PCAT: Mechanical Fabrication, Electrical I&C

March 9th, 2023

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Idaho National Laboratory

Collaborators: INL, Walsh, CEI

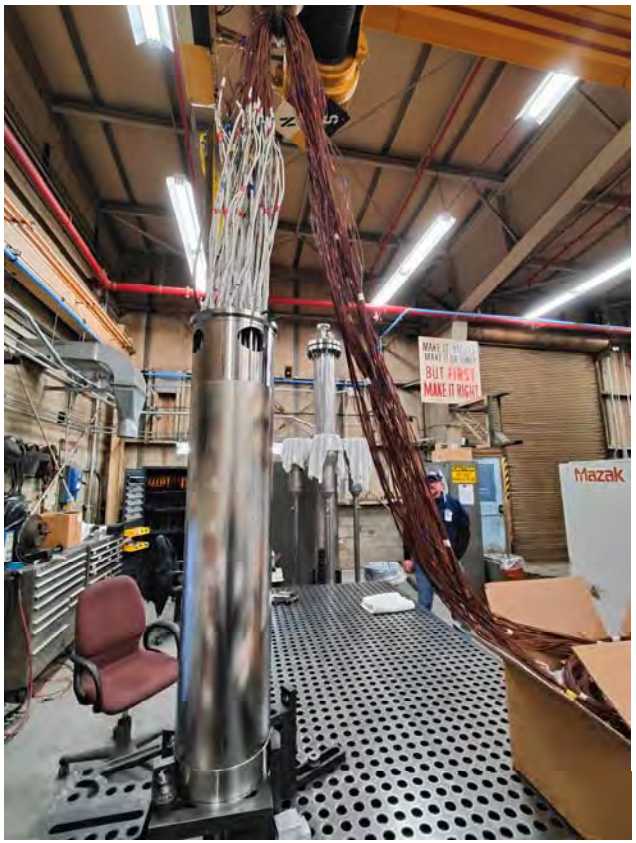
Addition of Spacer Wires to Cartridge Heaters

- Changed design to incorporate spacer wires in place of a wire wrap. This addition included 720 additional welds.

MRP Microreactor Program

Assembly and Testing of Core

- Final assembly and testing of Core. This included helium leak tests of all welds and functional/megger checks of the heaters.



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Testing of Core/Heat Exchanger/Downcomer Weldment

- Completed successful helium leak testing of all welds. This weldment is now staged for final assembly and shipping.

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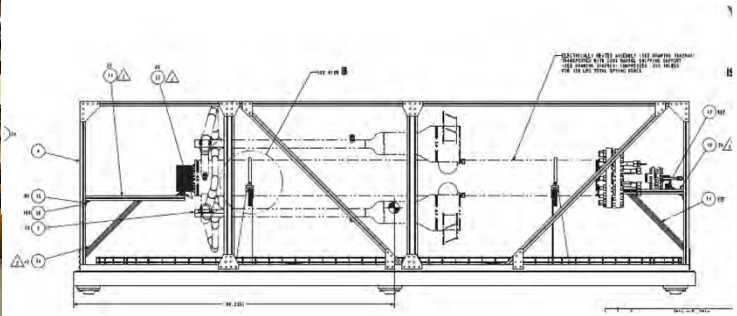
Fabrication of PCAT Transport Assembly

- Completed the fabrication of the PCAT Transport Assembly in collaboration with subcontracting partners.



MRP Microreactor Program

Proposed Activities in the Next 2-3 Weeks

- Administrative Closeout of Fabrication Packages
  - Reconciliation of sprint method with Fabrication Procedure
  - Expected to be completed with this effort in two weeks
- Final Assembly of MARVEL PCAT
  - Installing and welding in Core, welding of downcomers, welding support brackets and thermowells, final testing of PCAT
  - Quality acceptance of MARVEL PCAT

