

Folks,

Here are my minutes from the sPHENIX TPOT and sEPD review today. Please take a look and get back to me if you find any mistakes or omissions. Thanks,

Mike Sivertz

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ESRC Meeting to review the sPHENIX TPOT and sEPD

Remote meeting via zoom. 21 June 2022 2:00 – 4:00 PM

Attending: Rob Pisani, Adrian Steinhauff, Andrei Poblaguev, Bade Sayki, Christopher Vidal, Cindy Galdamez, Conor Miraval, Dan Cacace, Dannie Steski, David Mohamed, Frank Craner, Mike Gaffney, George Mahler, Glenn Young, Gladys McKenzie, Hubert van Hecke, Hugo Pereira Da Costa, John Haggerty, Karl Kusche, Lee Hammons, Mike Dany, Chris O'Shea, Patrick Sullivan, Rosi Reed, Russell Feder, Steve Boose, Tom Kubley, Walter Sondheim, Ray Flller, Mike Sivertz (recording).

Indico web site: <https://indico.bnl.gov/event/16149/>

Password: babar1008

All presentation materials are available on that web site.

Findings:

* Verify that the cables being used for the TPOT have been reviewed and passed the fire safety test. (Joe Levesque or alternate did not attend the review today. Go over the planned cabling with a fire safety representative to get their approval.

* Prepare a plan for lifting the TPOT into sPHENIX. Make sure the plan has the approval of Mike Gaffney or alternate.

John Haggerty – Intro

Hugo Pereira Da Costa – TPOT Outer Tracker Detector and Electronics

Isobutane / argon gas mix 5%/95%

Volume = 11 liters, 24 liters/hour total flox rate

Cables need flame test?

Gas tubing flammable?

Samtec cables tests

CAEN HV is not NRTL, and needs to be checked by EEI

Lee: Are the gas tubes just slid into place and glued? Or is there a gas fitting?

Hugo: There is no fitting. The tubes are slid into place and glued.

MikeG: Will there be a leak check?

Rob Pisani: Yes, it will be tested at overpressure. The gas is not considered flammable, but it will set off a flammable leak detector. The system will be fully leak checked before bringing it out to the hall. It will also be leak checked again after installation in sPHENIX.

Lee: Is there a special handling procedure?

MikeG: Make sure you sniff afterwards.

Rob: The TPOT comes as a unit.

MikeG: Where does the output gas go?

Rob: To the gas house.

MikeG: Are you worried about pressure changes sucking gas into the chamber?

Rob: No, the gas system is big enough to absorb any reasonable atmospheric pressure change.

Hugo – Electronics for TPOT

No questions

Rob Pisani – Gas System

MikeG: Is that an oil bubbler?

Rob: Yes, with a charcoal filter behind it.

MikeG: Are the gas pipes bonded?

Rob: Yes, we are using the same bonded pipes as PHENIX

Rob – Cooling System

No Questions

Walter Sondheim – TPOT FEA and Installation

MikeG: Did not see analysis how the I-beam interfaces with the TPOT

Walter: It is an action item.

MikeG: You are using a Below-the-Hook lifting device. It has to be approved and tested. It is likely to be an engineered lift, and the procedure needs to be approved.

MikeG: EMCAL is installed prior to this. Can you walk on the inner surface of the EMCAL?

JohnH: No. You probably can, but don't.

MikeG: You may want to design a working surface.

Walter: We were told we could stand on the inner HCAL.

We could add a second set of lifting attachments that would be accessible from the inner HCAL.

MikeG: We have to get a solution to this. Is there a physical reason it cannot be mounted to the EMCAL?

Walter: The EMCAL is in sectors. It will not be installed in a monolithic lift.

Rosi Reed – Event Plane Detector

Copy of detector used in STAR EPD since 2018.

MikeG: Are the PVC fiber encasings cleared by Fire Protection?

Even though it is less than 50 pounds, ergonomics should look into materials handling issues.

Russ: We are putting in a jib crane north and south to do this.

Steve Boose – EPD Electronics (Calorimeter Electronics)

No Questions