Current progress status of the Fukushima Daiichi decommissioning
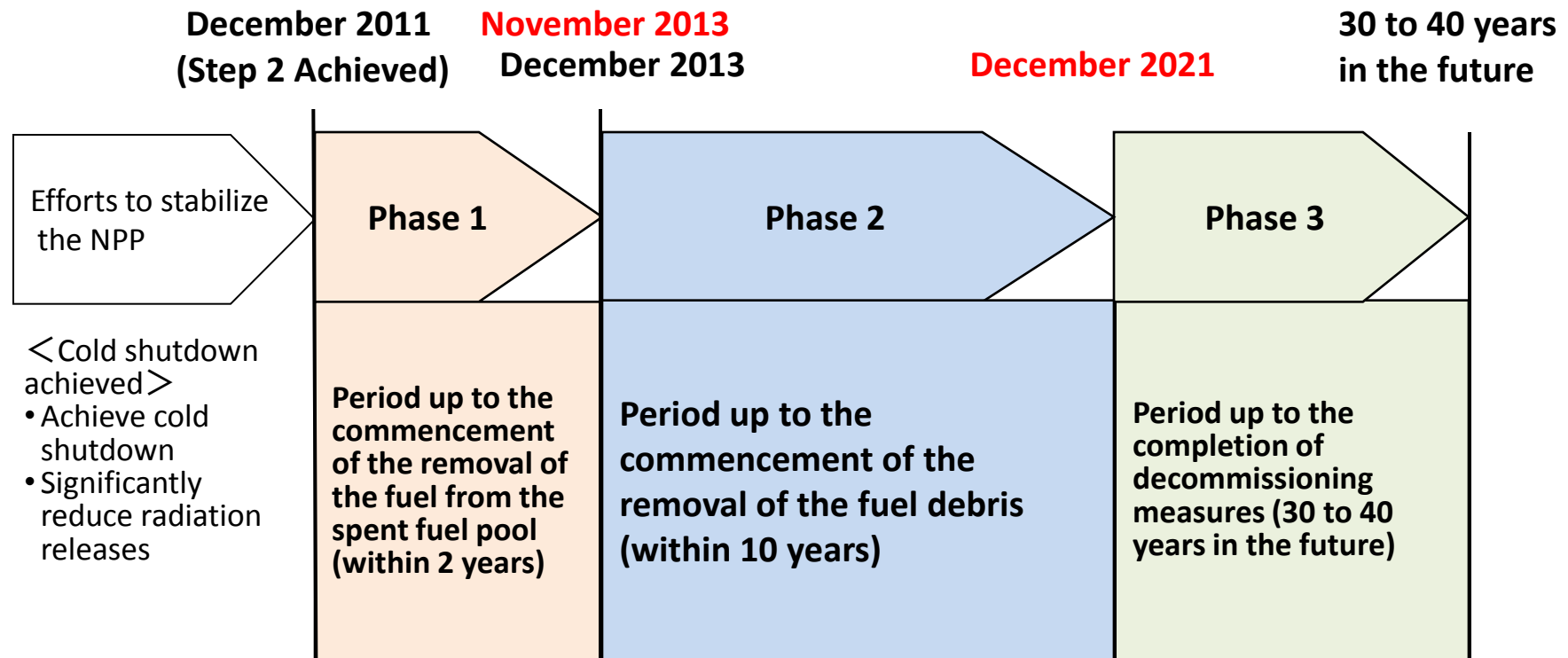## - Fuel removal from the spent fuel pool in the Unit 4 -

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12 November 2013

METI
Ministry of Economy, Trade and Industry

| December 2011 (Step 2 Achieved) | November 2013 / December 2013 | December 2021 | 30 to 40 years in the future |

Efforts to stabilize the NPP

Phase 1

Phase 2

Phase 3

＜Cold shutdown achieved＞
- Achieve cold shutdown
- Significantly reduce radiation releases

Period up to the commencement of the removal of the fuel from the spent fuel pool (within 2 years)

Period up to the commencement of the removal of the fuel debris (within 10 years)

Period up to the completion of decommissioning measures (30 to 40 years in the future)

Now: Under preparation of first fuel rods removal from Unit 4 SFP as target of Phase 1

