

Work requester fills out this section.

Standing Work Permit

Requester: <u>DON LYNCH</u>	Date: <u>10/26/04</u>	Ext.: <u>2253</u>	Dept/Div/Group:
Other Contact person (if different from requester): <u>PETE KROON</u>		Ext.: <u>5114</u>	
Work Control Coordinator: <u>DON LYNCH</u>	Start Date: <u>11/1/04</u>	Est. End Date: <u>11/5/04</u>	
Brief Description of Work: <u>INSTALL PROTOTYPE TOP WEST (MPRC) PANELS (2) INTO WEST CABINAGE</u>			
Building: <u>1008</u>	Room: <u>1R</u>	Equipment: <u>N/A</u>	Service Provider: <u>SAL MARINO, PHENIX TBHS</u>

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

ES&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"/> Other
<input type="checkbox"/> Special nuclear materials involved, notify Isotope Special Materials Group		<input type="checkbox"/> Fissionable materials involved, notify Laboratory Criticality Officer	
Safety Concerns	<input checked="" 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"/> Corrosive	<input type="checkbox"/> Flammable	<input type="checkbox"/> Magnetic Field*
<input type="checkbox"/> Asbestos*	<input type="checkbox"/> Cryogenic	<input type="checkbox"/> Fumes/Mist/Dust*	<input type="checkbox"/> Penetrating Fire Walls
<input type="checkbox"/> Beryllium*	<input type="checkbox"/> Electrical	<input type="checkbox"/> Heat/Cold Stress	<input type="checkbox"/> Pressurized Systems
<input type="checkbox"/> Biohazard*	<input type="checkbox"/> Elevated Work*	<input type="checkbox"/> Hydraulic	<input type="checkbox"/> Rigging/Critical Lift
<input type="checkbox"/> Chemicals*	<input type="checkbox"/> Excavation	<input type="checkbox"/> Lasers*	<input type="checkbox"/> Noise*
			<input type="checkbox"/> Non-ionizing Radiation*
			<input type="checkbox"/> Oxygen Deficiency*
			<input type="checkbox"/> Vacuum
			<input type="checkbox"/> Other
* Does this work require medical clearance or surveillance from the Occupational Medicine Clinic? <input type="checkbox"/> Yes <input type="checkbox"/> No			
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	<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 type="checkbox"/> None <input type="checkbox"/> Yes		
FACILITY CONCERNS	<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	
WORK CONTROLS			
Work Practices			
<input checked="" type="checkbox"/> None	<input type="checkbox"/> Exhaust Ventilation	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Spill Containment
<input type="checkbox"/> Back-up Person/Watch	<input type="checkbox"/> HP Coverage	<input type="checkbox"/> Posting/Warning Signs	<input type="checkbox"/> Security (see Instruction Sheet)
<input type="checkbox"/> Barricades	<input type="checkbox"/> IH Survey	<input type="checkbox"/> Scaffolding-requires inspection	<input type="checkbox"/> Time Limitation
			<input type="checkbox"/> Other
			<input type="checkbox"/> Warning Alarm (i.e. "high level")
Protective Equipment			
<input type="checkbox"/> None	<input type="checkbox"/> Ear Plugs	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lab Coat
<input type="checkbox"/> Coveralls	<input type="checkbox"/> Ear Muffs	<input type="checkbox"/> Goggles	<input type="checkbox"/> Respirator
<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 Glasses
			<input type="checkbox"/> Safety Harness
			<input checked="" type="checkbox"/> Safety Shoes
			<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 below specific training requirements)			
<u>NONE</u>			
Based on analysis above, the Walkdown 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)	
ES&H Risk Level:	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	WCC: _____	Date: <u>10/28/04</u>
Complexity Level:	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	Service Provider: _____	Date: <u>10/28/04</u>
Work Coordination:	<input checked="" type="checkbox"/> Low <input type="checkbox"/> Moderate <input type="checkbox"/> High	Authorization to start: _____	Date: <u>10/28/04</u>
		(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):

SEE ATTACHED PROCEDURE

Special Working Conditions Required:

Operational Limits Imposed:

Post Work Testing Required:

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				
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:			

TOF West (MPRC) Prototype Installation

1. Purpose and Scope

This document describes the method by which the prototype MPRC detectors are to be installed onto the West Carriage. Each of the (2) detector panels weighs approximately 20 kg. Consequently, the panels will be positioned by hand and no lifting or rigging equipment is required.

