

**Operational Readiness Clearance (Non-beam operation)
E-961 COUPP – 30L in D0 and MINOS with veto electronics
11/16/2009**

AUTHORIZATION TO PROCEED WITH THE UNATTENDED OPERATION OF E-961 COUPP -30L at
D0 and MINOS including veto electronics

REVIEWED AND APPROVED BY:

DATE



Particle Physics Division Head
Comments/Exceptions:

11/17/09

 13747N

Particle Physics Senior Safety Officer
Comments/Exceptions:

11.17.09

 (Dφ)

ES&H Review Committee Chair
Comments/Exceptions:

17 Nov 2009



MINOS Area Coordinator
Comments/Exceptions:

11/17/2009

Submitted By:



Requester Russ Rucinski
ERIK RAMBERG

11/17/9

Electronic approvals for this form are acceptable. Please forward your responses to all recipients. A signed paper form (copy) of this document will exist in the Particle Physics Division Office. The original signed document will stay with the experiment requesting clearance.

From: Steve Chappa <chappa@fnal.gov>
Subject: RE: COUPP PMT review
Date: November 13, 2009 4:27:28 PM CST
To: 'Mike Crisler' <mike@fnal.gov>, 'bellanto' <bellanto@fnal.gov>
Cc: 'Erik Ramberg' <ramberg@fnal.gov>, 'Russ Rucinski' <rucinski@fnal.gov>, jeter@fnal.gov, sonnenschein@fnal.gov, 'Aria Meyhoefer' <aria@fnal.gov>, hansen@fnal.gov

Hi All,

From the two pictures, I observed no obvious problems with the cabling on top of the tank nor in the DAQ readout rack. So, I would now recommend the issuance of the ORC for the MINOS installation.

Regards,
Steve Chappa

From: Mike Crisler [<mailto:mike@fnal.gov>]
Sent: Friday, November 13, 2009 3:58 PM
To: Steve Chappa; 'bellanto'
Cc: 'Erik Ramberg'; 'Russ Rucinski'; jeter@fnal.gov; sonnenschein@fnal.gov; 'Aria Meyhoefer'; hansen@fnal.gov
Subject: Re: COUPP PMT review

Greetings,
Attached is a photo "COUPP-2L Veto Array.JPG" showing the COUPP-2L veto array PMT's with the bases and wiring. Also attached is "COUPP-2L Veto Readout.JPG" showing the controller board mounted in our Data Acquisition rack.

Cheers,
Mike

----- Original Message -----

From: Steve Chappa
To: 'bellanto'
Cc: 'Erik Ramberg'; 'Russ Rucinski'; jeter@fnal.gov; sonnenschein@fnal.gov; 'Aria Meyhoefer'; hansen@fnal.gov; 'Mike Crisler'
Sent: Thursday, November 12, 2009 4:51 PM

From: Mike Crisler <mike@fnal.gov>
Subject: **Re: COUPP PMT review**
Date: November 13, 2009 3:57:38 PM CST
To: Steve Chappa <chappa@fnal.gov>, 'bellanto' <bellanto@fnal.gov>
Cc: 'Erik Ramberg' <ramberg@fnal.gov>, 'Russ Rucinski' <rucinski@fnal.gov>, jeter@fnal.gov, sonnenschein@fnal.gov, 'Aria Meyhoefer' <aria@fnal.gov>, hansen@fnal.gov
▶ 2 Attachments, 250 KB

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Cheers,
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From: Steve Chappa
To: 'bellanto'
Cc: 'Erik Ramberg' ; 'Russ Rucinski' ; jeter@fnal.gov ; sonnenschein@fnal.gov ; 'Aria Meyhoefer' ; hansen@fnal.gov ; 'Mike Crisler'
Sent: Thursday, November 12, 2009 4:51 PM
Subject: COUPP PMT review

Hi Dr.Leo,

After looking at the PMT electronics (at WH14E) for the COUPP PMT installation, I found:

- 1) The safety ground wire inside the PMT controller/readout chassis goes to the 24 VDC power supply only. The rack-mounted chassis is then grounded by the mounting screws for the power supply. A dedicated safety wire should go from the power entry module directly to the chassis and bonded to the chassis using a star-lock washer. This correction for the unit reviewed was completed prior to writing this email. --OK
- 2) There are no HV cabling or exposed HV contacts that can be inadvertently touched during operation. -OK

3) The fusing for the AC power input and for the power going over the control cables to the PMT interface PC board/chassis is adequate for the wire used (below 1 amp). –OK

After looking at the COUPP PMT installation at Dzero, I found:

1) Cabling running down the tank to the controls/DAQ rack are run inside a plastic raceway and then protected by trip plates on the floor. No trip hazards seen or potential damage to the cables seen. –OK

