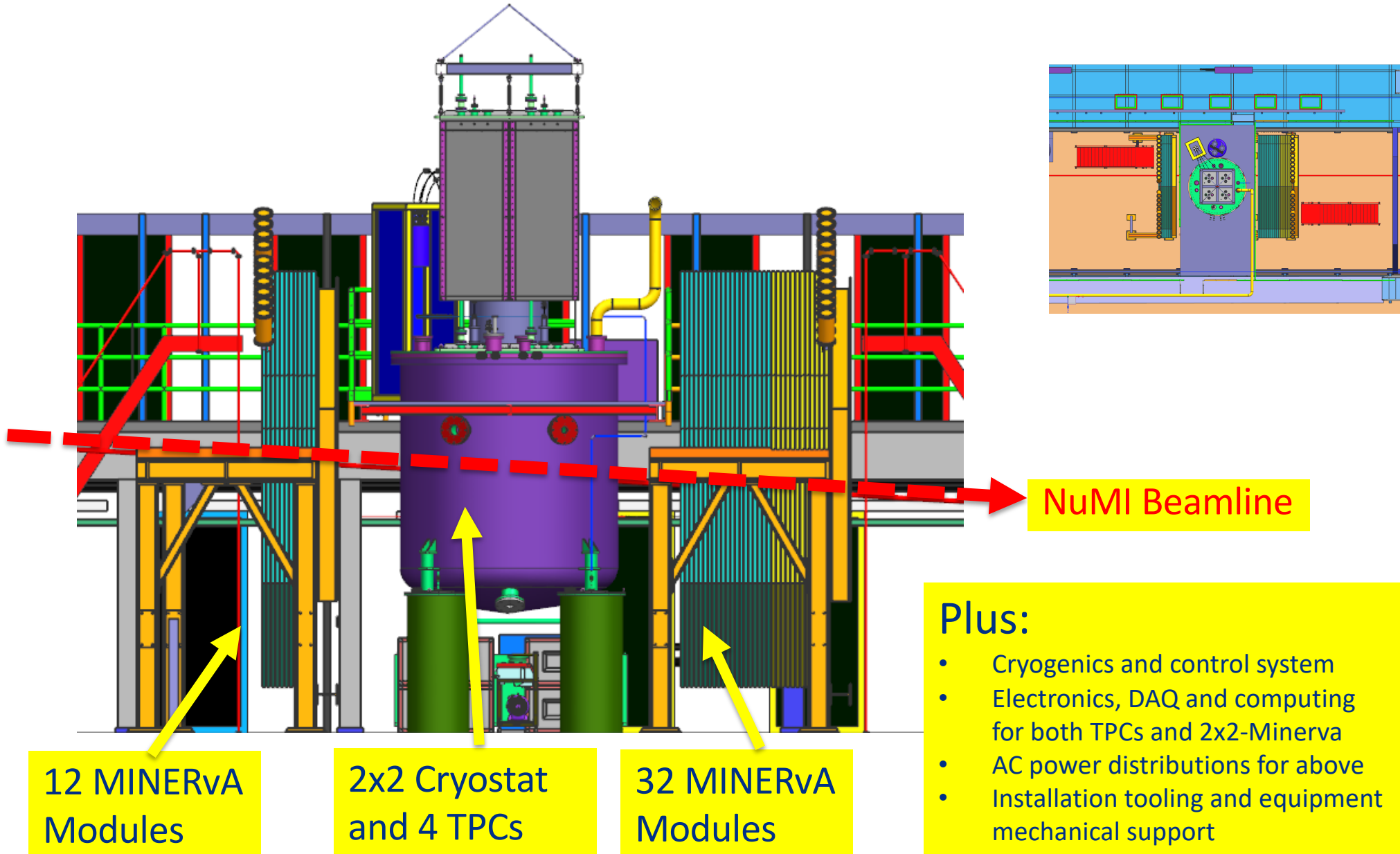




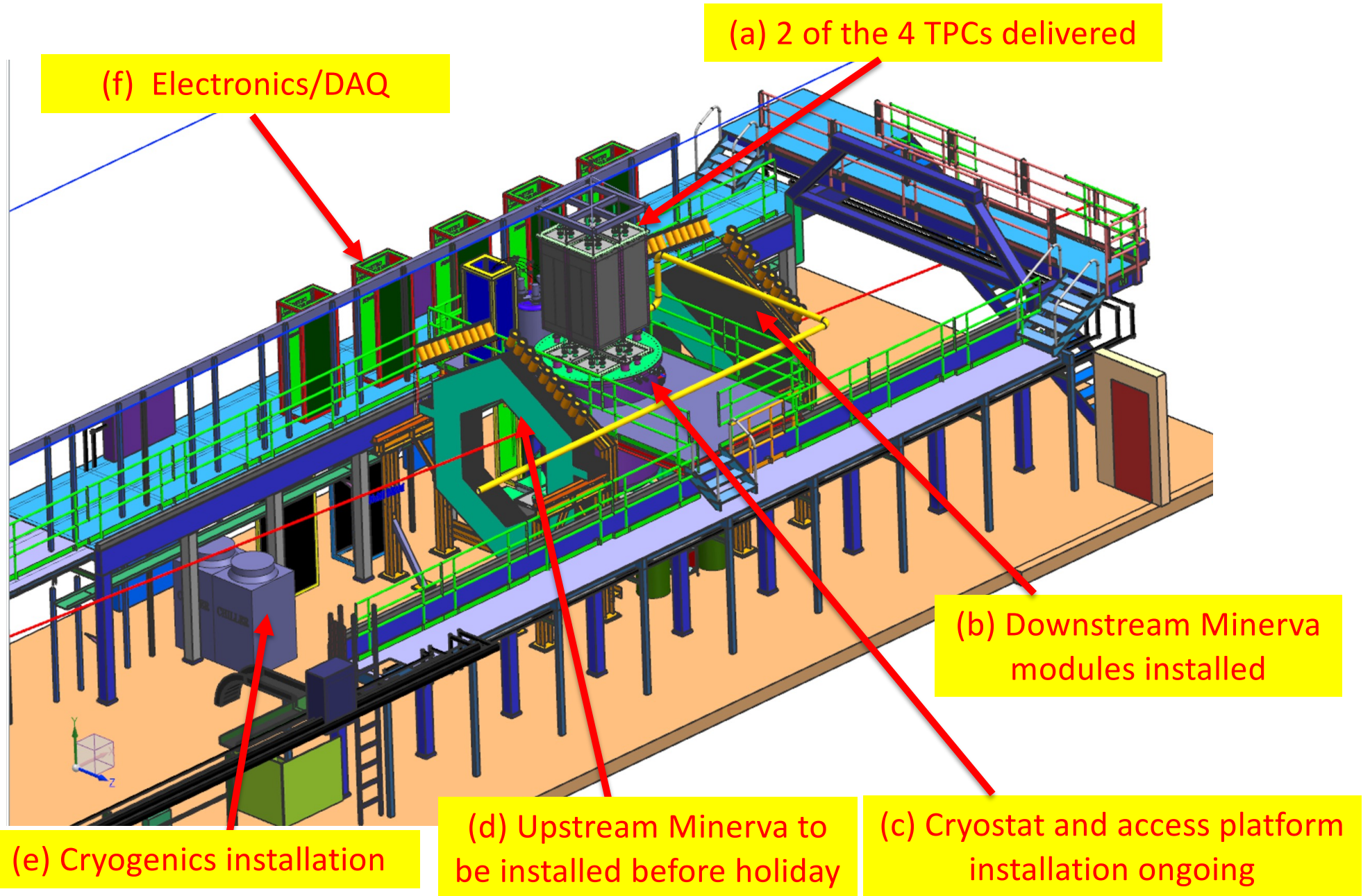
2x2 Installation Status

November 10, 2022

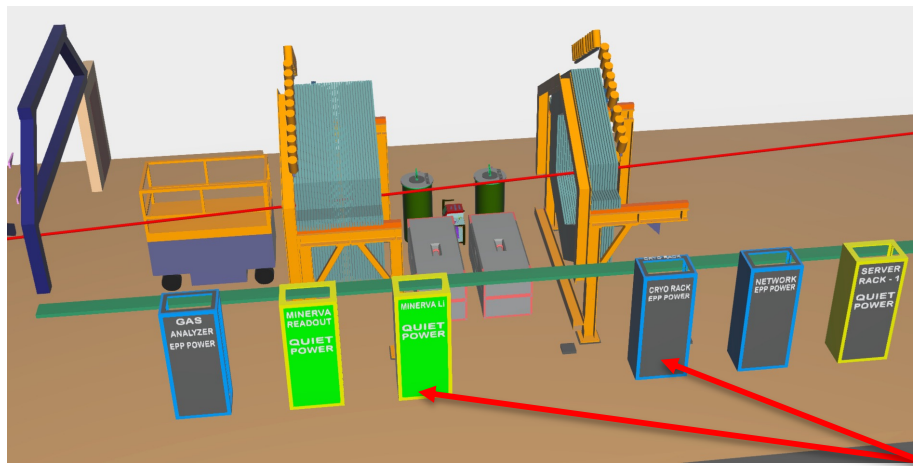
2x2 Installation Scope



