**VALVE SPECIFICATION**

E-TSM 102 Appendix

|  |  |  |  |
| --- | --- | --- | --- |
| 01 Plant | 02 Location, Room No | 03 System No | 04 Component No |
|       |       |       |       |
| 05 Quantity | 06 Location, Referring to Containment |
|       | Outside |       | Inside |       |
| 08 Date | 09 Revised; Date Item |
|       |       |

**VALVE FUNCTION**

|  |
| --- |
| 21 Valve Function |
| Isolation valve | [ ]  | Check valve | [ ]  | Shut-off valve | [ ]  |

**OPERATING CONDITIONS**

|  |  |  |
| --- | --- | --- |
| 10 Medium | 11 Operating Pressure | 12 Operating Temperature |
|       |       | MPa |       | °C |
| 13 Flow | 14 Normal position | 15 Opening / Closing time |
|       | m3/h | Open |       | Close |       | **Max:** |     | **/** |     | **Min:** |     | **/** |     | s |
| 16 Flow tending to | 17 Operating Frequency (No/yr) | 18 Transients |
| Open |       | Close |       |       |       |
| 19 Ambient Conditions | Pressure | Temperature | Humidity | Radiation |
| Normal |       | MPa |       | °C |       | R H % |       | mSv/h |
| 20 Ambient Conditions | Pressure | Temperature | Humidity | Radiation |
| Abnormal |       | MPa |       | °C |       | R H % |       | mSv/h |

**DESIGN DATA**

|  |  |  |  |
| --- | --- | --- | --- |
| 22 Valve Type | 23 Design Pressure | 24 Design Temp | 25 Flow coeff. |
|       |       | MPa |       | °C | Kv |       | m3/h |
| 26 Connection Size | 27 Connection type | 28 Bonnet Relief | 29 Nozzle for  |
|       | Weld |      | Flange |      | Thread |      | Yes | [ ]  | No | [ ]  | Body drain  |       | Leakage test |      |
| 30 Max differential pressure when opening the valve |
| ΔP |      MPaMPa | Upstream press. |      MPa | Downstream press. |       MPa |
| 31 Max differential pressure when closing the valve |
| ΔP |        MPaMPa | Upstream pressure |       MPa |
| 32 Hard Facing |
| Seat |      | Disc |      |
| 33 Valve is end point of pressure boundary | Upstream press. |       |
| YES | [ ]  | NO | [ ]  | If yes, no seat leakage shall occur at hydraulic test |       | MPa | Downstream press. |       |
| 34 Stem Sealing Arrangement |
| Single Packing | [ ]  | Double Packing with intermediate drain | [ ]  | Bellows with single packing | [ ]  |
| 35 Pivot Pin Sealing Arrangement (check valve) |
|       |
| 36 Body Bonnet Sealing Arrangement |
| Single gasket |       | Provision for seal weld  |       | Pressure Seal |            |
| 37.1 Electrical Position Indication | 37.2 Mechanical Position Indication |
| Open and Closed |       | Continuous |       | Yes | [ ]  | No | [ ]  |
| 38 Hydraulic removal of stem packing | 39 Back seat | 40 Inservice Inspection |
| Yes | [ ]  | No | [ ]  | Yes | [ ]  | No | [ ]  | Yes | [ ]  | No | [ ]  |
| 41 Spring-Loaded Stem Nut |
| Yes | [ ]  | No | [ ]  |
| 42 Connecting Pipe Dimension Inlet | 43 Connecting Pipe Dimension Outlet |
|       | mm |       | mm |
| 44 Max Valve Length | 45 Max Height |
|       | mm |       | mm |

|  |
| --- |
| 46 Force on Disc / Stem |
| Max pressure |      | MPa Upstream press. | tending to open |     | tending to close |     | N |
| Max pressure |      | MPa Downstream press. | tending to open |       | N |

**MATERIAL**

|  |  |  |
| --- | --- | --- |
| 47 Restriction to Co-based material | 48 Restrictions to PTFE | 49 Restrictions to Aluminium |
| Yes [ ]  | No [ ]  | Yes [ ]  | No [ ]  | Yes [ ]  | No [ ]  |
| 50 Connecting Pipe Inlet | 51 Connecting Pipe Outlet |
|       |       |
| 52 Body Bonnet | 53 Stem |
|       |       |
| 54 Disc | 55 Seat |
|       |       |
| 56 Gasket, Body Bonnet | 57 Stem Packing |
|       |       |
| 58 Connection flanges gasket | 59 Hard Facing |
|       | Seat      | Disc      |

**QUALITY**

|  |  |  |  |
| --- | --- | --- | --- |
| 60 Quality Class | 61 Design acc. to: | 62 Inspection acc. to: | 63 Seismic class |
|       |       |       |       |
| 64 Surface treatment acc to: | 65 Tightness class (internal leakage) | 66Tightness class (leakage to atmosphere): |
|       |       |       |

**ACTUATOR**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 67 Pneumatic | [ ]  | Motor | [ ]  | Handwheel | [ ]  |
| 68 Spring-Loaded Stem Nut (if actuator is motor operated) | Yes [ ]  | No [ ]  |

**DESIGN DATA ACTUATOR**

|  |  |  |  |
| --- | --- | --- | --- |
| 69 Design Pressure | 70 Design Temperature | 71 Actuating Medium | 72 Actuating Pressure |
|       | MPa |       | °C |       | Max: |       | Min: |       | MPa |
| 73 Spring to | 74 Spring Force on Stem |
| Open | [ ]  | Close | [ ]  | Valve Open: |       | N | Valve Closed: |       | N |
| 75 Total gas force on stem at min actuating pressure (see item 72) |
|       | N |
| 76 Type | 77 Manufacturer |
|       |       |

**MOTOR**

|  |  |
| --- | --- |
| 78 Specified Operating Time | 79 Voltage |
| Min: |      | s | Max: |      | s | Normal: |       | s |       | V      |
| 80 Position Indication |
| No | [ ]  | Limit Switch | [ ]  | Cont. Indication | [ ]  | Spec: | [ ]  |
| 81 Req. Torque opening / closing |
| Start: |      | **/** |      | Nm | During Operation |      | **/** |      | Nm | Backseating |       | **/** |       | Nm |
| 82 Max permitted Torque for the valve |
| Into open pos: |       | Nm | Into close pos: |       | Nm | During operation: |       | Nm |
| 83 Valve Stem turns per full Stroke | 84 Length of Stroke | 85 Valve Stem Diameter |
|       |       | mm |       | mm |
| 86 Type | 87 Manufacturer |
|       |       |

**REMARK**

|  |
| --- |
| 88 Manufacturer to fill in item 46, 74, 81, 82, 83, 84 and 85: |
|       |