Thermal Test Loop Overview

Optional subhead

Current Setup

- C004g @ 300 main
- Closed Loop
- Developed first by Dr. Leo Carrilho in *2005*

Component Breakdown

Fluid Pump

Bullet number one

A second bullet

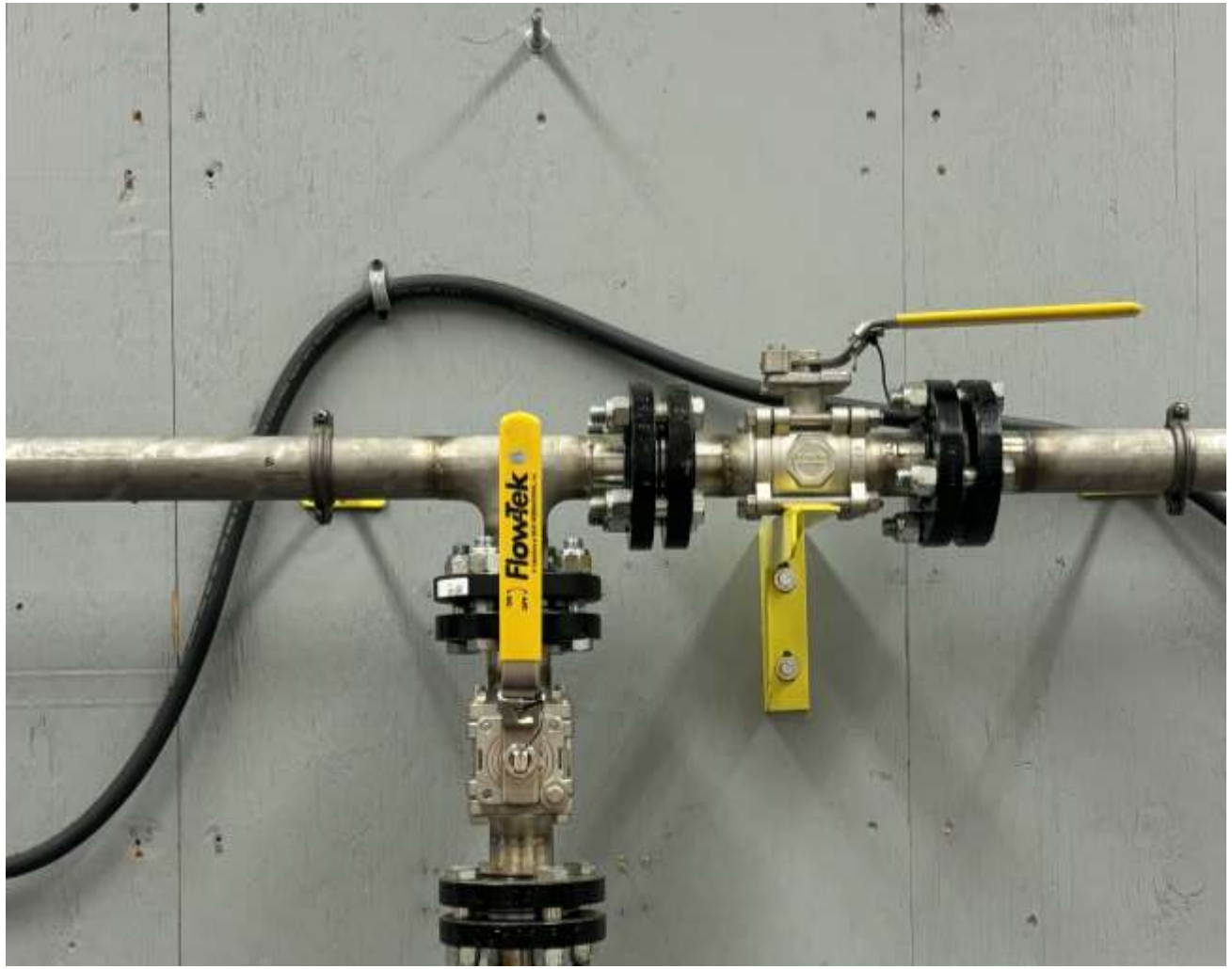
A final, third bullet

Energy Source- 'Reactor vessel'