2x2 Installation Status



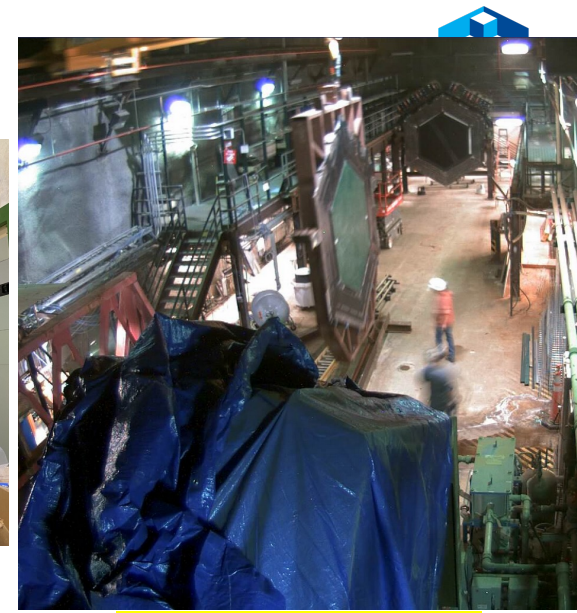
2x2-Minerva Installation



Layout of 2x2-Minerva



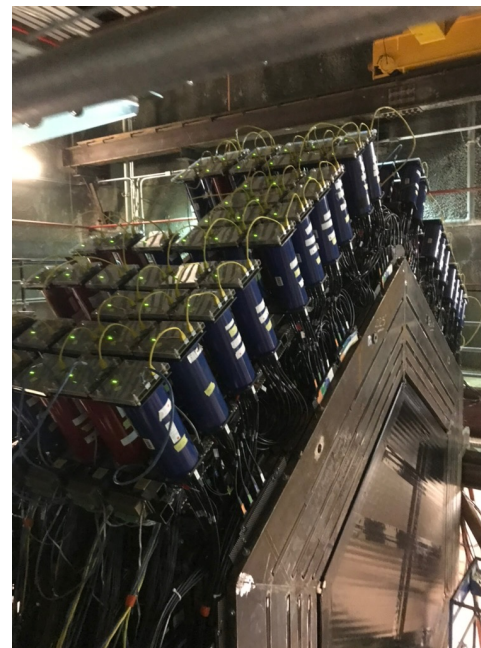
ORC for readout electronics
