Igloo Moon — Maritime Chemical Accident

1996, November 6 — Key Biscane, Florida, USA

Butadiene (Class 2) in ship gas tanks; liquefied compressed gas, flammable, reactive
TLV 2 ppm (USA), IDLH 2,000 ppm (USA)

Summary: On November 6, 1996, the gas tanker **Igloo Moon** ran **aground** outside Key Biscayne in Florida. The vessel had a cargo of 6,589 tonnes of **butadiene**, which was compressed and liquefied. A **chemical inhibitor** had been added to prevent polymerization. Butadiene is a potential carcinogen. The first step taken was lightering of the fuel which was completed by November 8. Various response scenarios were evaluated and a plan for public evacuations were set up in case anything would go wrong. The option of controlled release of the chemical through venting was considered to be unsafe. The certificate of the inhibitor was due to expire on November 9 and the stability of the cargo was of utmost importance. Fresh inhibitor was sent on-scene, but due to the risk of ruining the product it was chosen to test the cargo instead. Analysis showed that the inhibitor would be secure until December 1. Because of the shallow depth, the salvage operations were very complex. A complete hydrographic survey of the area was done in order to find the best way to bring another gas tanker alongside the Igloo Moon. There was also concern of the **ballast water** in the vessel which would have to be released. The area is part of a National Park and **invasive species** might therefore be threatened. In order to avoid this the ballast tanks were treated with 50 ppm of calcium hypochlorite for a six hour period. This would be enough to kill any exotic species but would not effect the area upon release. On November 20 the lightering vessel Selma Kosan made her way alongside the Igloo Moon and approximately 1,000 tonnes of butadiene were transferred. The Igloo Moon then released the ballast water and was refloated with the flood tide on November 21. No chemicals were released into the water.

Cause of Accident: Grounding due to an unknown reason.

Comments on Response: The response operations in this incident were very complex. The area being part of a national park made it even more important to ensure that no harm was done to the environment. It is interesting that even though the butadiene posed the greater threat to the people in the area, the ballast water might have been the greater threat to the environment.

Source of Information: Report from the National Oceanic and Atmospheric Administration, USA.
(Abstracted July 2002 by Edvard Molitor, Swedish Coast Guard H.Q.)