel | Service Provider : BNL Electrician |

2. WCC, Requester/Designee, Service Provider, and ESS&H (as necessary) fill out this section or attach analysis

| | | | |
|---|---|--|--|
| ESS&H ANALYSIS | | | |
| Radiation Concerns | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Activation | <input type="checkbox"/> Airborne |
| | <input type="checkbox"/> Contamination | <input type="checkbox"/> Radiation | <input type="checkbox"/> NORM |
| | <input type="checkbox"/> Other | | |
| <input type="checkbox"/> Special nuclear materials involved, notify Isotope Special Materials Group | | <input type="checkbox"/> Fissionable/Radiological materials involved, notify Laboratory Nuclear Safety Officer | |
| Radiation Generating Devices: | <input type="checkbox"/> Radiography | <input type="checkbox"/> Moisture Density Gauges | <input type="checkbox"/> Soil Density Gauges |
| | <input checked="" type="checkbox"/> X-ray Equipment | | |
| Safety and Security Concerns | <input type="checkbox"/> None | <input type="checkbox"/> Explosives | <input type="checkbox"/> Transport of Haz/Rad Material |
| | <input type="checkbox"/> Pressurized Systems | | |
| <input type="checkbox"/> Adding/Removing Walls or Roofs | <input type="checkbox"/> Critical Lift | <input type="checkbox"/> Fumes/Mist/Dust* | <input type="checkbox"/> Magnetic Fields* |
| | <input type="checkbox"/> Railroad Work | | |
| <input type="checkbox"/> Asbestos* | <input type="checkbox"/> Cryogenic | <input type="checkbox"/> Heat/Cold Stress | <input type="checkbox"/> Nanomaterials/particles* |
| | <input type="checkbox"/> Rigging | | |
| <input type="checkbox"/> Beryllium* | <input checked="" type="checkbox"/> Electrical | <input type="checkbox"/> Hydraulic | <input type="checkbox"/> Noise* |
| | <input type="checkbox"/> Silica* | | |
| <input type="checkbox"/> Biohazard* | <input type="checkbox"/> Elevated Work | <input type="checkbox"/> Lasers* | <input type="checkbox"/> Non-ionizing Radiation* |
| | <input type="checkbox"/> Security Concerns | | |
| <input type="checkbox"/> Chemicals/Corrosives* | <input type="checkbox"/> Excavation | <input type="checkbox"/> Lead* | <input type="checkbox"/> Oxygen Deficiency* |
| | <input type="checkbox"/> Suspect/Counterfeit Items | | |
| <input type="checkbox"/> Confined Space* | <input type="checkbox"/> Ergonomics* | <input type="checkbox"/> Material Handling | <input type="checkbox"/> Penetrating Fire Walls |
| | <input type="checkbox"/> Vacuum | | |
| * Safety Health Rep. Review Required | <input type="checkbox"/> Haz, Rad, Bio Material Exceed DOE 151.1-C Levels - Contact OEM | | <input type="checkbox"/> Other |
| Environmental Concerns | | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Work impacts Environmental Permit No. |
| <input type="checkbox"/> Atmospheric Discharges (rad/non-rad) | <input type="checkbox"/> Land Use Institutional Controls | <input type="checkbox"/> Soil Activation/contamination | <input type="checkbox"/> Waste-Mixed |
| <input type="checkbox"/> Chemical or Rad Material Storage or Use | <input type="checkbox"/> Liquid Discharges | <input type="checkbox"/> Waste-Clean | <input type="checkbox"/> Waste-Radioactive |
| <input type="checkbox"/> Cesspools (UIC) | <input type="checkbox"/> Oil/PCB Management | <input type="checkbox"/> Waste-Hazardous | <input type="checkbox"/> Waste-Regulated Medical |
| <input type="checkbox"/> High water/power consumption | <input type="checkbox"/> Spill potential | <input type="checkbox"/> Waste-Industrial | <input type="checkbox"/> Underground Duct/Piping |
| Waste disposition by: | <input type="checkbox"/> Other | | |
| Pollution Prevention (P2)/Waste Minimization Opportunity: | <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes | | |
| FACILITY CONCERNS | | <input checked="" type="checkbox"/> None | <input type="checkbox"/> Intermittent Energy Release |