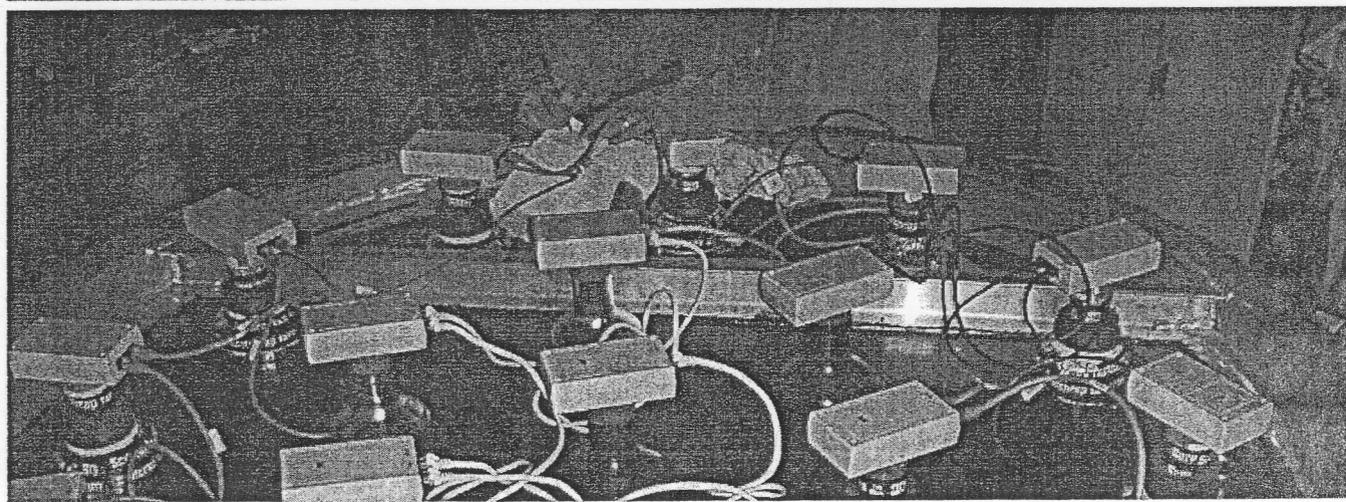
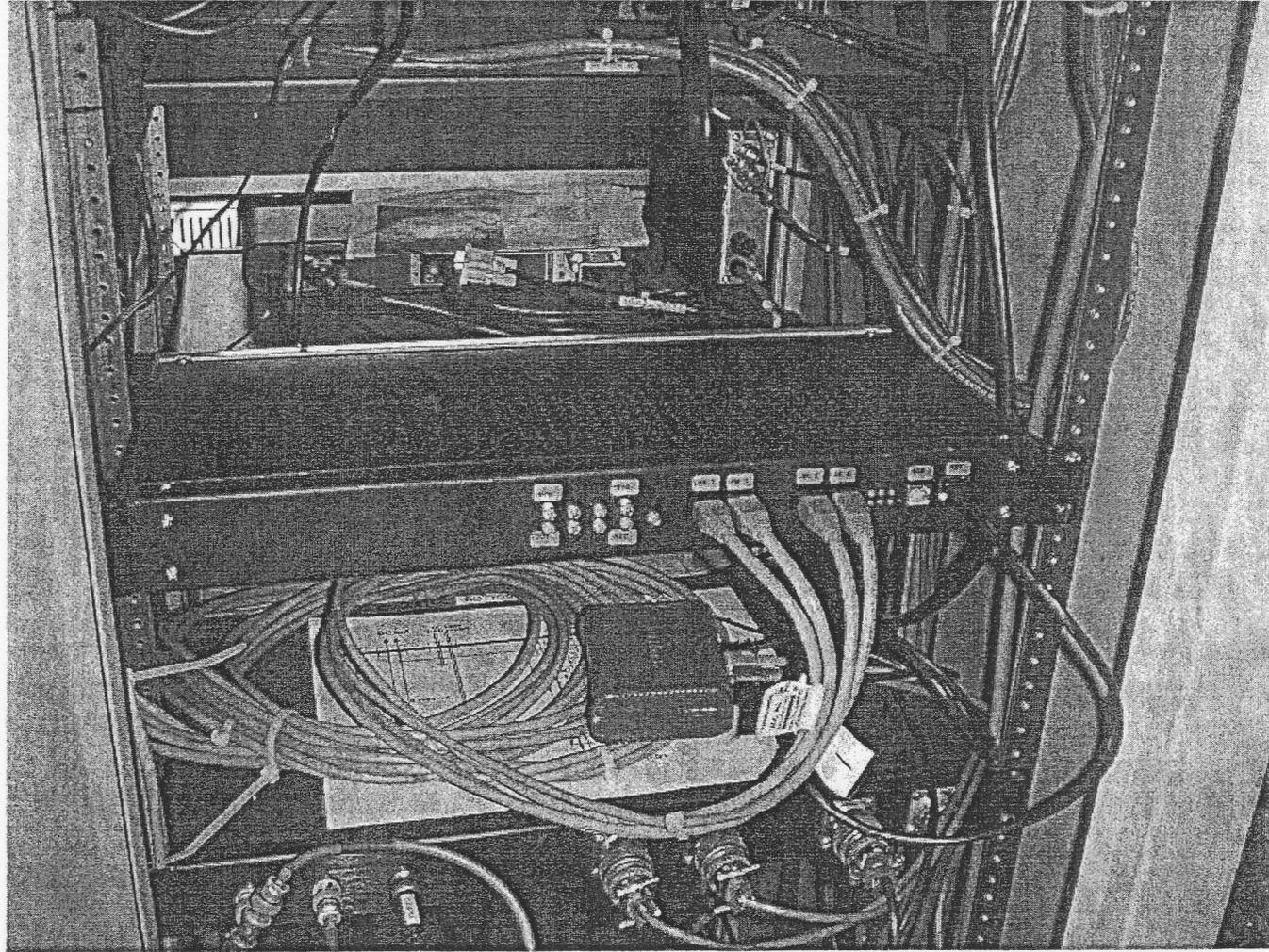
2) A bundle of cables inside the controls/DAQ rack are supported solely by a circular connector connected to the rear of the bottom COUPP CTIC chassis. This bundle of cables need to be supported by strain-relief so as to take the weight and stress off of this connector. This correction was completed during the review. –OK

