



# GERDA – LNGS Installation Meetings

## Overview

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GERDA Collaboration Meeting at LNGS  
9 - 11 June 2008

Introduction

Progress

cryogenic storage  
water discharge system  
ventilation  
exhaust gas heater & misc

Conclusions

Meeting # 1	14 January 2008	see Cracow
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Meeting # 2	22 April 2008
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Meeting # 3	08 May 2008
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Meeting # 4	28 May 2008
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Meeting # 5	...
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- Coordination of all works in Hall A
- Safety
- Planning of GERDA Infrastructure

LNGS: R. Adinolfi, P. Aprili, E. Coccia, D. Franciotti, P. Martella,  
A. Scaramelli, R. Tartaglia, M. Tobia, F. Torelli +  
GERDA: Marco, Carla, Matthias, Stefano, ktk

Responsible / contact persons:

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safety:	Ing. Bucciarelli	cryogenic:	P. Aprili
electricity:	Ing. Torelli	water	: tbd

Cryostat installation - done

WT installation - done

Electrical plant - nothing new, well defined project existing

Safety plant - nothing new, preliminary design existing

Slow control - LNGS has supplied document of standards

## Cryogenic storage

space allocated - see figure in context with ventilation

3 storage tanks (LN2, LAr, LN2 for high (9bar) pressure GN2)

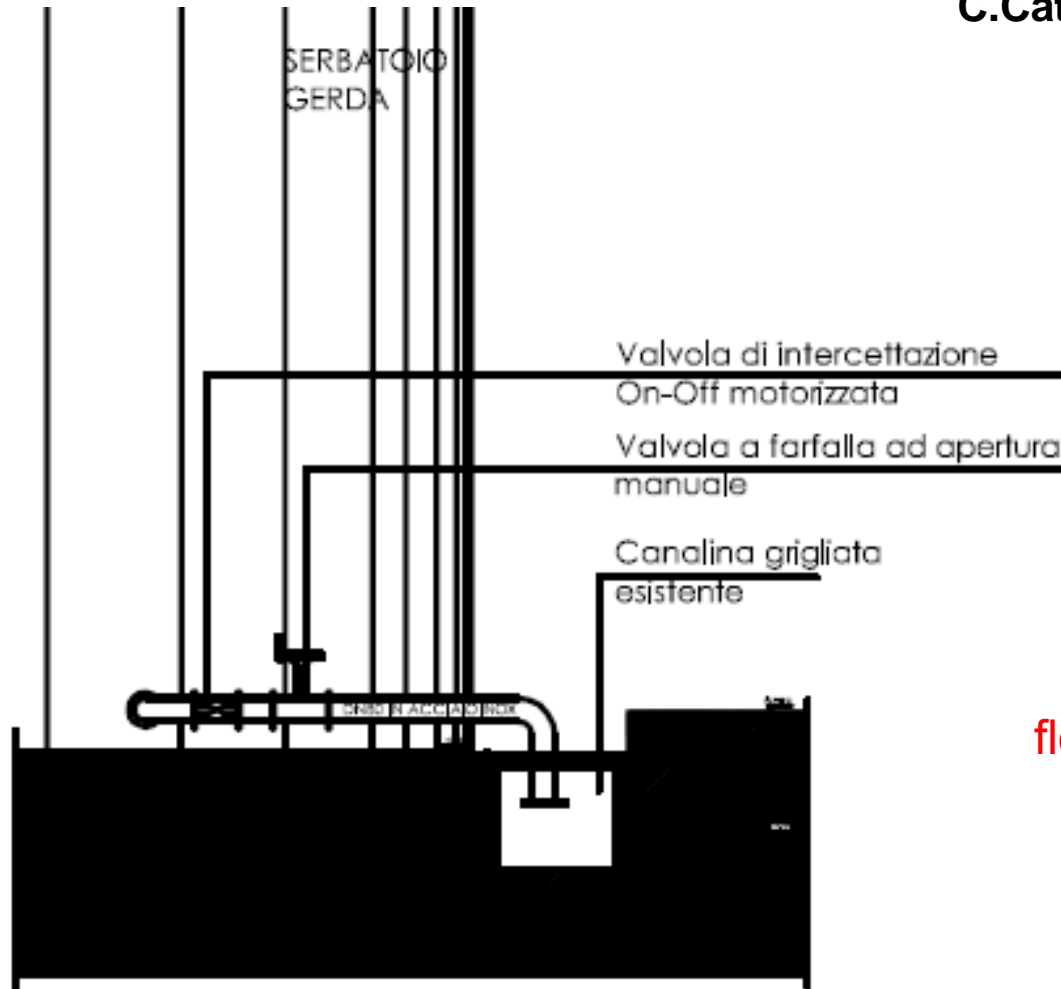
- ▶ Authorization for removing explosion-proof door obtained!