(Needed for PMT/FEB checkout)



Module placement



PMT/FEB installation and cabling

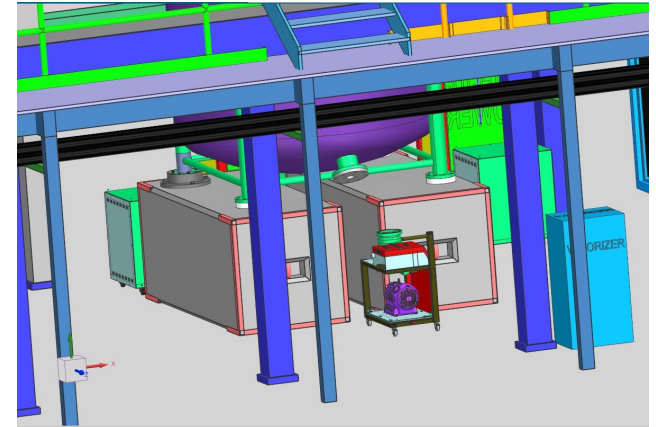
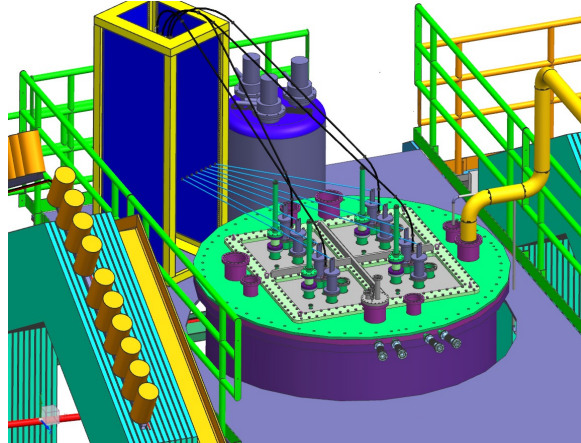
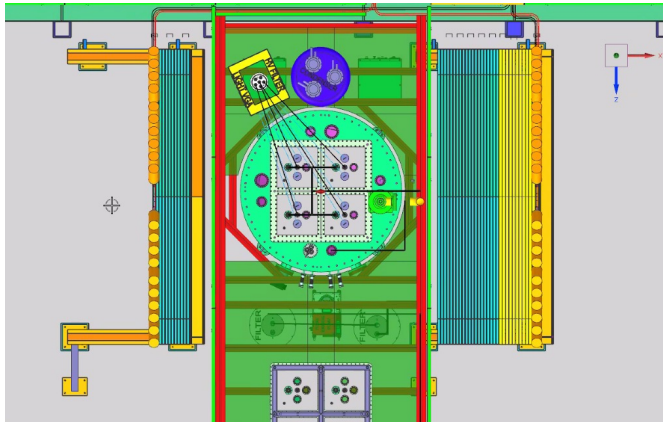