- Electric heating adds energy to water
- Relief valve located on top

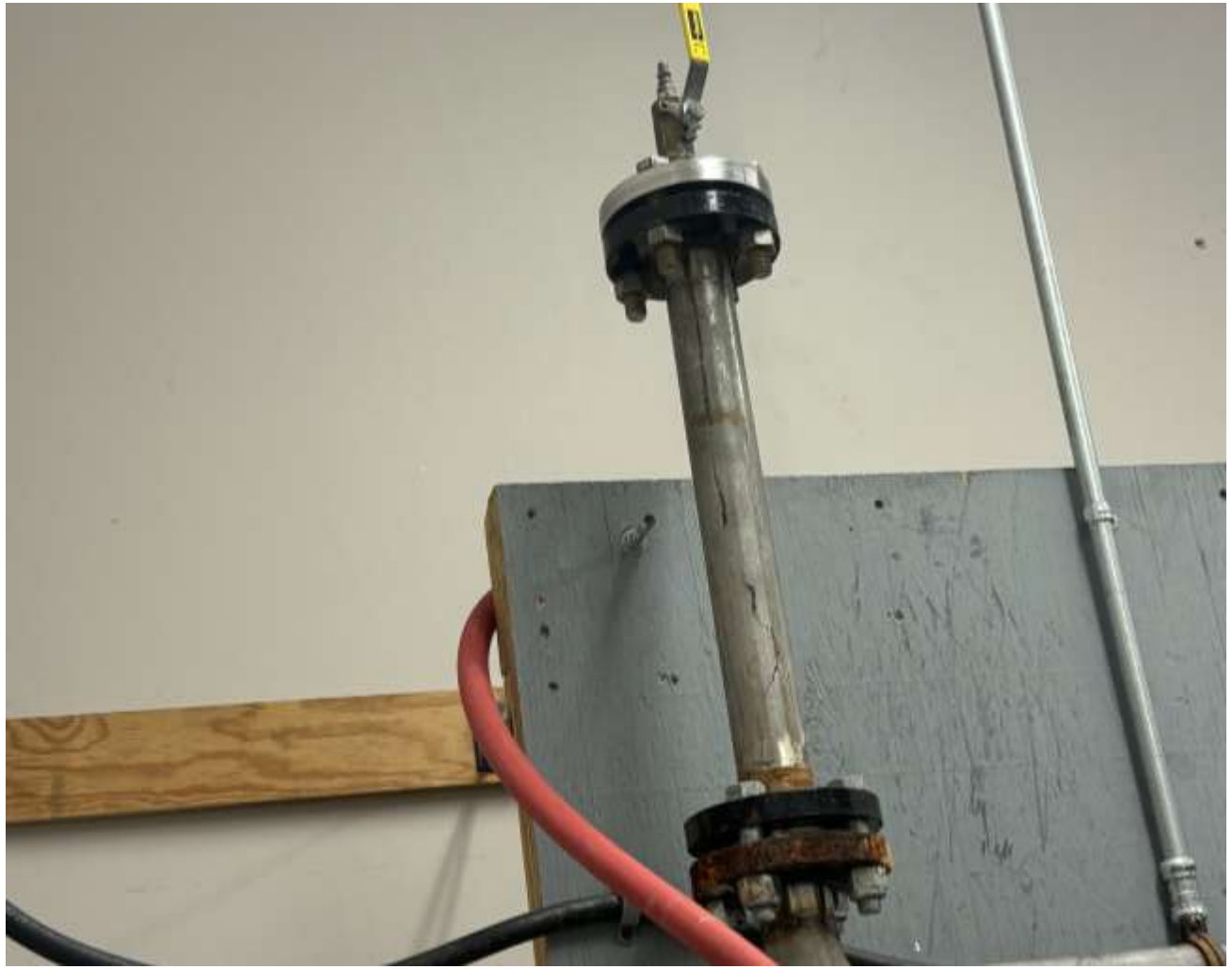
Flow Control Valves

- Vertical valve shuts/opens bypass channel
  - Increases flow rate through heat source
- Horizontal valve stops flow through heat source



