U.S. Nuclear Regulatory Commission

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SUBJECT: Interim Report Notification Pursuant To 10 CFR Part 21.21, Regarding Supply Of $1^{\prime \prime}$ Sch. 80 ( $0.180^{\prime \prime}$ Wall) SB466 UNS C71500 Buttweld Long Radius 90 Degree Elbow; Manufacturer: Flowline; Heat No: 27668; 27 pieces - Heat Code: 127514, Fitting IDs: 16836-1-1 through 27; 1 piece - Heat Code: 127976, Fitting ID: 16836-1-28.

This letter provides an interim report in accordance with $\S 21.21$ concerning the supply of $1^{\prime \prime}$ Sch. 80 ( $0.180^{\prime \prime}$ Wall) SB466 UNS C71500 Buttweld Long Radius 90 Degree Elbow to the Duke Energy Brunswick Nuclear Plant. Mackson Nuclear, LLC subcontracted Tioga Pipe, Inc. (Tioga Pipe) to supply the fittings. Tioga Pipe in turn subcontracted the supply of these fittings to Ezeflow who manufactured these fittings using their Flowline division. Please see Attachment 1, "Interim Report Notification Information per §21.21", for additional details and clarification.

All material supplied by Flowline on this order has been identified by Duke. Nine pieces of the 28 supplied have been found to be nonconforming to the wall thickness requirements of ASME B16.9 and three pieces of the nine nonconforming pieces have been installed. The remaining six pieces have been identified and are still in Duke's possession at the time of this report's issuance.

If you have any questions, please feel free to contact me at (713) 512-3569 or our Quality Director, Bryan Nichols, at (484) 546-5613.


William Kotcher
President
Tioga Pipe Inc.

Enclosures:

1) Attachment 1, Interim Report Notification Information per $\S 21.21$
2) Flowline Final Inspection Dimensional Report for Shop Orders 127514 and TANUC127976

Cc:
Andrew Keiser, Tioga
David Keiser, Tioga
Bryan Nichols, Tioga
Richard Crowley, Tioga
Glenn Reigel, Tioga
Shannon Echols, Mackson

# Attachment 1 <br> Interim Report Notification Information per \$21.21 

I. Name and address of the individual or individuals informing the Commission:

William Kotcher
President
Tioga Pipe Inc.
14950 Heathrow Forest Parkway, Suite 390
Houston, TX 77032

## II. Identification of the facility, the activity, or the basic component supplied which fails to comply or contains a defect.

28 pieces of $1^{\prime \prime}$ Sch. 80 ( $0.180^{\prime \prime}$ Wall) SB466 UNS C71500 Buttweld Long Radius 90 Degree Elbow; Manufacturer: Flowline; Heat No: 27668, Fitting IDs: 16836-1-1 through 28 were delivered to the Brunswick Nuclear Plant on PO 03160591, Line 1 (Tioga Sales Orders Number: 372275 Position 10). Fitting IDs 16836-1 through 27 were supplied on July 21, 2023, and Fitting ID 16836-1-28 was supplied on November 8, 2023. The following is a clarification of the heat code identification associated with the first 27 pieces supplied on July 21, 2023 and the last piece which was supplied on November 8, 2023. The same starting pipe heat number 27668 was used for the manufacture of all 28 pieces. The heat code associated with the heat treatment of the 27 pieces supplied on July 21, 2023 is Heat Code 127514. The heat code associated with the heat treatment of the 1 piece supplied on November 8, 2023 is Heat Code 127976. The heat code is only associated with the heat treatment process. Of the 28 pieces supplied, based upon final dimensional inspection reports received by Tioga on November 21, 2023 and November 28, 2023, the following Fitting IDs do not meet the wall thickness requirements of Duke Energy Brunswick PO 03160591, Line 1 and ASME B16.9: 16836-1-1; 16836-1-3; 16836-1-6; 16836-1-7; 16836-1-11; 16836-1-14; 16836-1-15; 16836-1-20; and 16836-1-21.

## III. Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Mackson Nuclear is an ASME QSC holder and supplied these fittings to Duke Energy Brunswick for PO\# 03160591, Line 1. Mackson ordered these fittings from Tioga Pipe, who owns Mackson, is an ASME QSC holder and is audited and approved by Mackson. Tioga ordered the fittings from Ezeflow, an ASME N-Stamp holder and is audited and approved by Tioga. Ezeflow had their Flowline division manufacture the fittings and Ezeflow generated and supplied the certification documentation package. Flowline has been audited and approved by Ezeflow as a qualified material organization to Ezeflow.