Module PMT/FEB

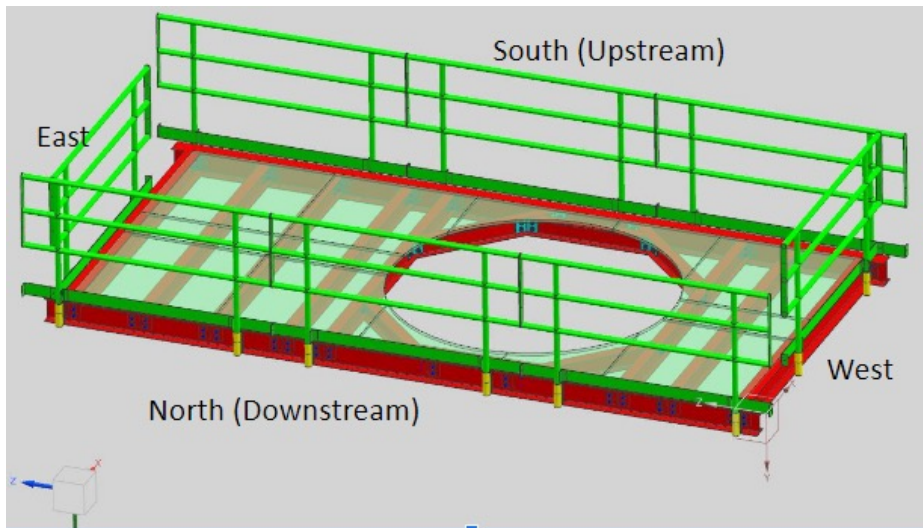


Safety review of PMT repair scheme

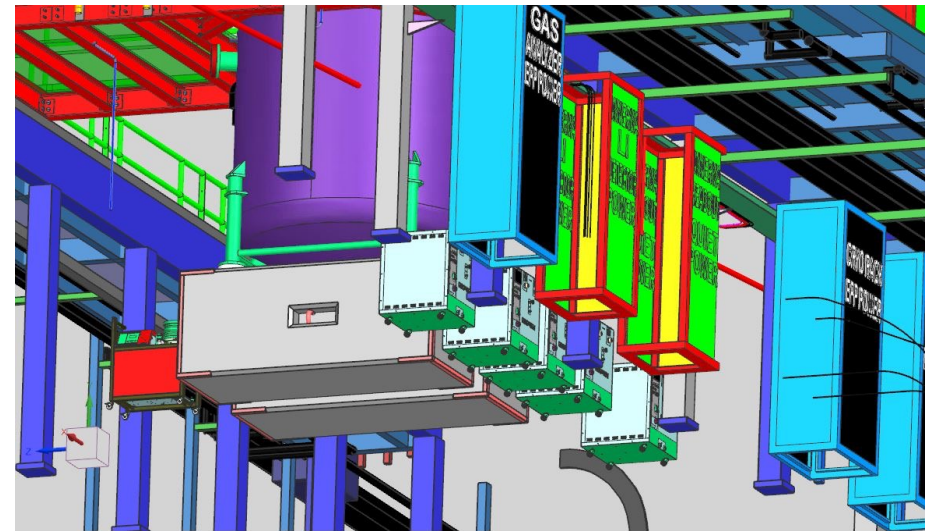
Cryostat and Access Platform



Cryostat placement and support



Access platform assembly

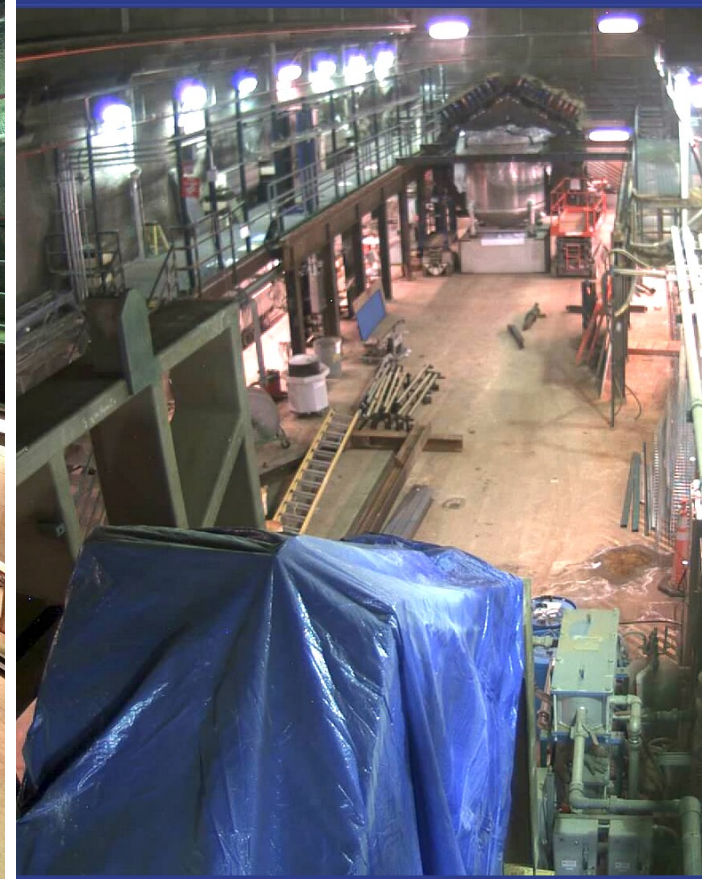


Cryostat support and other equipment

Cryostat Transfer through MINOS Shaft/Tunnel



Cryostat to MINOS Hall

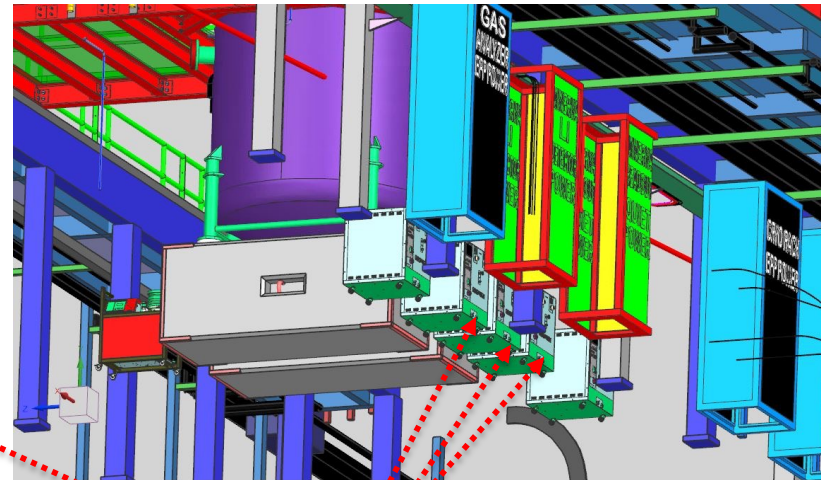


