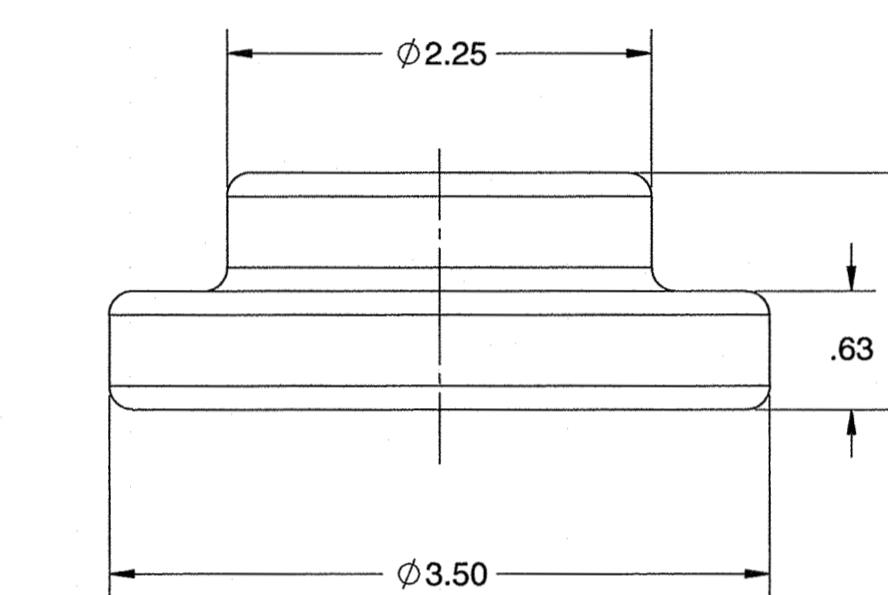
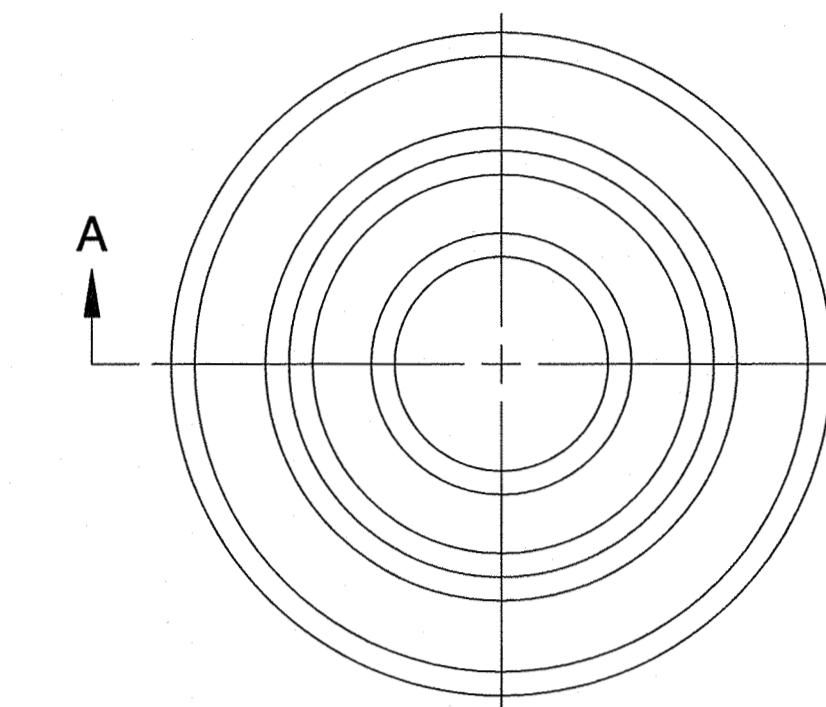
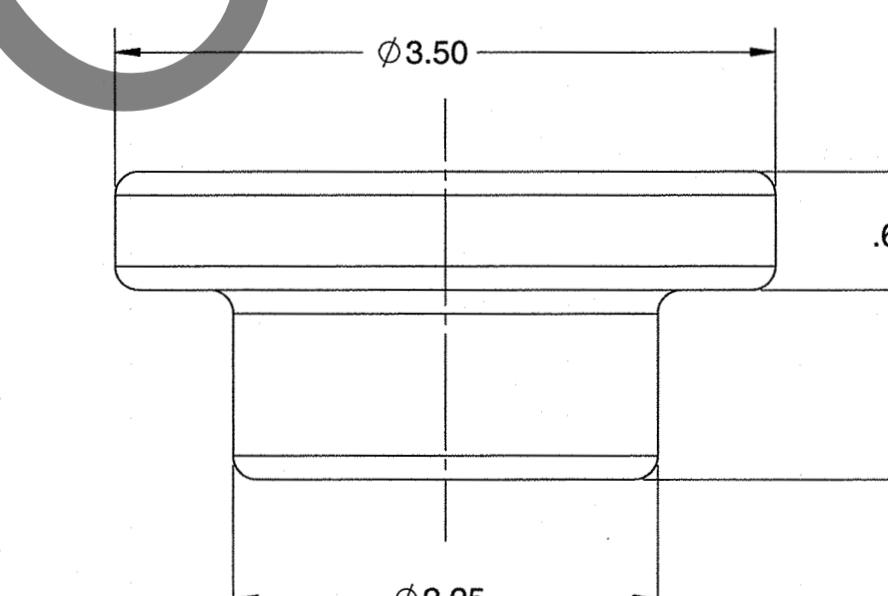
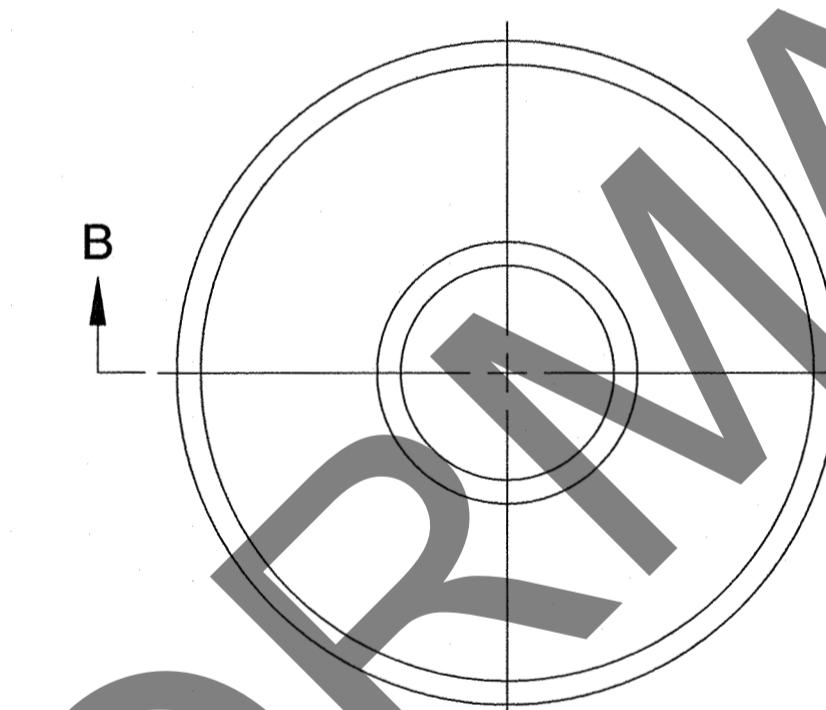


NOTES:

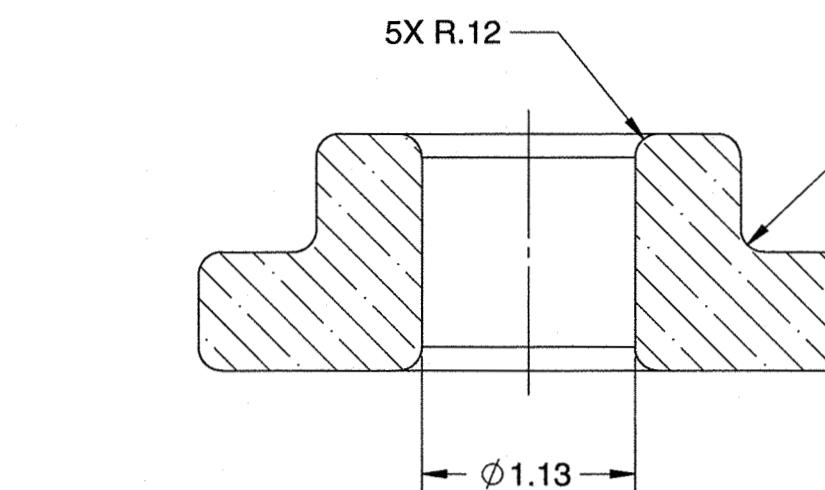
1. ALL DIMENSIONS, TOLERANCES, LIMITS OF SIZE, FORM, LOCATION, AND RELATED TERMINOLOGY AND SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH ASME Y14.5M-1994.
2. FOR FABRICATION AND MANUFACTURING SEE PROCUREMENT SPECIFICATION 24590-LAW-3PS-LMP-T0010.
3. REMOVE ALL BURRS AND SHARP EDGES.
4. NOT USED.
5. NOT USED.
6. ALL DIMENSIONS ARE FINISHED DIMENSIONS.
7. ALL SURFACES TO HAVE MAXIMUM 125 MICRO-INCHES SURFACE FINISH.



