The design of the CHL carbon bed does not allow for the carbon bed to be operated until failure without any consequence to the facility.

Summary:
The spare carbon bed represents a vital component in reducing the operating risk for the SNS CHL. The desire for SNS is to continue to operate without warming the Linac; for the next several years. With an additional carbon bed installed in series with the current carbon bed, the CHL should gain an additional 15+ years before further effort is required. At that time, it is hopeful that using the taps connected in series during the upcoming piping project will provide sufficient flexibility that no further outage is required to establish parallel operations with two carbon beds. It does appear that the operating risk is reduced by the addition of the spare carbon bed.

Future Options:
The planned work for the current carbon bed is performed by the new carbon bed in series with the CHL piping system. It could be placed in parallel, with only the current bed and the other being redundancies, or it could be connected in series. In the series configuration, the existing carbon bed would flow directly into the spare carbon bed, bypassing the existing final filter. While this solution has not been tried before, one benefit is that it allows the existing carbon bed to be operated without failure at any consequence to the facility.

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