Appendix K

VESSEL STRIKE AVOIDANCE MEASURES AND INJURED OR DEAD PROTECTED SPECIES REPORTING

Southern LNG, Elba Island Harm Avoidances Measures

Vessel Strike Avoidance Measures and Injured or Dead Protected Species Reporting

Background

The National Marine Fisheries Service (NMFS) has determined that collisions with vessels can injure or kill protected species (e.g., endangered and threatened species, and marine mammals). The following standard measures must be implemented to reduce the risk associated with vessel strikes or disturbance of these protected species to discountable levels. NMFS should be contacted to identify any additional conservation and recovery issues of concern.

Protected Species Identification Training

Vessel crews should use an Atlantic and Gulf of Mexico reference guide that helps identify the species of marine mammals and sea turtles that might be encountered in U.S. waters of the Atlantic Ocean, including the Caribbean and Gulf of Mexico. Additional training should be provided regarding information and resources available regarding federal laws and regulations for protected species, ship strike information, critical habitat, migratory routes and seasonal abundance, and recent sightings of protected species.

Vessel Strike Avoidance

The following measures must be taken in order to avoid causing injury or death to marine mammals and sea turtles:

1. Vessel operators and crews must maintain a vigilant watch for marine mammals and sea turtles to avoid striking sighted protected species.

2. When whales are sighted, maintain a distance of 100 yards or greater between the whale and the vessel.

3. When sea turtles or small cetaceans are sighted, attempt to maintain a distance of 50 yards or greater between the animal and the vessel whenever possible.

4. When small cetaceans are sighted while a vessel is underway (e.g., bow-riding), attempt to remain parallel to the animal's course. Avoid excessive speed or abrupt changes in direction until the cetacean has left the area.

5. Reduce vessel speed to 10 knots or less when mother/calf pairs, groups, or large assemblages of cetaceans are observed near an underway vessel, when safety permits. A single cetacean at the surface may indicate the presence of submerged animals in the vicinity; therefore, prudent precautionary measures should always be exercised. The vessel should attempt to route around the animals, maintaining a minimum distance of 100 yards whenever possible.

6. Whales may surface in unpredictable locations or approach slowly moving vessels. When an animal is sighted in the vessel's path or in close proximity to a moving vessel, reduce speed and shift the engine to neutral. Do not engage the engines until the animals are clear of the area.

Additional Requirements for the North Atlantic Right Whale

1. Incoming and outgoing LNG carriers (LNGC) will reduce speeds to 10 knots or less during the calving season of North Atlantic right whales between November 1 and April 30, when consistent with safe navigation. This seasonal restriction will pertain to all inbound and outbound vessel from Southern LNG's Elba Island terminal, including approaches and departures within 30 nautical miles (nmi) seaward of the southeast U.S. coast (e.g., the mouth of the Savannah River).

2. FERC will require that a geo-boundary be established in which LNG carriers entering the seasonal 30-nmi speed restricted zone will be sent messages via the Automated Identification System (AIS) operated by Southern LNG or by direct contact between the LNG terminal and the LNGC when an inbound or outbound vessel is within the geo-boundary. If the AIS system is utilized, a message informing the vessel of the speed requirement will automatically be sent to the ship. For example: "You have entered a speed-restricted zone for right whales. Reduce speed to 10 knots or less." An acknowledgement of the AIS message will be requested from the LNGC.

3. To reduce the probability of encounter rates with right whales during the calving season, vessels will take the most direct course offshore of the mouth of the Savannah River to reach a location 30-nmi from the coast, while avoiding areas of recent whale sightings, when consistent with safe navigation.

4. FERC will require distribution of educational materials to LNGC operators regarding right whales, information on how to report right whale sightings, and requirements to check maritime advisory information systems for right whale sightings in the vicinity of the geo-boundary described above.

5. If a sighted whale is believed to be a North Atlantic right whale, federal regulation requires a minimum distance of 500 yards be maintained from the animal (50 CFR 224.103 (c)).

6. LNG carrier operators should check with various communication media for general information regarding avoiding ship strikes and specific information regarding North Atlantic right whale sighting locations. These include NOAA weather radio, U.S. Coast Guard NAVTEX broadcasts, and Notices to Mariners.

7. Injured, dead, or entangled right whales will be immediately reported to the U.S. Coast Guard via VHF Channel 16.

8. FERC will submit an annual report to NMFS' Southeast Regional Office detailing compliance with the seasonal speed restriction within the geo-boundary. The annual report will include AIS information recorded from all LNGCs calling on the terminal in the last calendar year. For each LNGC calling on the terminal, information submitted for inbound and outbound trips must include:

    - the types of information materials provided to LNGC operators regarding right whale identification, reporting, and compliance with protection for this species;
    - a map showing the geo-boundary and course of vessels calling on the LNG terminal;
    - the time and date of each arrival and departure, including the name of each LNGC;
    - the method, time, and date the LNGC was informed of the speed restriction (by voice or by AIS) and if acknowledgement was received from the LNGC;
    - the speed of the vessel before and after entering the geo-boundary;
    - the number of vessels not in compliance with the speed requirement within the geo-boundary;
    - any additional actions taken to inform non-compliant vessels of the speed requirement within the geo-boundary;
    - detailed reasons related to safe navigation why a vessel did not follow the speed requirements;
    - the date and number of right whale sightings provided to LNGCs; and
    - any change of course by an LNGC or other measures taken to avoid right whales within the geo-boundary.

Injured or Dead Protected Species Reporting

Vessel crews must report sightings of any injured or dead protected species immediately, regardless of whether the injury or death is caused by your vessel.

Report marine mammals to the Southeast U.S. Stranding Hotline: 305-862-2850
Report sea turtles to the NMFS Southeast Regional Office: 727-824-5312

In addition, if the injury or death was caused by a collision with your vessel, you must notify the Federal Energy Regulatory Commission (FERC) immediately of the strike by email (email and/or phone number contact information provided by FERC). The report should include the following information:

a. the time, date, and location (latitude/longitude) of the incident;

b. the name and type of the vessel involved;

c. the vessel's speed during the incident;

d. a description of the incident;

e. water depth;

f. environmental conditions (e.g., wind speed and direction, sea state, cloud cover, and visibility);

g. the species identification or description of the animal, if possible; and

h. the fate of the animal.

If a FERC-related industry activity is responsible for the injury or death, the responsible parties should remain available to assist the respective salvage and stranding network as needed.