When it has to be right.

## IV. Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

On November 15, 2023, Mackson Nuclear was contacted by Duke Energy Brunswick QC regarding the wall thickness of one piece of SB466 UNS C71500 1" Sch. 80 (0.180" Wall) Buttweld Long Radius 90 Degree Elbow, Heat\# 27668 Heat Code 127976 Fitting ID\# 16836-1-28 and supplied to Brunswick as ASME Section II and Section III Subsection ND Class 3, 1986 Edition No Addenda material for Brunswick PO\# 03160591, Line 1. Mackson went back to Tioga to request this information, and Tioga went back to their supplier of the material, Ezeflow, to request the final wall thickness measurements of this fitting. During this process, the wall thickness measurements for the previous 27 pieces of the same material with Fitting ID\#s 16836-1-1 through -27 which were supplied to Brunswick for PO\# 03160591, Line 1 on July 21, 2023 were obtained from Ezeflow. Fitting ID\# 16836-1-28 met the Brunswick Specification BX-M-046 Revision 12 wall thickness requirement detailed in Section 4.2.5 of the specification. However, upon review of the Final Inspection Dimensional Sheet supplied by Ezeflow for Fitting ID\#s 16836-1-1 through -27, it was determined by Mackson that the incorrect wall thickness of $0.120^{\prime \prime}$ was referenced as the minimum wall thickness acceptance criteria on the Final Inspection Dimensional Report. Based on BX-M-046 Revision 12 Section 4.2.5 and ANSI/ASME B16.9 requirements, the minimum wall thickness acceptance criteria should have been $0.1575^{\prime \prime}$ and not $0.120^{\prime \prime}$. Upon review of all the wall thickness measurements, it was determined that the following Fitting ID\#s do not meet the wall thickness requirement based on what is recorded on the Final Inspection Dimensional Report (see attached copy of the report):
Fitting ID\#s 16836-1-1; 16836-1-3; 16836-1-6; 16836-1-7; 16836-1-11; 16836-$1-14 ; 16836-1-15 ; 16836-1-20$; and 16836-1-21.

## V. The date on which the information of such defect or failure to comply was obtained.

- On November 15, 2023, Mackson Nuclear was contacted by Duke Energy Brunswick QC regarding the wall thickness of one piece of SB466 UNS C71500 $1^{\prime \prime}$ Sch. 80 (0.180" Wall) Buttweld Long Radius 90 Degree Elbow, Heat\# 27668 Heat Code 127976 Fitting ID\# 16836-1-28 and supplied to Brunswick as ASME Section II \& Section III Subsection ND Class 3, 1986 Edition No Addenda material for Brunswick PO\# 03160591, Line 1.
- On November 21, 2023, Tioga and Mackson were provided the dimensional data from Flowline for fittings supplied to Duke on July 21, 2023. It was then determined that nine of the fittings supplied did not conform to the wall thickness requirements of ASME B16.9.
- On November 28, 2023, Tioga and Mackson were provided the dimensional data from Flowline for the fitting supplied to Duke on November 8, 2023. It was verified that this fitting did comply with the thickness requirements of ASME B16.9.
- Mackson's QA Manager, Shannon Echols, spoke with Matthew Pickens, Duke Energy Brunswick Engineering Technologist, by phone on December 5, 2023 and notified him of the nonconformance.
- Duke Energy Brunswick notified Mackson on December 6, 2023 that three of the nine BW elbows identified above have been installed in the plant. The Fitting ID\#s of the BW elbows that have been installed are as follows: 16836-1-3, 16836-1-14, 16836-1-20.
VI. In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

9 pieces of $1^{\prime \prime}$ Sch. 80 ( $0.180^{\prime \prime}$ Wall) SB466 UNS C71500 Buttweld Long Radius 90 Degree Elbow; Manufacturer: Flowline; Heat No: 27668; Heat Code: 127514; Fitting ID\#s 16836-1-1; 16836-1-3; 16836-1-6; 16836-1-7; 16836-1-11; 16836-1-14; 16836-1-15; 16836-1-20; and 16836-1-21 delivered to the Brunswick Nuclear Plant on PO 03160591, Line 1.
VII. The corrective action, which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

Tioga Pipe Corrective Action, N-CAR-23-13 has been generated and Bryan Nichols, Quality Director is responsible for completing and closing this corrective action.