| <input type="checkbox"/> Access/Egress Limitations | <input type="checkbox"/> Electrical Noise | <input type="checkbox"/> Potential to Cause a False Alarm | <input type="checkbox"/> Vibrations |
| | <input type="checkbox"/> Impacts Facility Use Agreement | <input type="checkbox"/> Temperature Change | <input type="checkbox"/> Other |
| <input type="checkbox"/> Configuration Management | <input type="checkbox"/> Maintenance Work on Ventilation Systems | <input type="checkbox"/> Utility Interruptions | |
| WORK CONTROLS | | | |
| Work Practices | | | |
| <input type="checkbox"/> None | <input type="checkbox"/> Exhaust Ventilation | <input checked="" type="checkbox"/> Lockout/Tagout | <input type="checkbox"/> Spill Containment |
| | <input type="checkbox"/> Security (see Instruction Sheet) | | |
| <input type="checkbox"/> Back-up Person/Watch | <input type="checkbox"/> HP Coverage | <input checked="" type="checkbox"/> Posting/Warning Signs | <input type="checkbox"/> Time Limitation |
| | <input type="checkbox"/> Other | | |
| <input type="checkbox"/> Barricades | <input type="checkbox"/> IH Survey | <input type="checkbox"/> Scaffolding-requires inspection | <input type="checkbox"/> Warning Alarm (i.e. "high level") |
| | <input type="checkbox"/> Electrical Inspection Required | | |
| Personal Protective Equipment | | | |
| <input type="checkbox"/> None | <input type="checkbox"/> Ear Plugs | <input checked="" type="checkbox"/> Gloves | <input type="checkbox"/> Lab Coat |
| | <input type="checkbox"/> Safety Glasses | | |
| <input type="checkbox"/> Coveralls | <input type="checkbox"/> Ear Muffs | <input type="checkbox"/> Goggles | <input type="checkbox"/> Respirator* |
| | <input type="checkbox"/> Safety Harness | | |
| <input type="checkbox"/> Disposable Clothing | <input checked="" type="checkbox"/> Face Shield | <input checked="" type="checkbox"/> Hard Hat | <input type="checkbox"/> Shoe Covers |
| | <input type="checkbox"/> Safety Shoes | <input type="checkbox"/> High visibility cloths/vest | <input type="checkbox"/> Other |
| Permits Required (Permits must be valid when job is scheduled.) | | | |
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Cutting/Welding | <input type="checkbox"/> Impair Fire Protection Systems | |
| <input type="checkbox"/> Concrete/Masonry Penetration | <input type="checkbox"/> Digging/Core Drilling | <input type="checkbox"/> Rad Work Permit-RWP No | |
| <input type="checkbox"/> Confined Space Entry | <input type="checkbox"/> Electrical Working Hot | <input type="checkbox"/> Other | |
| Dosimetry/Monitoring | | | |
| <input checked="" type="checkbox"/> None | <input type="checkbox"/> Heat Stress Monitor | <input type="checkbox"/> Real Time Monitor | <input type="checkbox"/> TLD |
| <input type="checkbox"/> Air Effluent | <input type="checkbox"/> Noise Survey/Dosimeter | <input type="checkbox"/> Self-reading Pencil Dosimeter | <input type="checkbox"/> Waste Characterization |
| <input type="checkbox"/> Ground Water | <input type="checkbox"/> O ₂ /Combustible Gas | <input type="checkbox"/> Self-reading Digital Dosimeter | <input type="checkbox"/> Other |
| <input type="checkbox"/> Liquid Effluent | <input type="checkbox"/> Passive Vapor Monitor | <input type="checkbox"/> Sorbent Tube/Filter Pump | |
| Training Requirements (List specific training requirements) | | | |
| Based on analysis above, the Review Team determines the risk, complexity, and coordination ratings below: | | If using the permit when all hazard ratings are low, only the following need to sign: (Although allowed, there is no need to use back of form) | |
| ESS&H Risk Level: | <input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High | WCC: | Date: |
| Complexity Level: | <input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High | Service Provider: | Date: |
| Work Coordination: | <input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High | Authorization to start | Date: |
| (Department/Division, or their equivalent, Sup/WCC/Designee) | | | |