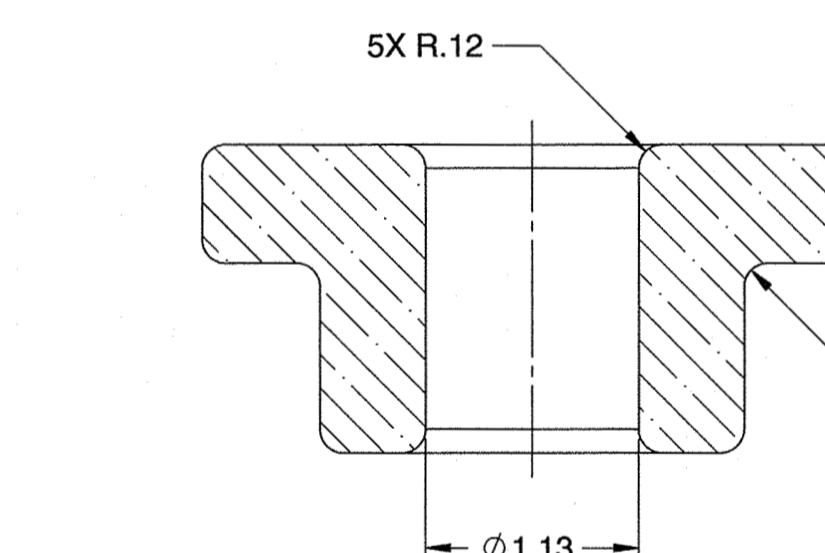
(1) TOP ISOLATOR



(2) BOTTOM ISOLATOR



SECTION A-A



SECTION B-B

CM		0 ISSUED FOR CONSTRUCTION		REV 03/06/2019																																																																			
		DESCRIPTION		ORG	CHKD																																																																		
				RWWD	APVD																																																																		
				DATE 3/6/19																																																																			
REVISION HISTORY																																																																							
<table border="1"> <tr> <td>PROJECT No.</td> <td>24590</td> </tr> <tr> <td>SITE</td> <td>HANFORD</td> </tr> <tr> <td>AREA</td> <td>200E</td> </tr> <tr> <td>BUILDING No.</td> <td>20</td> </tr> </table>						PROJECT No.	24590	SITE	HANFORD	AREA	200E	BUILDING No.	20																																																										
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<table border="1"> <tr> <td>ISSUED BY</td> <td>WTP-M-12105</td> <td>BY</td> <td>DATE</td> </tr> <tr> <td>ISSUE STAMP</td> <td></td> <td></td> <td></td> </tr> <tr> <td>WTP-M-12100-1</td> <td>ORIGINATOR</td> <td colspan="2">2/28/19</td> </tr> <tr> <td>NEXT ASSY</td> <td>USED ON</td> <td colspan="2">2/28/19</td> </tr> <tr> <td colspan="4">APPLICATION</td> </tr> <tr> <td colspan="4">UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE:</td> </tr> <tr> <td colspan="4">DECIMALS ANGLES</td> </tr> <tr> <td colspan="4">X ± .1 ± .5°</td> </tr> <tr> <td colspan="4">XX ± .06</td> </tr> <tr> <td colspan="4">XXX ± .005</td> </tr> <tr> <td colspan="4">DO NOT SCALE DRAWING</td> </tr> <tr> <td colspan="2">SUPPLIER DWG NO.</td> <td>SH</td> <td>REV</td> </tr> <tr> <td colspan="2">WTP-M-12105</td> <td>1</td> <td>0</td> </tr> <tr> <td colspan="4">CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO</td> </tr> <tr> <td colspan="4">ADR NO. 24590-LAW-ADR-ML-14-0001 REV: 0</td> </tr> <tr> <td>SCALE:</td> <td>1:1</td> <td colspan="2">24590-LAW-MX-LMP-01305</td> <td>REV</td> <td>0</td> </tr> </table>						ISSUED BY	WTP-M-12105	BY	DATE	ISSUE STAMP				WTP-M-12100-1	ORIGINATOR	2/28/19		NEXT ASSY	USED ON	2/28/19		APPLICATION				UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE:				DECIMALS ANGLES				X ± .1 ± .5°				XX ± .06				XXX ± .005				DO NOT SCALE DRAWING				SUPPLIER DWG NO.		SH	REV	WTP-M-12105		1	0	CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				ADR NO. 24590-LAW-ADR-ML-14-0001 REV: 0				SCALE:	1:1	24590-LAW-MX-LMP-01305		REV	0
ISSUED BY	WTP-M-12105	BY	DATE																																																																				
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RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354																																																																							
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LAW SPARE MELTER 1 BUBBLER CERAMIC ISOLATOR DETAILS (WTP-M-12105)																																																																							

LIMITED RIGHTS LEGEND (APRIL 2001)

THIS TECHNICAL DATA CONTAINS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" FURNISHED UNDER CONTRACT NO. DE-AC27-01RV14136 WITH THE U.S. DEPARTMENT OF ENERGY WHICH MAY BE DUPLICATED AND USED BY THE GOVERNMENT WITH THE EXPRESS LIMITATIONS THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY NOT BE DISCLOSED OUTSIDE OF THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE CONTRACTOR, EXCEPT THAT FURTHER DISCLOSURE OR USE MAY BE MADE SOLELY FOR THE FOLLOWING PURPOSES:

(A) USE (EXCEPT FOR MANUFACTURE) BY SUPPORT SERVICES CONTRACTORS WITHIN THE SCOPE OF THEIR CONTRACTS. THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE DISCLOSED FOR EVALUATION PURPOSES UNDER THE RESTRICTION THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED;

(B) THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE DISCLOSED TO OTHER CONTRACTORS OR SUBCONTRACTORS PARTICIPATING IN THE GOVERNMENT'S RIVER PROTECTION PROGRAM AT THE COLUMBIA SITE IN COLUMBIA, WASHINGTON FOR DESIGN, CONSTRUCTION, AND OPERATION OF THE WASTE TREATMENT AND ENVIRO-SOLAR PLANT (WTP), OR FOR THE TREATMENT OF HANFORD TANK WASTE, FOR INFORMATION OR USE IN CONNECTION WITH THE WORK PERFORMED UNDER THEIR CONTRACTS OR SUBCONTRACTS AND UNDER THE RESTRICTION THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED;

(C) THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE USED BY THE GOVERNMENT OR OTHERS ON ITS BEHALF FOR EMERGENCY REPAIR OR OVERHAUL WORK UNDER THE RESTRICTIONS THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED; OR

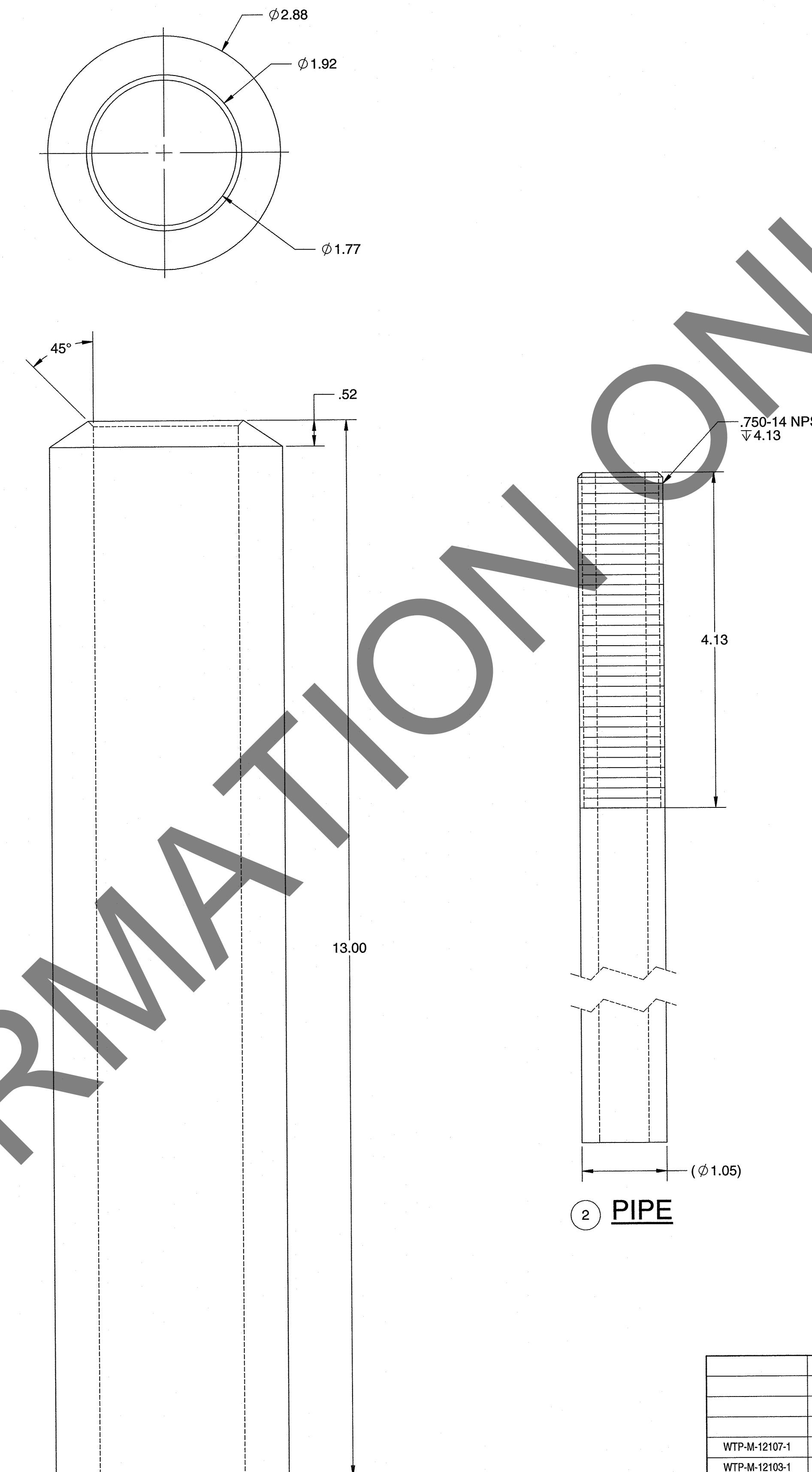
(D) DOE MAY MAKE THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" AVAILABLE TO GOVERNMENTAL DEPARTMENTS AND AGENCIES IN A MANNER THAT PROVIDES FOR THE PROTECTION OF PROPRIETARY DATA TO ENABLE DOE, OR ANY CONTRACTOR ACTING ON ITS BEHALF TO OBTAIN NECESSARY PERMITS AND LICENSES.

LIMITED RIGHTS DATA OR PROPRIETARY DATA SHALL MEAN TECHNICAL DATA WHICH EMBODY TRADE SECRETS DEVELOPED AT PRIVATE EXPENSE, SUCH AS DESIGN PROCEDURES OR TECHNIQUES, CHEMICAL COMPOSITION OF MATERIALS, OR MANUFACTURING METHODS, PROCESSES, OR TREATMENTS, INCLUDING MINOR MODIFICATIONS THEREOF, PROVIDED THAT SUCH DATA: (I) ARE NOT GENERALLY KNOWN OR AVAILABLE FROM OTHER SOURCES WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY; (II) HAVE NOT BEEN MADE AVAILABLE BY THE OWNER TO OTHERS WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY; AND (III) ARE NOT ALREADY AVAILABLE TO THE GOVERNMENT WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY.

THIS LEGEND SHALL BE MARKED ON ANY REPRODUCTION OF THIS DATA IN WHOLE OR IN PART, AND SUPERSEDES ANY EARLIER LEGEND. EACH PAGE CONTAINING DATA ASSERTED TO BE LIMITED RIGHTS DATA OR PROPRIETARY DATA SHALL BE IDENTIFIED ACCORDINGLY AND THE COVER SHEET OF EACH DOCUMENT CONTAINING SUCH PROTECTABLE DATA SHALL BE MARKED WITH THE LEGEND SET FORTH ABOVE.

NOTES:

1. ALL DIMENSIONS, TOLERANCES, LIMITS OF SIZE, FORM, LOCATION, AND RELATED TERMINOLOGY AND SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH ASME Y14.5M-1994.
2. FOR FABRICATION AND MANUFACTURING SEE PROCUREMENT SPECIFICATION 24590-LAW-3PS-LMP-T0010.
3. REMOVE ALL BURRS AND SHARP EDGES.
4. ALL TRACES OF SULPHURIZED AND CHLORINATED METAL WORKING FLUIDS USED DURING THE FABRICATION PROCESS SHALL BE REMOVED FROM THE PARTS SURFACE USING A CLEANING METHOD COMPATIBLE WITH THE PART.
5. ALL INCONEL SHALL BE PROTECTED FROM CARBON STEEL CORROSION. CUTTING SUPPORTS, ETC., SHALL BE STAINLESS STEEL.
6. ITEM 1 (SLEEVE) MUST FIT OVER WTP-M-12107 ITEM 1 (SUPPORT TUBE, LOWER). OUT OF ROUNDNESS THAT DOES NOT IMPAIR THIS FIT IS ACCEPTABLE.



① SLEEVE

6

CM		REVISION HISTORY	
QUALITY DESIGNATOR			
PROJECT No.	24590	RIVER PROTECTION PROJECT	
ISSUED BY	RPPW/TP/PPC	WASTE TREATMENT PLANT	
SITE	HANFORD	2435 STEVENS CENTER PLACE	
AREA	200E	RICHLAND, WA 99354	
ISSUE STAMP		CONTRACT No.: DE-AC27-01RV14136 WTP SUBCONTRACT No.: 24590-QL-H04-W000-00011	
BUILDING No.	20		
BY	DATE		
WTP-M-12107-1			
WTP-M-12103-1			
NEXT ASSY	USED ON		
APPLICATION			
REVIEWER			
APPROVER			
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
SUPPLIER DWG NO. WTP-M-12108		SH 1	REV 0
ADR NO. 24590-LAW-ADR-ML-14-0001			
SCALE: 1:1		24590-LAW-MX-LMP-01308	
REV 0			

LAW SPARE MELTER 1
BUBBLER PIPE DETAILS
(WTP-M-12108)

LIMITED RIGHTS LEGEND (APRIL 2001)

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2. FOR FABRICATION AND MANUFACTURING SEE PROCUREMENT SPECIFICATION 24590-LAW-3PS-LMP-T0010.
3. NOT USED.
4. TRANSFER HOLES FROM ITEM 11 (BAND CLAMP) TO ITEM 10 (TADPOLE GASKET) PRIOR TO INSTALLATION.
5. BUBBLER ASSEMBLY APPROXIMATE WEIGHT IS 760 LBS.
6. NOT USED.

7. THERMOCOUPLE ASSEMBLY CONNECTOR IS SHOWN IN INSTALLED OPERATING POSITION. ITEM 12 (BUBBLER THERMOCOUPLE ASSEMBLY) WILL BE SHIPPED SEPARATELY AND INSTALLED JUST PRIOR TO BUBBLER INSTALLATION.

8. FORM AND CUT ITEM 9 (AIR TUBE) AS REQUIRED.

9. MCMASTER-CARR
PO BOX 440
NEW BRUNSWICK, NJ 08903-0440
732-329-3200
OR APPROVED EQUAL

10. THERMOSTATIC INDUSTRIES
2075 BELGRAVE AVE
HUNTINGTON PARK, CA 90255
213-749-4779
OR APPROVED EQUAL

11. THERMOMETRICS CORP
18714 PARTHENIA ST
NORTHRIDGE, CA 91324
818-886-3755

12. AMATOM LLC
8A INSPIRATION LANE
CHESTER, CT 06412-1366
860-526-2156

13. NOT USED.

14. HENKEL LOCTITE CORP
1001 TROUT BROOK CROSSING
ROCKY HILL, CT 06067-3910
860-571-5100

15. SWAGELOK
29500 SOLON RD
SOLON, OH 44139
404-346-7000

16. - 18. NOT USED.

19. NEW AGE INDUSTRIES
145 JAMES WAY
SOUTHAMPTON, PA 18966-3817
800-506-3924

20. NOT USED.

21. INSTALL ITEM 20 (ISOLATOR), INSIDE ITEM 1 (BUBBLER PIPE ASSEMBLY), BELOW ITEM 21 (ISOLATOR), WITH OPEN END IN CONTACT WITH ITEM 21.