Summary

The prototype MPRC panels have been designed as 2 individual panels which are to be hung from plastic unistrut channels attached to the aluminum structural members at opposite ends of the West Carriage by screws. 2 unistrut channels will be used, the panels will be positioned by hand and hung from the upper channel and attached with 2 screws. The panels will rest against the lower channel which will act as a standoff to position the panels parallel to the PC3 detector array.

Attached drawing # 105-0511-009, TOF PROTOTYPE INSTALLATION provides the details for the assembly.

2. Responsibilities

Only trained BNL technicians shall perform the tasks described herein, under the supervision of the PHENIX Building 1008 Lead Technician.

3. Prerequisites

- 3.1 The plastic unistrut support channels must be in place, attached to the aluminum frame and aligned to receive the prototype MPRC detector panels.
- 3.2 The panels will have been fitted with attachment angles and unistrut clips.
- 3.3 The West Carriage must be in its retracted position (closest to the west wall).
- 3.4 All personnel performing tasks described herein shall wear proper personal protective equipment, per BNL ES&H standard 1.16.0.

4. Precautions

- 4.1 Insure that the PC2 and PC3 arrays are de-energized prior to commencing installation of the panels.
- 4.2 Take care when installing the panels to avoid contacting the PPC2 and PC3 detector arrays.

5 Required Equipment

Appropriate hand tools are the only required equipment to perform this task

6 Procedure – TOF West (MRPC) prototype installation

- 6.1 Make sure that PC2 and PC3 detector panels are de-energized.
- 6.2 Check that plastic unistrut support structure is secured to aluminum frames at both ends of carriage; check position and level in accordance with attached assembly drawing
- 6.3 Carefully hang first panel into place, positioned in accordance with attached assembly drawing and secure to the unistrut support.
- 6.4 Carefully hang second panel into place, positioned in accordance with attached assembly drawing and secure to the unistrut support.

