

Attachment

Dg 3 of 4

AA09Y09-007

REV. C

B/L: 381.01, 382.00

SYS: OPF FIREX WATER

Critical Item: Valve, Flow Control (36 Items) JUN 28 1991

Find Number: FV1, AV1

Criticality Category: 15

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SAA No: 09FY09-007

System/Area: OPF Firex Water Deluge/  
HB 1, 2, 3

NASA

Part No: None

P/N/ K60-0513/Firex, OMRP

Name: K60-0508/Firex, OPF

Mfg/ Viking Corp.

Part No: Model G-2, P/N 957-A

Drawing/

Sheet No: 80K50334/2, 3  
79K16974/6

Function: Arms and activates Firex water deluge sprays. Two valves (FV1 & AV1) must open for deluge to occur in each zone.

Critical Failure Mode/Failure Mode No: Fail closed/09FY09-007.001 (36 valves)

Failure Causes: Binding due to corrosion or failure of internal piece part.

Failure Effect: Loss of sprays in the respective zone served by the valve. Possible loss of life/vehicle during a hazardous condition. Time to effect is immediate.

#### Acceptance Rationale

##### Design:

- o Valve is a NFPA rated valve for firex water system applications and is used extensively in commercial and industrial sprinkler systems.
- o Valve design ensures reliability with only one moving part. Valve is opened by upstream water pressure when control pressure on the diaphragm is vented.
- o The valve body and cover are made of ASTM A126 Class B gray cast iron. Other components are made of bronze and stainless steel. Diaphragm and seat are Neoprene.
- o Operating pressure is 135 psig. Maximum design working pressure is 175 psig. Valve is hydrostatically tested to 350 psi.

WORKSHEET 5122-012  
910315k403-1070/OMRF

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Valve, Flow Control (Continued)

Test:

- o OMRSD File VI requires flow test and verification of electrical and manual activation annually and at replacement.

Inspection:

- o Visual inspection for corrosion is performed during Permission Validation (OMI M2083).

Failure History:

- o The PRACA database was queried and no failure data was retrieved against this component.
- o The GIDEP failure data interchange system has been researched and no failures of this component were found.

Operational Use:

- o Correcting Action:  
There is no action which can be taken to mitigate the failure effect.
- o Timeframe:  
Since no correcting action is available, timeframe does not apply.

WORKSHEET 5122-012  
910315kM3-1070/OMR

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