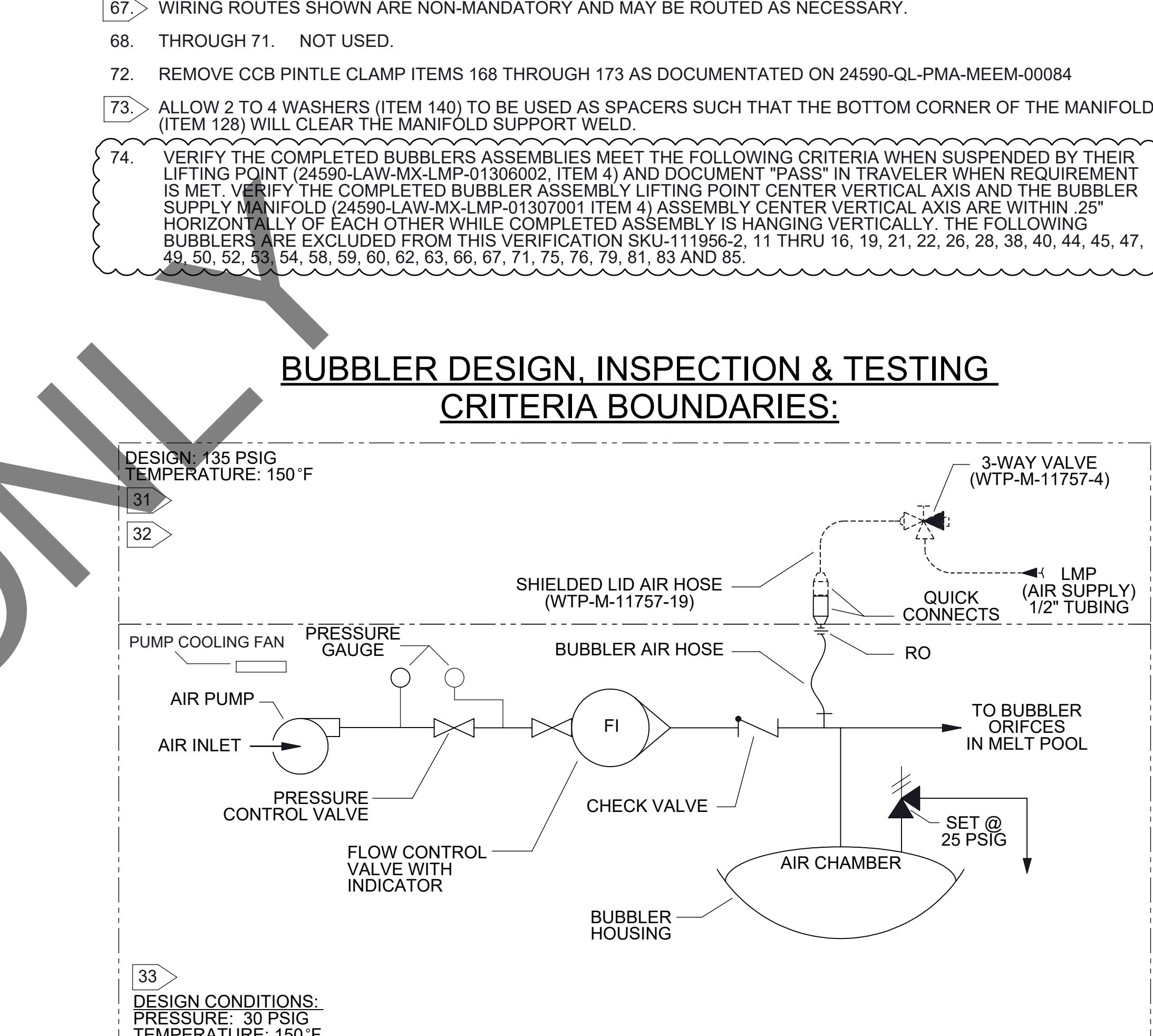
22. - 26. NOT USED.

DRAWING INDEX		
SH	DWG NO	TITLE
001	24590-LAW-MX-LMP-01057001	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)
002	24590-LAW-MX-LMP-01057002	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)
003	24590-LAW-MX-LMP-01057003	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)
004	24590-LAW-MX-LMP-01057004	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)
005	24590-LAW-MX-LMP-01057005	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)
006	24590-LAW-MX-LMP-01057006	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)
007	24590-LAW-MX-LMP-01057007	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)

ISSUED BY RPP-WTP PDC	PROJECT NO.	24590	SITE	HANFORD
	AREA	200E		
ISSUE STAMP	BUILDING NO.	20	BY	DATE
	ORIGINATOR	T. SPARKS		2/21/2019
NEXT ASSY	USED ON	CHECKER	D. MCGREW	2/28/2019
APPLICATION	REVIEWER	L. LEWIS	C. ROBERTS	3/4/2019
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE:				
DECIMALS	ANGLES	$\pm .5^\circ$		
$X \pm .01$	$X \pm .06$			
$XX \pm .06$	$XX \pm .05$			
$XXX \pm .05$	$XXX \pm .05$			
DO NOT SCALE DRAWING				
SUPPLIER DWG NO.	SH	CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
WTP-M-12100	1	ADR NO. 24590-LAW-ADR-ML-14-0001 REV: 0		
CM	QUALITY DESIGNATOR	REVISION HISTORY		
RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354				

CHANGE DOCUMENTS INCORPORATED BY REFERENCE:	
NONE	
5	ADDED NOTE 74
4	ADDED FLAG NOTE 73
1-3	SEE PREVIOUS REVISIONS FOR HISTORY
0	ISSUED FOR CONSTRUCTION
REV	DESCRIPTION
ORG	CHKD
TGS	RWD
DLM	LCL
GKJ	CER
1/25/2024	
8/3/2022	
3/6/2019	
APVD	
DATE	

LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)



			REMOVED		168 - 173
9	2	5157K43	HIGH PRESSURE SILICON RUBBER TUBING		167
9	4	9579K65	DOUBLE SNAP GRIP CLAMP		166
15	1	SS-4-TA-7-4	FITTING, TUBE, SWAGELOK	FEMALE TUBE ADAPTER, 1/4 IN TUBE OD X 1/4 IN FEMALE NPT, 316 SS	165
9	AR	8237K24	BAT. TO CONTROLLER CABLE	2 WIRE 16 GAUGE STRANDED CU ABRASION RESISTANT CABLE	164
9	2	71425K23	INSULATED SPADE TERMINAL CONN.	14-16 GAUGE	163
9	2	7820K42	INSULATED 90 DEG DISCONNECT	18 - 22 GAUGE	162
9	2	7820K44	INSULATED 90 DEG DISCONNECT	14 - 16 GAUGE	161
9	4	91355A900	FLGD BH SOC SCREW 6-32 X 3/4		160
9	1	7527K938	TERMINAL GUARD		159
9	2	7527K12	STRAIGHT ADAPTER		158
9	2	7527K79	OVER BARRIER JUMPER		157
9	1	7527K64	TERMINAL BASE		156
9	1	5670K99	1/4 X 3/8 X 90 BARBED HOSE FITTING	303 STAINLESS STEEL	155
15	1	SS-400-5-2	1/4 TUBE 1/8 MNPT 45 ELL ADAPTER		154
9	1	3852K225	30 PSI PRESSURE GAUGE	SS	153
9	4	91355A997	6-32 X 1 FLG'D BH SOC SCREW	BLK OXIDE ALLOY STEEL	152
9	4	91355A163	6-32 X 5/8 FLGD BH SOC HD SCREW	BLK OXIDE ALLOY STEEL	151
9	1	4452K543	3/8" THRD PIPE PLUG	SS 316	150
9	4	91115A854	FEM THRD HEX STANOFF	18-8 SS	149
9	2	19155K121	FAN GUARD		148
9	1	1939K42	COOLING FAN		147
QTY	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE	MATERIAL SPECIFICATION	ITEM NO
PARTS LIST					