Completed Actions:

1. Tioga Pipe and Mackson Nuclear have issued return material authorizations to Duke Energy for the return of the six uninstalled fittings.
2. Tioga Pipe has ceased direct shipments out of Flowline through Ezeflow. All material procured from Flowline through Ezeflow will be brought into Tioga Pipe and will be inspected by Tioga Pipe prior to being released for shipment.

## Open Actions:

1. Issue a supplier corrective action to Ezeflow to have them investigate the cause and provide corrective actions for the supply of fittings nonconforming to the wall thickness requirements of ASME B16.9 - due December 11, 2023.
VIII. Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

Any uninstalled material should be quarantined and tagged as nonconforming material.

## LTR-TP-23-35

IX. In the case of an early site permit, the entities to whom an early site permit was transferred.

Not applicable.

FiNA INSPECTIM MMENSIONAR REPORT


QTY：$\quad 27$ DESCRIPTION $\qquad$ SEH：．IB0＂walk STD \＆YEAR $\qquad$ REV．\＃ $\qquad$ ／A

|  | NOM：NAL WALE |  | 0.5. |  | I．D． |  | C／EC．M．E．ORH |  | OVAETY | BEVEL |  | ARGGES |  | MEPLAT |  |  |
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|  | 0.180 |  | 1.320 |  | 0.950 |  | 2.203 |  |  |  |  |  |  |  |  |  |
|  | Min． （inch） | Max． （inch） | MEn． （inch） | $\begin{aligned} & \text { Mizx. } \\ & \text { (inch) } \end{aligned}$ | Min． （inch） | Max． <br> （inch） | Min． （inch） | Max． <br> （inch） | Maw <br> （inch） | Nom．。 | Tol. 立 | INT. MAX <br> 。 | EXT MAX <br> － | Nom． （inch） | Tol．$\pm$ <br> （inch） |  |
| 1＇ | 0.120 | 0.340 | 1.29 | 1.38 | 0.900 | 1.020 | 2.14 | 2.25 | 0.090 | 37.5 | 2.5 | 13 | 30 | 0.05 | 0.03 | metitics |
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ACTUAL DMEENSIONS

| 1 | 0.150 | 0.210 | 1.32 | 0.948 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.050 | 0.050 | $157-10-23$ |
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| 1 | 0.170 | 0.200 | 1.32 | 0．569 | 2.25 | 0.002 | 38.000 | ACC | ACC | 0.058 | 0.058 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 | 0.172 | 0.182 | 1．32 | 6.945 | 2.25 | 0.010 | 38.000 | ACC | A．CC | 0.055 | 0.055 |  |
| 2 | 0.182 | 0.210 | 1.32 | 0.954 | 2.25 | 0.005 | 38.000 | ACC | ACC | 0.058 | 0.058 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 | 0.152 | 0.205 | ¢． 32 | 0.950 | 2.25 | 0.002 | 38.090 | AC： | ACC | 0.055 | 0.055 |  |
| 3 | 0.185 | 0.195 | 1.32 | 0.953 | 2.25 | 0.001 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
|  |  |  |  |  |  |  |  | ． |  |  |  |  |
| 4 | 0.175 | 0.210 | 1． 32 | 0.965 | 2.25 | 0.010 | 38.000 | AC® | ACC | 0.050 | 0.050 |  |
| 4 | 0.170 | 0.200 | $\overline{1} 30$ | 0.540 | 2.25 | 0.015 | 38.000 | ACC | ACC | 0.052 | 0.052 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 5 | 0.188 | 0.198 | 1.32 | 0.950 | 2.25 | 0.015 | 38.000 | ACC | ACC | 0.055 | 0.055 | ． |
| 5 | 0.189 | 0.200 | 1.32 | 0.950 | 2.25 | 0.020 | 38.000 | ACC | ACC | 0.055 | 0.055 | $\cdots$ |
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ACCEPT XI
INSTRUMENT（S）USED：SHP－10，PRO－HOU，2011－D，2011－B，112－225，22112315，295－253－A，TAPE－5

