

# Collider–Accelerator Department

## RHIC Recovery Review

28 November 2023  
Zoom Remote

### Charge

On 1 August 2023 the ongoing RHIC Run-23 was halted due to helium leaking from the building 1008B valve box. Further investigation revealed electric busses shorted to ground and a damaged superconducting DX magnet. The RHIC Run-23 ended six weeks early since the preliminary estimated repair time exceeded the remaining run time.

The cause for the valve box and magnet failure has been investigated, and the repair is already under way.

Please address the following charge questions:

- a. Does the reconstructed event sequence explain the observed electrical signals and the damage observed in the valve box and DX magnet?
- b. Are the underlying causes understood well enough to assess the probability of this or a similar failure recurring, and have possible mitigate measures been evaluated?
- c. Is the repair plan for the valve box sound and the schedule estimate realistic?
- d. Is the repair plan for the DX magnet sound and the schedule estimate realistic?
- e. Are there further items that must be addressed?

It is requested that findings be presented at the closeout of review day, and a concise report responsive to this charge be forwarded to the C-AD Chair, Wolfram Fischer, by 23 December 2023.