Pressurizer

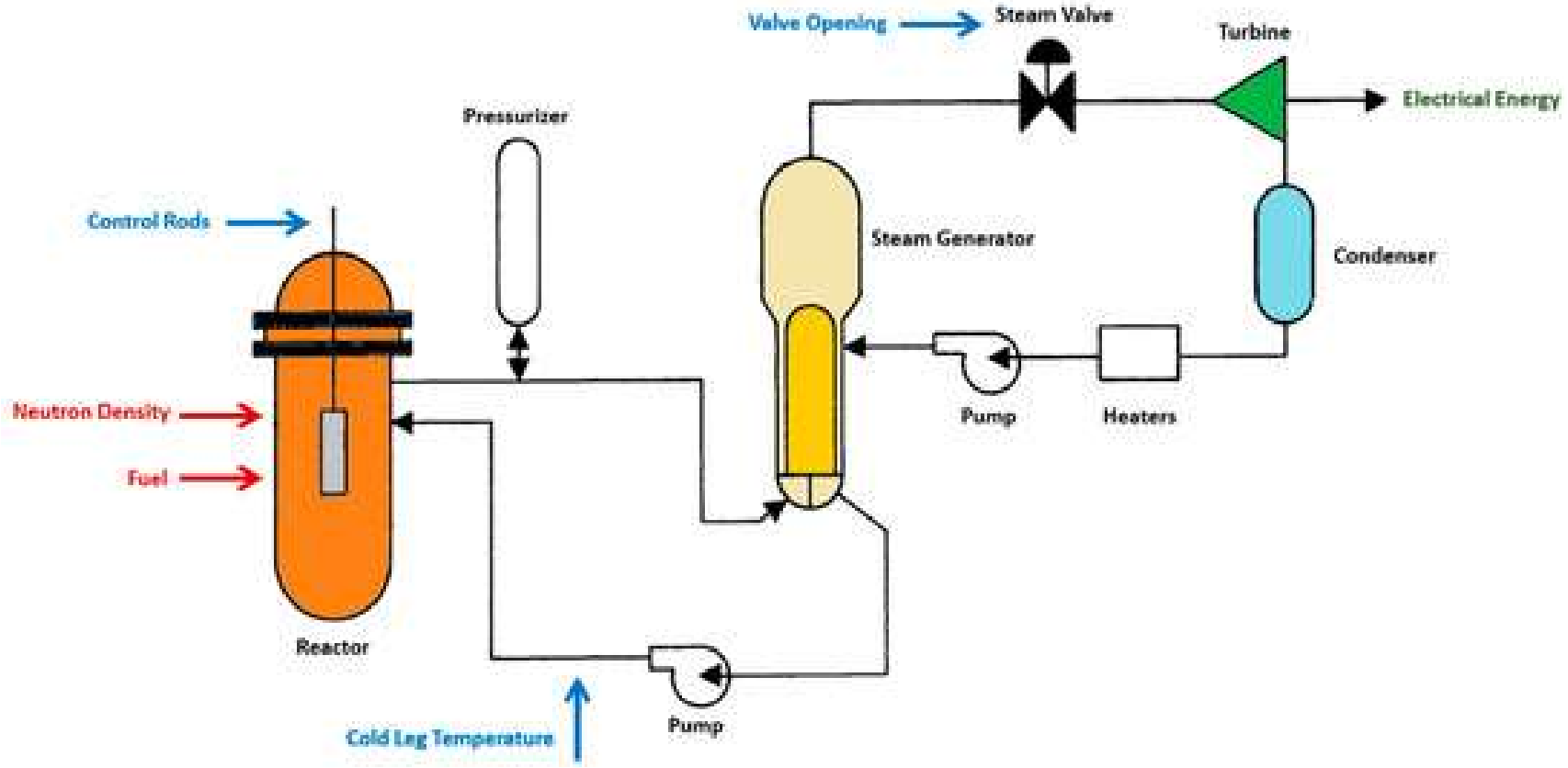
- Air Hose Attachment on top
- Raises boiling point of water by pressurizing entire system w/ Air
- Increases efficiency of real reactors