F M MOUKM
SHOP ORDER: $\qquad$ 127514 TEM: $\qquad$ 16835-1 1" 90LR
$\qquad$ SCH: $\qquad$ STD\&YEAR: $\qquad$ REV. 并 $\qquad$ N/A $\qquad$

|  | NOMENAL WALL |  | $0 . \mathrm{D}$. |  | I.D. |  | C/E CME. OR H |  | OVAETY | BEVEL |  | ANGiES |  | MEPLAT |  | $\begin{gathered} \text { APPROVED EY } \\ \text { \&DATE } \\ 248 \end{gathered}$ |
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|  | 0.180 |  | 1.320 |  | 0.960 |  | 2.203 |  |  |  |  |  |  |  |  |  |
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| $\widehat{i}^{\prime \prime}$ | 0.120 | 0.340 | 1.29 | 1.38 | 0.900 | ¢ 1.020 | 2.14 | 2.25 | 0.090 | 37.5 | 2.5 | 15 | 30 | 0.05 | 0.03 | INTTALS |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | DATE |

ACTUAL DIMENSIONS

| 6 | 0.145 | 0.218 | 1.32 | 0.960 | 2.25 | 0.030 | 38.000 | ACE | ACC | 0.050 | 0.050 | $357-10-25$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 0.180 | 0.201 | 1.32 | 0.945 | 2.25 | 0.020 | 38.000 | ACC | ACC | 0.058 | 0.058 |  |
| 7 | 0.150 | 0.220 | 1.32 | 0.955 | 2.25 | 0.603 | 38.000 | ACC | ACC | 0.060 | 0.060 |  |
| 7 | 0.172 | 0.260 | 1.32 | 0.960 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.050 | 0.050 |  |
| 8 | 0.270 | 0.220 | 1.32 | 0.939 | 2.25 | 0.005 | 38.000 | ACE | ACC | 0.060 | 0.050 |  |
| 8 | 0.163 | 0.220 | 1.31 | 0.955 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.058 | 0.058 |  |
| 9 | 0.165 | 0.210 | 1.32 | 0.935 | 2.25 | 0.630 | 38.000 | ACE | ACC | 0.055 | 0.055 |  |
| 9 | 0.160 | 0.170 | 1.32 | 0.950 | 2.25 | 0.020 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
| 10 | 0.165 | 0.215 | 1.32 | 0.950 | 2.25 | 0.002 | 38.000 | ACC | ACC | 0.050 | 0.050 |  |
| 10 | 0.173 | 0.198 | 1.32 | 0.950 | 2.25 | 0.002 | 38.000 | ACC | ACC | 0.050 | 0.050 | 1 |
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## ACCEPT X

INSTRUMENT(S) USED: SHIP-10, PRO-HOE, 2011-D, 2011-B, 112-225,22112315,295-253-A, TAPE-5

## REETECTET




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|  | 0.180 |  | 1.320 |  | 0.960 |  | 2.203 |  |  |  |  |  |  |  |  |  |
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| $1^{\prime \prime}$ | 0.120 | 0.340 | 1.29 | 1.38 | 0.900 | 1.020 | 2.14 | 2.25 | 0.090 | 37.5 | 2.5 | 18 | 30 | 0.06 | 0.03 | InItials |
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ACTUAL DIMENSIONS

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|  | 0.180 |  | 1.320 |  | 0.960 |  | 2.263 |  |  |  |  |  |  |  |  |  |
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| ${ }^{\text {T＇}}$ | 0.120 | 0.340 | 1.29 | 1.38 | 0.900 | 1.020 | 2.14 | 2.26 | 0.090 | 37.5 | 2.5 | 18 | 30 | 0.05 | 0.03 | INTTALS |
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ACFUAL DMENSIONS

| 16 | 0.192 | 0.205 | 1.31 | 0.943 | 2.25 | 0.910 | 38.000 | ACE | ACC | 0.050 | 0.050 | JS $7-10-23$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 16 | 0.150 | 0.195 | 1．32 | 0.950 | 2.25 | 0.015 | 38，000 | ACC | ACC | 0.060 | 0.060 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 17 | 0.185 | 0.198 | 1.33 | 0.950 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.060 | 0.060 |  |
| 17 | 0.170 | 0.210 | 1.31 | 0.941 | 2.25 | 0.003 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18 | 0.170 | 0.205 | 1.32 | 0.955 | 2.25 | 0.005 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
| 18 | 0.150 | 0.205 | 1.32 | 0.352 | 2.25 | 0.008 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 19 | 0.160 | 0.210 | 1.32 | 0.938 | 2.25 | 0.005 | 38.000 | ACC | ACC | 0.050 | 0.050 |  |
| 19 | 0.188 | 0.205 | 2.30 | 0.955 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.060 | 0.050 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 20 | 0.180 | 0.215 | 1.32 | 0.942 | 2.25 | 0.020 | 38.000 | ACC | A．CC | 0.060 | 0.060 |  |
| 20 | 0.142 | 0.215 | 1.32 | 0.935 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.060 | 0.050 | $\checkmark$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

