**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 | 626.0 | 32.0 | 0.0 | 32.0 | -50.0 | 531.0 | 19.0 | 531.0 |
| TH-1 | 523.0 | 2931.0 | 734.0 | 3022.0 | -4000.0 | -2245.0 | 11561.0 | 11777.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | 1149.0 | 2963.0 | 734.0 | 3053.0 | -4050.0 | -1714.0 | 11580.0 | 11706.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1149.0 |  |  | 3053.0 | 4050.0 |  |  | 11706.0 |
|  |  |  |  |  |  |  |  |  |
| 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 | 305.0 | -45.0 | -74.0 | 87.0 | 104.0 | 475.0 | -16.0 | 475.0 |
| TH-1 | -1826.0 | -185.0 | -1221.0 | 1235.0 | -45.0 | 5033.0 | -781.0 | 5093.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | -1521.0 | -230.0 | -1295.0 | 1315.0 | 104.0 | 5508.0 | -797.0 | 5565.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1521.0 |  |  | 1315.0 | 104.0 |  |  | 5565.0 |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | | 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 | 399.0 | 10.0 | 22.0 | 24.0 | -31.0 | 100.0 | -32.0 | 105.0 |
| TH-1 | 668.0 | -2940.0 | 538.0 | 2989.0 | 4157.0 | -1134.0 | -11499.0 | 11555.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | 1067.0 | -2930.0 | 560.0 | 2983.0 | 4126.0 | -1034.0 | -11531.0 | 11577.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 1067.0 |  |  | 2983.0 | 4126.0 |  |  | 11577.0 |
|  |  |  |  |  |  |  |  |  |
| 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 | 0.0 | -10.0 | 10.0 | 1.0 | 56.0 | -29.0 | 63.0 |
| TH-1 | -24.0 | -1.0 | 30.0 | 30.0 | 3.0 | -92.0 | 0.0 | 92.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | 107.0 | -1.0 | 20.0 | 20.0 | 4.0 | 56.0 | -29.0 | 63.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 107.0 |  |  | 20.0 | 4.0 |  |  | 63.0 |
|  |  |  |  |  |  |  |  |  |
| 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 | 517 | 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 | 0.0 | 10.0 | 10.0 | 17.0 | 3.0 | -18.0 | 18.0 |
| TH-1 | 23.0 | -1.0 | -30.0 | 30.0 | -59.0 | -121.0 | -42.0 | 128.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | 45.0 | -1.0 | -20.0 | 20.0 | -42.0 | -118.0 | -60.0 | 132.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 45.0 |  |  | 20.0 | 42.0 |  |  | 132.0 |
|  |  |  |  |  |  |  |  |  |
| 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. | |  | | |  | | | 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 | -9.0 | 3.0 | 62.0 | 62.0 | 83.0 | -785.0 | -494.0 | 928.0 |
| TH-1 | 214.0 | 195.0 | -82.0 | 212.0 | -1139.0 | 729.0 | 565.0 | 922.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | 205.0 | 198.0 | 62.0 | 207.0 | -1056.0 | -785.0 | -494.0 | 928.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 205.0 |  |  | 207.0 | 1056.0 |  |  | 928.0 |
|  |  |  |  |  |  |  |  |  |
| 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 | 3.0 | -1895.0 | 3.0 | 1895.0 | -2063.0 | -102.0 | -4836.0 | 4837.0 |
| TH-1 | -117.0 | -64.0 | 230.0 | 239.0 | -73.0 | -4838.0 | -1275.0 | 5003.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | -114.0 | -1959.0 | 233.0 | 1973.0 | -2136.0 | -4940.0 | -6111.0 | 7858.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 114.0 |  |  | 1973.0 | 2136.0 |  |  | 7858.0 |
|  |  |  |  |  |  |  |  |  |
| 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 | -746.0 | 1.0 | -65.0 | 65.0 | -731.0 | -12.0 | -555.0 | 555.0 |
| TH-1 | -232.0 | -34.0 | 199.0 | 202.0 | 2094.0 | -281.0 | 2149.0 | 2167.0 |
| TH-2 | 0 | 0 | 0 | 0.0 | 0 | 0 | 0 | 0.0 |
| Hot (weight + envelope of expansion cases) | -978.0 | -33.0 | 134.0 | 138.0 | 1363.0 | -293.0 | 1594.0 | 1621.0 |
|  |  |  |  |  |  |  |  |  |
| Maximum of the Absolute Value of (DW, Hot) | 978.0 |  |  | 138.0 | 1363.0 |  |  | 1621.0 |
|  |  |  |  |  |  |  |  |  |
| 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

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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

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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

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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:** 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 | -2935.0 | -2792.0 |  |  |
| FZ |  |  |  |  |
| 18 | 1-MCT-HS-H321 | FX |  |  |  |  | Capacity Check → OVER (Note 2) |
| FY | -2410.0 | -2394.0 |  |  |
| FZ |  |  |  |  |
| 29 | 1-MCT-HS-H363 | FX |  |  |  |  | Capacity Check → OK |
| FY | -1884.0 | -1851.0 |  |  |
| FZ |  |  |  |  |
| 36 | 1-MCT-HS-H181 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -1095.0 | -1052.0 |  |  |
| FZ |  |  |  |  |
| 39 | 1-MCT-HS-H182 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -1866.0 | -1795.0 |  |  |
| FZ |  |  |  |  |
| 43A | 1-MCT-HS-H365 | FX |  |  |  |  | Capacity Check → OK |
| FY | -1412.0 | -1320.0 |  |  |
| FZ |  |  |  |  |
| 50 | 1-MCT-HS-H364 | FX |  |  |  |  | Capacity Check → OK |
| FY | -1744.0 | -1639.0 |  |  |
| FZ |  |  |  |  |
| 62 | 1-MCT-HS-H180 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -706.0 | -684.0 |  |  |
| FZ |  |  |  |  |
| 72 | 1-MCT-HS-H179 | FX |  |  |  |  | Capacity Check → OK  Spring in Range → YES |
| FY | -496.0 | -357.0 |  |  |
| FZ |  |  |  |  |
| 78 | 1-MCT-HS-H178 | FX |  |  |  |  | (Note 3) |
| FY | -459.0 | -352.0 |  |  |
| FZ |  |  |  |  |
| 81 | 1-MCT-HS-H177 | FX |  |  |  |  | (Note 3) |
| FY | -676.0 | -653.0 |  |  |
| FZ |  |  |  |  |
| 99 | 1-MCT-HS-H317 | FX |  |  |  |  | (Note 3,4) |
| FY | -85.0 | -84.0 |  |  |
| FZ |  |  |  |  |
| TS1 | TANK ROD SUPPORT #1 | FX |  |  |  |  |  |
| FY | -3456.0 | -2470.0 |  |  |
| FZ |  |  |  |  |
| TS2 | TANK ROD SUPPORT #2 | FX |  |  |  |  |  |
| FY | -3904.0 | -1847.0 |  |  |
| FZ |  |  |  |  |
| TS3 | TANK ROD SUPPORT #3 | FX |  |  |  |  |  |
| FY | -422.0 | 406.0 |  |  |
| FZ |  |  |  |  |
| TS4 | TANK ROD SUPPORT #4 | FX |  |  |  |  |  |
| FY | -1045.0 | 855.0 |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |
|  |  | FX |  |  |  |  |  |
| FY |  |  |  |  |
| FZ |  |  |  |  |