

# Hg System Status

**V.B. Graves**

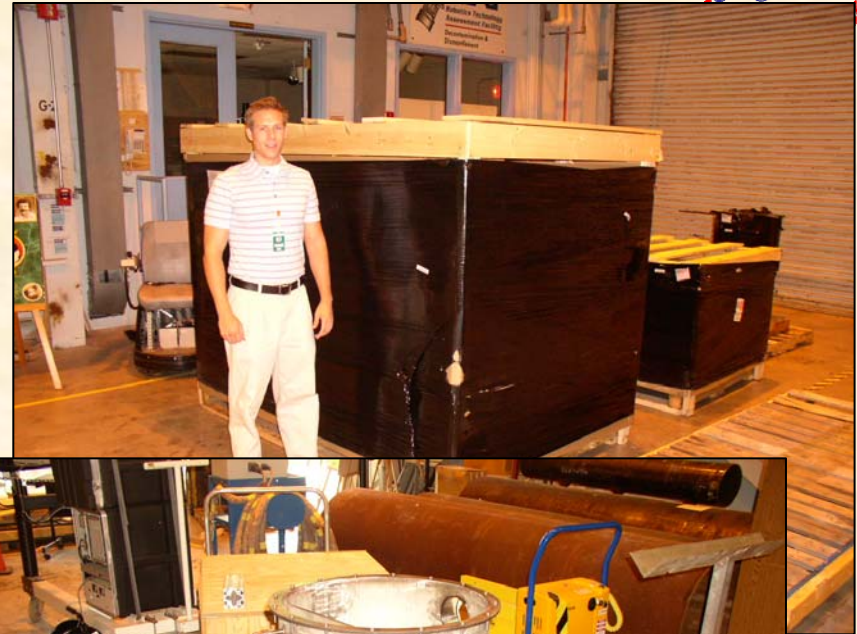
**P.T. Spampinato**

**MERIT VRVS Meeting**

**Aug 2, 2006**

# Syringe Pump at ORNL

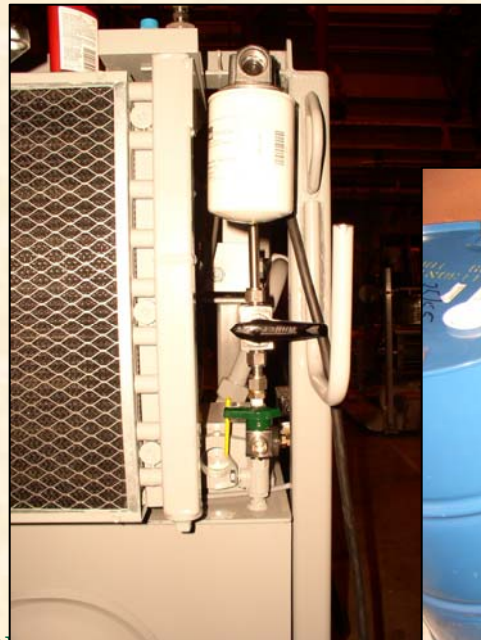
- **Hydraulic power unit (HPU) and syringe cylinders delivered to ORNL July 21**
  - Hg cylinder discharge piping shipped separately due to weld inspection problems, delivered Aug 1
- **Cylinders set directly on target cart until secondary containment received**





# HPU Setup

- Hydraulic fluid fill and drain process developed using peristaltic pump
  - Pump works well, takes ~30 min to fill system
- Fluid filter assembly added to HPU



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# Manual Control Operational

