



Istituto Nazionale di Fisica Nucleare
LABORATORI NAZIONALI DI FRASCATI

WP6: FINUDA Decommissioning & FLASH Installation and Commissioning

FLASH KICK - OFF Meeting

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Scope

Ensure the disassembly of Finuda is completed within the established time frame.

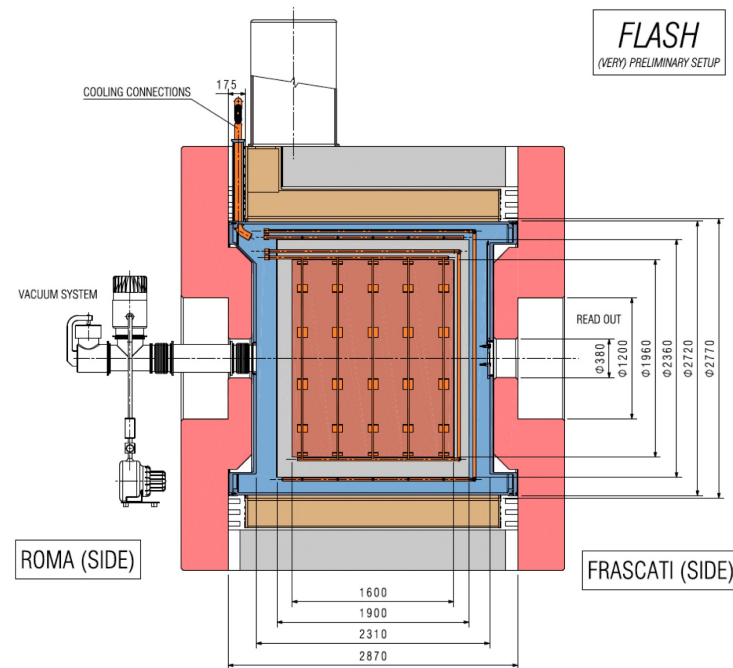
Coordinate the installation and commissioning of the FLASH Experiment, along with its associated systems and facilities.

Ensure that **all operations** are conducted in compliance with regulatory requirements, as well as safety and environmental protocols, to safeguard personnel health, protect the environment, and preserve the integrity of equipment.

To achieve these objectives, we must ensure that our HSE (Health, Safety, and Environmental) program effectively identifies, addresses, and mitigates safety and environmental risks throughout the design, construction, installation, commissioning, and operational phases of the experiment

FLASH Installation and Commissioning

We must guarantee interfaces with all work packages to ensure that their installation and commissioning phases are properly implemented in accordance with the quality standards defined by the Collaboration.



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During construction, we must coordinate the activities of contractors, subcontractors, and other team members, contributing to the resolution of day-to-day issues that arise.

FLASH Hazard Management - Design: Risk Analysis

In accordance with best practices in the field of prevention with the TDR we will provide a development of a Risk Analysis (RA) that considers the Health, Safety, and Environmental risks associated with FLASH Experiment.

From this risk analysis, the following will be highlighted:

- ✓ Identification and analysis of incident risks and/or undesired events (Top Events) and prevention methods using internationally recognized Industrial Risk Assessment standards (HazOp, FMEA, Fault Tree Analysis, Event Tree Analysis) through the following steps:
 - Detailed description of possible incident scenarios and their likelihood of occurrence
 - Evaluation of the extent and severity of the consequences of any identified incidents
 - Historical review of FINUDA technical parameters, considering lessons learned
 - Description of technical parameters and equipment used to ensure facility safety
- ✓ Assessment of environmental risks (if any)
- ✓ ElectroMagnetic Fields (EMF) Exposure
- ✓ Provisions needed for Pressure Equipment (PED Directive)
- ✓ Any requirements related to fire prevention

FLASH Hazard Management - Operations

For FLASH installation and commissioning (and FINUDA decommissioning) activities, the minimum obligations and requirements are specified in the Consolidated Law on Workplace Safety, Legislative Decree 81/2008 (D.Lgs. 81/08).