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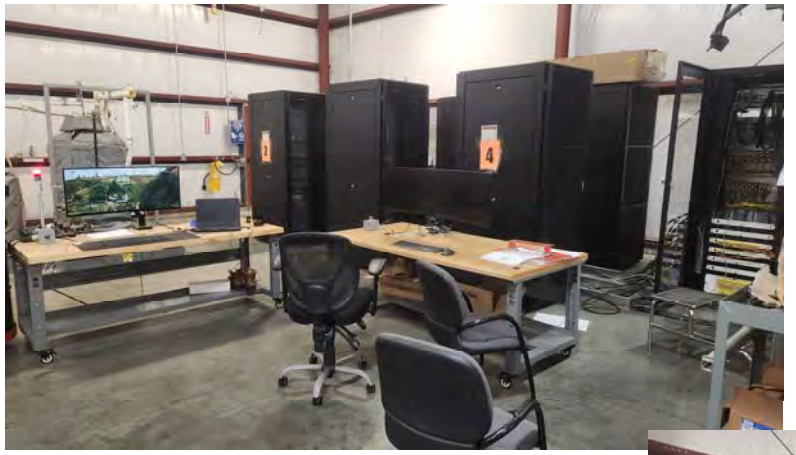
Electrical system installation at alkali metals facility



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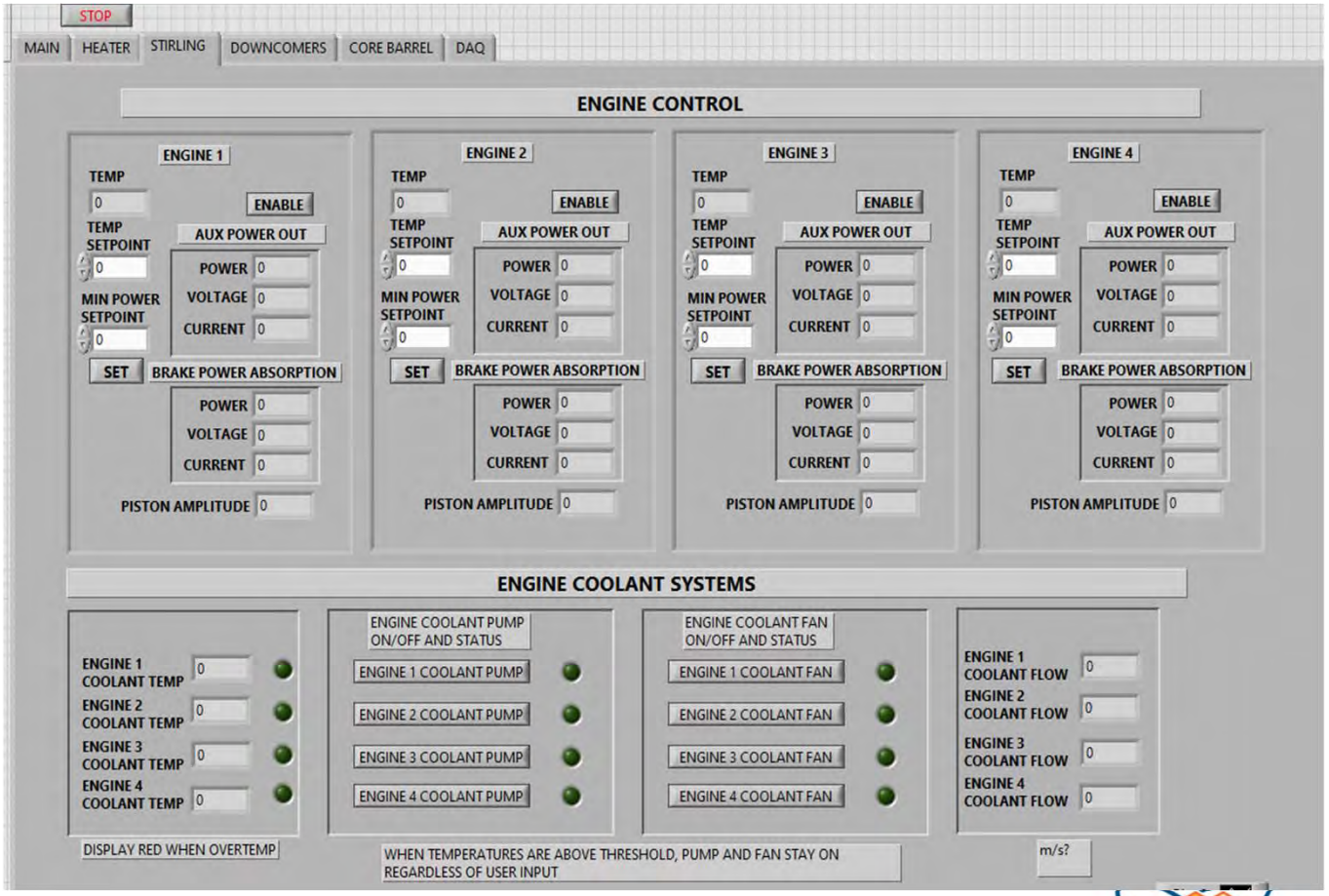
Software



