

**SUBJECT: EVALUATION OF EXISTING COAST GUARD REGULATIONS, GUIDANCE DOCUMENTS, INTERPRETATIVE DOCUMENTS, AND COLLECTIONS OF INFORMATION IDENTIFICATION DETAILS OF REGULATION, GUIDANCE OR INFORMATION COLLECTION (BY SECTION, PARAGRAPH, SENTENCE, CLAUSE, ETC.)**

**TOPIC: INFLATIBLE LIFERAFT SERVICING**

- Proposed Regulation
- Existing Regulation re: 46 CFR 28.140 (b)
- Guidance
- Collection of Information

**ADVICE AND RECOMMENDATIONS:**

- Repeal**
- Replace**
- Modification**

**IF MODIFICATION - SPECIFIC RECOMMENDATIONS FOR HOW THE REGULATION, GUIDANCE, OR INFORMATION COLLECTION SHOULD BE MODIFIED:**

The existing regulation 46 CFR 28.140 (b) requires inflatable liferafts on board commercial fishing vessels *to be serviced annually*. The proposed modification would change the language in Table 46 CFR 28.140 (b) to read as follows: *to be serviced once every twenty-four months*.

**HOW AND TO WHAT EXTENT MODIFICATION WILL REDUCE COSTS OR BURDENS TO INDUSTRY:**

Reduce Costs: A recent report by the Coast Guard (Analysis of Inflatable Survival Craft Testing Failures dated Sep 2017) found that among three liferaft manufacturers, the average liferaft required condemning at 15 years of age. Current regulations require that during a fifteen-year life span, a raft is required to be serviced 13 times at approximate cost of \$1000 annually (\$13,000 total). If a raft were to be serviced every 24 months, the cost of servicing would be reduced by \$6,500.

Reduce Burdens: An additional factor which increases costs / burden is the availability of liferaft servicing facilities. In certain regions of the country (Southeast Alaska in particular) liferaft servicing facilities may not be available locally for fishermen, requiring them to ship / barge their raft to a community with a servicing facility. Shipping a raft typically costs \$100 to \$125 each way – bringing the total shipment cost to approximately \$250 (in addition to the \$1,000 servicing cost). Over the 15-year span of a raft (serviced 13 times) this can add an additional \$3,250. If a raft is serviced every 24 months instead, the shipping cost would be reduced to \$1625.

## **BACKGROUND:**

Liferafts are made of inflatable material, are not self propelled, are enclosed with a canopy, typically are equipped with a survival kit, and currently require annual servicing. Servicing is necessary because liferafts are exposed to a variety of extreme temperature, weather, and sea conditions while on board vessels. Temperature fluctuations and accumulated moisture can lead to deterioration and reduced reliability in inflatable liferafts. Currently, inflatable liferafts are subject to service period regulations. The first servicing is due 24 months after the inflatable liferaft is first packed. Subsequent servicing is due every 12 months for commercial fishing vessels.

Servicing is required under both domestic and international regulations, however both sets of regulations provide for an extended servicing interval. Specifically, IMO Safety of Life at Sea (SOLAS) regulations allow that inflatable liferafts:

- “shall be serviced at intervals not exceeding 12 months, *provided where in any case this is impracticable*, the Administration may extend this period to 17 months.

Domestic regulations, also requires a 12-month servicing interval, except:

- “*when servicing is delayed until the next scheduled inspection of the vessel, provided the delay does not exceed 5 months.*

46 CFR 199.190 (g)(1)”

Under both exemptions, it is clear that the foundation for the exemption is based upon economic / logistic factors which seem to be related to convenience and most importantly, there does not seem to be a safety concern articulated.

## **THE EXTENT TO WHICH RISKS TO HEALTH OR SAFETY WOULD LIKELY INCREASE:**

There no argument that inflatable liferafts should undergo regular servicing. What is in question is whether annual servicing is necessary is excessive and whether a longer (but still regular servicing interval) would be more cost effective without reducing the safety benefit. Both international and domestic regulation do allow for an extended servicing interval (up to five months). This extended and more flexible inspection interval should be incorporated into 46 CFR 28.140(b).

Importantly, recent USCG sponsored studies were inconclusive about the effectiveness of servicing on extending the service life of inflatable liferafts. As pointed out by the study authors, the study was marred with large inconsistencies in type and quality of data provided by liferaft manufactures, which lead to the statement that “it was difficult to draw meaningful conclusions.” On the issues of raft failure modes, oxidation effects, and moisture effects, the report stated:

- Failure Mode: “No correlation between service history and adhesive degradation.”
- Oxidation Effects: “Condemned inflatable survival crafts are not more likely to experience fabric oxidation than all inspected inflatable survival craft.”
- Moisture Effects: “Moisture may not have as severe an effect of the age of condemnation as initially expected.”

Despite the lack of quantifiable evidence or data, the report concludes that there is not enough evidence to justify any modification to the existing servicing requirements for inflatable survival craft. However, given that existing regulations do allow for a servicing interval of up to 18 months, we believe that the Coast Guard can adopt that standard without compromising safety until such time that a more thorough analysis of liferaft can be conducted.

## **HOW AND TO WHAT EXTENT THE REGULATION, GUIDANCE, OR INFORMATION COLLECTION HAS LED TO THE ELIMINATION OF JOBS OR INHIBITS JOB CREATION:**

There is nothing in this modification that will lead to the elimination of jobs or inhibit job creation, however, it may reduce demand for liferaft packing services.

**PROVIDE QUANTITATIVE AND/OR QUALITATIVE DATA TO SUPPORT AND ILLUSTRATE THE IMPACT, COST, OR BURDEN, AS APPLICABLE. IF THE DATA IS NOT READILY AVAILABLE INCLUDE INFORMATION AS TO HOW SUCH INFORMATION CAN BE OBTAINED BY THE COMMITTEE OR THE COAST GUARD.**

Cost data is provided within the text above.