Regarding the Implementation of Necessary Measures for Fire Prevention in Relation to Overhang-Type High-Voltage Breakers at Nuclear Power Stations (Direction)

On May 31, 2011, Nuclear and Industrial Safety Agency issued a written direction to commercial power reactor licensees on the implementation of measures necessary for fire prevention in relation to overhang-type high-voltage breakers at nuclear power stations (NPSs).

On May 30, 2011, Nuclear and Industrial Safety Agency (hereinafter referred to as “NISA”) received a report from Tohoku Electric Power Co., Inc. on the status of Onagawa NPS following the 2011 off the Pacific Coast of Tohoku Earthquake and the ensuing tsunami.

According to this report, a fire broke out on the high voltage normal distribution panel at Unit 1 of the aforementioned NPS on March 11. The fire is understood to have been triggered when seismic motion caused an overhang-type high-voltage breaker of the distribution panel to swing, bringing the bonding conductor into contact with the surrounding structure and creating a short or a ground, which in turn caused an arc discharge with heat sufficient to touch off a fire. Based on this report and in order to prevent similar fire incidents, NISA issued a written direction (see appendix) today, May 31, to commercial power reactor licensees to verify the presence if any of overhang-type high-voltage breakers at NPSs owned by these licensees, and should such a breaker be present, draft an implementation plan for necessary measures for fire prevention such as upgrading to a high-voltage breaker with highly seismically-resistant design or installing a seismic trestle on the lower part of the overhang-type breaker, and report this to NISA by June 15 of this year.

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May 31, 2011

Regarding the Implementation of Necessary Measures Necessary for Fire Prevention in Relation to Overhang-Type High-Voltage Breakers at Nuclear Power Stations (Direction)

Nuclear and Industrial Safety Agency
NISA-131b-11-1

On May 30, 2011, Nuclear and Industrial Safety Agency (hereinafter referred to as “NISA”) received a report from Tohoku Electric Power Co., Inc. regarding the status of Onagawa Nuclear Power Station (NPS) following the 2011 Off the Pacific Coast of Tohoku Earthquake and the ensuing tsunami.

According to this report, a fire broke out in the high-voltage normal distribution panel at Unit 1 of the aforementioned NPS on March 11 of this year. The fire is understood to have been triggered when seismic motion caused an overhang-type high-voltage breaker of the distribution panel to swing, bringing the bonding conductor into contact with the surrounding structure and creating a short or a ground, which in turn caused an arc discharge with heat sufficient to touch off a fire.

Based on this report and in order to prevent similar fire incidents, NISA directs commercial power reactor licensees to verify the presence if any of overhang-type high-voltage breakers at NPSs owned by these licensees, and should such a breaker be present, draft an implementation plan for necessary measures for fire prevention such as upgrading to a high-voltage breaker with highly seismically-resistant design or installing a seismic trestle on the lower part of the overhang-type breaker, and report this to NISA by June 15 of this year.