

INTERPRETATION: **IIAR SRC 2000-1**

SUBJECT: **IIAR 2-1999**

DATE ISSUED: **MARCH 23, 2000**

QUESTION:

In IIAR 2-1999, Paragraph 5.17.2, Ultimate Strength Testing, states that *“every pressure containing component . . . shall be designed, constructed and assembled to have an ultimate strength to withstand at least three times the design pressure for which it is rated . . .”* Also, *“Verification of such strength shall be done by proof testing”* is required.

Paragraph 5.17.2 is referenced by nearly all of the component subsections in Section 5.0 of the Standard. However, each of these subsections also has a requirement under *“Procedures/Testing”* that calls for a pressure test of each component. *“. . . at a pressure not less than the design pressure for which it is rated.”*

If components of identical design are mass-produced, which test requirement applies to individual components produced; pressure test at design pressure or ultimate strength testing?

REPLY:

All components produced shall be tested at a pressure not less than the design pressures for which they are rated. Proof testing for ultimate strength is a method of proving that a particular design (or family of designs) is sufficiently strong for the rated design pressure. Proof testing is a one time (or infrequent) event, done on a production sample at the beginning of the relevant design cycle (lifetime) of the component. Proof tested samples shall not be sold or applied in commercial service.

COMMITTEE ACTION:

Change definition in IIAR 2-1999 to *“proof test: Design confirmation by testing a production sample to verify it will not fail when exposed to a predetermined pressure which is in excess of its rated design pressure.”*