ACCERTM X躇基CTED－

INSTRUMENT（S）USED：SHP－10，PRO－HOU，2011－D，2011－B，112－225，22112315，295－253－A，TAPE－5


$\qquad$ DRAWING: $\qquad$


| $\begin{aligned} & \text { \# } \\ & \text { cy } \\ & \text { in } \end{aligned}$ | NOMTNAL WALS |  | $0 . \mathrm{D}$. |  | I.D. |  | C/ECME.ORH |  | OVALTY | BEVEL |  | ANGLES |  | MEPLAT |  | APPROVED BY |
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|  | 0.180 |  | 1.320 |  | 0.960 |  | 2.203 |  |  |  |  |  |  |  |  |  |
|  | Min. <br> (inch) | Max. <br> (inch) | $\begin{aligned} & \text { Min. } \\ & \text { (inch) } \end{aligned}$ |  <br> (inch) | $\begin{aligned} & \text { Min. } \\ & \text { (inch) } \end{aligned}$ | Max. <br> (inch) | $\begin{aligned} & \text { Min. } \\ & \text { (inch) } \end{aligned}$ | Max. <br> (inch) | Max. <br> (inch) | Nom.。 | Tol. ̇ | INT. MAX | EXT MAX | Nom. <br> (inch) | $\begin{aligned} & \text { Tol. } \pm \\ & (\text { inch }) \end{aligned}$ |  |
| $i^{\prime \prime}$ | 0.120 | 0.340 | 1.29 | $\underline{1.38}$ | 0.900 | 1.020 | 2.15 | 2.25 | 0.090 | 37.5 | 2.5 | 18 | 30 | 0.05 | 0.03 | INTTALS |
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ACTUAL DIMENSIONS

| 21 | 0.180 | 0.210 | 1.32 | 0.945 | 2.25 | 0.004 | 38.000 | ACE | ACC | 0.050 | 0.050 | $557-10-23$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21 | 0.155 | 0.220 | 1.30 | 0.955 | 2.25 | 0.020 | 38.000 | ACC | ACC | 0.045 | 0.045 |  |
| 22 | 0.185 | 0.210 | 1.33 | 0.948 | 2.25 | 0.005 | 38.000 | ACS | ACC | 0.960 | 0.060 |  |
| 22 | 0.190 | 0.205 | 1.32 | 0.945 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.060 | 0.050 |  |
| 23 | 0.180 | 0.208 | 1.33 | 0.955 | 2.25 | 0.015 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
| 23 | 0.170 | 0.210 | 1.32 | 0.960 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.060 | 0.050 |  |
| 24 | 0.192 | 0.212 | ¢. 33 | 0.950 | 2.25 | 0.925 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
| 24 | 0.165 | 0.215 | 2.32 | 0.944 | 2.25 | 0.005 | 38.000 | ACC | ACC | 0.058 | 0.058 |  |
| 25 | 0.170 | 0.180 | ¢. 32 | 0.955 | 2.25 | 0.904 | 38.000 | ACC | ACC | 0.055 | 0.055 |  |
| 25 | 0.170 | 0.205 | 1.32 | 0.948 | 2.25 | 0.008 | 38.000 | ACC | ACC | 0.060 | 0.050 | 1 |

