Controlling Marine Pollution

In April 2006, the Senate confirmed their support for the ratification of the International Marine Organization (IMO) Treaty, International Convention for the Prevention of Pollution from Ships MARPOL Annex VI, which mandates nitrogen oxide and sulfur oxide controls on ocean going marine vessels. Once MARPOL is ratified, the U.S. can apply to the IMO to designate sulfur emission control areas (SECAs) along the U.S coast that would limit the sulfur level in ships fuel to 1.5% or 15,000 parts per million.

The next step is to pass the Maritime Pollution Prevention Act of 2007, which would institute the legal changes needed to bring the United States into compliance with the MARPOL Annex VI. Once the legislation is signed into law, the State Department will send the formal ratification package to the International Maritime Organization's Marine Environment Protection Committee for adoption.

In November 2006, New York City hosted a MARPOL Annex VI conference sponsored by Lloyd's Register Fairplay. The conference focused on the affect of the Annex VI legislation on the marine freight industry and marine fuel industry. The vessel operators and fuel providers called for uniformity across the U.S. once legislation and SECAs are developed. Ability to comply with SECA requirements will be conditioned on the availability of low sulfur diesel fuel throughout the US. SECAs throughout the U.S. should have consistent low sulfur requirements so ships traveling from one port to another in the U.S. would be able to dock without having to switch fuels. Current SECAs in the world include the Baltic Sea, North Sea, and the English Channel. The cost of low sulfur bunker fuel (15,000 ppm – 5000 ppm) in these areas range from $30 to $60 per ton.

The current international sulfur content of any fuel oil used onboard ships is not to exceed 4.5% (45000 ppm). For ships operating within a SOx Emission Control Areas (SECA), the sulfur content is not to exceed 1.5 % (15000 ppm). So far the only enforced SECA is the Baltic Sea. The North Sea and English Channel are entered as SECAs, with enforcement starting November 2007. An international workgroup chaired by EPA is researching future particulate matter controls.

The MARPOL NOx regulation applies to each diesel engine with a power output of more that 130kW, which is installed on a ship constructed on or after January 1, 2000, and each diesel engine with a power output of more that 130 kW, which undergoes a major conversion on or after that date. However, the regulation does not apply to emergency diesel engines, engines installed in lifeboats or from any equipment intended to be used solely in case of emergency.

In lieu of Annex VI ratification, EPA adopted standards that made the IMO Annex VI NOx limits mandatory for newly built marine diesel engines on U.S. vessels since 2004. Starting in 2007, marine engines are required to meet EPA Tier 2 standards. Currently, EPA is proposing new standards for marine engines.