(Attachment)

General Plan of the Cover for Fuel Removal of Unit 4 in Fukushima Daiichi Nuclear Power Station

1. Purpose of the cover for fuel removal

   The cover for fuel removal is installed in order to inhibit the fly and diffusion of radioactive materials which arise from the support of fuel handling equipments, improvement of the work environment for fuel removal and the fuel removal work for the purpose of fuel removal from the spent fuel pool.

2. Structual Summary

   The size of the cover for fuel removal is approximately 69m (South-North) x approximately 31m (East-West) x approximately 53m (height). Mainly it is a steel construction, the sidewall and roof are planned to be covered by the jacket materials which block wind and rain. There are the slopes on the roof and the top of the sidewall which prevents rainwater from penetrating.

3. Design Concept

   (1) Improvement of the work environment for fuel removal

   The cover for fuel removal should block wind and rain in order not to interfere with the fuel removal work.

   (2) Prevention of fly and diffusion of radioactive materials

   The cover for fuel removal should be designed with few of gaps, installation of ventilating apparatus with filter in order to inhibit the discharge of radioactive materials to the air.

   (3) Monitoring System

   The status of the ventilating apparatus and the status of monitoring the radioactivity concentration at the both sides of the filter unit etc. should be indicated on the local control panel and the Seismic Isolated Building and monitored with the alarm call in case of emergency.

   (4) Earthquake resistance

   We designed long term allowable stress for the ordinary situation and short term allowable stress for the situation of snowfall, storm and earthquake. In those designs we adopted seismic load which was one and half times higher than the seismic load stipulated in the Building Act.

   Furthermore, we analyzed the earthquake response to the benchmark ground motions and confirmed that damage of the fuel removal cover would have no spillover effect on the reactor building, the spent fuel pool and the spent fuel rack.