1. Rubbles in the upper level of the reactor building need to be removed

2. Cover for the entire reactor building and Fuel Handling Machine are installed

3. Fuel rods stored in common pool are moved to dry cask to make vacancy for the spent fuel to be removed from SFP

→ Removal of spent fuel from Unit 4 is scheduled to start in the Middle of November 2013.
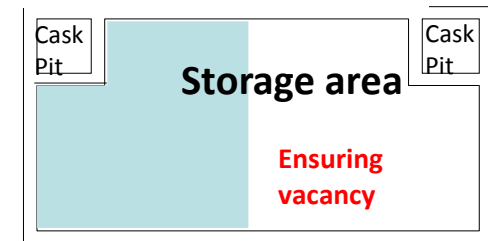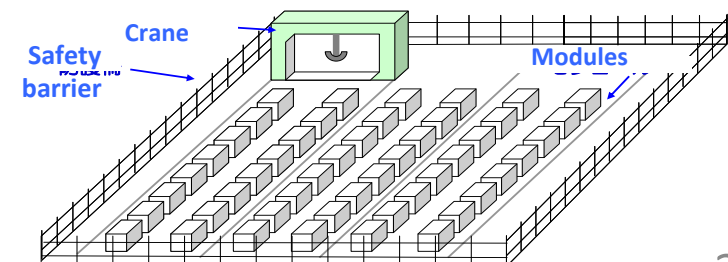
Inside of Unit 4

Common Pool

Cask Pit

Cask Pit

Storage area

Ensuring vacancy

Inside of SFP in the Unit 4

As of 2011.5.8

As of 2013.11.5

(Source: TEPCO's website)

Temporary Cask Custody Area

Crane
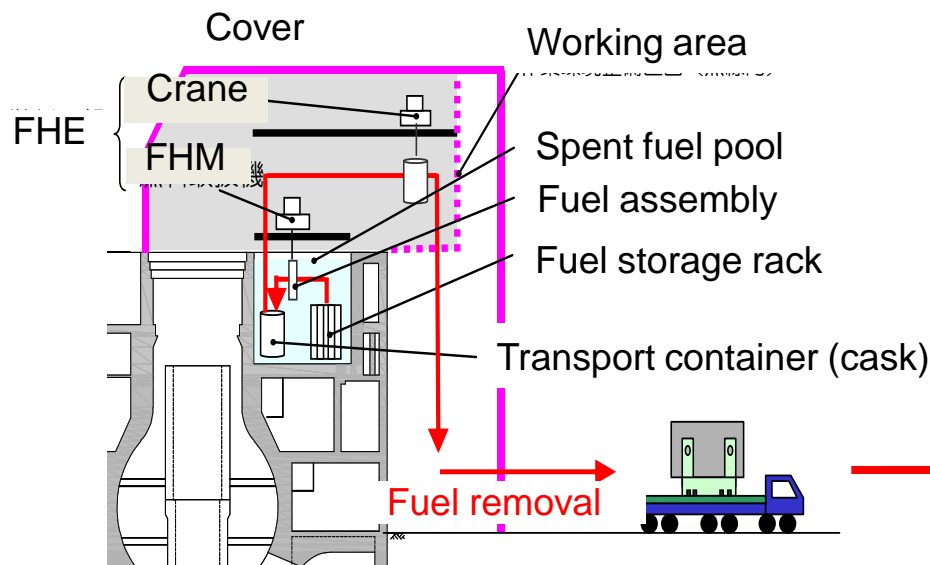
Safety barrier

Modules

Summary of Fuel Rods Removal from Unit 4 SFP

- **1533 fuel assemblies* in Unit 4 SFP to be transported to the common pool in the site.** *1331 spent fuel assemblies and 202 unspent ones
- **Start the work in November and will accomplish it by the end of 2014.**

Workflow

1. Move fuel assemblies in the storage rack into the transport container (cask) by FHM
2. Lift the cask with the crane from the SFP
3. Close the lid of cask and conduct decontamination at the floor at working area
4. Lift the cask and put it down to the trailer on the ground with crane
5. Transport cask to the on-site common pool by the trailer

Cover

Working area

Crane

FHE

FHM

Spent fuel pool

Fuel assembly

Fuel storage rack

Transport container (cask)

Fuel removal

On-site transport

On-site Common Pool

Cask Pit

Cask Pit

Storage area

Ensuring vacancy

FHE: Fuel Handling Equipment
FHM: Fuel Handing Machine