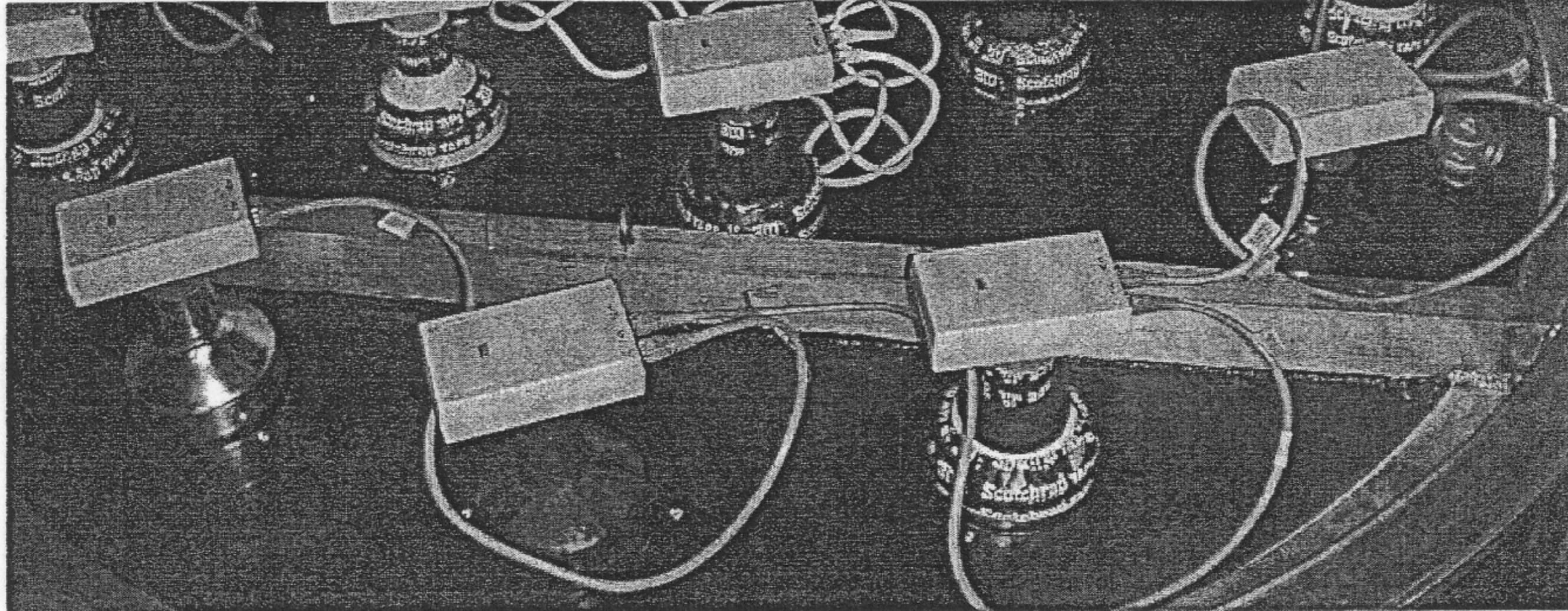
3) Cabling on top of tank exhibited no apparent problems. No AC power located there. –OK