In particular; the provisions outlined in Title IV of the Decree where applicable.

In order to reach the previous mentioned objectives (goals) FLASH must:

- use working procedures to ensure the integrity of their activities;
- have an organizational structure with clear tasks and responsibilities;
- ensure compliance with the safety and health regulation, spreading awareness at all levels;
- verify and evaluate, in terms of safety, the reliability of contractors and suppliers;
- lead the plants within clearly defined parameters, using risk assessment methodologies for the evaluation and authorization of nonroutine operations;
- verify that both the design and construction of new plants and the changes to processes and equipment are supported by a risk assessment;

FINUDA Decommissioning

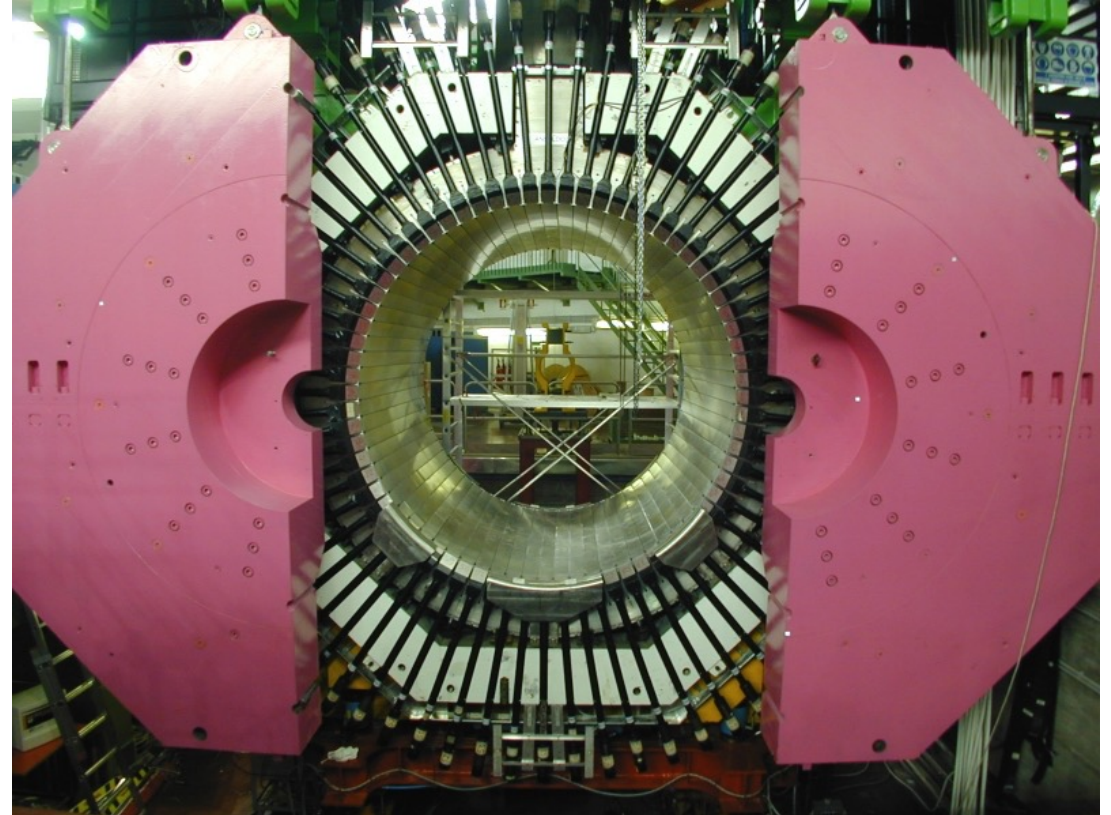
The disassembly operations will mirror the assembly process conducted during the construction of FINUDA. This ensures consistency and allows us to use previously stored tools and equipment from that time. (see FINUDA Technical Report LNF-95/024 (IR), particularly Sections 3 and 9).