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Nak Flow meter calibration

Document ID: SPC-70368
Revision ID: 0
Effective Date: 10/17/22

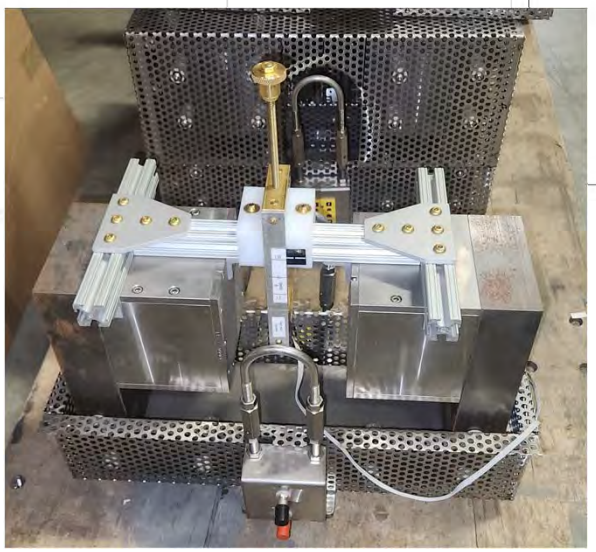
Specification

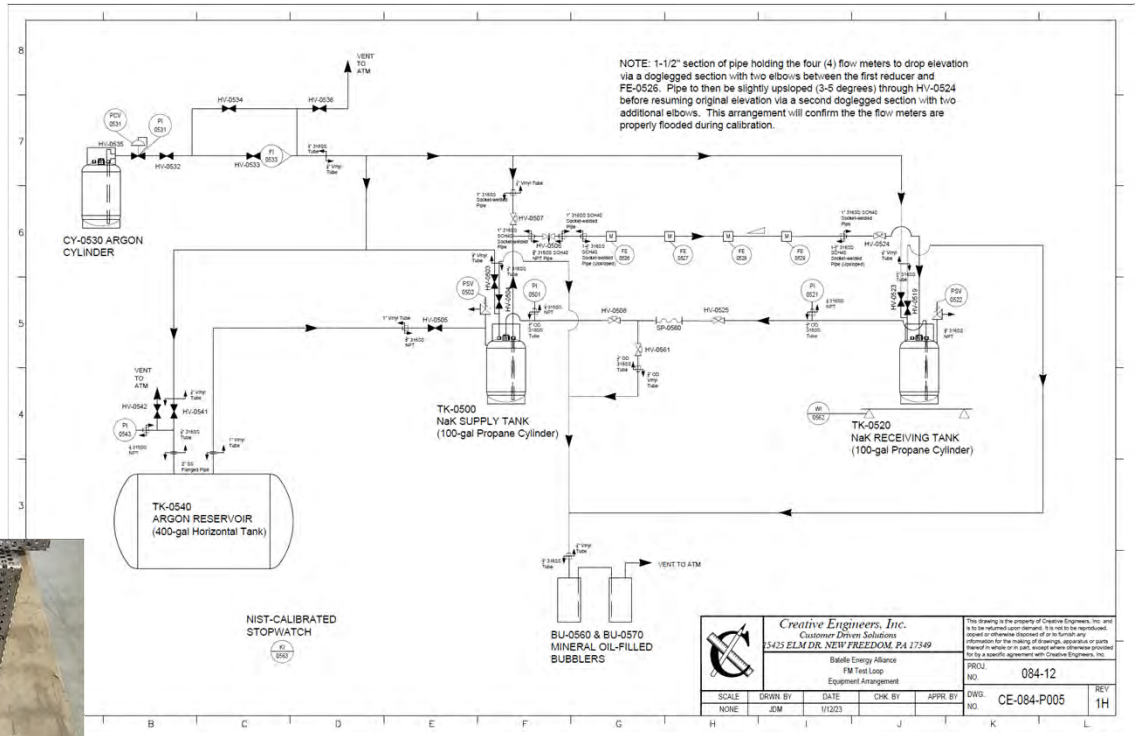
Project No. 33526
EC No. 2339

PCAT Calibration Requirements

INL Idaho National Laboratory

The INL is a U.S. Department of Energy National Laboratory operated by Battelle Energy Alliance





