



Infrastructure and LNGS Interfaces

Stefano Gazzana

Gerda Meeting, LNGS, September 28-30, 2009

Contents

A short overview of the main activities carried out from the different groups and Institutions in the main GERDA apparatus in the last months.

- Water Tank
- Super Structure
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- Ventilation

Water Tank: Status

- Cleaning, PMTs installation, Jackodur Installation, VM foils installation, water loop distribution ring installation: **done!!**
- Installation rack at level 6000 for cabling of the PMTs: to be done
- Water discharge: connection with LNGS drain system: **done;**
- Backup water circuit: some details still to be decided (meeting with LNGS next week)
- To be done: clean and install the manifold, installation of modified flanges for emergency drain and installation of the backup water circuit (time schedule 2 weeks from now)

VM foils and Jackodur installation inside WT



Final Configuration Inside WT

(thanks Markus and Tubingen group for the photos)



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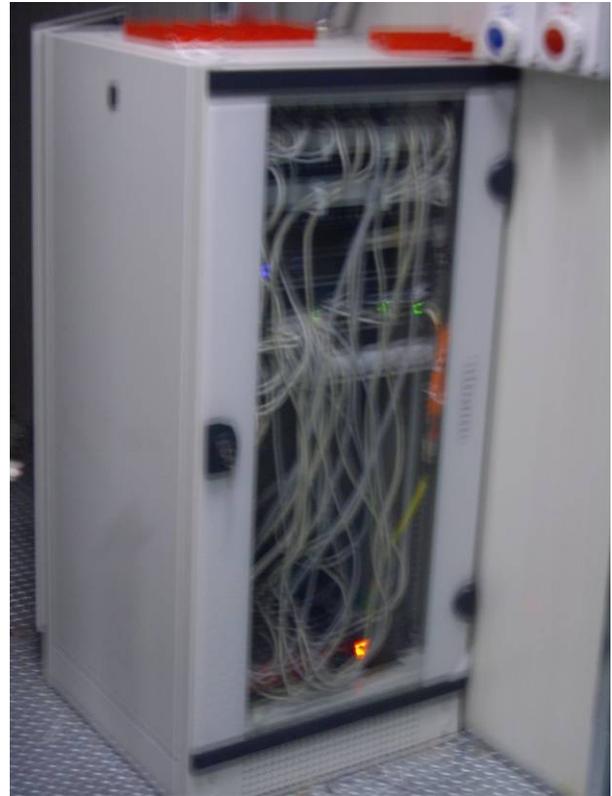
Discharge Tube for the WT fast drain



Super Structure: Status

- Dedicated power and grounding lines: **installed and working;**
- Normal & UPS power switchboard and lines: **installed and working;**
- Dedicated optical fiber, internet distribution: **installed and working;**
- Telephone: **installed and working;**
- Dedicated power distribution for LVD inside the control room (level 3000): **installed and working;**
- Air conditioning in the control room: **installed and working;**
- Modification of handrail for to bring loads into clean room: **done;**
- Protection ring on top of water tank: **installed;**
- Support for heat exchanger: **installed;**
- Clean room: **installed and working;**
- Radon Monitor: **installed and working;**
- Water loop: installed and under commissioning (cabling of some valves and instrument still missing, programming of PLC no yet started);
- Cryogenics plants around the SS: Valve box, “buffer tank”, atmospheric evaporators: **installed** and under commissioning

Main power and LAN boards



Rn Monitor



Water Loop Plant



Cryogenics facilities around S.S.



Criogenics: Status

- Nitrogen and Argon storage tanks (in TIR tunnel): **installed and working;**
- Pipe for filling the detector, included cooling (DeMaco): **installed and under commissioning;**
- Distribution Gas Nitrogen line for facilities (shared with CUORE): work assigned (Linde), ready for middle of October (hopefully beginning of Oct.)