3. Both work requester and service provider contribute to work plan (use attachments for detailed plans)

Work Plan (procedures, timing, equipment, scheduling, coordination, notifications, and personnel availability need to be addressed in adequate detail):

- 1) Lock & Tag breaker #1 in Panel 8H2 which feeds the Rack Room air conditioner condenser/air handler Panel 8HAC.
- 2) Install Enercept power meters on the West condenser (breaker ckt. 1,3,5) and East condenser (breaker ckt. 2,4,6).
- 3) Install communication cables (one for each meter) and run out of the power panel to remote HVAC controller located in the Rack Room.
- 4) Re-install panel 8HAC covers and tighten all hardware.
- 5) Clear LOTO on 8H2 breaker #1 and re-energize panel 8HAC.
- 6) Verify power signals are present at the signal cable ends.

Special Working Conditions Required (e.g., Industrial Hygiene hold points or other monitoring)

Notifications to operations and Operational Limits Requirements: None

Post Work Testing, Notification or Documentation Required: None

Job Safety Analysis Required: Yes No Review Done: in series team

Reviewed by: * Primary Reviewer signature means that the Review Team members were appropriate for the work that was planned, the Team visited the job site, hazards and risks that could impact ESS&H have been considered and controls established according to BNL requirements. In addition, this signature indicates that applicable JRAs, FRAs, as well as other planning documents have been reviewed and training requirements have been identified and recorded on this permit.

| Title | Name (print) | Signature | Life # | Date |
|------------------------------|----------------|-----------|--------|---------|
| ES&H Professional | | | | |
| F&O Facility Project Manager | | | | |
| Service Provider | | | | |
| Work Control Coordinator | Paul Giannotti | | 19759 | 8/22/12 |
| Safety Health Representative | | | | |
| Research Space Manager | | | | |
| Other | | | | |
| Other (PHENIX Escort) | | | | |
| Required Walkdown Completed | | | | |
| *Primary Reviewer | | | | |

4. Job site personnel (Supervisor and workers) fill out this section.

Note: Signature indicates personnel performing work have read and understand the hazards and permit requirements (including any attachments) and all training required for this permit is current/complete. Job Supervisor/Contractor Supervisor signatures also includes verification that worker training required for this permit is current/complete.

| | | | |
|-----------------|--------|------------------------|--------|
| Job Supervisor: | | Contractor Supervisor: | |
| Workers: | Life#: | Workers : | Life#: |
| | | | |
| | | | |

Workers are encouraged to provide feedback on ESS&H concerns or on ideas for improved job work flow. Use feedback form or space below.

5. Department/Division, or their equivalent, Line Manager or Designee

Conditions are appropriate to start work: (Permit has been reviewed, work controls are in place and site is ready for job.)

| | | | |
|-------|------------|--------|-------|
| Name: | Signature: | Life#: | Date: |
|-------|------------|--------|-------|

6. Worker provides feedback.

Worker Feedback (use attached sheets as necessary)

a) WCM/WCC: Are there any changes as a result of worker feedback? Yes No

Note: See Work Planning and Control for Experiments and Operations Subject Area section 2.6.

7. Post Job Review/Closeout: Work Control Coordinator (authorizing dept.) checks quality of completed permit and ensures the work site is left in an acceptable condition. (WCC can delegate clean up of job site to work supervisor.) The WCC ensures that the change process to update drawings, placards, postings, procedures, etc., is initiated, if necessary.

| | | | |
|-------|------------|--------|-------|
| Name: | Signature: | Life#: | Date: |
|-------|------------|--------|-------|

Comments:

