

**1. Work requester fills out this section.**

Standing Work Permit

Requester: Don Lynch	Date: 1/26/2011	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: 1/28/2011	Est. End Date: 2/15/2011
Brief Description of Work: Vendor repairs for VTX chiller (repair refrigerant slow leak)			
Building: 1008	Room: AH	Equipment: n/a	Service Provider: Integrated HVAC, Islip, NY

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

<b>ES&amp;H ANALYSIS</b>					
<b>Radiation Concerns</b>	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Activation	<input type="checkbox"/> Airborne	<input type="checkbox"/> Contamination	<input type="checkbox"/> Radiation
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	
<input type="checkbox"/> Special nuclear materials involved, notify Isotope Special Materials Group			<input type="checkbox"/> Fissionable materials involved, notify Laboratory Criticality Officer		
<b>Safety Concerns</b>	<input type="checkbox"/> None	<input type="checkbox"/> Ergonomics	<input type="checkbox"/> Transport of Haz/Rad Material		
<input type="checkbox"/> Adding/Removing Walls or Roofs	<input type="checkbox"/> Confined Space*	<input type="checkbox"/> Explosives	<input type="checkbox"/> Lead*	<input type="checkbox"/> Penetrating Fire Walls	
<input type="checkbox"/> Asbestos*	<input type="checkbox"/> Corrosive	<input type="checkbox"/> Flammable	<input type="checkbox"/> Magnetic Field*	<input type="checkbox"/> Pressurized Systems	
<input type="checkbox"/> Beryllium*	<input type="checkbox"/> Cryogenic	<input type="checkbox"/> Fumes/Mist/Dust*	<input type="checkbox"/> Material Handling	<input type="checkbox"/> Rigging/Critical Lift	
<input type="checkbox"/> Biohazard*	<input type="checkbox"/> Electrical	<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Noise*	<input type="checkbox"/> Toxic Materials*	
<input type="checkbox"/> Chemicals*	<input checked="" type="checkbox"/> Elevated Work*	<input type="checkbox"/> Hydraulic	<input type="checkbox"/> Non-ionizing Radiation*	<input type="checkbox"/> Vacuum	
	<input type="checkbox"/> Excavation	<input type="checkbox"/> Lasers*	<input type="checkbox"/> Oxygen Deficiency*	<input type="checkbox"/> Other	
* Does this work require medical clearance or surveillance from the Occupational Medicine Clinic? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
<b>Environmental Concerns</b>	<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	<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					
<b>Pollution Prevention (P2)/Waste Minimization Opportunity:</b>	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Yes			
<b>FACILITY CONCERNS</b>	<input checked="" type="checkbox"/> None				
<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 Control	<input type="checkbox"/> Maintenance Work on Ventilation Systems	<input type="checkbox"/> Utility Interruptions			
<b>WORK CONTROLS</b>					
<b>Work Practices</b>					
<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 checked="" type="checkbox"/> Back-up Person/Watch (Escort)	<input type="checkbox"/> HP Coverage	<input 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")		
<b>Protective Equipment</b>					
<input type="checkbox"/> None	<input type="checkbox"/> Ear Plugs	<input 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 checked="" type="checkbox"/> Safety Harness	
<input type="checkbox"/> Disposable Clothing	<input type="checkbox"/> Face Shield	<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Shoe Covers	<input checked="" type="checkbox"/> Safety Shoes	<input type="checkbox"/> Other
<b>Permits Required (Permits must be valid when job is scheduled.)</b>					
<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			
<b>Dosimetry/Monitoring</b>					
<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 <sub>2</sub> /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			
<b>Training Requirements (List below specific training requirements)</b>					
No Specific training requirements. Vendor representative must be escorted when inside the RHIC controlled area at all times by a fully trained PHENIX technician.					
<b>Based on analysis above, the Walkdown Team determines the risk, complexity, and coordination ratings below:</b>			<b>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)</b>		
<b>ES&amp;H Risk Level:</b>	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High	WCC:	Date:
<b>Complexity Level:</b>	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Moderate	<input type="checkbox"/> High	Service Provider:	Date:
<b>Work Coordination:</b>	<input type="checkbox"/> Low	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> High	Authorization to start	Date:
(Departmental Sup/WCC/Designee)					

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

**Work Plan** (procedures, timing, equipment, and personnel availability need to be addressed):  
 VENDOR's technician is to be escorted by a trained PHENIX technician who is to provide the appropriate briefing for work in a controlled area, no TLD required, per CAD OPM #2.16.c, Attached. The escort shall fill out the appropriate training waiver form (copy in attached OPM 2.16.c). After completion of work under this plan and after escorted Vendor technician has been escorted out of controlled area, a copy of the completed waiver form is to be attached to this WP. The original completed form shall be forwarded to the CA ESSHQ Training Office, c/o A. Luhrs, Building 911A

Special Working Conditions Required:  
 No

Operational Limits Imposed: No

Post Work Testing Required: No

Job Safety Analysis Required:  Yes  No

Walkdown Required:  Yes  No

**Reviewed by:** Primary Reviewer will determine the size of the review team and the other signatures required based on hazards and job complexity. Primary Reviewer signature means that the hazards and risks that could impact ES&H have been identified and will be controlled according to BNL requirements.

Title	Name (print)	Signature	Life #	Date
Primary Reviewer				
ES&H Professional				
Other				
Other				
Work Control Coordinator	Don Lynch		20146	
Service Provider				
	Review Done: <input type="checkbox"/> in series	<input type="checkbox"/> team		

**4. Job site personnel fill out this section.**

Note: Signature indicates personnel performing work have read and understand the hazards and permit requirements (including any attachments).

Job Supervisor:		Contractor Supervisor:	
Workers:	Life#:	Workers :	Life#:

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

**5. Departmental Job Supervisor, Work Control Coordinator/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. Departmental Job Supervisor, Work Requester/Designee determines if Post Job Review is required.**  Yes  No

Post Job Review (Fill in names of reviewers)

Name:	Signature:	Life#:	Date:
Name:	Signature:	Life#:	Date:

**7. Worker provides feedback.**

Worker Feedback (use attached sheets as necessary)

a) WCM/WCC: Is any feedback required?  Yes  No

b) Workers: Are there better methods or safer ways to perform this job in the future?  Yes  No

**8. 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 work area to work supervisor)**

Name:	Signature:	Life#:	Date:
Comments:			



**Briefing Outline and Training Waiver for Persons Under Escort**  
**C-A Controlled Areas, No TLD**

Training Waiver

The training requirements for \_\_\_\_\_ (see below) to enter into \_\_\_\_\_ a controlled area, have been waived because the individual(s), escorted by \_\_\_\_\_ (see below) meets the requirements of this subject area.

Briefing Outline

The following issues, at a minimum, need to be addressed in a briefing between the person under escort and the escort, prior to entry into the Controlled Area:

1. The person under escort may never be out of the escort's sight while in the posted controlled area.
2. The person under escort, and escort, must be able to communicate in the same language.
3. The person under escort must follow the directions of the escort should an emergency arise, since the escort is responsible for the person under escort.
4. The person under escort must be informed of the hazard(s) in the area.
5. The person under escort may not do any work, or touch any item, that may degrade radiological conditions. The escort needs to identify such items to the escorted person.

**Printed Name of Person Under Escort:**

**Signature of Person Under Escort:**

**Date:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Signature of Escort(s) (Note 1):**

**Life/Guest # of Escort(s) (Notes 2,3):**

**Date:**

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- NOTES: 1. Forward completed forms to the C-A ESSHQ Training Office, A. Luhrs, Building 911A.  
2. Each escort shall review the Briefing outline above, and the escort requirements on the back of this form, before signing as the responsible escort.  
3. This form shall be kept by the individual being escorted, if additional escorts are involved, until the escorted entry is completed. Each escort must add their signature, Life/Guest #, and date, if more than one escort is involved.

**Briefing Outline and Training Waiver for Persons Under Escort (cont.)**

**C-A Controlled Areas, No TLD**

***General Responsibility of the Escort***

1. As the escort, you have current Collider User, or C-A Access Training (and GERT), as a minimum.
2. You are responsible for the visitor(s) / untrained person(s) during an evacuation/fire/etc., and shall escort them to the assembly area, or direct them to leave the lab if appropriate.
3. You will assure that you take actions to maintain the visitor(s)/untrained person(s) dose as low as reasonably achievable.
4. The escorted individual may not perform any work, unless they have read, understand, and have signed the experiment's Low Hazard - Skill of the Craft Work Plan.
5. For visits to experimental halls in RHIC, you have informed the STAR and PHENIX Shift Leader (if manned), or Experiment Spokesperson (or designee), and the associated Liaison Physicist, to determine any additional requirements.
6. The escorted person(s) shall print their name and sign the front of this form if  $\geq 18$  years of age. The ESSHQ Division Head (x5272), or ESSHQ Associate Chair, shall approve all entries for people that are  $<18$  years.
7. You will ensure that at all times individuals under your escort remain within sight, and that you are able to communicate in the same language (or have an interpreter present).
8. You have informed the person(s) you are escorting of the effects of oxygen deficiency (i.e. dizziness, faster heartbeat), if they will be in a posted ODH area.
9. You have reviewed the ODH evacuation alarms and procedures with the person you are escorting, if they will be in a posted ODH area.
10. You have informed the escorted individual that if they have a medical implant, they may not enter any posted Magnetic Field Area.

Approved: \_\_\_\_\_ Date: \_\_\_\_\_

**Note:** During working hours, approval may be given by the C-A ESSHQ Division Head or ESH Coordinator. During off-hours, a C-A Radiological Control Technician, or Operations Coordinator, may approve the entry, after verifying that the escort has current training for the experimental area.