35	1		H-125-SS	PRECISION METAL RESTRICTION ORIFICE	303 SS, .125 ORIFICE DIA., Cv: 0.37, 4000 PSIG, 1/2" MALE NPT X 1/2" FEMALE NPT	146	19	1		3101091	AIR TUBE	FEP TUBING 1/2" OD X 3/8" ID X APPROX 24.0 LG	37
	1		WTP-M-12104-51	SHIM	.	145	19	1		5321008	MALE ADAPTER	PFA 1/2" TUBE X 3/4" NPT	36
15	1		SS-UT-8-PM8-PM8-32	PFA HOSE	SILICONE PFA HOSE 1/2" ID	144					NOT USED		35
56	2		1-604751-0	CABLE TIE	NYLON 6/6, CABLE TIE, COLOR NATURAL 1, LENGTH: 11.75 ± .312	143	1			WTP-M-12104-49	COVER ASSEMBLY		34
9	2		96537A140	HEX NUT	BLACK-OXIDE 18-8 SS, 8-32 UNC-2B	142					NOT USED		33
9	2		93711A300	WASHER, LOCK	BLACK OXIDE 18-8 SS, .174 ID X .267 OD X .047 THK	141	19	1		5320448	FEMALE ADAPTER	PFA, 3/4" TUBE X 3/4" FEMALE NPT	32
73	9	12	90618A118	WASHER, FLAT	BLACK OXIDE 18-8 SS, .188 ID X .438 OD X .05 NOM THK	140	19	1		5321064	MALE ADAPTER	PFA, 3/4" TUBE X 3/4" NPT	31
9	2		91251A184	CAP SCREW, SOCKET HEAD	BLACK-OXIDE ALLOY STL, 8-32 UNC-3A X 2.25 LG	139					NOT USED		28 - 30
	1		WTP-M-12104-48	PIPE SUPPORT ASSEMBLY		138	14	AR		242	THREAD LOCKING COMPOUND		27
55	AR		11AOHT	EPOXY	MASTER BOND SUPREME 11AOHT EPOXY	137	9	17		91770A242	SCREW, TRUSS HEAD	18-8 SS, 10-24 UNC-2A X .50 LG	26
15	1		SS-810-1-8	TUBE ADAPTER	UNS S31600, 1/2" SS COMPRESSION TUBE X 1/2" MALE NPT	136					NOT USED		24 - 25
9	4		93711A200	LOCK WASHER	BLACK OXIDE 18-8 SS, .148 ID X .216 OD X .03 THK	135	9	3		92196A540	CAP SCREW, SOCKET HEX HEAD	18-8 SS, .250-20 UNC-3A X .75 LG	23
9	4		90618A300	FLAT WASHER	BLACK OXIDE 18-8 SS, .156 ID X .312 OD X .038 NOM THK	134	4			WTP-M-12104-2	ISOLATOR GASKET		22
9	4		91205A150	CAP SCREW, SOCKET HEAD	BLACK-OXIDE ALLOY STEEL, 6-32 UNC-3A X .625 LG	133	11	4		AT-3812-20-OBE / W274-0000209	ISOLATOR / AT-375 X 500 ALUMINA, .50 OD X .38 ID X 20.0 LG, OPEN ENDS	21	
64	63	54	1	CP330-BX2499	BATTERY, LITHIUM ION	24V LITHIUM BATTERY WITH OUTPUT BOX AND 24V AC CHARGER # ACC-2415	132	11	1		AT-3812-18-OEC / W274-0000208	ISOLATOR / AT-375 X 500 ALUMINA, .50 OD X .38 ID X 18.0 LG, ONE END CLOSED	20
65	53	1	6900.009	PWM FLOW CONTROLLER	24V DC, 10 KHZ, 15 TURN POTENTIOMETER	131	9	6		92146A550	WASHER, LOCK	18-8 SS, .200 ID NOM	19
65	53	1	3114.252	DIAPHRAGM PUMP	3KQ DIAPHRAGM PUMP WITH 24V DC MOTOR	130	28	42		96659A104	WASHER, FLAT	18-8 SS, .219 ID X .5 OD X .049 NOM THK	18
					NOT USED	129	9	15		90618A131	WASHER, FLAT	18-8 SS, BLACK OXIDE, .266 ID X .625 X NOM .032 THK	16
9	1		1023N22	STRAIGHT FLOW MANIFOLD	ANODIZED ALUMINUM, 1/2" FEMALE NPT INLET X FOUR 3/8" FEMALE NPT OUTLETS	128	9	12		93595A130	CAP SCREW, SOCKET HEX HEAD	18-8 SS, CHROME PLT, 1/4-20 UNC-3A X 1.25 LG	15
9	2		51205K344	PIPE ADAPTER, EXTREME PRESSURE	UNS S31600, 3/8" MALE NPTF X 1/8" FEMALE NPTF	127	9	6		92196A256	CAP SCREW, SOCKET HEAD	18-8 SS, 10-24 UNC-3A X 2.75 LG	14
9	1		4406T18	MINIATURE BARBED TUBE FITTING	UNS S30300, 1/4" TUBE ID X 1/8" MALE NPT	126	12	6		9278-SS-257-7	SPACER	UNS S30400, .50 OD X .257 ID X 1.688 LG	13
					NOT USED	125	1			WTP-I-12159-1	BUBBLER THERMOCOUPLE		12
15	AR		SS-T8-S-049	TUBING	UNS S31603, ASTM A269, 1/2" OD X .049 WALL	124	1			WTP-M-12104-6	BAND CLAMP		11
1			WTP-M-12104-44	FLOW METERING ASSEMBLY		123	10			TADPOLE GASKET		NEXTEL CLOTH JACKETING WITH NEXTEL Ø 3/8" BRAIDED CERAMIC ROPE CORE WITH A 1.13 TAIL	10
36	1		VRVD-750SS-V-25	VENT RELIEF VALVE	UNS S31600, 3/4" MALE NPT, SET AT 25 PSIG	122	19	AR		3101707	AIR TUBE	FEP TUBING, 3/4" OD X 5/8" ID X APPROX. 36.0 LG	9
15	1		SS-12-E	ELBOW	UNS S31600, 3/4" FEMALE NPT	121	28	4		WTP-M-12104-3	ISOLATOR GASKET		8
15	2		SS-12-HLN-3.00	HEX NIPPLE	UNS S31600, 3/4" MALE NPT X 3.0 LG	120	2			WTP-M-12154-1	ADJUSTMENT NUT		7
15	1		SS-12-ST	TEE	UNS S31600, 3/4" FEMALE NPT X 3/4" MALE NPT X 3/4" FEMALE	119	62	2		WTP-M-12105-1	TOP ISOLATOR		6
15	2		SS-12-SE	STREET ELBOW	UNS S31600, 3/4" MALE NPT X 3/4" FEMALE NPT	118	62	2		WTP-M-12105-2	BOTTOM ISOLATOR		5
15	1		SS-12-RB-8	REDUCING BUSHING	UNS S31600, 3/4" MALE NPT X 1/2" FEMALE NPT	117	1			WTP-M-12106-1	BUBBLER COVER		4
34	1		RBE08.8550/IC	PLUG CAP	UNS S31600, 1/2" FEMALE NPT QUICK CONNECT PLUG W/ SHUT-OFF	116	1			WTP-M-12104-1	CLAMP PLATE		3
34	1		RBE-08-7203/IC/JE	QUICK CONNECTOR	UNS S31600, 1/2" FEMALE NPT QUICK CONNECT PLUG W/ SHUT-OFF	115	1			WTP-M-12101-1	BUBBLER PLUG ASSEMBLY		2
9	2		96659A107	WASHER, FLAT	18-8 SS, .344 ID X .688 X .065 NOM THK	114	1			WTP-M-12103-1	BUBBLER PIPE ASSEMBLY		1
9	2		92146A030	WASHER, LOCK	18-8 SS, .322 ID NOM	113	QTY	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE	MATERIAL SPECIFICATION	ITEM NO	
9	2		92196A583	CAP SCREW, SOCKET HEAD	18-8 SS, 5/16-18 UNC-3A X 1.0 LG	112							
56	AR		RW-3009	HEAT SHRINKABLE TUBING	VERSAFIT, HEAT SHRINKABLE TUBING, SIZE 1/8" DIA. COLOR BLACK	111							
					REMOVED	110							
					REMOVED	109							
					NOT USED	70 - 108							
27	9	2	2420A18	SPRING TUBE BENDER	FOR 3/4" TUBE OD X 12.0 LG	69							
					NOT USED	63 - 68							
14	AR		7649</										

"PROPRIETARY DATA" USE OR DISCLOSURE IS SUBJECT TO THE RESTRICTIONS IN THE LIMITED RIGHTS LEGEND (APRIL 2000 LOCATED ON SH 001 OF THIS ASSEMBLY

SEE VIEW B

F SEE SH 005

F

(35.53)