## Water discharge system

- ▶ Permission for works by commissioner obtained; LNGS again autonomous
- ▶ Design for works done
- ▶ Permission for works recently requested from Teramo authorities (incl. operation of water pipe thru interferometric tunnel.
  
- ▶ No water discharge test yet
- ▶ High flux connection to emergency pits abandoned? – see figures!



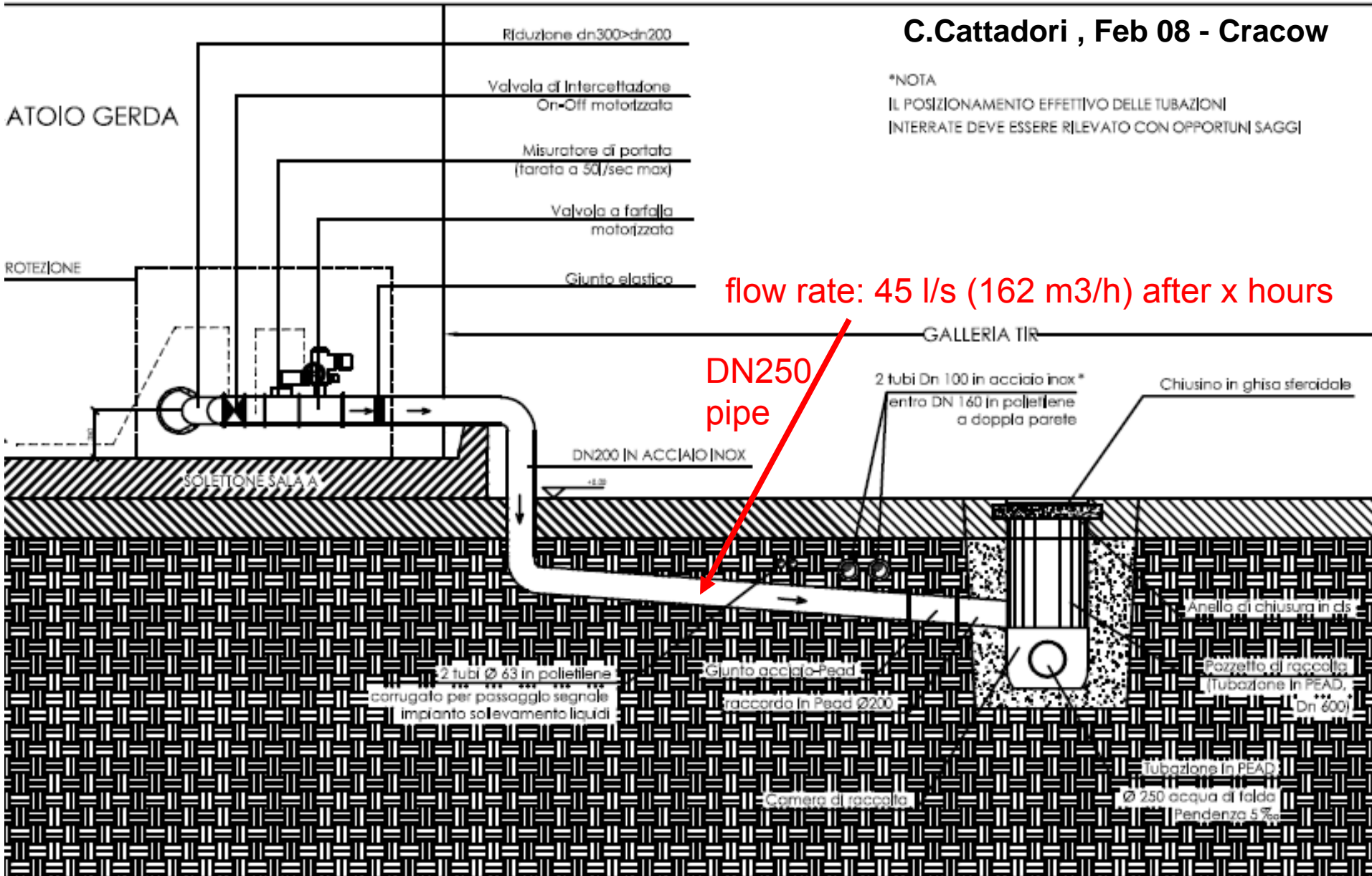
C.Cattadori , Feb 08 - Cracow



