



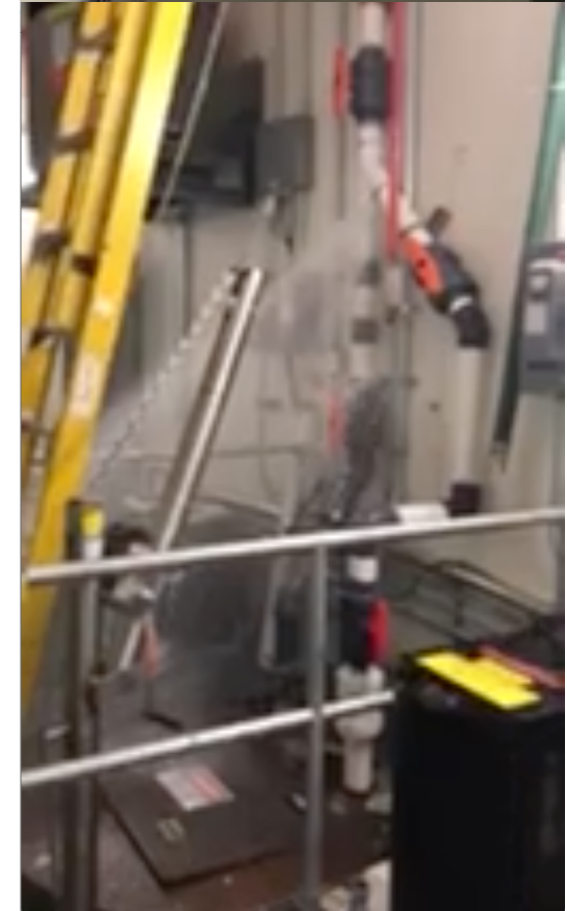
## MicroBooNE/LArTF Update

Carrie McGivern

18 May 2018

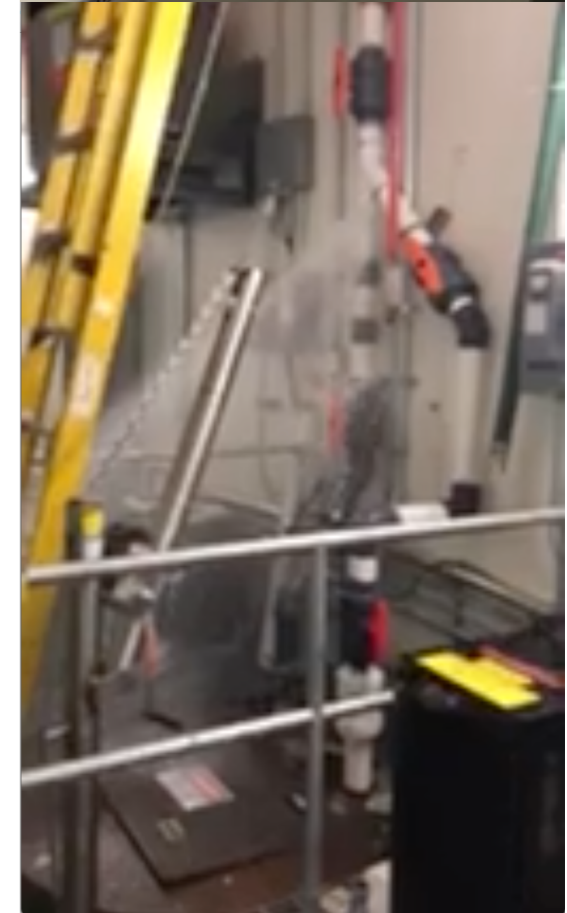
## Recap

- On Tuesday's weekly LArTF walkthrough we noticed that the Y joint of the sump pump discharge line was leaking
- A work order was placed with FESS that day and they were down in the pit on Wednesday to investigate and ordered out of stock parts
- Around 2:40 am Thursday morning, the dam broke
- First evidence was an ODH system alarm in MCR
  - Ops and Fire Department responded, no ODH hazard was found
    - NOTE : anyone entering and exiting below grade must call the MicroBooNE shifter to inform them of an access
- MicroBooNE shifter saw a loss of DAQ/subsystem control/monitoring
  - Shifter paged Run Co. team, they responded/arrived immediately
- Shaking due to check valves opening and closing abruptly (line #2) caused stress on the Y joint above and cracked it
  - Last happened late March/early April 2017
  - Temp pump in place until parts arrive
- Consequently a UPS unit was hit with water
  - Took down ODH system, Key Tree system, entire cryo system (pumps, cooling, monitoring (ifix), autodial system - so experts were not notified right away), networking, and one CRT machine



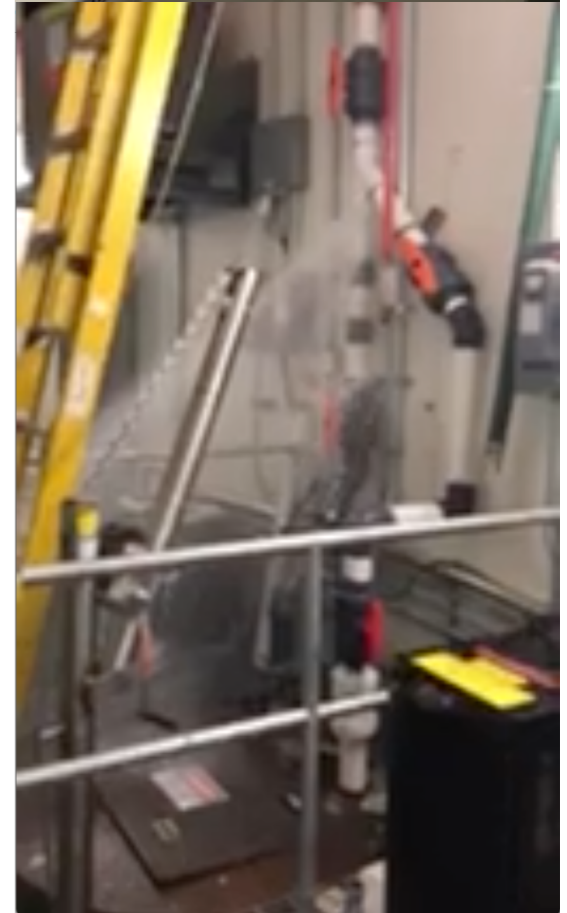
## Recap

- Around 3:20 am, MicroBooNE called to request beam stop
- ND cryo experts were notified around 4 am
