

Table 9.36.: Clean Agent Systems Testing, Inspection and Maintenance

ITEM	REQUIREMENTS
2. FUNCTIONAL TESTS	<ul style="list-style-type: none"> i. Disable each agent storage container release mechanism so that activation of the release circuit will not release the agent. Reconnect the release circuit with a functional device in lieu of each agent storage container release mechanism. For electrically actuated release mechanisms, these devices can include 24-V lamps, flashbulbs, or circuit breakers. Pneumatically actuated release mechanisms can include pressure gauges. Refer to the manufacturer's recommendations in all cases. ii. Operate detection initiating circuit(s). Verify that all alarm functions occur according to the design specifications. iii. Operate the necessary circuit to initiate a second alarm circuit if present. Verify that all second alarm functions occur according to design specifications. iv. Operate manual release. Verify that manual release functions occur according to design specifications. v. Operate the abort switch circuit if supplied. Verify that abort functions occur according to the design specifications. Confirm that visual and audible supervisory signals are received at the control panel. vi. Test all automatic valves unless testing the valve will release agent or damage the valve (destructive testing). vii. Check pneumatic equipment, where required, for integrity to ensure proper operation. viii. When all predischage work is completed, each agent storage container shall be reconnected so that activation of the release circuit will release the agent. The system shall be returned to its fully operational design condition.
3. MAINTENANCE	<ul style="list-style-type: none"> i. For halocarbon clean agents, if a container shows a loss in agent quantity of more than 5 percent or a loss in pressure (adjusted for temperature) of more than 10 percent, it shall be refilled or replaced. ii. For inert gas clean agents that are not liquefied, pressure is an indication of agent quantity. If an inert gas clean agent container shows a loss in pressure (adjusted for temperature) of more than 5 percent, it shall be refilled or replaced. Where container pressure gauges are used for this purpose, they shall be compared to a separate calibrated device at least annually. iii. Where the amount of agent in the container is determined by special measuring devices, these devices shall be listed. iv. All halocarbon clean agent removed from refillable containers during service or maintenance procedures shall be collected and recycled or disposed of in an environmentally sound manner and in accordance with existing laws and regulations. v. Factory-charged and nonrefillable containers that do not have a means of pressure indication shall have the agent quantity checked at least semiannually. If a container shows a loss in agent quantity of more than 5 percent, it shall be replaced. All factory-charged and nonrefillable containers removed from useful service shall be returned for recycling of the agent or disposed of in an environmentally sound manner and in accordance with existing laws and regulations and certification body and manufacturer's guidelines and warnings. vi. For halocarbon clean agents, the date of inspection, gross weight of cylinder plus agent or net weight of agent, the type of agent, the person performing the inspection, and, where applicable, the pressure at a recorded temperature shall be recorded on a tag attached to the container. For inert gas clean agents, the date of inspection, the type of agent, the person performing the inspection, and the pressure at a recorded temperature shall be recorded on a tag attached to the container. vii. Cylinders continuously in service without discharging shall be given a complete external visual inspection every 5 years or more frequently if required. The visual inspection shall be in accordance with Section 3 of CGA C-6, Standard for Visual Inspection of Steel Compressed Gas Cylinders, except that the cylinders not needed to be emptied or stamped while under pressure. Inspections shall be made only by competent personnel, approved by Civil Defence, and the reports shall be furnished to the owner.