**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 2 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | 625 | 32 | 0 | 32 | -50 | 529 | 20 | 529 |
| TH-1 | 523 | 2931 | 734 | 3022 | -4000 | -2245 | 11561 | 11777 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 1148 | 2963 | 734 | 3053 | -4050 | -1716 | 11581 | 11707 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1148 |  |  | 3053 | 4050 |  |  | 11707 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 315 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | 305 | -46 | -73 | 86 | 104 | 469 | -17 | 469 |
| TH-1 | -1826 | -185 | -1220 | 1234 | -45 | 5033 | -781 | 5093 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -1521 | -231 | -1293 | 1313 | 104 | 5502 | -798 | 5560 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1521 |  |  | 1313 | 104 |  |  | 5560 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 16 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | 399 | 10 | 22 | 24 | -31 | 101 | -32 | 106 |
| TH-1 | 668 | -2940 | 538 | 2989 | 4157 | -1134 | -11499 | 11555 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 1067 | -2930 | 560 | 2983 | 4126 | -1033 | -11531 | 11577 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1067 |  |  | 2983 | 4126 |  |  | 11577 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 95 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | 107 | 0 | -10 | 10 | 1 | 55 | -29 | 62 |
| TH-1 | -24 | -1 | 30 | 30 | 3 | -92 | 0 | 92 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 107 | -1 | 20 | 20 | 4 | 55 | -29 | 62 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 107 |  |  | 20 | 4 |  |  | 62 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 24 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | -2553 | 4 | -50 | 50 | -50 | -477 | 2604 | 2647 |
| TH-1 | -507 | 194 | 52 | 201 | 1469 | 5643 | 3070 | 6424 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -3060 | 198 | -50 | 204 | 1419 | 5166 | 5674 | 7673 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 3060 |  |  | 204 | 1419 |  |  | 7673 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 104 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | 22 | 0 | 10 | 10 | 17 | 3 | -19 | 19 |
| TH-1 | 23 | -1 | -30 | 30 | -59 | -121 | -42 | 128 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 45 | -1 | -20 | 20 | -42 | -118 | -61 | 133 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 45 |  |  | 20 | 42 |  |  | 133 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 26 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | -74 | 4 | 60 | 60 | 75 | -1081 | -520 | 1200 |
| TH-1 | 214 | 195 | -82 | 212 | -1139 | 725 | 565 | 919 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 140 | 199 | 60 | 208 | -1064 | -1081 | -520 | 1200 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 140 |  |  | 208 | 1064 |  |  | 1200 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 86 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | 4 | -1896 | 2 | 1896 | -2066 | -102 | -4846 | 4847 |
| TH-1 | -117 | -64 | 230 | 239 | -73 | -4838 | -1275 | 5003 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -113 | -1960 | 232 | 1974 | -2139 | -4940 | -6121 | 7866 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 113 |  |  | 1974 | 2139 |  |  | 7866 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 57 | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight | -746 | 1 | -64 | 64 | -716 | -20 | -555 | 555 |
| TH-1 | -232 | -34 | 199 | 202 | 2095 | -281 | 2149 | 2167 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -978 | -33 | 135 | 139 | 1379 | -301 | 1594 | 1622 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 978 |  |  | 139 | 1379 |  |  | 1622 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | |  | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight |  |  |  |  |  |  |  |  |
| TH-1 |  |  |  |  |  |  |  |  |