Where necessary, we will use the same tools and equipment that were used during the original assembly. Some of these tools have been preserved at the LNF

FINUDA Decommissioning

The following components **will not be** disassembled during the operation:

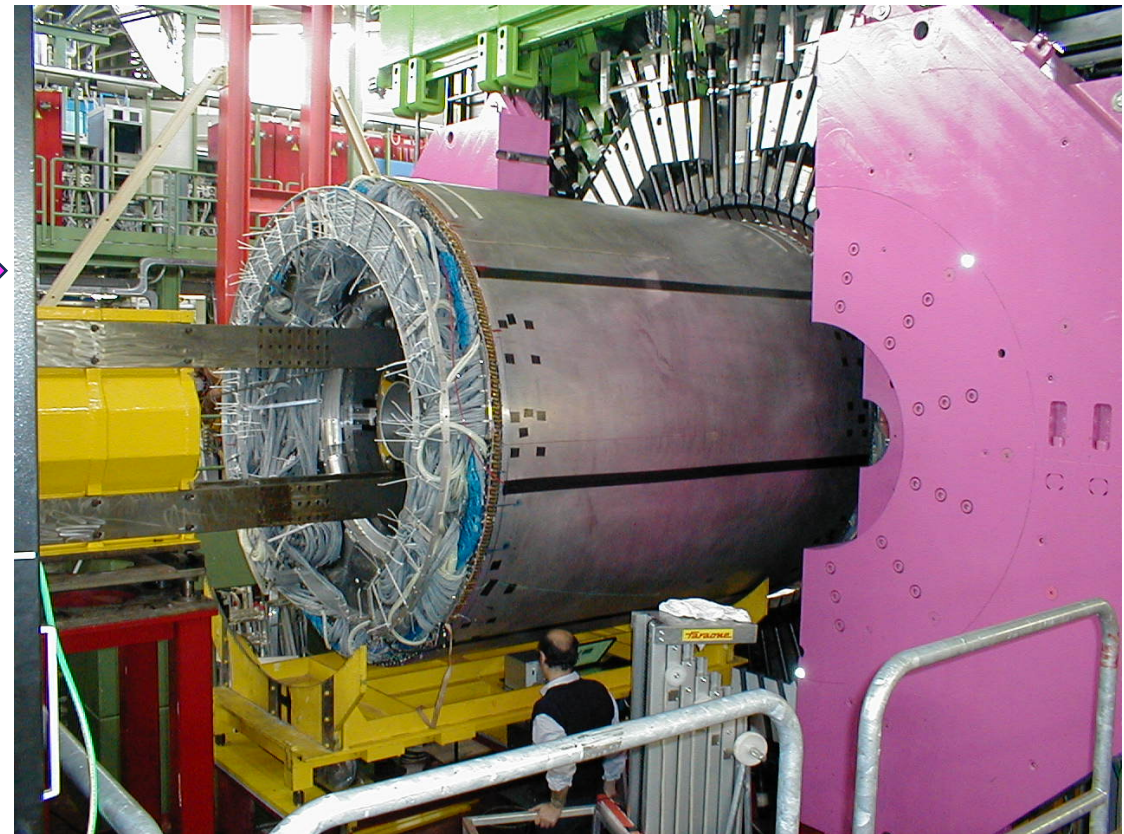
- Iron Joke
- Magnet
- Endcap
- Cryogenic components



FINUDA Decommissioning

The disassembly will focus on the components inside the magnet, including:

- Electrical and Signal Cables of Internal Detectors
- Electronic Racks
- General Supporting Structure (Clessidra) that holds the detectors TOFINO, ISIM, and OSIM
- TOFONE Detector



Waste Management

- The management of waste materials from the decommissioning of FINUDA (and the construction of the FLASH detector) will take place in accordance with current regulations (Legislative Decree 152/2006 as amended)
- Emphasis will be given to management that considers the waste hierarchy, that is, the set of priorities for the efficient use of resources.

