

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: Don Lynch	Date: 06/5/13	Ext.: 2253	Dept/Div/Group: PO/PHENIX
Other Contact person (if different from requester): Carter Biggs			Ext.: 7515
Work Control Coordinator: Don Lynch	Start Date: 06/10/13		Est. End Date: 07/20/13
Brief Description of Work: Start of 2012 Shutdown Ordinary Tasks; Prepare the PHENIX IR for 2012 Shutdown Activities			
Building: 1008	Room: IR & Assembly Hall	Equipment: PHENIX Detector	Service Provider: PHENIX Techs, Engineers & Subsystem Experts

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 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 checked="" type="checkbox"/> Pressurized Systems	<input type="checkbox"/> Railroad Work	<input type="checkbox"/> Silica*
<input type="checkbox"/> Adding/Removing Walls or Roofs	<input checked="" type="checkbox"/> Critical Lift	<input type="checkbox"/> Fumes/Mist/Dust*	<input type="checkbox"/> Magnetic Fields*
<input type="checkbox"/> Asbestos*	<input type="checkbox"/> Cryogenic	<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Nanomaterials/particles*
<input type="checkbox"/> Beryllium*	<input checked="" type="checkbox"/> Electrical	<input type="checkbox"/> Hydraulic	<input type="checkbox"/> Noise*
<input type="checkbox"/> Biohazard*	<input checked="" type="checkbox"/> Elevated Work	<input type="checkbox"/> Lasers*	<input type="checkbox"/> Non-ionizing Radiation*
<input type="checkbox"/> Chemicals/Corrosives*	<input type="checkbox"/> Excavation	<input type="checkbox"/> Lead*	<input type="checkbox"/> Oxygen Deficiency*
<input type="checkbox"/> Confined Space*	<input type="checkbox"/> Ergonomics*	<input type="checkbox"/> Material Handling	<input type="checkbox"/> Penetrating Fire Walls
	<input type="checkbox"/> Vacuum	<input type="checkbox"/> Other	
* Safety Health Rep. Review Required <input type="checkbox"/> Haz, Rad, Bio Material Exceed DOE 151.1-C Levels - Contact OEM			
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"/> Time Limitation	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Back-up Person/Watch	<input type="checkbox"/> HP Coverage	<input type="checkbox"/> Posting/Warning Signs	<input type="checkbox"/> Electrical Inspection Required
<input type="checkbox"/> Barricades	<input type="checkbox"/> IH Survey	<input type="checkbox"/> Scaffolding-requires inspection	<input type="checkbox"/> Warning Alarm (i.e. "high level")
Personal Protective Equipment			
<input type="checkbox"/> None	<input type="checkbox"/> Ear Plugs	<input checked="" type="checkbox"/> Gloves	<input type="checkbox"/> Lab Coat
	<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Respirator*	<input type="checkbox"/> Safety Harness
<input type="checkbox"/> Coveralls	<input type="checkbox"/> Ear Muffs	<input type="checkbox"/> Goggles	<input type="checkbox"/> Shoe Covers
<input type="checkbox"/> Disposable Clothing	<input type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Hard Hat	<input checked="" 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)			
PHENIX Awareness, C-A Access, (where appropriate: Crane Operator, Confined Space, Rad Worker I, Fork lift Operator, Working at heights, Electrical Safety I, LOTO)			
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
Complexity Level:	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High
Work Coordination:	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High
		WCC: _____	Date: _____
		Service Provider: _____	Date: _____
		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):
 This work permit is an overview for the 2013 shutdown preparation tasks covering generic shutdown work. Where higher risk activities require additional planning and permits, supplemental and specific permits are required and shall be generated by PHENIX Engineering. See attached Check List. See also PHENIX procedures PP-2.5.5.1-01 Rev B, PP-2.5.5.2-02 Rev B, PP-2.5.5.4-25 Rev B, PP-2.5.3.14-10 Rev. B, PP-2.5.5.1-02 Rev B and PP-2.5.5.2-01 Rev B

Note: Copies of listed procedures are available on the PHENIX internal web site in the Engineering and Integration Menu under "Procedures", Section III provides links to ".pdf" files for all procedures to be used in the 2013 shutdown.

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

Notifications to operations and Operational Limits Requirements: Refer to attached sheet

Post Work Testing, Notification or Documentation Required: Refer to attached sheet

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	Don Lynch		20146	6/18/2012
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:
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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:
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Comments:

PHENIX Start of Shutdown Checklist, 2013

The following standard shutdown tasks are to be performed in precisely the order indicated in accordance with the indicated PHENIX Procedures (where indicated) or otherwise best practices in accordance with BNL standards and training for “worker planned work”, as appropriate. These tasks are to be accomplished in accordance with the latest shutdown schedule as indicated in the current PHENIX technical support weekly planning meeting (see PHENIX Internal web site, systems engineering page for latest information). PHENIX technicians shall make certain that all of their required training is up to date, all equipment requiring certifications and/or calibration is up to date, and that all other equipment and tools are operating within normal operating parameters and in accordance with all BNL, CAD and PHENIX safety requirements.

BNL technicians and engineers shall also make certain that all non-BNL personnel working at PHENIX during the 2013 shutdown are appropriately trained for the tasks they will be performing, that all tasks have been properly reviewed and planned, and that all required permits are in place prior to commencement of such tasks.

The following are the standard start of shutdown tasks and the PHENIX procedures for these tasks. All PHENIX personnel involved in the standard shutdown tasks shall familiarize themselves with the appropriate procedures prior to commencing these tasks. The procedures are linked on the PHENIX internal web site, engineering section

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

(Note: You can also find the 2013 shutdown schedule linked on this page.)

1. Immediately after the end of Run 13, open the plug door (PP-2.5.3.14-10) raise the WC access platforms (PP-2.5.5.1-02) and open the east and west carriages (PP-2.5.5.1-01 and PP-2.5.5.2-01).
2. LOTO all PHENIX detector magnets.
3. Place all PHENIX electronics in Summer shutdown safe modes.
4. Purge all flammable gas PHENIX detectors for a minimum of 36 hours.
5. After the full minimum 36 hours of flammable gas purge has been completed, place the PHENIX safety systems in bypass mode.
6. Request removal of radiation interlocks by C-A liaison engineer.

7. Open Large rolling shield wall (PP-2.5.5.2-02)
8. Disassemble large rolling shield wall and base and store for duration of shutdown (C-A liaison engineer to coordinate with riggers).
9. Disconnect EC lift wiring and TOF blower wiring (PHENIX electrician).
10. Fold the EC scaffolding, remove the EC lift and Ladder (C-A liaison engineer to coordinate with riggers and carpenters).
11. Remove the MuID Collar (PP-2.5.5.4-25)
12. Disconnect gas sniffers, water, elect., gas, fibers from EC in preparation for move to AH.
13. Move the EC to the AH. (PP-2.5.5.1-01, PP-2.5.5.2-01)
14. Install IR floor plates over EC openings.
15. Move tracks and 20 ton cart to IR side of EC.
16. Move the MuID collar to the AH.
16. Move manlift to IR side of EC.

Specific tasks for the 2013 shutdown shall be individually evaluated for training requirements, permit requirements and planned in accordance with BNL standard practices.