



Bulk Cryogenic Tank Inspection Form

**ENVIRONMENT, SAFETY &
HEALTH DIVISION**

This form is required for documenting inspections of large, permanent, bulk cryogenic supply tanks and distribution equipment. A copy of the completed form must be submitted to the pressure systems program manager. Copies of the completed form are kept by the custodian (for five years) and the pressure systems program manager (permanently) (see [Pressure Systems: Installation, Inspection, Testing, Maintenance, and Repair Requirements](#) (SLAC-I-730-0A21S-053)).

Location:	Tag:	Inspection date:
Service: <input type="checkbox"/> Argon <input type="checkbox"/> Nitrogen	Tank capacity:	MAWP:
Inspected by:	Tank owner:	Tank custodian:

1.0 General Precautions

1.1 Are minimum safety separation distances according to the table below?

1.1.1 Buildings, regardless of construction type	1 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.2 Wall openings	1 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.3 Air intakes	10 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.4 Property lines	5 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.5 Places of public assembly (assembly occupancies)	50 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.6 Combustible materials, (e.g., paper, leaves, weeds, dry grass, debris)	15 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.7 Incompatible hazardous materials	20 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.1.8 Building exits	10 ft	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.2 Is there clear access for fill trucks?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.3 Does the fill truck unloading position permit rapid evacuation of it in the event of an emergency?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.4 Are the tank controls easily accessible during product transfer?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.5 Are unauthorized persons prohibited from the installation area?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.6 Are all product vent lines routed to a safe location?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.7 Is the area fenced (if required) and properly maintained?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.8 Is there an emergency exit from the installation compound (where fences are installed)?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.9 Is ASME tank data plate provided and legible?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.10 Is lighting adequate to ensure good visibility during filling process?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.11 Is the installation protected from mechanical damage by fill trucks or other vehicles?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.12 Is documentation available on request (such as test certificates for vessel and pressure systems, maintenance records, repair records, modifications)?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
1.13 Is the installation area kept clean and free from obstacles?		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

2.0 Labeling and Identification			
2.1 Is a KEEP CLEAR or NO PARKING sign posted near transfer area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.2 Are the following notices (as applicable) posted and legible? NO SMOKING, NO OPEN FLAMES, NO COMBUSTIBLE MATERIAL, LIQUID OXYGEN / NITROGEN / ARGON, NO OIL / GREASE	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.3 Is a process and instrumentation diagram (P&ID) displayed at the tank wall?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.4 Is it up-to-date and legible?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.5 Is the NFPA hazards diamond displayed at the tank wall?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.6 Are emergency phone numbers clearly displayed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.7 Is the gas supplier's emergency phone number clearly displayed and kept up to date?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.8 Does the level gauge indicate minimum reorder level?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.9 Does the level gauge indicate maximum fill level?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
2.10 Is there a label that instructs truck fill driver to maintain tank pressure at a specified value?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.0 Tank Conditions and Associated Equipment			
3.1 Is the tank and associated equipment regularly inspected as part of the preventive maintenance program?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.2 Is the area kept free from combustible or flammable material as paper, leaves, weeds, dry grass, lumber, cardboard, oil, grease or debris?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.4 Are the tank and vaporizer holding down bolts secure and free of rust?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.5 Is the tank foundation in good condition, with no sign of cracking or settlement?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.6 Is the fill truck unloading area free from any defects or damage?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.7 Are established procedures available for inspection and maintenance of tank safety devices?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.8 Are all safety valves clearly marked, tagged with test date, set pressure, flowrate, serial number, type?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.8.1 PSV set point		3.8.6 PRD set points	1 2
3.8.2 PSV size		3.8.7 PRD size	
3.8.3 PSV capacity		3.8.8 PRD capacity	1 2
3.8.4 PSV manufacturer		3.8.9 PRD manufacturer	
3.8.5 PSV calibration date		3.8.10 PRD manufacture date	
3.9 Are all safety valves secured against reaction forces?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.10 Are all relief device discharges free from obstructions?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.11 Are relief device discharges directed to a safe location?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.12 Are changeover valves upstream of safety valves?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.13 Is access to manual vent valves free from obstruction?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.14 Are all pipework, valves, and controls clearly identified in accordance with the flowsheet?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.15 Are dust caps provided at each fill point?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.16 Are atmospheric vaporizers free of ice at least 1/3 of the total area?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

3.17 Are there any low-temperature protection system devices to prevent cold gas from migrating into the gas distribution manifold?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.18 Are safety cut-out devices, such as low-temperature protection and pressure switches when fitted, inspected and checked at stipulated intervals?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.19 For pressurized dewar filling systems, is there a scale to weight dewars?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.20 Are all hoses stamped with working pressure and fabrication date less than 10 years?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.21 For atmospheric dewar filling systems, is there a diffuser at the end of the fill connection?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.22 Are all components rated for cryogenic temperature?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.23 Are all components rated for the service pressure?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
3.24 Is the pipe in good condition with no dents, dings or leaks?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA

4.0 Notes (every No above requires an explanation)

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