7 References

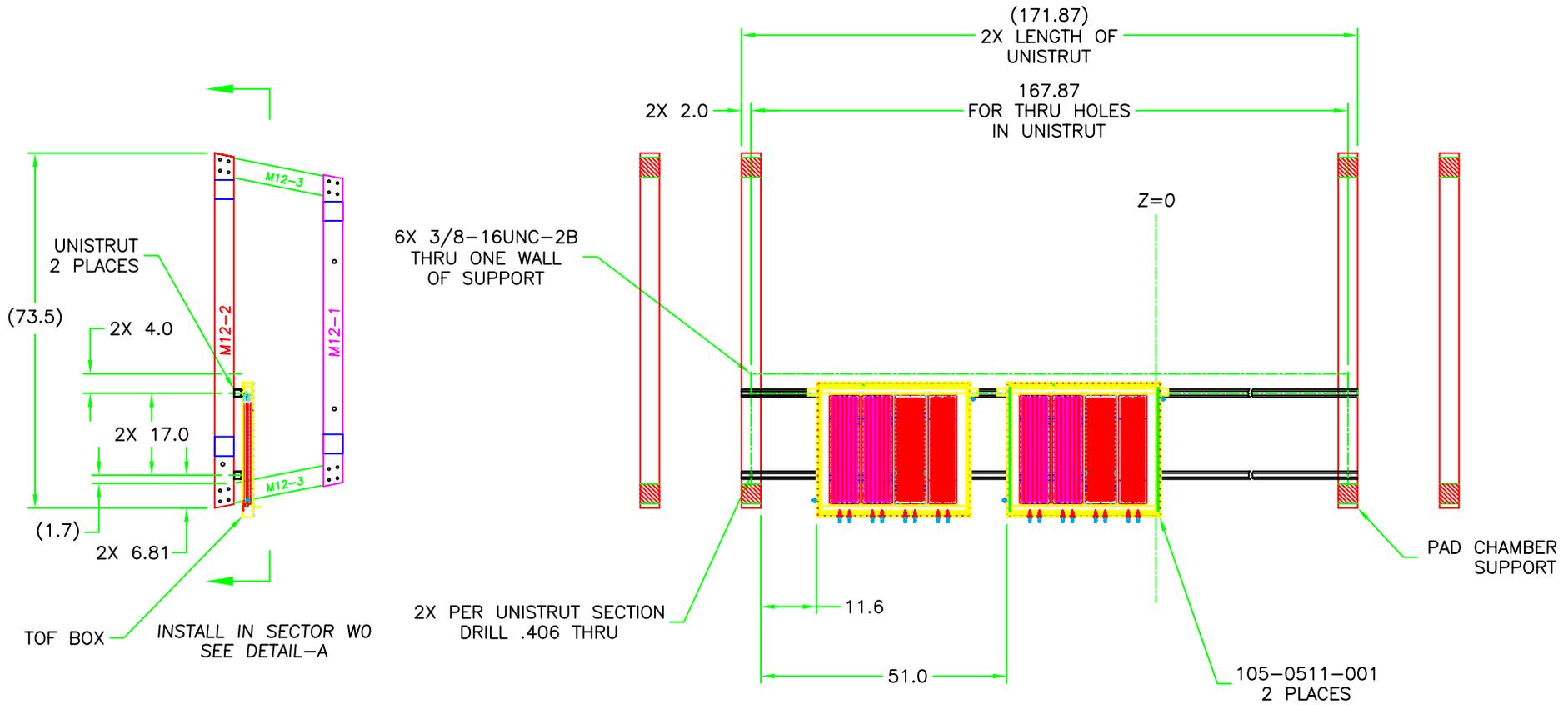
- 7.1 MRPC TOF prototype installation drawing 105-0511-009
- 7.2 Panel Assembly drawing 105-0511-001

8 Figures

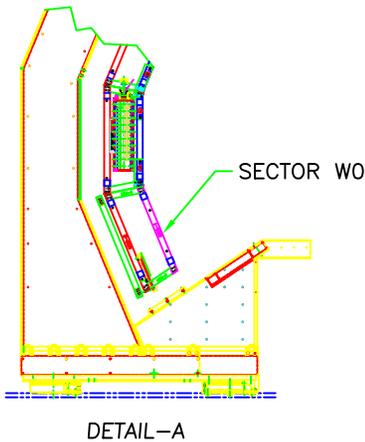
None

NOTES:

REVISIONS						
REV	ZONE	ECN NO.	DESCRIPTION	BY	DATE	CKR APP
A			INITIAL RELEASE			



TOF BOX INSTALL IN SECTOR W/O SEE DETAIL-A



OUTSTANDING ECN NUMBERS	INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989			BROOKHAVEN NATIONAL LABORATORY UPTON, N.Y. 11973		
	UNLESS OTHERWISE SPECIFIED	DRAWN BY	A. RUGA	10/11/04	TITLE: PHENIX MRPC TOF PROTOTYPE INSTALLATION	
	DIMENSIONS ARE IN INCHES	DESIGN APPROVAL			SIZE	C
	DECIMAL TOLERANCES	CHECKED BY			DRAWING NUMBER:	105-0511-009
	X ± .06	ENGINEER APPROVAL			REV.	A
	.XX ± .02	SUPERVISOR APPROVAL			Q.A. CATEGORY:	NA
	.XXX ± .005	Q.A. APPROVAL			SCALE:	1/16
	ANGULAR TOLERANCE ± 1°				WEIGHT:	NA
	NA FINISH	BREAK SHARP EDGES			SHEET	1 OF 1
	MAX. .03 MIN. .01					

DWG NO 105-0511-009
 SH 1 of 1