Heat Exchanger

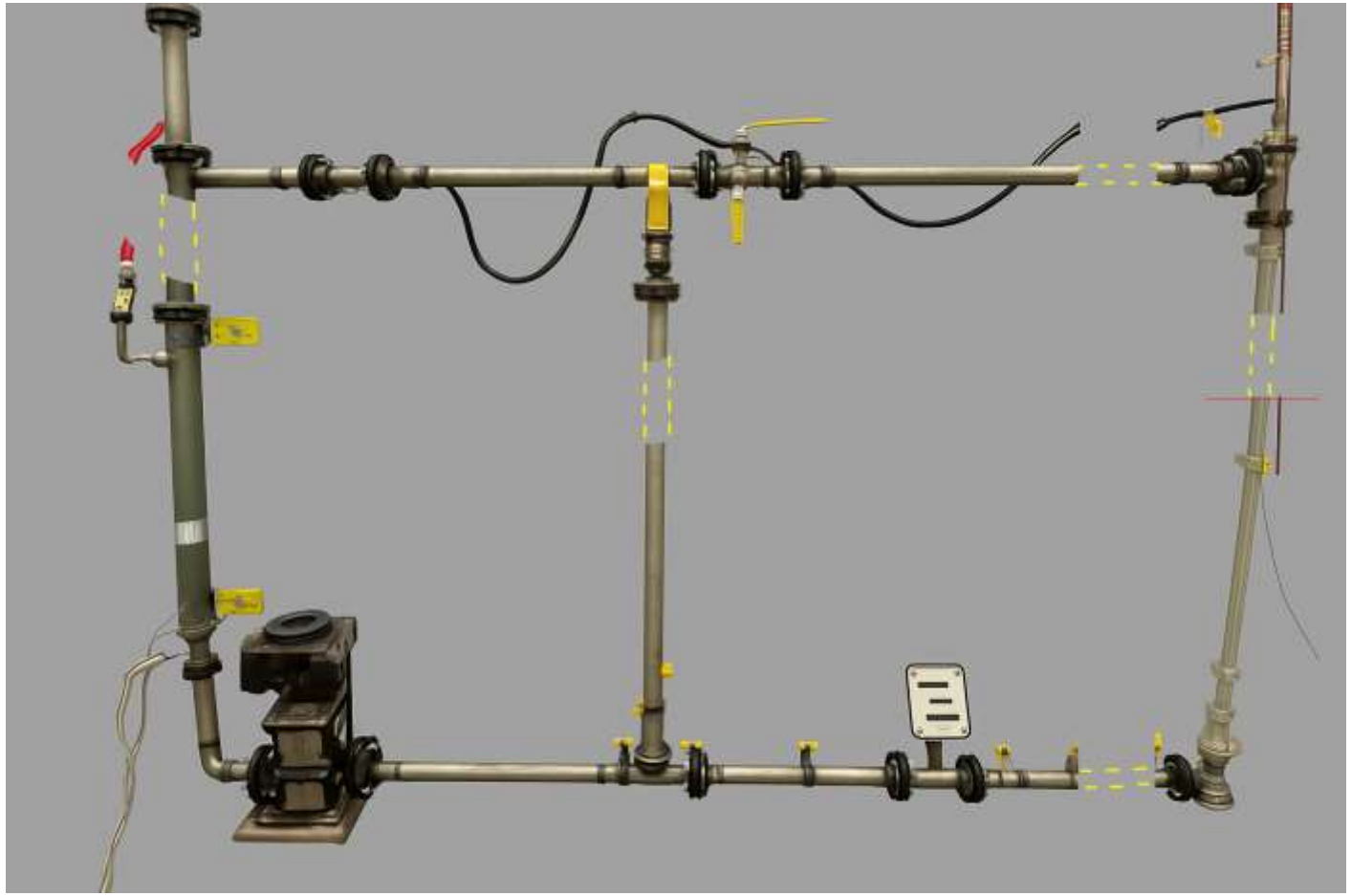
- Tap water pulls heat from the loop
- Water expelled outside

Typical PWR System



Plan for expansion to add measurement instruments

- Add lengths of pipe to both horizontal and all three vertical pipes to Improve measurement capability at different locations along the loop



Plan to add 'Control Room'

- Develop remote control and monitoring capabilities
- Located in C004 or Nearby

Thank You for Your Time

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