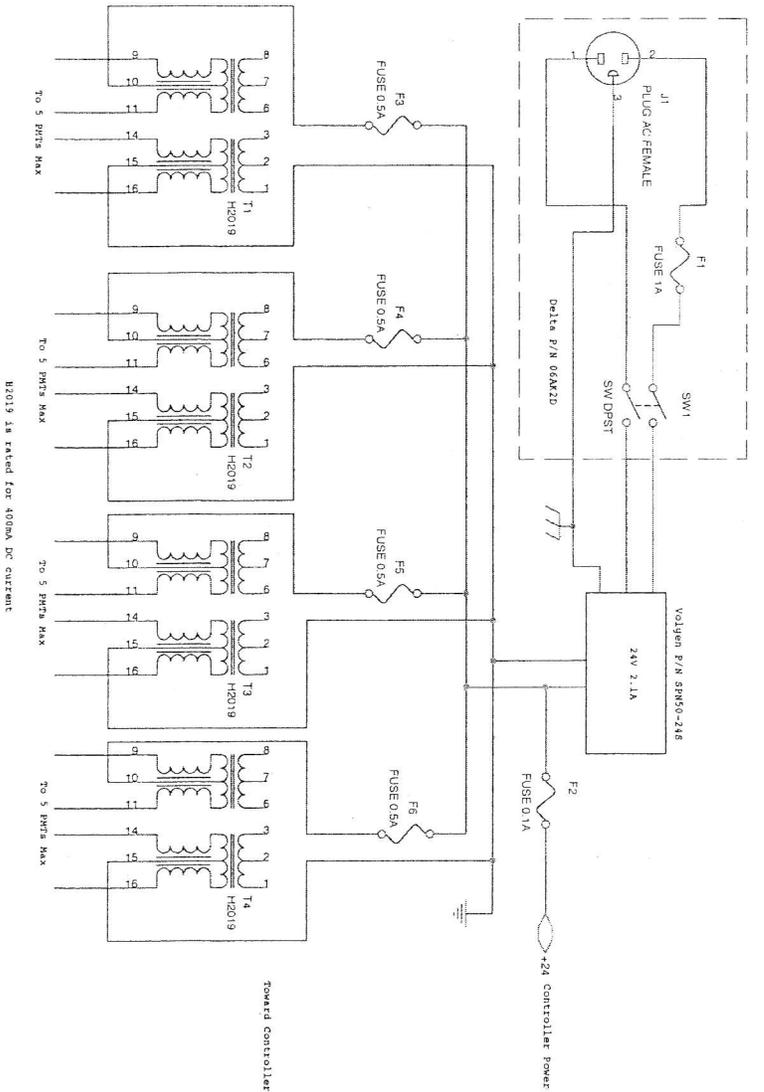
4) The solar transformers are operating with a fair amount of heat. The top surface and air exiting the vent holes are warm to the touch. A suggestion was made, and I agree, to place a caution sign on these transformers to indicate a warm surface and to NOT place anything on top of these transformers at any time so as not to block the vent holes.

5) The PMT controller chassis presently installed at Dzero does not have the corrected grounding wiring as described above so this chassis needs to be replaced or its wiring corrected. I was informed that this chassis would be swapped out.

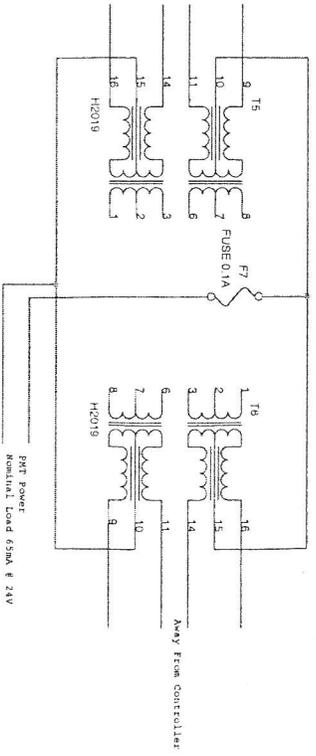
Conclusion: With the above corrective actions taken, and once I get email verification that the PMT controller chassis at Dzero has been swapped out, then I can recommend that the Dzero installation be issued an ORC. Once I get pictures of the MINOS installation showing the cabling and placement of equipment (including power cords) and if it is OK, then I can recommend the issuance of the ORC for the MINOS installation.







H2019 is rated for 400MA DC CURRENT



F1 is JAG SIOLO
All other fuses are Chemtronics resettable fuses

Title		Coupp Volo System Power Distribution Block Diagram	
Size	Document Number		
B	4003		
Date	Friday, November 06, 2009	Sheet	1 of 1
			Rev
			A