

Steps for Revitalization in Fukushima

- The progress of the investigation inside Unit 2 PCV (Primary Containment Vessel) at Fukushima Daiichi NPS (Nuclear Power Station) –

Fukushima Reconstruction Promotion Group, METI

1. The purpose of investigation started on 26th January 2017 is to identify the status inside the Unit 2 PCV and to make progress toward fuel debris removal. In this investigation, a camera and a robot are inserted close to the RPV (Reactor Pressure Vessel) by remote control. The internal situation was grasped by the digital images. From the result of this investigation, the status of the scaffold having fallen to the bottom of the RPV and deposits were identified directly for the first time. This is a big step toward the decommissioning of Fukushima Daiichi NPS.
2. During this investigation process*, in order to grasp the status inside the PCV, the radiation dose inside the PCV was estimated using the estimation technique using image noise of the camera inserted into the PCV. The estimated dose rate of several hundred Sievert per hour exceeded actual measured values which were obtained in the past. This result, however, needs to be understood that there might be a large measurement error because it was not an actual measurement.
3. The result of this investigation does not mean that some new phenomenon inside the PCV has occurred. Moreover, the inside of the PCV is shielded by thick steel vessel, concrete and zinc-plate inside the building and the gas inside PCV are controlled well. The status inside the PCV is still stable and there are no changes in radiation levels at the site boundaries of Fukushima Daiichi NPS. Through this investigation, there was and will be no effect by the radioactive material to the outside the PCV. (See figure.1)
4. Since the aftermath of the accident of Fukushima Daiichi NPS by the Great East Japan Earthquake, the air dose rate within the 80 km radius of the NPS in October 2016 has decreased up to approximately 70% compared to the air dose rate in November 2011 by the natural attenuation and efforts on remediation. (See figure.2). Lifting evacuation orders are progressing steadily. The evacuation orders were already lifted for Tamura city, Kawauchi village, Naraha town, Kuzuo village, and Minamisoma city. In addition to these areas, the evacuation orders will be lifted for Iidate village and Kawamata town in the spring of 2017. Reconstruction efforts are being accelerated in

Namie town and Tomioka town to lift evacuation orders.

5. National route No.6 and the Joban Expressway have completely reopened in September 2014 and in March 2015 respectively. In addition, train services of the JR (Japan Rail ways) Joban Line will be completely reopened by the end of March 2019. Restoration of infrastructure for people’s life has been progressing steadily.

6. The efforts for decommissioning of Fukushima Daiichi NPS will continue safely. In addition, to revitalize Fukushima, the government has been and continues to work unitedly and will progress in cooperation with the local. Note that further investigation inside PCV using a robot will be implemented. The result of the investigation will be informed as soon as it is summarized. Japanese government will inform in a timely and appropriate manner to inside and outside the country.

* This investigation process

26 January : The guide pipe with a camera was inserted into the PCV to keep and confirm the way (the penetration of number X-6 and the rail for CRD(Control Rod Drive) replacement) on which the Scorpion robot will run.

30 January : The extensible guide pipe with a camera was inserted into the PCV to confirm the way (the rail for CRD replacement and inside the PCV pedestal) on which the Scorpion robot will run.

(The radiation dose which is approx.530 Sv/h at its peak was estimated from image noise.)

9 February : The robot to remove a part of potentially troublesome deposits on the rail that will be used to insert the Scorpion robot.

(The radiation dose which is approx.650 Sv/h at its peak was estimated from image noise.)

