**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 | 626 | 32 | 0 | 32 | -50 | 531 | 19 | 531 |
| TH-1 | 523 | 2931 | 734 | 3022 | -4000 | -2245 | 11561 | 11777 |
| TH-2 | 0 | 0 | 0 | 0 | -4000 | -2245 | 11561 | 11777 |
| Hot (weight + envelope of expansion cases) | 1149 | 2963 | 734 | 3053 | -4050 | -1714 | 11580 | 11706 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1149 |  |  | 3053 | 4050 |  |  | 11706 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**Table XX:** XX

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |
| Hot (weight + envelope of expansion cases) | 1521 | 230 | 1295 | 1315 | -59 | -5508 | 797 | 5565 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1521 |  |  | 1315 | 104 |  |  | 5565 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**Table XX:** XX

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | 1067 | -2930 | 560 | 2983 | 4126 | -1034 | -11531 | 11577 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1067 |  |  | 2983 | 4126 |  |  | 11577 |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | | 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 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | 107 | -1 | 20 | 20 | 4 | 56 | -29 | 63 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 107 |  |  | 20 | 4 |  |  | 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. | |  | | |  | | | 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 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | -3059 | 198 | -52 | 205 | 1411 | 5172 | 5672 | 7676 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 3059 |  |  | 205 | 1411 |  |  | 7676 |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | | 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 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | 45 | -1 | -20 | 20 | -42 | -118 | -60 | 132 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 45 |  |  | 20 | 42 |  |  | 132 |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | | 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 | -9 | 3 | 62 | 62 | 83 | -785 | -494 | 928 |
| TH-1 | 214 | 195 | -82 | 212 | -1139 | 729 | 565 | 922 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | 205 | 198 | 62 | 207 | -1056 | -785 | -494 | 928 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 205 |  |  | 207 | 1056 |  |  | 928 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**Table XX:** XX

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 3 | -1895 | 3 | 1895 | -2063 | -102 | -4836 | 4837 |
| TH-1 | -117 | -64 | 230 | 239 | -73 | -4838 | -1275 | 5003 |
| TH-2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | -114 | -1959 | 233 | 1973 | -2136 | -4940 | -6111 | 7858 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 114 |  |  | 1973 | 2136 |  |  | 7858 |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**Table XX:** XX

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 0 | 0 | 0 | 0 |
| Hot (weight + envelope of expansion cases) | -978 | -33 | 134 | 138 | 1363 | -293 | 1594 | 1621 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 978 |  |  | 138 | 1363 |  |  | 1621 |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | |  | |
| 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 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | |  | |
| 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 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**Table XX:** XX

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | |  | |
| 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 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | |  | |
| 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 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | |  | |
| 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 |  |  |  |  |  |  |  |  |
| Hot (weight + envelope of expansion cases) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Allowable | Note 1 |  |  | Note 1 | Note 1 |  |  | Note 1 |
| Ratio | -- |  |  | -- | -- |  |  | -- |

**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 |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |