Mock Council debate: Question Time Daya Bay Contingency Plan Background Brief

Purpose

This paper briefs Members on the background and overview of the Daya Bay Contingency Plan ("DBCP") put in place by the Administration.

Background

- 2. Daya Bay Nuclear Power Station ("DBNPS"), which comprises Guangdong Nuclear Power Station ("GNPS") and Lingao Nuclear Power Station ("LNPS"), is located about 50 kilometres north-east of the Hong Kong urban area. GNPS and LNPS commenced operation in 1994 and 2002 respectively.
- 3. The designs of the pressurized water reactors at GNPS and LNPS are similar. The International Atomic Energy Agency, established under the auspices of the United Nations, conducted safety reviews both before and after GNPS commenced operation to ensure that GNPS would be operated in strict compliance with international safety standards.
- 4. Following the incident at the Fukushima Daiichi nuclear power plant in Japan in March 2011, the Administration completed a review of DBCP in late 2011. The revised DBCP contains a series of enhancement measures covering areas of emergency response structure, radiation monitoring, notification arrangements, accident consequence assessment, boundary control measures on inbound travellers and goods, plume exposure pathway countermeasures, ingestion pathway countermeasures for food and water, enhancement in public information dissemination and public education.

Notification mechanism

Notification mechanism between the Hong Kong Special Administrative Region Government and the Guangdong authorities

5. Hong Kong and the Guangdong Province established an official contingency notification channel for DBNPS as early as in mid-90s. In case of an emergency incident or accident, DBNPS will immediately notify the Nuclear Emergency Committee Office of the Guangdong Province ("GDNECO") and other relevant Mainland organizations. GDNECO will then notify Hong Kong within the specified notification timeframe according to the level of the incident or accident, so as to facilitate Hong Kong's assessment of the situation and adoption of corresponding measures.

6. In recent years, the Hong Kong Special Administrative Region Government and GDNECO have drawn up an incident notification mechanism for new nuclear power stations in the Guangdong Province. The new mechanism, which is based on the incident notification mechanism for DBNPS, covers different levels of incidents and accidents occurring at all operating nuclear power stations in the Guangdong Province except DBNPS, so as to further improve the channels for information exchange and contingency notification between Hong Kong and Guangdong.

Monitoring the radiation levels in Hong Kong

The real-time radiation monitoring network of the Hong Kong Observatory ("HKO") (consisting of 12 monitoring stations) can promptly measure whether there is an increase in the ambient gamma radiation level in Hong Kong and indicate the areas affected. An alarm at the HKO Headquarters will be triggered once a significant increase in the ambient radiation level is detected at any one of the monitoring stations. In case the initial assessment of HKO indicates that the increase in radiation level is not caused by natural disasters, HKO will notify the Security Bureau and enquire with the relevant Mainland authorities when necessary. Such radiation data are made available to the public at HKO's website.

Daya Bay Contingency Plan exercises

- 8. Large-scale inter-departmental exercises are conducted in a cycle of every three to five years to test the response capabilities of the Government in dealing with severe nuclear incidents, so as to ensure the Government's nuclear emergency preparedness and relevant professional knowledge, and to enhance the understanding of nuclear power and nuclear emergency preparedness among the public. The Government will assess the outcome of the exercises, consider the comments and recommendations from participants and observers and make refinements to DBCP when necessary. In addition, the Administration has maintained liaison with the National Nuclear Safety Administration and made reference to the information provided by it in the exercises.
- 9. The Administration has also formulated a long-term plan to conduct a large-scale DBCP exercise involving the participation of the relevant emergency response centre in the Guangdong Province and DBNPS so as to identify areas for improvement.

Education Service Team Legislative Council Secretariat September 2025

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