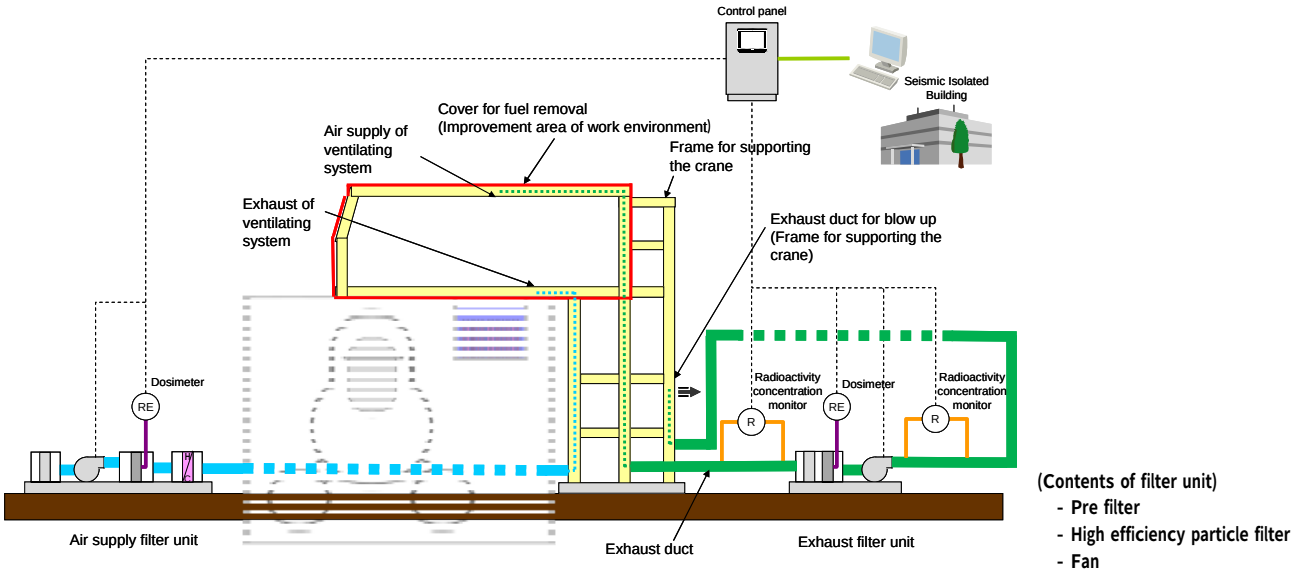


Fig.1 Schematic Diagram of Ventilating Apparatus of the Cover for Fuel Removal

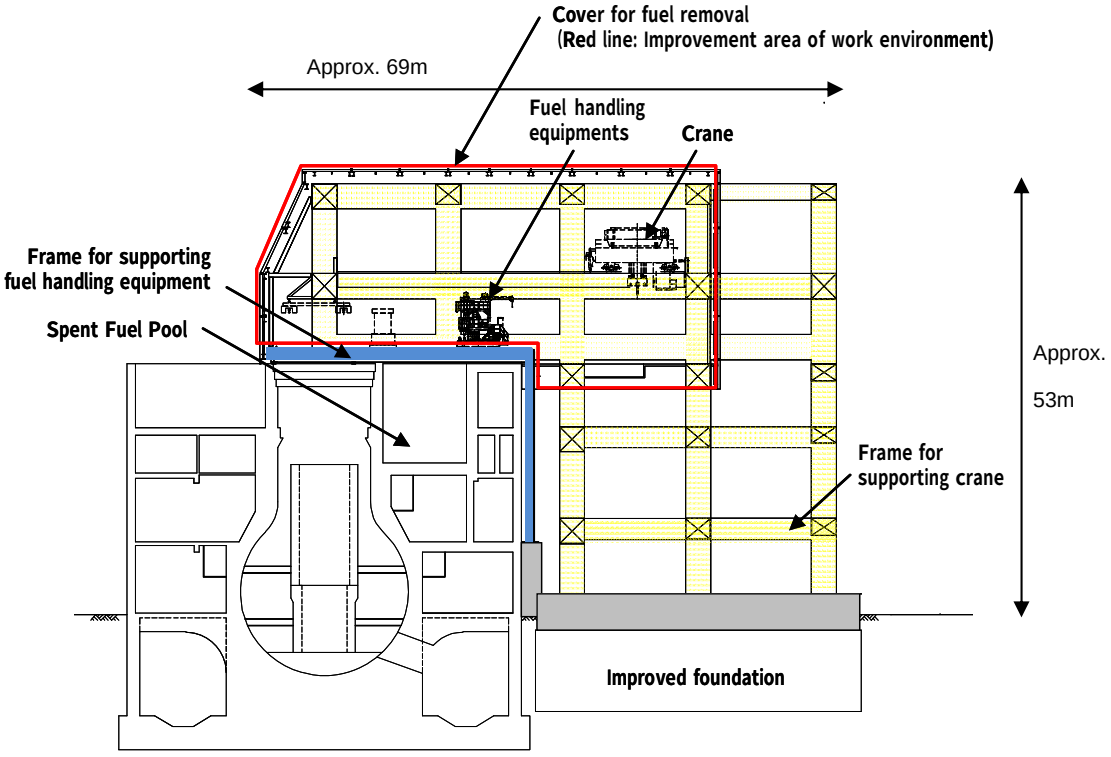
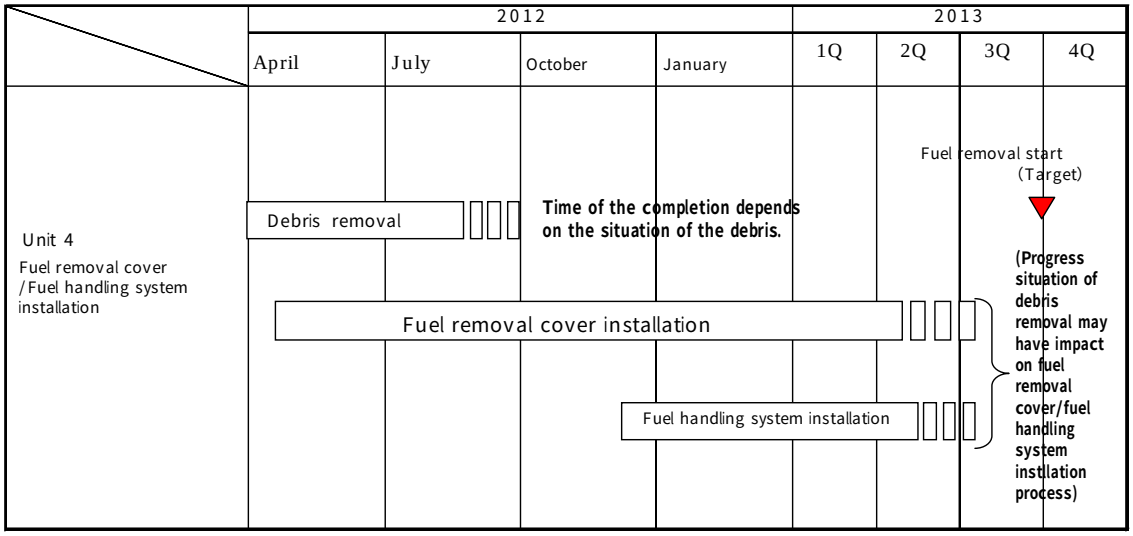


Fig.2 Schematic Diagram of the Cover for Fuel Removal

4. Work Schedule



End