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Effects on ships and seafarers sailing off the coast
from Fukushima Dai-ichi Nuclear Power Plant

Maritime Bureau,
Ministry of Land, Infrastructure, Transport and Tourism

On April 25, the Japan Coast Guard (JCG) has issued a navigation warning which designated the area within 20 kilometers of Fukushima Dai-ichi Nuclear Power Plant as a restricted area based on Act on Special Measures Concerning Nuclear Emergency Preparedness. On September 30, JCG cancelled the warning which permitting entry into waters between 20 and 30 kilometers of Fukushima Dai-ichi Nuclear Power Plant subject to preparedness for emergency evacuation.

The Nuclear Safety Commission (NSC) is evaluating the Environmental Monitoring Results of 20km or further from Fukushima Dai-ichi Nuclear Power Plant (NPP), published by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). According to the latest “Evaluation of Environment Radiation Monitoring Results” issued by the NSC on October 3, the NSC concludes that “The observation of ambient radiation dose rate at 20km or further from Fukushima Dai-ichi NPP found a relatively higher dose rate locally at several measuring points. However, it is not at a level that affects people’s health” and “in terms of the measurement of the radioactive concentration of seawater on the surface layer from off the Miyagi prefecture to Ibaragi coast including near Fukushima Dai-ichi NPP, measurements were non-detected, except for the point closest to Fukushima Dai-ichi NPP. Even the Cs-134 and Cs-137 were detected on the point closest to Fukushima Dai-ichi NPP, but these measurements were below the limitation (1)”.

(1)Limits of the radioactive in the water outside the peripheral monitoring area boundary as specified by the Act on the Regulation of Nuclear Source Material, Nuclear Fuel Material and Reactors are 40Bq/L for I-131, 60Bq/L for Cs-134, and 90Bq/L for Cs-137.

See: Nuclear Safety Commission; <http://www.nsc.go.jp/NSCenglish/mnt/index.htm>.
Ministry of Education, Culture, Sports, Science and Technology;
http://radioactivity.mext.go.jp/en/monitoring_around_FukushimaNPP_sea

According to the sea area monitoring readings at a post outside Fukushima Dai-ichi NPP conducted by TEPCO, readings at sea a distance of around 20 kilometer off the coast from Fukushima Dai-ichi NPP on October 2 were 0.02 μ Sv/h. For your convenience, this means that the level of exposure of 24 hour sea travel, avoiding the restricted area, would be calculated as 0.48 μ Sv. This number is rather low compared to the exposure of 200 μ Sv of a round air trip between Tokyo and New York. Furthermore, the radioactivity concentration of I-131, Cs-134 and Cs-137 of surface water on these three points were not detected on October 2.

See: Monitoring around Fukushima Dai-ichi NPP readings of environmental radioactivity; <http://www.mlit.go.jp/common/000141398.pdf>

MLIT expects ships and seafarers to act rationally based on the published scientific data when navigating off the coast of Fukushima Dai-ichi NPP. The Maritime Bureau of MLIT has updated this information on MLIT's homepage: <http://www.mlit.go.jp/en/maritime/index.html>.