| TH-2 |  |  |  |  |  |  |  |  |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | |  | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight |  |  |  |  |  |  |  |  |
| TH-1 |  |  |  |  |  |  |  |  |
| TH-2 |  |  |  |  |  |  |  |  |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | |  | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight |  |  |  |  |  |  |  |  |
| TH-1 |  |  |  |  |  |  |  |  |
| TH-2 |  |  |  |  |  |  |  |  |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | |  | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight |  |  |  |  |  |  |  |  |
| TH-1 |  |  |  |  |  |  |  |  |
| TH-2 |  |  |  |  |  |  |  |  |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | |  | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight |  |  |  |  |  |  |  |  |
| TH-1 |  |  |  |  |  |  |  |  |
| TH-2 |  |  |  |  |  |  |  |  |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | |  | |
| Attached Piping Data Summary | | | Computer Run ID | | | | Nozzle or Penetration Local Coordinate System | | |
| HSG Input | | | |
| NPS & Schedule: XX | | | Note 1:  Allowable nozzle loads are not available for this nozzle. During MSR replacement, allowable loads will be established and included in this analysis. | | | | +X: Along nozzle axis, coming out of nozzle  +Y: Toward plant South  +Z: Determined by right-hand-rule | | |
| Pipe Material: XX | | |
| Metal Area (in2): XX | | |
| Section Modulus (in3): XX | | |
| Load | | FAX | FS1 | FS2 | FSR | MTOR | MB1 | MB2 | MBR |
| Local Coordinate ID | | FX | FY | FZ |  | MX | MY | MZ |  |
| LB | LB | LB | LB | FT-LB | FT-LB | FT-LB | FT-LB |
| **NORMAL** | Dead Weight |  |  |  |  |  |  |  |  |
| TH-1 |  |  |  |  |  |  |  |  |
| TH-2 |  |  |  |  |  |  |  |  |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |

**Table XX:** Support load information

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Node Pt.** | **Support Mark No. [REF]** | **D**  **I**  **R** | **Maximum Support Loads (lbs)** | **Minimum Support Load (lbs)** | **Structural Capacity (lbs)** | **Spring Working Range (lbs)** | **Comments1** |
| 17 | 1-MCT-HS-H322 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -2935 | -2792 |  |  |
| FZ |  |  |  |  |
| 18 | 1-MCT-HS-H321 | FX |  |  |  |  | Capacity Check → OVER (Note 2) |
| FY | -2410 | -2394 |  |  |
| FZ |  |  |  |  |
| 29 | 1-MCT-HS-H363 | FX |  |  |  |  | Capacity Check → OK |
| FY | -1892 | -1858 |  |  |
| FZ |  |  |  |  |
| 36 | 1-MCT-HS-H181 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -1098 | -1056 |  |  |
| FZ |  |  |  |  |
| 39 | 1-MCT-HS-H182 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -1961 | -1891 |  |  |
| FZ |  |  |  |  |
| 43A | 1-MCT-HS-H365 | FX |  |  |  |  | Capacity Check → OK |
| FY | -1412 | -1320 |  |  |
| FZ |  |  |  |  |
| 50 | 1-MCT-HS-H364 | FX |  |  |  |  | Capacity Check → OK |
| FY | -1744 | -1639 |  |  |
| FZ |  |  |  |  |
| 62 | 1-MCT-HS-H180 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -708 | -686 |  |  |
| FZ |  |  |  |  |
| 72 | 1-MCT-HS-H179 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -500 | -361 |  |  |
| FZ |  |  |  |  |
| 78 | 1-MCT-HS-H178 | FX |  |  |  |  | (Note 3) |
| FY | -455 | -348 |  |  |
| FZ |  |  |  |  |
| 81 | 1-MCT-HS-H177 | FX |  |  |  |  | (Note 3) |
| FY | -677 | -653 |  |  |
| FZ |  |  |  |  |
| 99 | 1-MCT-HS-H317 | FX |  |  |  |  | (Note 3,4) |
| FY | -85 | -84 |  |  |
| FZ |  |  |  |  |
| TS1 | TANK ROD SUPPORT #1 | FX |  |  |  |  |  |
| FY | -3418 | -2433 |  |  |
| FZ |  |  |  |  |
| TS2 | TANK ROD SUPPORT #2 | FX |  |  |  |  |  |
| FY | -3959 | -1901 |  |  |
| FZ |  |  |  |  |
| TS3 | TANK ROD SUPPORT #3 | FX |  |  |  |  |  |
| FY | -491 | 336 |  |  |
| FZ |  |  |  |  |
| TS4 | TANK ROD SUPPORT #4 | FX |  |  |  |  |  |
| FY | -1023 | 876 |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
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| FY |  |  |  |  |
| FZ |  |  |  |  |