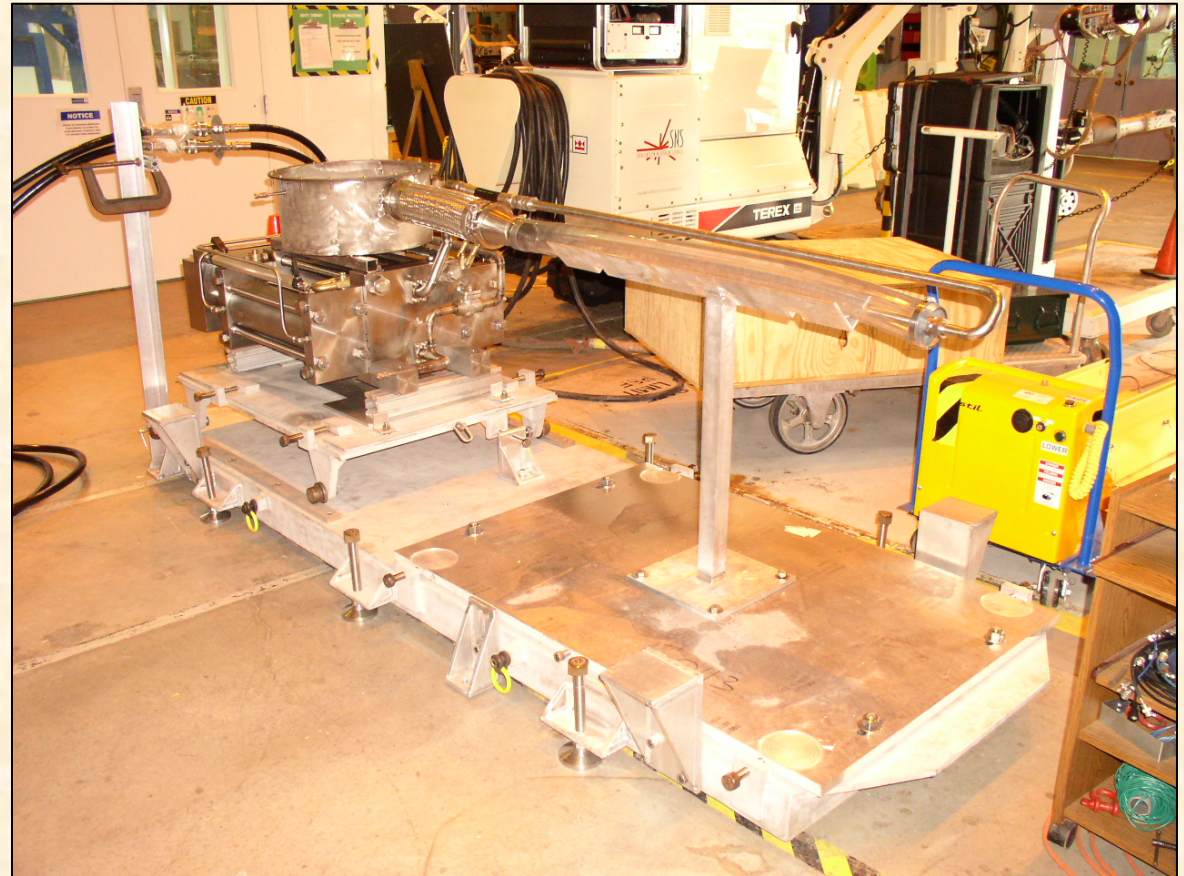
- Fluid added to HPU and hoses connected to syringe cylinders
- Manual control on HPU used to stroke cylinders





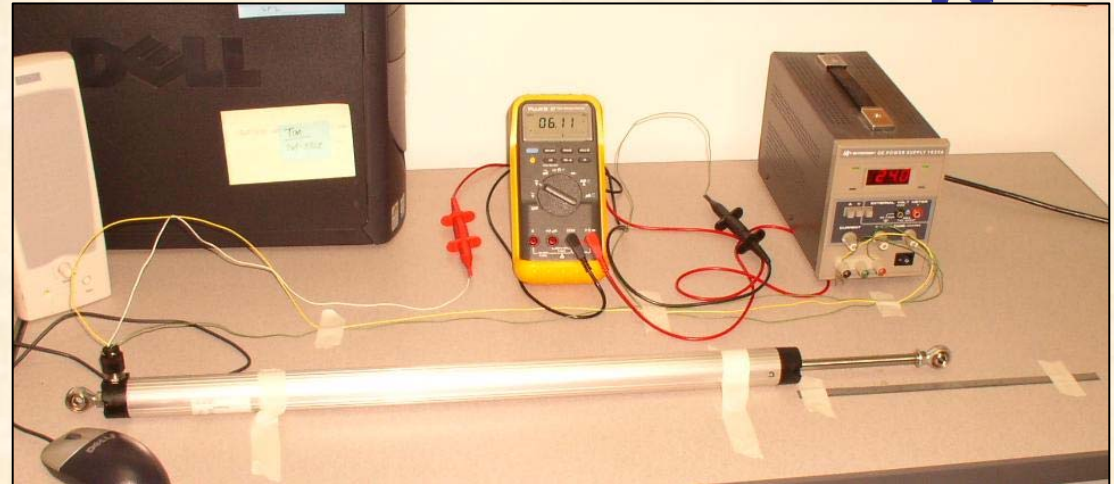
# Initial Water Testing Setup

- A primary containment has been mocked up to allow initial water tests to be performed
- Will be used to debug Labview control software and test some of the sensors



# Control System Connections

- **Calibrated position sensors**
- **Labview hardware installed in HPU cabinet**
- **Wiring to start later this week**
- **Initial version of Labview software complete, ready for test and debug once wiring in place**





## Next Steps

- **Add control system wiring and test communication between Labview hardware and HPU**
- **Sensor calibration and scaling**
- **HPU control from Labview**
- **Control system functionality tests**
- **Work to take several weeks**





# Conclusions

- **Awaiting delivery of some wiring components**
- **Manual control of syringe demonstrated**
- **Hydraulic system fill and drain procedures developed**
- **Control system hardware work to be initiated in next few days**