flow rate: 17 l/s

# Water Discharge Project

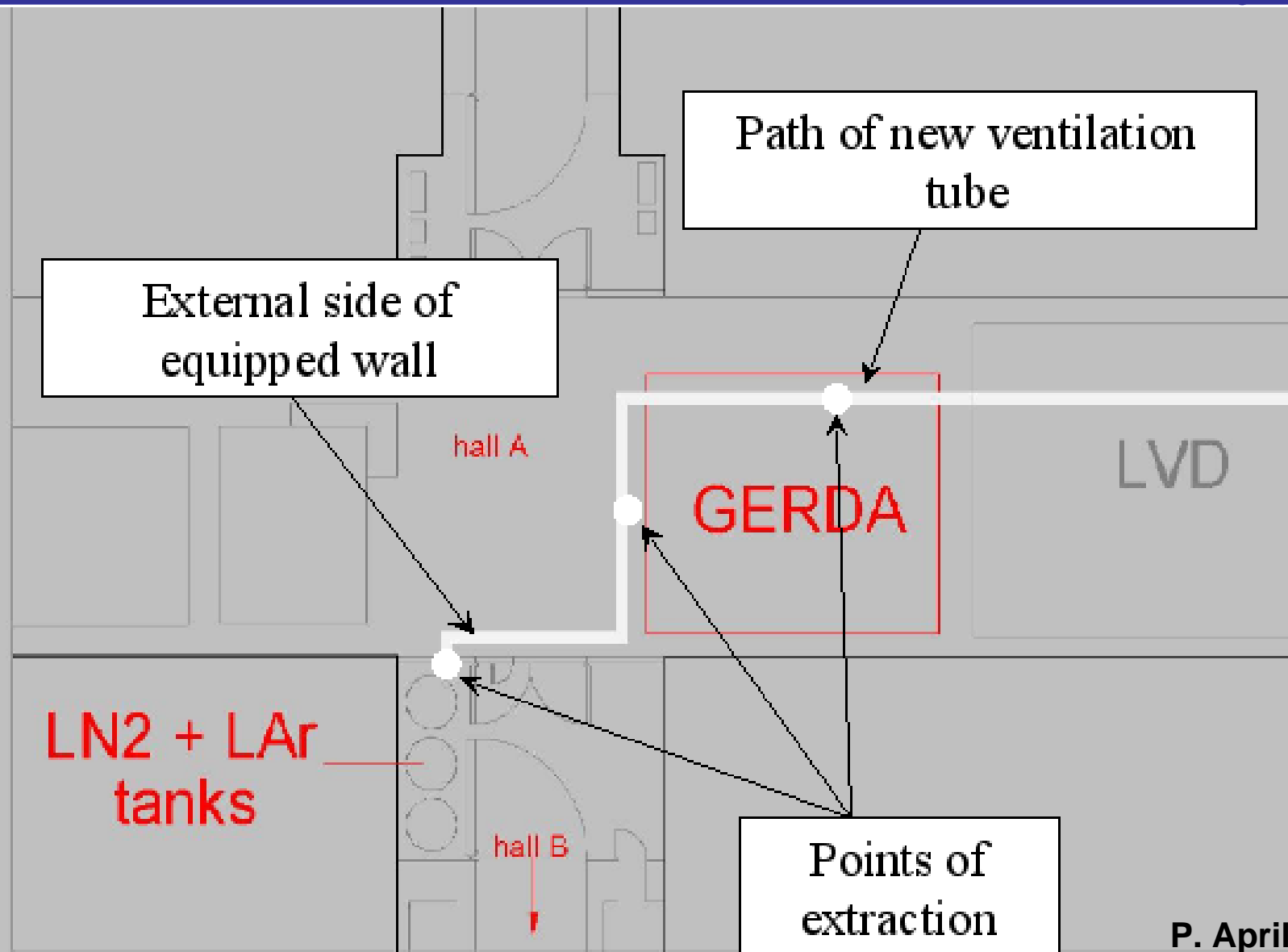
C.Cattadori , Feb 08 - Cracow





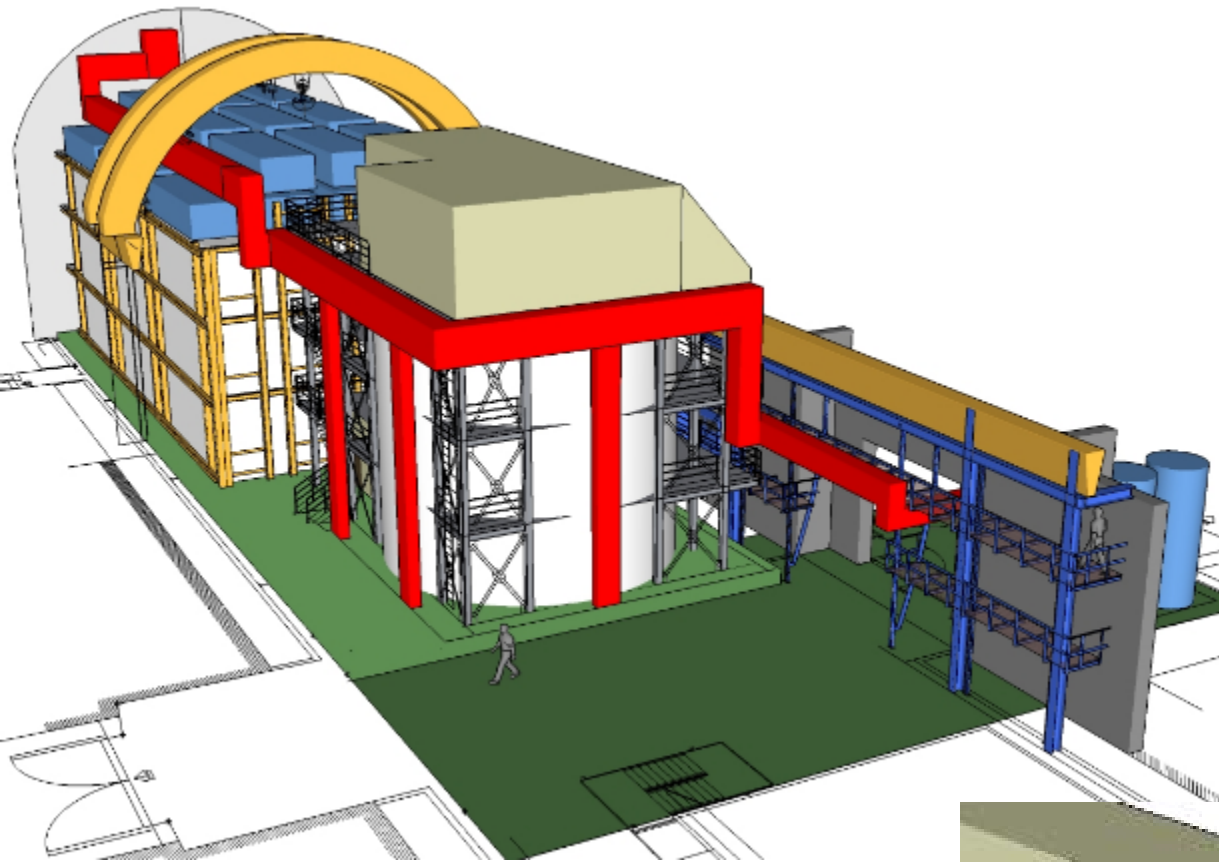
## Ventilation system

- ▶ New layout available – considerably downsized - see figures!
- ▶ Two types of simulations set up for risk analysis
  - a) refilling of storage tank by truck
  - b) rupture of transfer line
- ▶ First steps towards tender

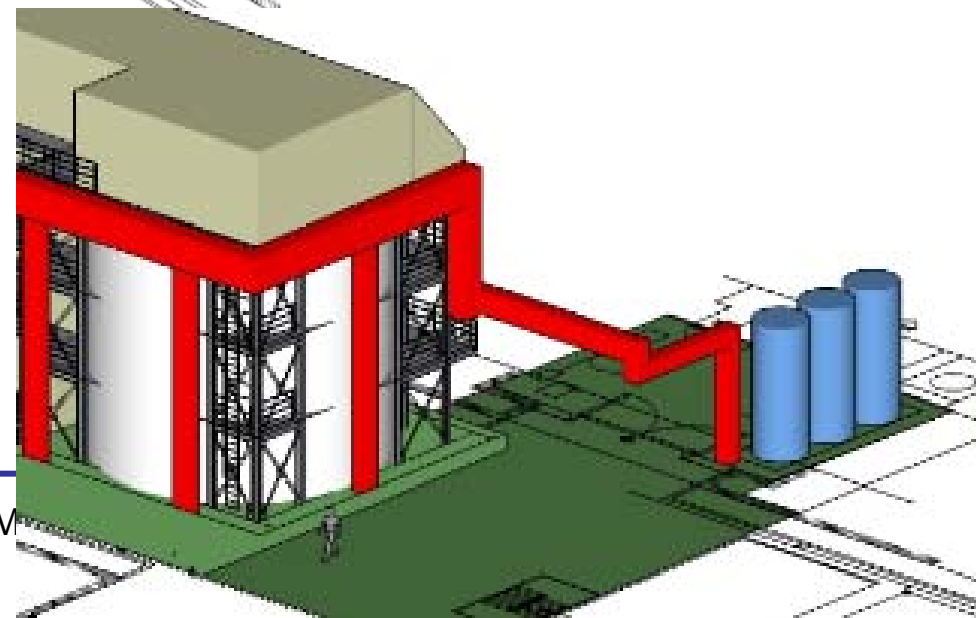


P. Aprili 22/4/08

# Ventilation System



P. Aprili 22/4/08



2008 Jun 09

Overview Integ.M

## Heater for Ar exhaust gas

- ▶ Letter by LNGS director defines dimensioning (2000 m<sup>3</sup>/h) and principle (water-heated).
- ▶ GERDA has presented specification sheet for a BEU type heat exchanger – no complaints – tender document published – quotes to be available by June 30, 2008.

## Miscellaneous

- ▶ Change of PID for cryogenic infrastructure announced
- ▶ Installation of lock needs safety review if installation is done with filled cryostat.

Intense cooperation between LNGS & GERDA in most friendly and prolific atmosphere.

Significant progress, however no funds available at the moment\* for infrastructure works.

Further progress only possible if GERDA succeeds in providing interim financing.

\* next meeting of directors: Friday, June 13.

