



## Product Alert

March 22<sup>nd</sup>, 2019

### Type of Notification: Performance Related Concern

FM Approvals has been made aware of a potential loss of pressure condition where the system safety relief activates at an operating temperature less than the maximum approved system operating temperature.

**Company Identity:** Kidde-Fenwal Inc

**Address:** 400 Main Street, Ashland, MA 01721

**Contact Information:** Tech Support (866) 287-2531 or [kidde\\_techsupport@fs.utc.com](mailto:kidde_techsupport@fs.utc.com)

**Product Identity:** Sentinel LS Vehicle Fire Protection Systems

**Description:** LS Cylinder Valve Assemblies with AquaGreen®

**Nameplate Data:** All assemblies manufactured after November 2015

**FM Approval Status:** FM Approved

**Hazard Involved:** The safety relief for the described system is designed to rupture as a means of emergency pressure relief when the cylinder storage temperatures exceeds 200°F (93.3°C). It has been reported that these assemblies can rupture at operating temperature lower than 200°F (93.3°C). A rupture of the safety relief will result in a loss of system availability.

If you suspect you are in possession of the Sentinel LS Cylinder Valve assemblies with a manufacturing date of November 2015 to present, bearing the FM Approvals certification marking, please bring that to the attention of:

**Antonio L. Pires**

**FM Approvals, Quality Department**

**Norwood, MA, USA**

**+1 (1)781 255 4825**

**Email: [Antonio.pires@fmapprovals.com](mailto:Antonio.pires@fmapprovals.com)**



**WARNING: IMPORTANT  
FIRE SUPPRESSION  
SAFETY NOTICE**



400 Main Street, Ashland, MA 01721 USA  
508.881.2000 | [www.kiddefiresystems.com](http://www.kiddefiresystems.com)

**BULLETIN**  
#2019-02K

**Date:** February 27, 2019  
**To:** Kidde Fire Systems Vehicle Systems Distributors (limited circulation)  
**From:** Product Safety Officer  
**Subject:** Safety Bulletin – Sentinel® LS Cylinder & Valve Assemblies Maximum Operating Temperature Potential Performance Issue

**IMPORTANT SAFETY NOTICE – ACTION REQUIRED**

**Please instruct your Sales, Design, Purchasing, Installation and Service personnel to read the below carefully and take action as required**

This safety bulletin is to notify you of a potential loss of pressure that may occur due to a safety burst disc rupture at a temperature less than the LS cylinder assembly maximum operating temperature and to remind users to perform the required daily inspections of Sentinel® LS Cylinders. Action may be required on your part. Please read the following carefully and note Required Field Actions.

**Issue Description**

Sentinel LS Cylinder & Valve assemblies are pressurized to 360-psi (at 70F) and utilize a burst disc as a pressure relief safety device. The LS cylinder assembly maximum operating temperature rating is 200F (93.3C). Kidde Fire Systems has recently discovered a potential safety hazard where burst discs manufactured to the lowest allowed pressure rating, fitted to LS cylinders at the maximum allowed filling/charging tolerances, where the ambient temperature exceeds 160F (71.1C), may rupture at a temperature less than 200F (93.3C). **If this occurs, the AquaGreen® Wet Chemical within the LS cylinder is generally no longer under sufficient pressure to discharge in the case of a fire incident, and therefore a potential for property damage, injury or death exists. Further, on a suppression system with one or more unsupervised cylinders, there will be no warning of this condition.**

Note: Sentinel dry chemical cylinder & valve assemblies, as well as KVS dry chemical cylinder & valve assemblies, are not affected by this matter.

**Affected Units & Date Range**

The part numbers affected by this issue are listed below. All parts listed below that were shipped on and after November 2015 are affected. Additionally, any Sentinel Cylinder & Valve Assembly part listed below that was manufactured prior to November 2015, but later fitted with a burst disc assembly that was manufactured after November 2015 (for example, to replace a fusible plug or other burst disc assembly) is also affected.

| Suspect Part Number | Description  |
|---------------------|--|
| 83-130400-005       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-05, with control head & supervisory pressure switch |
| 83-130400-010       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-10, with control head & supervisory pressure switch |
| 83-130400-015       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-15, with control head & supervisory pressure switch |
| 83-130400-020       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-20, with control head & supervisory pressure switch |
| 83-130401-005       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-05, with control head only                          |
| 83-130401-010       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-10, with control head only                          |
| 83-130401-015       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-15, with control head only                          |
| 83-130401-020       | Sentinel Cylinder & Valve Assembly, AQUAGREEN® XT LS-20, with control head only                          |
| 83-130411-900       | Valve Assembly, LS (factory fitted with supervisory pressure switch)                                     |
| 83-130411-950       | Valve Assembly, LS   |
| 06-237466-001       | Burst Disc Assembly, DCS/LS/KVS Cylinder (only when fitted aftermarket to LS Cylinders)                  |

**Solution being implemented**

Kidde Fire Systems is committed to ensuring that all fire suppression systems function fully as intended. Kidde Fire Systems is performing engineering analysis and testing to update our FM Approval to reflect a lower maximum operating temperature for only the Sentinel LS cylinder & valve assemblies.

- A field remediation plan to update installed product will be announced in a follow-up bulletin

**Required Field Actions**

1. Completely read this document.
2. To ensure that installed systems are operational, we request your immediate assistance in reminding users of systems with affected LS cylinders fitted with a relevant burst disc to maintain or increase inspection frequency as tabulated below, until a field remediation plan is instituted:

| Suppression System                   | Owners' Manual P/N | Inspection Frequency per Owners' Manual |
|--------------------------------------|--------------------|---|
| Sentinel Vehicle Wet Chemical System | 83-130551-000      | Daily                                   |

3. We also require your immediate assistance to determine whether any affected LS cylinder is used in a vehicle that: (i) has a Vehicle Identification Number (VIN); or (ii) is otherwise driven either regularly or from time to time on a public roadway. In the event of a positive response to this inquiry, please promptly contact Technical Support at (866) 287-2531 or via email at [kidde\\_techsupport@fs.utc.com](mailto:kidde_techsupport@fs.utc.com) to provide this information.

**We therefore request that you please immediately:**

1. Advise all system users with affected LS cylinders of the issue, ask whether the affected LS cylinders are installed in a vehicle with a VIN or that may be driven on public roadways, and provide them a copy of the appropriate Owner's Manual, which is enclosed with each cylinder at time of shipment from the factory.
2. Remind system users to perform daily inspection of the pressure gauge on any affected Sentinel LS cylinders. The pressure gauge reading must be in the green area when at 70F as pictured below:



3. Advise system users to contact your business immediately, if:
  - a. any Sentinel LS cylinders are found at less than the nominal 360-psi pressure, or in the event that any cylinder's burst disc subject to this notice appears to have ruptured; or,
  - b. any LS cylinders are installed in a vehicle with a VIN or that may be driven on public roadways.

**Questions or Concerns**

We thank you for your attention to this matter. If you have any questions or concerns, please contact Technical Support at (866) 287-2531 or via email at [kidde\\_techsupport@fs.utc.com](mailto:kidde_techsupport@fs.utc.com).

CC: Kidde Fire Systems Regional Sales Manager  
Kidde Fire Systems Director of Sales  
Kidde Fire Systems Legal Department