106.5

1

2

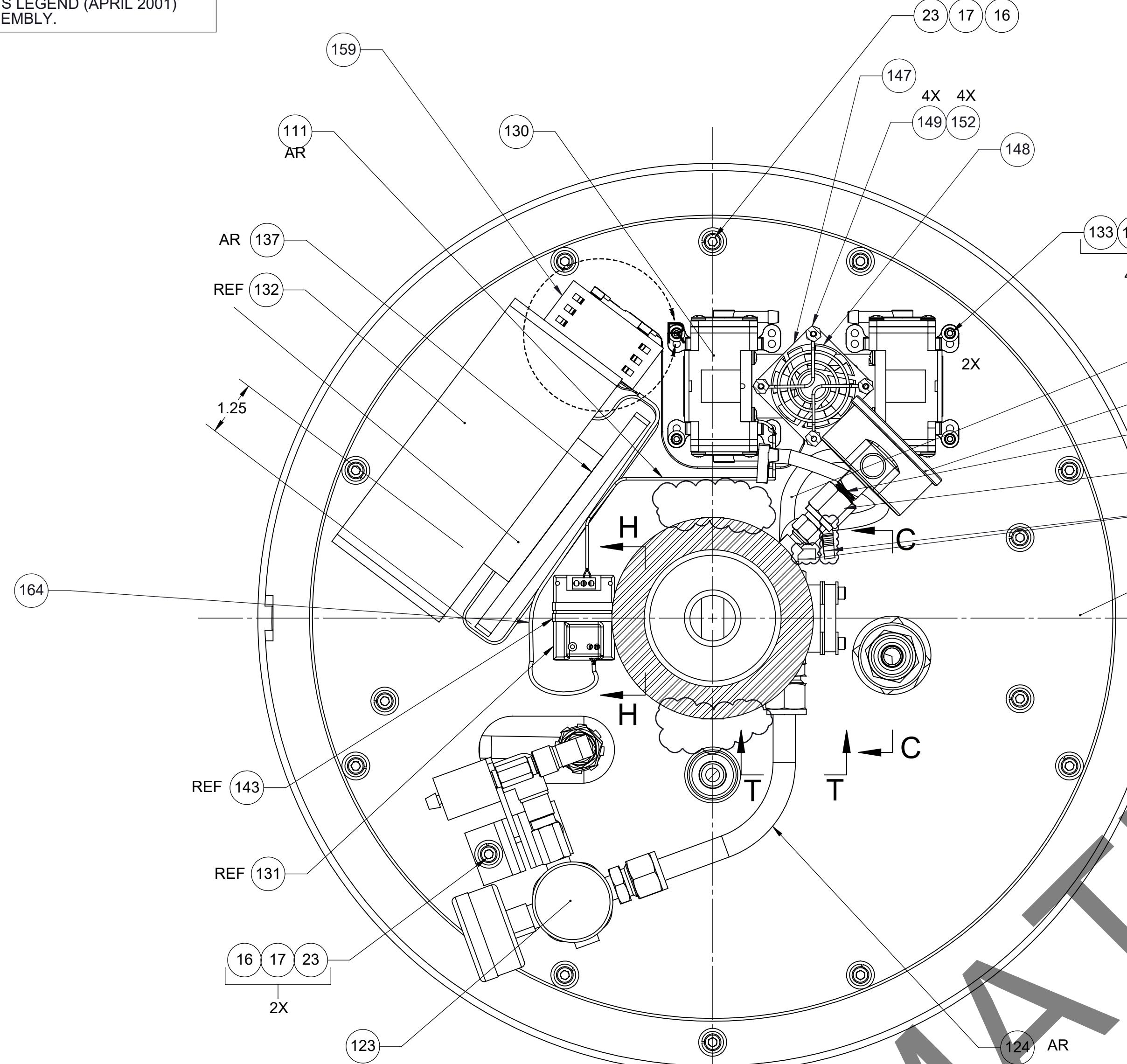
This diagram shows an exploded view of a mechanical assembly, likely a pump or actuator. The assembly consists of several main parts: a top cover (12) with a handle (7), a central housing (4), and a base (10). Various components are labeled with numbers: 12, 153, 151 4X, 149 REF, 148, 148, 11, 26, 27, 17X, 10, 4, and 153. Reference lines A, D, and E point to specific parts: line A points to the top cover and handle; line D points to the base and a side component; line E points to the bottom of the base. A large, semi-transparent watermark reading 'CIRCUIT' is overlaid on the bottom left of the diagram.

VIEW

CHANGE DOCUMENTS INCORPORATED BY REFERENCE:									
NONE									
CM <small>QUALITY DESIGNATOR</small>	4	REVISED TO REMOVE ILLUSTRATION OF CCB CLAMP ADDITION. PER 24590-QL-PMA-MEEM-00084			IK	DLM	GKG	JKS	7/26/2022
	3	REVISED TO SHOW CCB CLAMP ADDITION			IK	GKG	DLM	TRV	4/1/2022
	2	INCLUDES PARTS FOR MOTOR COOLING DESIGN ADDITION			IK	DLM	GKG	JS	8/3/2021
	1	ZONE D8 DIMENSION TOLERANCE REMOVED. REFER TO 24590-QL-POB-MEEM-00001-RFI-21-00012.			IK	DLM	SC	JKS	5/28/2021
	0	ISSUED FOR CONSTRUCTION			TGS	DLM	LCL	CR	3/6/2019
	REV	DESCRIPTION			ORG	CHKD	RWWD	APVD	DATE
	REVISION HISTORY								
ISSUED BY <small>RPP-WTP PDC</small>	PROJECT No.	24590		 <small>RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354</small>					
	SITE	HANFORD							
	AREA	200E							
	BUILDING No.	20							
	BY		DATE	CONTRACT No: DE-AC27-01RV14136		WTP SUBCONTRACT No: 24590-QL-HC4-W000-00011			
ORIGINATOR	T. SPARKS		2/21/2019	LAW SPARE MELTER 1 BUBLER ASSEMBLY (WTP-M-12100)					
CHECKER	D. MCGREW		2/28/2019						
REVIEWER	L. LEWIS		3/4/2019						
APPROVER	C. ROBERTS		3/6/2019						
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				SCALE:	24590-LAW-MX-LMP-01057003			REV	
ADR NO. 24590-LAW-ADR-ML-14-0001				1:4				04	
SH	1								

LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)

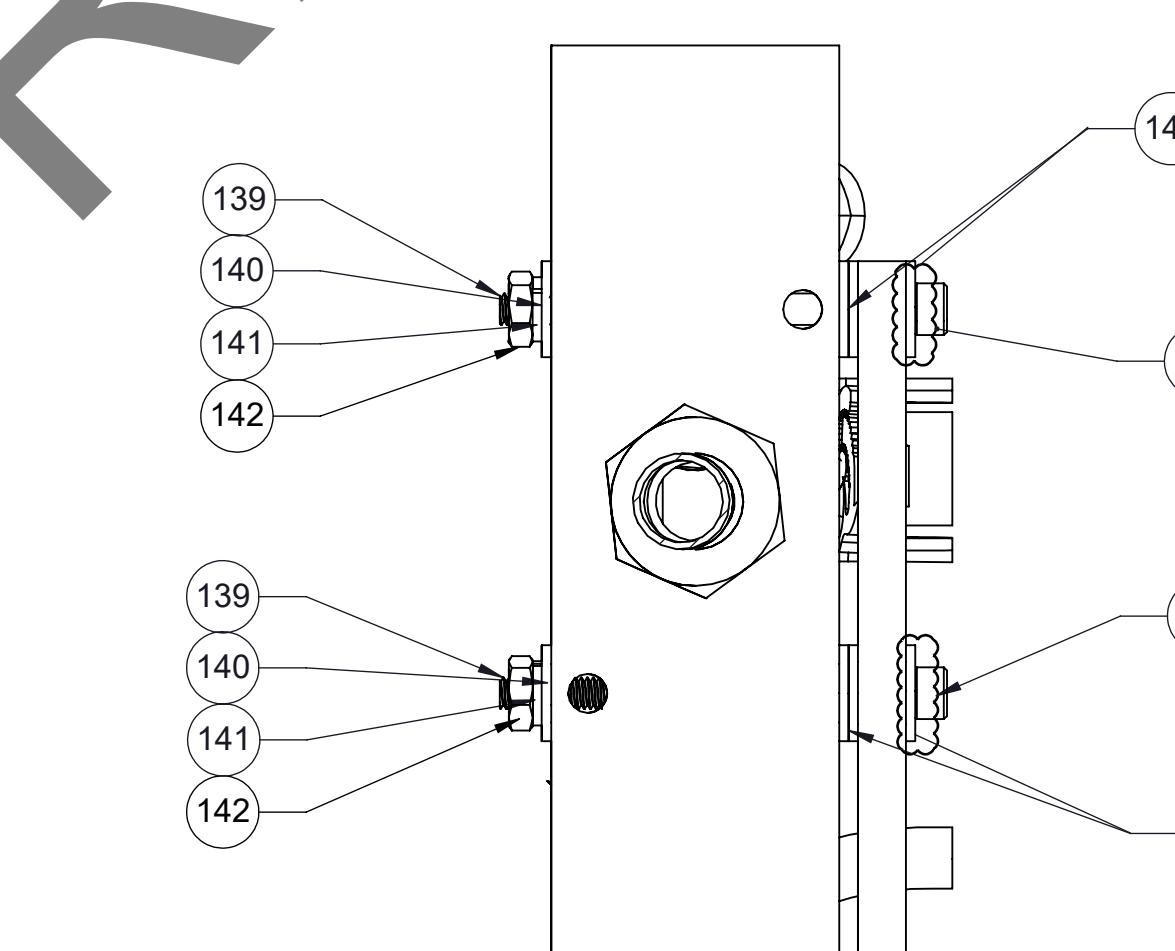
"PROPRIETARY DATA" USE OR DISCLOSURE IS SUBJECT TO THE RESTRICTIONS IN THE LIMITED RIGHTS LEGEND (APRIL 2001) LOCATED ON SHEET 001 OF THIS ASSEMBLY.



