## **ATTACHMENT A**

## Revised Policy - Turnbuckles in Lifting Assemblies GSFC Recertification Program, Code 540

February 4, 2002

(NOTE: This document supersedes Recertification Program (RECERT) Interim Policy dated May 17, 2000, subject: Use of Turnbuckles in Lifting Assemblies.)

The use of any turnbuckles that contains an original equipment manufacturer (OEM) warning label "not recommended for lifting" is not allowed. Since some Cooper turnbuckles (marked " C") contain such warning labels, their use is not allowed. In addition, at the current time, it is unclear whether the Cooper warning label is applicable to other Cooper brands including Brower-Titchener (marked "BTC"), Merrill (marked "MB"), Campbell (marked "CC"), trademarks etc. Until OEM clarification is obtained and proven otherwise, these brands of turnbuckles are not permitted.

Based on continuing investigation and written clarifications provided by lifting equipment manufacturers to date do not generally recommend the use of turnbuckles as part of the lifting assemblies. Turnbuckles are designed as a tensioning device. The inclusion of turnbuckles for overhead lifts is addressed by only one OEM with the following four conditions:

- 1. "Turnbuckles may be used in any attitude or angle as long as the load (tension) is in line and does not exceed the working load limit (WLL)."
- 2. "The load angle will increase the tension in the turnbuckle and the resultant load must not exceed the WLL."
- 3. "Turnbuckles are made to be adjusted up to the tension produced by the WLL. They are not designed to repeatedly lift the WLL thru the adjustments of the threads. Torqueing the thread at WLL cause the galvanizing to flake off and bind the threads."

## 4. "Alternatives:

- 1. Un-galvanized turnbuckle with a better class of thread.
- 2. Un-galvanized turnbuckle with an acme threads for continuous lifting at WLL.
- 3. Ratchet load binders without hooks, (i.e. R-10)."

Due to unknown conditions, use, tension developed, and torque needed, it is impossible to address each use. In light of the above OEM guidance, the use of turnbuckles for overhead lifts is discouraged and alternate methods for lifting adjustment should be considered and developed.

For further clarifications, contact RECERT Support/Code/540.5 at (301) 286-9116, or the RECERT Manager/Code 540, at (301) 286-4209.