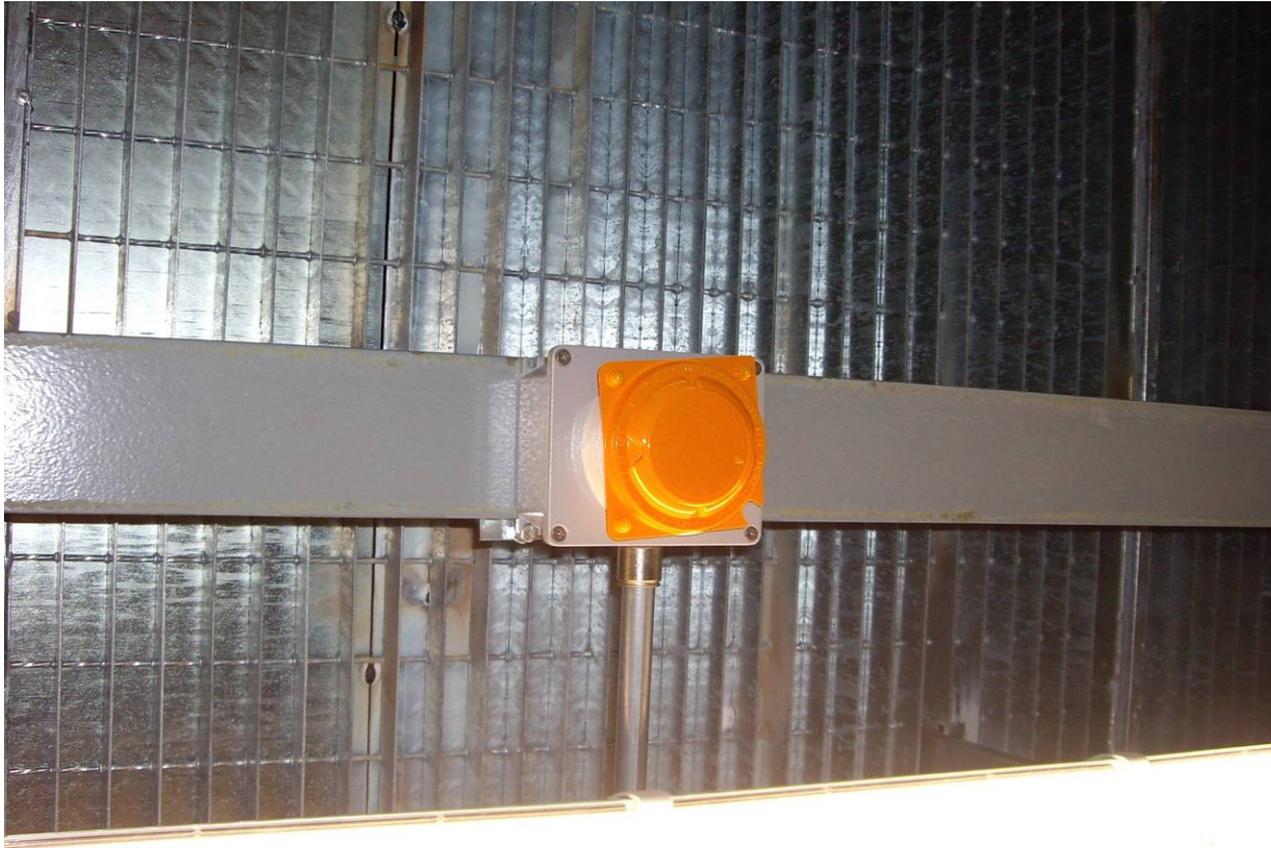
Cryogenic storage tanks and filling line



Safety: Status

- Oxygen safety system (included clean room): **installed and working;**
- Smoke sensors (included clean room): **installed and working;**
- Interface with LNGS supervision system:
 1. local control: working;
 2. Supervision and control in the LNGS control room: some parts are missing, time schedule 10 days before completing the jobs;

Smoke sensor



Oxygen sensor



Ventilation: Status

- New ventilation duct from the North of Hall A up to the Super Structure: **installed and working**;
- New tube from Heat Exchanger to the main ventilation duct: under construction, ready for end of this week (Oct 2);
- PLC Control and Programming (LNGS): order in place, time schedule: 1,5 month.

✂ → in this configuration for LNGS the system is working!!

Main Ventilation Duct



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