Summary of 2x2 Installation Progress

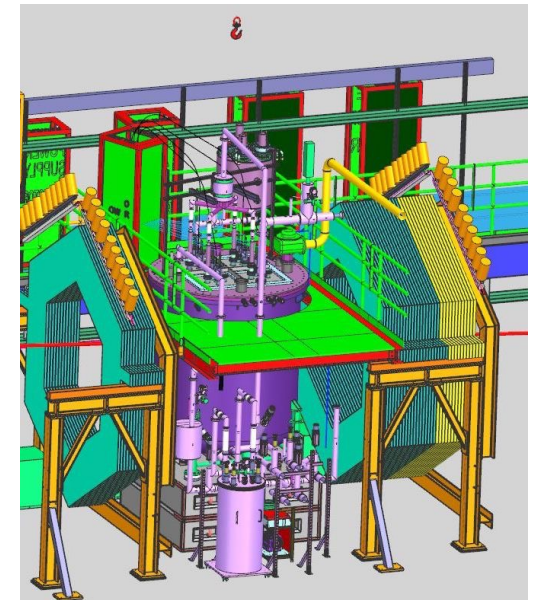
- Major 2x2 component to be installed before Christmas
 - Downstream 2x2-MINERvA installation completed;
 - Cryostat and access platform installation ongoing;
 - Upstream 2x2-Minerva installation to start right after.
- Cryocooler system in hand; Installation to start soon



3 cryocoolers and 1 condenser



Cryocooler system



Cryo equipment and piping