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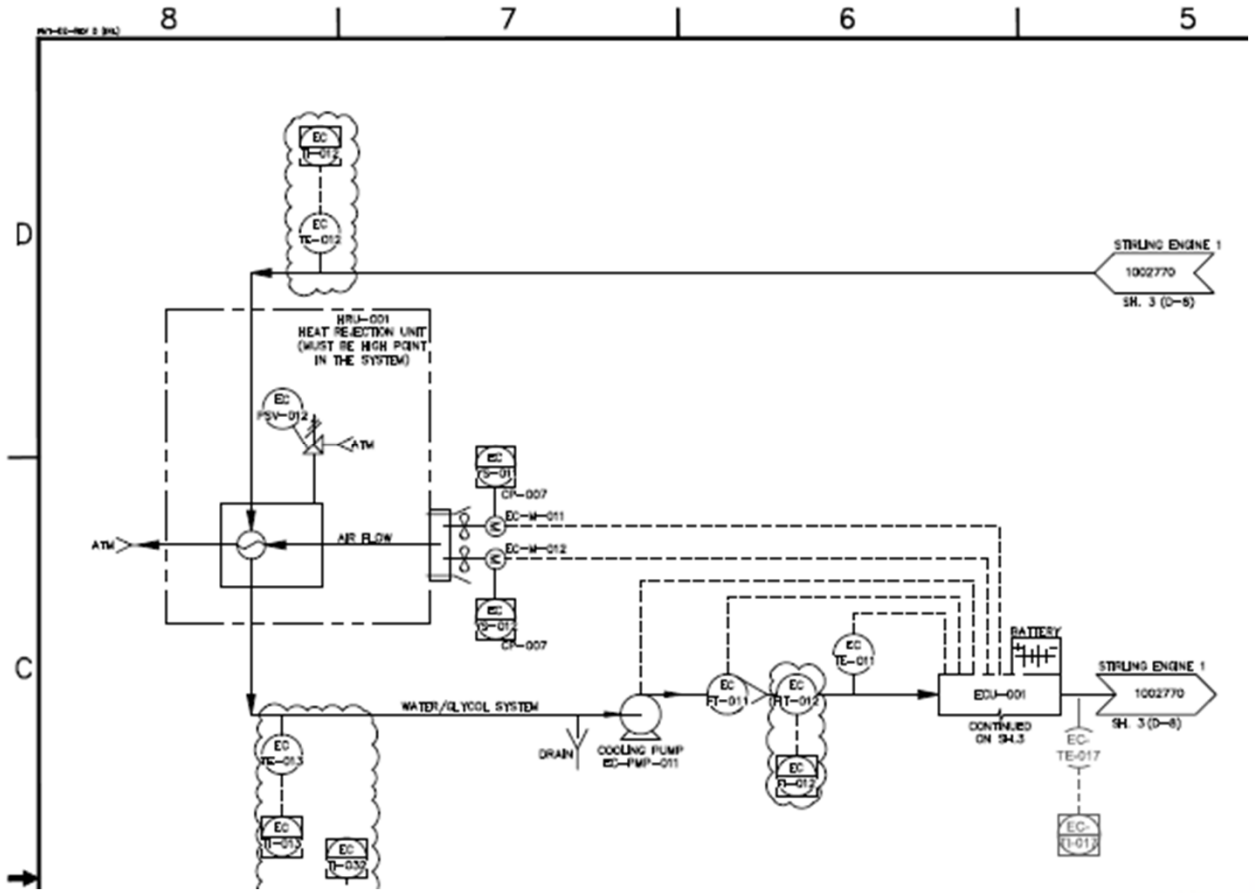
Power Calculation Instrumentation



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