From: Tomislav Hruskovec
To: Isaac Earle
Subject: Re: North Hot Cell high voltage safety
Date: November 22, 2018 10:05:57 AM

Hi Isaac,

I agree with this statement, basically it satisfies the HV safety concerns. I believed this was approved verbally time ago, if you have anything new for me to look at, please send it.

Cheers

Tom

On 9/11/2018 12:11 PM, Isaac Earle wrote:

> Hi Tom,
>
> Thanks for looking at the ISAC North Hot Cell design with me just now. I was planning to write an e-log to document what we discussed which I can reference to indicate that the requirement has been satisfied. First I'd like to check with you that what I have written is accurate. Could you please take a look at the statement below and let me know if there are any changes required? If you need any more information I'd be happy to meet with you again, and we can go look at the area or the 3D models. Please let me know.
>
> Thanks,
> Isaac
>
> ---
>
> *To satisfy RS101 from Document-131915 R1 (see below), Tom Hruskovec, TRIUMF high voltage engineer, was consulted. We discussed the North Hot Cell (NHC) installation and possible high voltage concerns related to the Target Conditioning Station (TCS), in particular the NHC/TCS partition wall and the new section of ducting in the TCS space. He stated that as long as the object at high voltage (the target on a target module) is protected from possible contact with personnel or other conductive objects by a grounded metal vessel (the steel TCS vacuum vessel) then he does not have high voltage safety concerns. This protection is accomplished by the design of the TCS, which was commissioned prior to the start of the NHC project and has not been modified during construction of the NHC. He also brought up the concern of metal objects becoming charged by bombardment of ions from radioactive equipment, and that grounding for the partition wall, duct, and work table is important for that reason. I explained that we grounded the partition wall and table by connecting to the building ground with ½" bonding straps, and that the flange of the ducting is bolted to one of the partition wall panels. He was satisfied with this approach.*
>
> **RS 101.** The design of the NHC/TCS wall, the TCS ventilation pass-through, all modifications and installations inside the TCS cavity, and all modifications and installations on the NHC roof shall be reviewed and approved by a TRIUMF high voltage electrical engineer.
>
> **Rationale:** Parts of the TCS operate at high voltage. It is essential to ensure that installation of the NHC will not damage the TCS or compromise personnel safety.

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Tomislav (Tom) Hruskovec
High Voltage Engineer
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