Fig.1 Change of radiation dose at the site boundaries of Fukushima Daiichi NPS

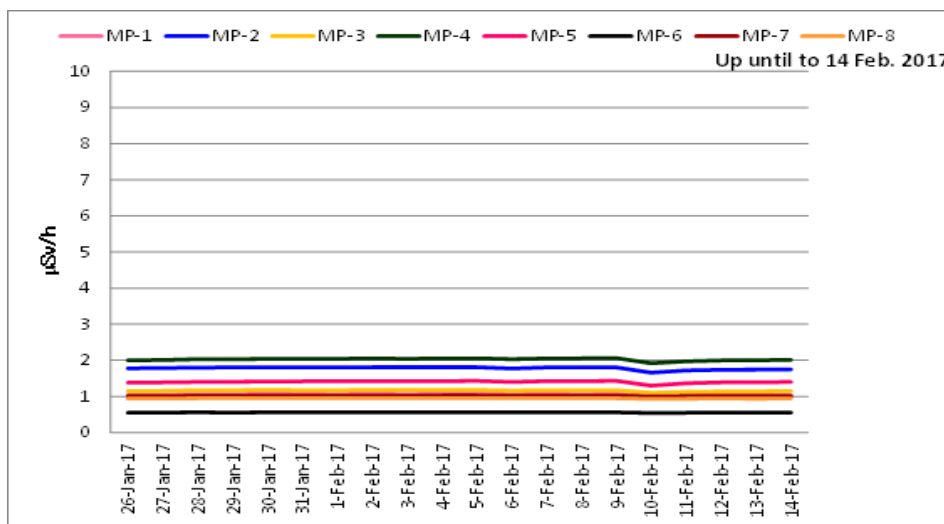
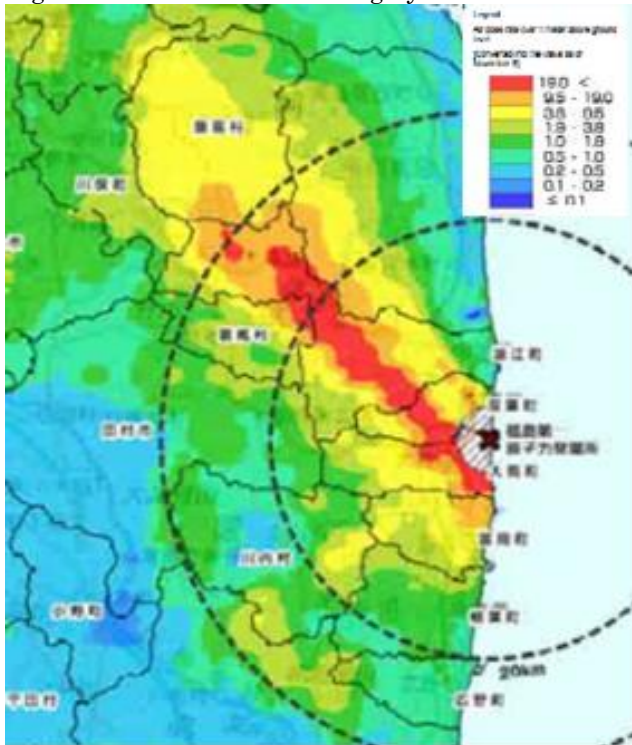
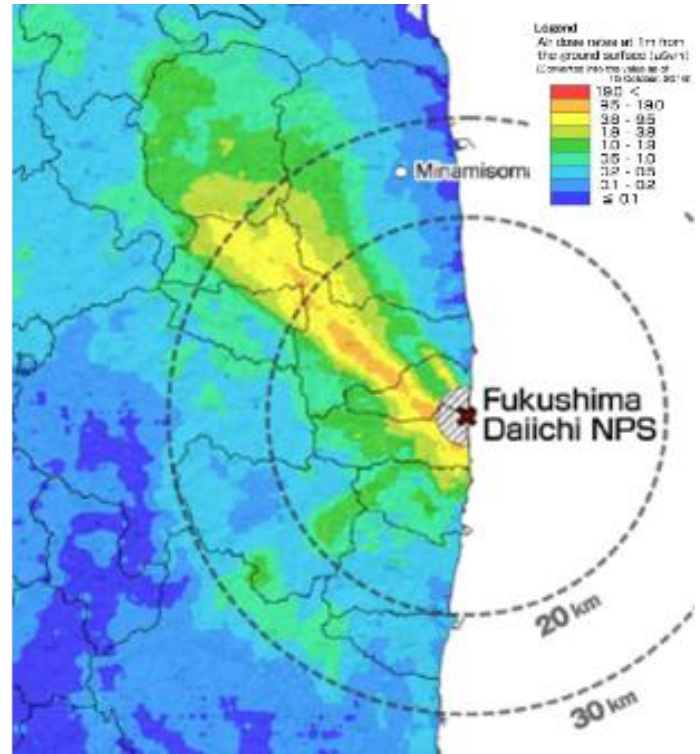


Figure 2. Airbone monitoring by NRA



(5 November 2011)



(15 October 2016)

Figure 3. Conceptual diagram of evacuation order area

