Pipeline and Hazardous Materials Safety Administration, DOT § 193.2503

(c) Ultrasonic examination records must be retained for the life of the facility. If electronic records are kept, they must be retained in a manner so that they cannot be altered by any means; and

(d) The ultrasonic equipment used in the examination of welds must be calibrated at a frequency no longer than eight hours. Such calibrations must verify the examination of welds against a calibration standard. If the ultrasonic equipment is found to be out of calibration, all previous weld inspections that are suspect must be reexamined.

[Amdt. 193–22, 75 FR 48605, Aug. 11, 2010]

§§ 193.2323–193.2329 [Reserved]

Subpart E—Equipment

§ 193.2401 Scope.

After March 31, 2000, each new, replaced, relocated or significantly altered vaporization equipment, liquefaction equipment, and control systems must be designed, fabricated, and installed in accordance with requirements of this part and of NFPA 59A. In the event of a conflict between this part and NFPA 59A (incorporated by reference, see § 193.2013), this part prevails.


VAPORIZATION EQUIPMENT

§§ 193.2403–193.2439 [Reserved]

Subpart F—Operations

§ 193.2441 Control center.

Each LNG plant must have a control center from which operations and warning devices are monitored as required by this part. A control center must have the following capabilities and characteristics:

(a) It must be located apart or protected from other LNG facilities so that it is operational during a controllable emergency.

(b) Each remotely actuated control system and each automatic shutdown control system required by this part must be operable from the control center.

(c) Each control center must have personnel in continuous attendance while any of the components under its control are in operation, unless the control is being performed from another control center which has personnel in continuous attendance.

(d) If more than one control center is located at an LNG Plant, each control center must have more than one means of communication with each other center.

(e) Each control center must have a means of communicating a warning of hazardous conditions to other locations within the plant frequented by personnel.

§ 193.2443 [Reserved]

§ 193.2445 Sources of power.

(a) Electrical control systems, means of communication, emergency lighting, and firefighting systems must have at least two sources of power which function so that failure of one source does not affect the capability of the other source.

(b) Where auxiliary generators are used as a second source of electrical power:

(1) They must be located apart or protected from components so that they are not unusable during a controllable emergency; and

(2) Fuel supply must be protected from hazards.

§ 193.2501 Scope.

This subpart prescribes requirements for the operation of LNG facilities.

§ 193.2503 Operating procedures.

Each operator shall follow one or more manuals of written procedures to provide safety in normal operation and in responding to an abnormal operation that would affect safety. The procedures must include provisions for:

(a) Monitoring components or buildings according to the requirements of § 193.2507.

(b) Startup and shutdown, including for initial startup, performance testing
§ 193.2505 Cooldown.  
(a) The cooldown of each system of components that is subjected to cryogenic temperatures must be limited to a rate and distribution pattern that keeps thermal stresses within design limits during the cooldown period, paying particular attention to the performance of expansion and contraction devices. 

(b) After cooldown stabilization is reached, cryogenic piping systems must be checked for leaks in areas of flanges, valves, and seals.

§ 193.2507 Monitoring operations.  
Each component in operation or building in which a hazard to persons or property could exist must be monitored to detect fire or any malfunction or flammable fluid that could cause a hazardous condition. Monitoring must be accomplished by watching or listening from an attended control center for warning alarms, such as gas, temperature, pressure, vacuum, and flow alarms, or by conducting an inspection or test at intervals specified in the operating procedures.