Volume 96 Issue 5 | p. 16 | News of The Week
Issue Date: January 29, 2018 | Web Date: January 26, 2018

Sanchi oil spill continues; ecological impacts still unclear

Weather may complicate attempts to stop leak or recover oil from the ship

By Deirdre Lockwood, special to C&EN

Two firefighting boats work to put out the fire on the *Sanchi* on Jan. 10, before it sank.

Credit: Associated Press

Rough seas have begun to disperse oil spilled from a sunken tanker in the East China Sea. The spill's total surface area has fluctuated in the past week from a high of 332 km^2 on Jan. 21 to a report of 93 km^2 on Jan. 25, according to China's State Oceanic Administration.

The Iranian tanker *Sanchi* **sank on Jan. 14 <http://benthos.snu.ac.kr/?page_id=39>** after colliding with a Chinese cargo ship and burning for over a week. It may be leaking heavy bunker fuel that was powering the vessel in addition to some of the 136,000 metric tons of ultralight crude oil, called condensate, that it was carrying.

Undersea robots have detected a 35-m-wide triangular hole in the vessel, according to China's Ministry of Transport. However, attempts to plug the hole or recover oil from the ship may be challenging because the condensate is highly flammable and explosive, and a weather system is expected to bring high waves.

Jong Seong Khim <http://benthos.snu.ac.kr/?page_id=39> , a professor of marine biology at Seoul National University, says monitoring a potential spill of environmentally persistent bunker fuel is especially important. Additionally, the condensate contains a significant proportion of highly toxic chemicals such as benzene, toluene, ethylbenzene, xylene, and naphthalene. “If the condensate is released further from the sunken tanker, the adverse impact of these chemicals would be quite high,” he says.

John P. Giesy <https://www.usask.ca/toxicology/jgiesy/> , an environmental toxicologist at the University of Saskatchewan who is now a visiting professor in Hong Kong, says the condensate is more prone to degradation by light and microbes than heavier oils like the bunker fuel. “While it is not a good situation and there will be effects to marine organisms, it will likely not persist as long as effects of some other spills, and I expect less accumulation in sediments,” Giesy says. If the oil does not reach coastlines, the effect on beaches and marshes—which take the longest to recover—should be minimal, he adds. An **ocean model <https://cen.acs.org/articles/96/i4/Sunken-oil-tanker-threatens-fisheries.html>** from the U.K. National Oceanography Centre predicted oil from the spill could reach Japan’s shores within a month.

Chemical & Engineering News
ISSN 0009-2347
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