

VESSEL INSPECTION BULLETIN 01-10

1. BACKGROUND:

In attending recent inspections from NOAA's small boat fleet, discrepancies with machinery space fixed gas fire extinguishing system installations need clarification. Currently, there is no requirement or references for NOAA vessels to have a fixed gas fire extinguishing system installed other than ABYC A-4 (Fire Fighting Equipment) which is a reference to the installation of new systems, if choosing to do so. The critical need for fixed gas fire extinguishing systems in machinery spaces has been demonstrated in history numerous times by catastrophic fires aboard vessels of all types. Additionally, improperly activated or inoperative systems have resulted in the same outcome.

2. DISCUSSION:

Because of the diverse nature of NOAA's operations and types of vessels used, 46 CFR 181.115 provides the greatest unilateral applicability and clarity with regards to installation and type of system required. This reference shall be used exclusively for all NOAA vessels 300GT and under.

3. ACTION:

For vessels that currently have fixed gas extinguishing systems installed, the installation shall be inspected using 46 CFR 181.400 thru 181.420 and certified using the appropriate NFPA references not more than 1 year from the previous certification. An inoperative or expired service interval of a fixed gas system regardless of whether required to be installed or not, shall result in a Category 1 deficiency and the vessel shall not operate until corrected. Personnel shall not remove a fixed gas system to circumvent the issuance of a Category 1 deficiency on a vessel not required to have one. The importance of these systems and the probable future regulations requiring all NOAA small boats to have these systems installed shall preclude any inconvenience or monetary restraints.

For vessels that do not have a fixed gas firefighting system installed and it is determined using 46 CFR 181.115 that one is required, a Category III recommendation shall be issued to install one until such a time NOAA requires them on all vessels. Every effort shall be made to have these systems installed as soon as possible.

In no way should personnel attempt the service, repair or installation of fixed gas fire extinguishing system without the requisite National Fire Protection Association (NFPA) certifications. Inadvertent discharges of fixed gas extinguishing systems have killed scores of people and, improperly installed or serviced systems have caused multi-millions of dollars worth of damage.

4. SUMMARY:

There are many factors to be considered when installing a fixed gas fire extinguishing system. Assistance will be provided by the small boat program for the installation process including type of system, components required, and installation hurdles such as making the spaces gas tight and volumetric calculations of the spaces to be protected. Qualified

local commercial assistance shall be sought for the actual installation of the system. A guide published on the USCG website regarding these systems can be found [here](#).

5. REFERENCES:

46 CFR 181.115

46 CFR 181.400-181.420

NFPA 2010, Standard for Fixed Aerosol Fire Extinguishing Systems, 2006 Edition.

NFPA 12, Standard on Carbon Dioxide Extinguishing Systems, 2008 Edition.

http://www.uscg.mil/hq/cg5/cg5214/fixedfireext_spv.asp#2choice