  - With the cryo system off, it caused an interlock drop and automatically powered down the drift HV and PMT HV
    - LAr level was ok during this time, recovered system by 9:30 am
- Around 6:30 am networking was put on backup power (and has since been returned to normal power configuration)
- Platform and pit checks show machines were still powered on
- Around 8:30 am the UPS was bypassed and the switch was put on direct power (done by Tim Martin (PPD))
- Trevor Nichols (ND) is working on getting the UPS serviced and/or replaced with the vendor
- Drift HV was ramped back up around 5 pm without any issues and started taking cosmics, requested beam 6:20 pm (PMTs were back up and checked around noon)
- CRT system issues are still being diagnosed
- MicroBooNE will run in this configuration until UPS is repaired (or replaced)



## Many THANKS to

- Ops, Fire Dept, FESS (Dan Tuymmer and Omar Guzman), Duty Electricians, Farhan Ahmed (SLAM), Cryo experts (Mike Zuckerbrot and Fritz Schwartz), Trevor Nichols, Tim Martin (PPD), and Bryan Johnson... and anyone else I may have missed



## In far less exciting news...

- We have installed the 'Cone of Shame' on the Platform
- Melting water from ice balls above drip and floods the pit floor
- Can easily get up to ten gallons a week melting down the LN2 pipe
- Output [will] drain to sump pump in pit
- Thanks to Bryan Johnson

