**Table XX:** XX

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Equipment ID → | | MSR 1C1 Nozzle #11 North | | | Allowable Load Reference → | | | Note 1 | |
| Equipment Dwg. | |  | | |  | | | 28 | |
| 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 | 1 | -21 | 7 | 22 | 36 | 16 | -9 | 18 |
| TH-1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TH-2 | 4 | -30 | 10 | 32 | 120 | 30 | 52 | 60 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 5 | -51 | 17 | 54 | 156 | 46 | 43 | 63 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 5 |  |  | 54 | 156 |  |  | 63 |
|  |  |  |  |  |  |  |  |  |
| 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 | -45 | -74 | 87 | 104 | 475 | -16 | 475 |
| TH-1 | -1826 | -185 | -1221 | 1235 | -45 | 5033 | -781 | 5093 |
| TH-2 | 0 | 0 | 0 | 0 | -45 | 5033 | -781 | 5093 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 305 | -45 | -74 | 87 | 104 | 475 | -16 | 475 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 305 |  |  | 87 | 104 |  |  | 475 |
|  |  |  |  |  |  |  |  |  |
| 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 | 100 | -32 | 105 |
| TH-1 | 668 | -2940 | 538 | 2989 | 4157 | -1134 | -11499 | 11555 |
| TH-2 | 0 | 0 | 0 | 0 | 4157 | -1134 | -11499 | 11555 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 399 | 10 | 22 | 24 | -31 | 100 | -32 | 105 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 399 |  |  | 24 | 31 |  |  | 105 |
|  |  |  |  |  |  |  |  |  |
| 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 | 56 | -29 | 63 |
| TH-1 | -24 | -1 | 30 | 30 | 3 | -92 | 0 | 92 |
| TH-2 | 0 | 0 | 0 | 0 | 3 | -92 | 0 | 92 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | 107 | 0 | -10 | 10 | 1 | 56 | -29 | 63 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 107 |  |  | 10 | 1 |  |  | 63 |
|  |  |  |  |  |  |  |  |  |
| 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 | -2552 | 4 | -52 | 52 | -58 | -471 | 2602 | 2644 |
| TH-1 | -507 | 194 | 52 | 201 | 1469 | 5643 | 3070 | 6424 |
| TH-2 | 0 | 0 | 0 | 0 | 1469 | 5643 | 3070 | 6424 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -2552 | 4 | -52 | 52 | -58 | -471 | 2602 | 2644 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 2552 |  |  | 52 | 58 |  |  | 2644 |
|  |  |  |  |  |  |  |  |  |
| 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 | 18 | 18 |
| TH-1 | -23 | -1 | 30 | 30 | 59 | -121 | 42 | 128 |
| TH-2 | 0 | 0 | 0 | 0 | 59 | -121 | 42 | 128 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -22 | 0 | -10 | 10 | -17 | 3 | 18 | 18 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 22 |  |  | 10 | 17 |  |  | 18 |
|  |  |  |  |  |  |  |  |  |
| 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 | -62 | 9 | 3 | 9 | 494 | -83 | -785 | 789 |
| TH-1 | 82 | -214 | 195 | 290 | -565 | 1139 | 729 | 1352 |
| TH-2 | 0 | 0 | 0 | 0 | -565 | 1139 | 729 | 1352 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -62 | 9 | 3 | 9 | 494 | -83 | -785 | 789 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 62 |  |  | 9 | 494 |  |  | 789 |
|  |  |  |  |  |  |  |  |  |
| 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 | -1895 | 3 | 3 | 4 | -102 | -4836 | -2063 | 5258 |
| TH-1 | -64 | 230 | -117 | 258 | -4838 | -1275 | -73 | 1277 |
| TH-2 | 0 | 0 | 0 | 0 | -4838 | -1275 | -73 | 1277 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -1895 | 3 | 3 | 4 | -102 | -4836 | -2063 | 5258 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1895 |  |  | 4 | 102 |  |  | 5258 |
|  |  |  |  |  |  |  |  |  |
| 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 | -65 | 65 | -731 | -12 | -555 | 555 |
| TH-1 | -232 | -34 | 199 | 202 | 2094 | -281 | 2149 | 2167 |
| TH-2 | 0 | 0 | 0 | 0 | 2094 | -281 | 2149 | 2167 |
| TH-3 |  |  |  |  |  |  |  |  |
| TH-4 |  |  |  |  |  |  |  |  |
| TH-5 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) | -746 | 1 | -65 | 65 | -731 | -12 | -555 | 555 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 746 |  |  | 65 | 731 |  |  | 555 |
|  |  |  |  |  |  |  |  |  |
| 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 | -1884 | -1851 |  |  |
| FZ |  |  |  |  |
| 36 | 1-MCT-HS-H181 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -1095 | -1052 |  |  |
| FZ |  |  |  |  |
| 39 | 1-MCT-HS-H182 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -1866 | -1795 |  |  |
| 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 | -706 | -684 |  |  |
| FZ |  |  |  |  |
| 72 | 1-MCT-HS-H179 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -496 | -357 |  |  |
| FZ |  |  |  |  |
| 78 | 1-MCT-HS-H178 | FX |  |  |  |  | (Note 3) |
| FY | -459 | -352 |  |  |
| FZ |  |  |  |  |
| 81 | 1-MCT-HS-H177 | FX |  |  |  |  | (Note 3) |
| FY | -676 | -653 |  |  |
| FZ |  |  |  |  |
| 99 | 1-MCT-HS-H317 | FX |  |  |  |  | (Note 3,4) |
| FY | -85 | -84 |  |  |
| FZ |  |  |  |  |
| TS1 | TANK ROD SUPPORT #1 | FX |  |  |  |  |  |
| FY | -3456 | -2470 |  |  |
| FZ |  |  |  |  |
| TS2 | TANK ROD SUPPORT #2 | FX |  |  |  |  |  |
| FY | -3904 | -1847 |  |  |
| FZ |  |  |  |  |
| TS3 | TANK ROD SUPPORT #3 | FX |  |  |  |  |  |
| FY | -422 | 406 |  |  |
| FZ |  |  |  |  |
| TS4 | TANK ROD SUPPORT #4 | FX |  |  |  |  |  |
| FY | -1045 | 855 |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
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| FY |  |  |  |  |
| FZ |  |  |  |  |