ACCEMTE
INSTRUMENT(S) USED: SHEP-10, PRO-HOL, 2011-D, 2011-B, 112-225,22112315,295-253-A, TAPE-5 REMECTEB -



|  | NOMENAL WALE |  | O.D. |  | I.D. |  | C/ECME.ORH |  | OVALTY | BEVEL |  | ANGILES |  | MEPLAT |  | $\begin{gathered} \text { APDROVED EY } \\ \text { \&DATE } \\ 24{ }^{c \cdot 10} 2 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0.180 |  | 1.320 |  | 0.950 |  | 2.203 |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { Min. } \\ & \text { (inch) } \end{aligned}$ | Max. <br> (inch) | $\begin{gathered} \text { Min. } \\ \text { (inch) } \end{gathered}$ | Max. <br> (inch) | Min. <br> (anch: | $\begin{aligned} & \text { Max. } \\ & \text { (inch) } \end{aligned}$ | Min. <br> (inch) | $\begin{gathered} \text { Max. } \\ \text { (ixch } \end{gathered}$ | $\begin{aligned} & \text { Max. } \\ & \text { (inch] } \end{aligned}$ | Nom. <br> 。 | $\text { Tol. } \pm$ | INT. MAX | EXT MAX | Nom. <br> (inch) | Tol. $\pm$ <br> (inch) |  |
| $1^{\prime \prime}$ | 0.120 | 0.340 | 1.29 | 1.38 | 0.900 | 1.020 | 2.14 | 2.25 | 0.090 | 37.5 | 2.5 | 18 | 30 | 0.05 | 0.03 | INTTALES |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | DATE |


| 26 | 0.165 | 0.197 | 1.32 | 0.989 | 2.25 | 0.010 | 38.000 | ACC | ACC | 0.055 | 0.055 | $\sqrt{3} 7-10-23$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 26 | 0.163 | 0.205 | 1.32 | 0.343 | 2.25 | 0.011 | 38.000 | $A C C$ | ACC | 0.048 | 0.048 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 27 | 0.180 | 0.202 | 1.34 | 0.955 | 2.25 | 0.020 | 38.000 | ACE | A.CC | 0.950 | 0.050 |  |
| 27 | 0.170 | 0.210 | 1.35 | 0.965 | 2.25 | 0.030 | 38.000 | ACC | ACC | 0.055 | 9.055 | $\checkmark$ |
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ACCEPT X:
\{NSTRUMENT(S) USED: SHEP-10, PRO-HOU, 2011-D, 2011-B, 112-225,22112315,295-253-A, TAPE-6

|  |  |
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|  |  |



| $\begin{aligned} & \text { \# } \\ & \text { 华 } \\ & \text { Mn } \end{aligned}$ | NOMIN | WALL |  |  | I． |  | C／E C．M | OR H | OVALTY | BEVEL |  | ANGLES |  | MEPLAT |  | $\begin{aligned} & \text { APPROVED BY } \\ & \left(\begin{array}{c} 8 . \text { BATEE } \\ 25^{\circ} \end{array}\right. \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0.180 |  | 1.320 |  | 0.960 |  | 1.500 |  |  |  |  |  |  |  |  |  |
|  | Min． <br> （inch） | $\begin{gathered} \text { Max. } \\ \text { (inch) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Min. } \\ \text { (inch) } \\ \hline \end{gathered}$ | Max． <br> （inch） | $\begin{gathered} \text { Min. } \\ \text { (inch) } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Max. } \\ \text { (inch) } \\ \hline \end{gathered}$ | Min． <br> （inch） | $\begin{gathered} \text { Max. } \\ \text { (inch) } \end{gathered}$ | Max． <br> （inch） | Nom．。 | $\text { Toil. } \pm$ | INT. MAX <br> － | EXT MAX | Nom． <br> （inch） | $\begin{aligned} & \text { Tcl. } \pm \\ & \text { (inch) } \end{aligned}$ |  |
| ＂ | 0.158 | 0.318 | 1.29 | 1.38 | 0.930 | 0.990 | 1.44 | 1.56 | 0.090 | 37.5 | 2.5 | 18 | 30 | 0.06 | 0.03 | INITIALS |
|  |  |  |  |  |  |  |  |  |  | 37.5 | 2.5 | 18 | 30 | 0.06 | 0.03 | DATE 10 |


| 1 | 0.190 | 0.210 | 1.31 | 0.950 | 1.50 | 0.010 | 37.500 | ACC | ACC | 0.060 | 0.060 | I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 0.195 | 0.205 | 1.30 | 0.945 | 1.50 | 0.020 | 37.500 | ACC | ACC | 0.060 | 0.060 | $\downarrow$ |
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ACCEPT X
INSTRUMENT（S）USED：22112315，112－225，1202，2011－A，2011－B
RE\}ECTED $\sqsubset$