SECTION D-D

ROTATED 90° CCW
FROM SH 003
SCALE: 1:4

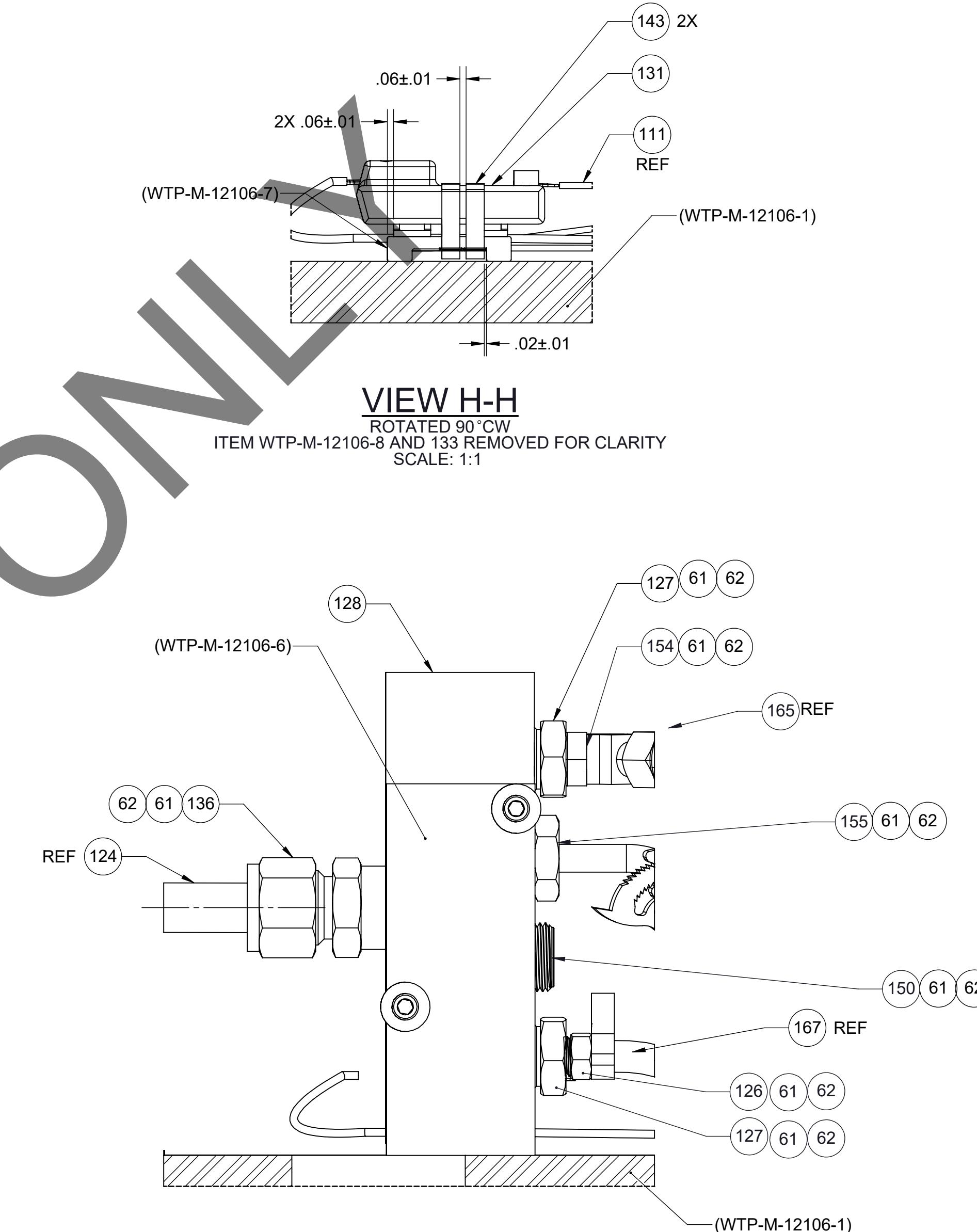
67



SECTION T-T
ROTATED 90° CW FROM VIEW C-C
SCALE: 1:1

SCALE: 2:1

ITEMS 132 & 159 REMOVED



VIEW H-H
ROTATED 90° CW
ITEM WTP-M-12106-8 AND 133 REMOVED FOR CLARITY
SCALE: 1:1

VIEW C-C
ROTATED 90° CW
ITEM 4 & 144 REMOVED FOR CLARITY
SCALE: 1:1

CHANGE DOCUMENTS INCORPORATED BY REFERENCE:
REVISION 0-8: NONE

8	ADDED FLAG NOTE 73 IN SECTION T-T.	IK	DLM	GKG	JKS	8/3/2022
7	UPDATED TO REMOVE CCB PINTLE CLAMP. REFER TO 24590-QL-PMA-MEEM-0084. INCORPORATED 24590-WTP-SDDR-ML-22-00024	IK	DLM	GKG	JKS	7/26/2022
1-6	SEE PREVIOUS REVISIONS FOR REVISION HISTORY	--	--	--	--	--
0	ISSUED FOR CONSTRUCTION	TGS	DLM	LCL	CER	3/6/2019
REV	DESCRIPTION	ORG	CHKD	RWWD	APVD	DATE

REVISION HISTORY

CM QUALITY DESIGNATOR ISSUED BY RPP-WTP PDC ISSUE STAMP	PROJECT No.	24590	RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354 
	SITE	HANFORD	
	AREA	200E	
	BUILDING No.	20	
BY	DATE	CONTRACT No: DE-AC27-01RV14136	WTP SUBCONTRACT No: 24590-QL-HC4-W000-0011
ORIGINATOR	TOMMY SPARKS	2/21/2019	
CHECKER	DICK MCGREW	2/28/2019	
REVIEWER	LANCE LEWIS	3/4/2019	
APPROVER	CARRIE ROBERTS	3/6/2019	
CONTENT APPLICABLE TO ALARA?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	
ADR No.	24590-LAW-ADR-ML-14-0001	REV: 0	
SCALE:	SHOWN	24590-LAW-MX-LMP-01057004	08

LAW SPARE MELTER 1
BUBBLER ASSEMBLY
(WTP-M-12100)

"PROPRIETARY DATA" USE OR DISCLOSURE IS SUBJECT TO THE RESTRICTIONS IN THE LIMITED RIGHTS LEGEND (APRIL 20 LOCATED ON SH 001 OF THIS ASSEMBLY

This technical cross-sectional diagram illustrates a complex mechanical assembly, possibly a press or stamping tool. The diagram is annotated with numerous reference numbers and labels, including:

- REF 34: Points to a top plate or cover.
- REF 132: Points to a side wall or frame.
- REF 16, 17, 23: Grouped together, likely referring to a set of components.
- REF 4: Points to a top plate or cover.
- REF 12: Points to a side wall or frame.
- REF 15, 16: Grouped together, likely referring to a set of components.
- REF 122: Points to a vertical rib or support.
- 8 37: Grouped together, likely referring to a set of components.
- 8 9: Grouped together, likely referring to a set of components.
- 58 2X 69: Grouped together, likely referring to a set of components.
- 32: Points to a small circular component.
- REF 1: Points to a small circular component.
- 6X 14, 18, 19: Grouped together, likely referring to a set of components.
- REF 138: Points to a side wall or frame.
- 21 4X (LC): Grouped together, likely referring to a set of components.
- 8 2X: Grouped together, likely referring to a set of components.
- 6 2X: Grouped together, likely referring to a set of components.
- 22 2X: Grouped together, likely referring to a set of components.
- 22 2X: Grouped together, likely referring to a set of components.
- 5 2X: Grouped together, likely referring to a set of components.
- 8 2X: Grouped together, likely referring to a set of components.
- P TO 6X 18: Grouped together, likely referring to a set of components.
- 6X 13: Grouped together, likely referring to a set of components.
- 2X 7: Grouped together, likely referring to a set of components.
- 2 REF: Points to a small circular component.

The diagram also features a large, prominent cylindrical component labeled "DOXA" at its base. The assembly includes various mechanical parts such as bearings, shafts, and a central vertical column. A large, semi-transparent watermark reading "2014" is overlaid on the lower right portion of the drawing.

**ITEM 2 (BUBBLER PLUG ASSEMBLY) FLANGE
AND ITEMS 10, 11 AND 26 REMOVED FOR C
FROM SH 003**

ITEM 2 (BUBBLER PLUG ASSEMBLY) FLANGE
AND ITEMS 10, 11 AND 26 REMOVED FOR C
FROM SH 003

Technical drawing of a mechanical assembly, likely a valve or connector, showing three views: a top view with callouts, a front view, and a side view.

Top View with Callouts:

- Horizontal distance between two vertical reference lines: (5.75)
- Horizontal distance between two vertical reference lines: (6.09)
- Vertical distance from the bottom reference line to the top reference line: (4.37)
- Vertical distance from the bottom reference line to the top reference line: (3.04)
- Callout 1 (left): REF 36 (12X)
- Callout 2 (top center): REF 121, 62, 61, 120
- Callout 3 (center): REF 119
- Callout 4 (right): REF 52, 31, 118

Front View:

- Horizontal distance between two vertical reference lines: (11.84)
- Horizontal distance between two vertical reference lines: (8.79)
- Vertical distance from the bottom reference line to the top reference line: (3.05)
- Callout 1 (left): REF 121, 61, 62
- Callout 2 (center): REF 118
- Callout 3 (right): REF 117
- Callout 4 (bottom left): REF 36, 61, 62
- Callout 5 (bottom center): REF 120, 61, 62
- Callout 6 (bottom right): REF 119, 52, 61, 62
- Callout 7 (bottom far right): REF 31, 61, 62

Side View:

- Angular dimension: $90^\circ \pm 5^\circ$
- Angular dimension: $2 \times 45^\circ \pm 3^\circ$
- Callout 1 (top): REF 117, 61, 62
- Callout 2 (middle): REF 62, 61, 118
- Callout 3 (bottom): REF 118, 61, 62
- Callout 4 (far bottom): REF 120

Text Labels:

- ION (Large callout pointing to the front view)
- J (Small label)
- PER (Small label)
- R (Small label)
- 21 (Small label)
- DETAIL (Small label)

DETAIL J

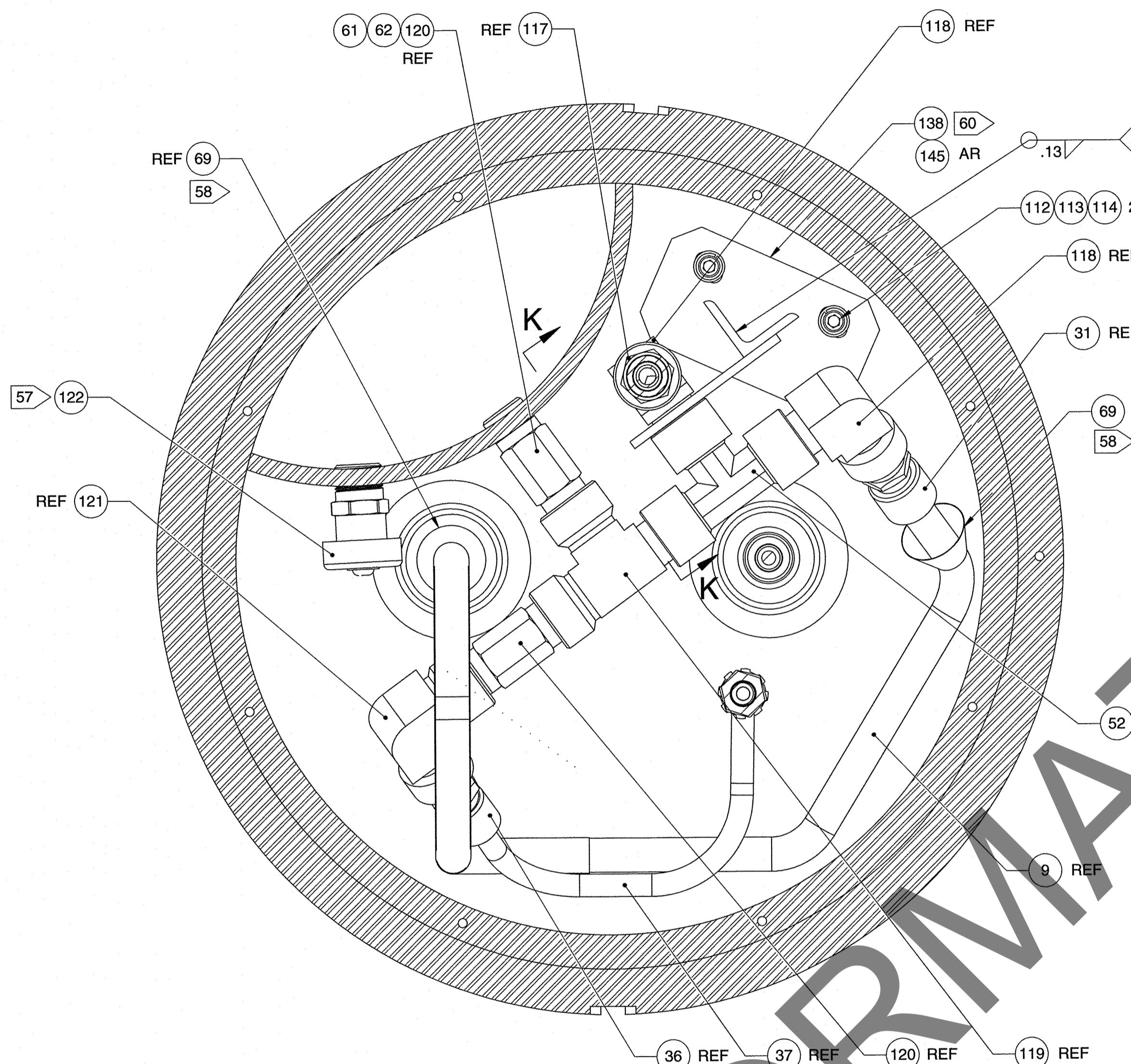
PIPE MANIFOLD

REFERENCE DIMENSIONS ARE FITTING TO FITTING

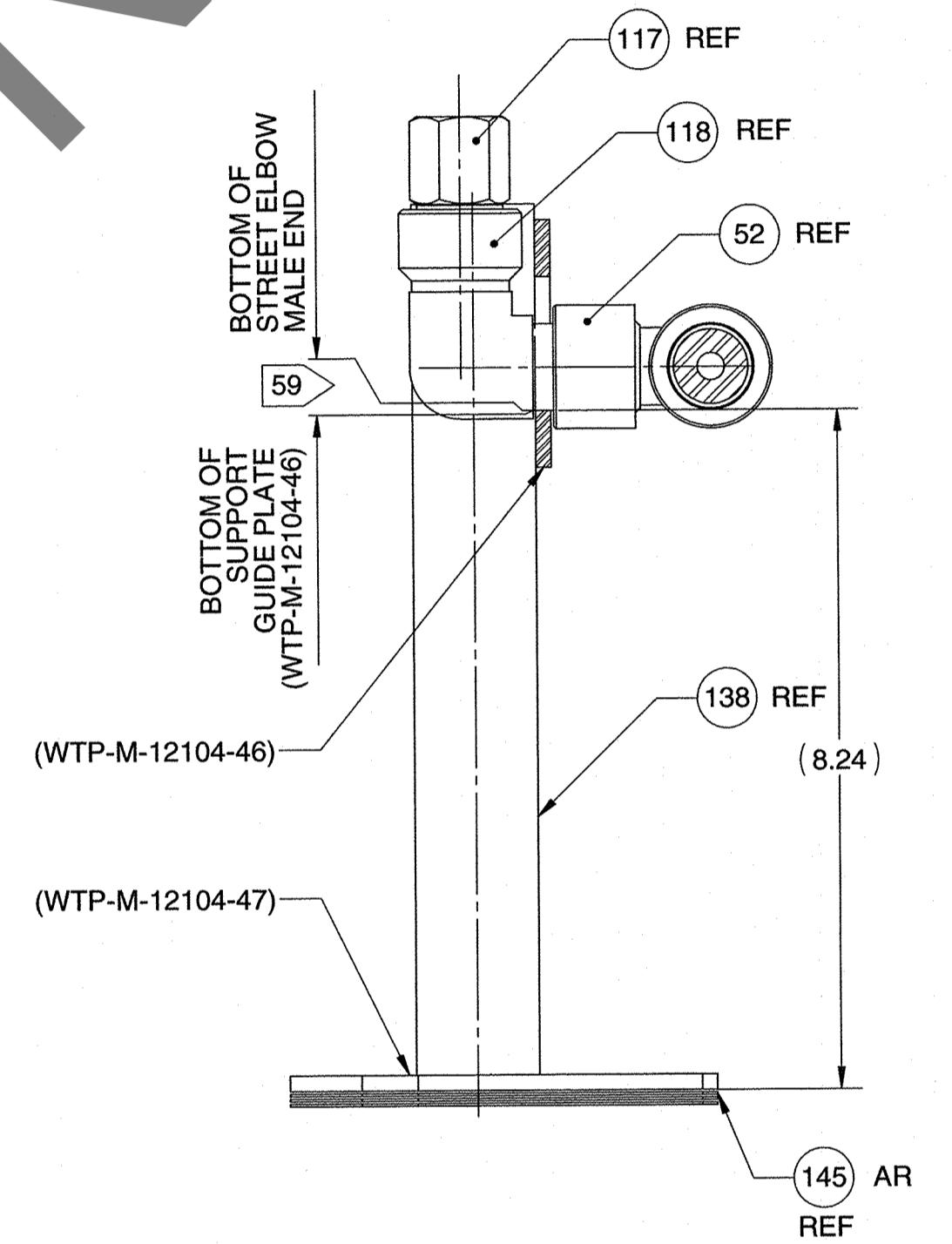
PIPE MANIFOLD

CHANGE DOCUMENTS INCORPORATED BY REFERENCE:								
REVISION 1: NONE								
CM ALITY DESIGNATOR								
	1	ADDED MOTOR COOLING MODIFICATION		IK	<i>DLM</i>	GKG	<i>JS</i>	8/03/2021
	0	ISSUED FOR CONSTRUCTION		TGS	DLM	LCL	CER	3/6/2019
	REV	DESCRIPTION		ORG	CHKD	RVWD	APVD	DATE
REVISION HISTORY								
ROJECT No.	24590		 RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354					
TE	HANFORD							
REA	200E							
UILDING No.	20							
BY	DATE							
		CONTRACT No: DE-AC27-01RV14136	WTP SUBCONTRACT No: 24590-QL-HC4-W000-00011					
T. SPARKS		2/19/2019	LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)					
D. MCGREW		2/28/2019						
.. LEWIS		3/4/2019						
C. ROBERTS		3/6/2019						
ALAR?		<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO						
R-ML-14-0001		REV: 0	SCALE:	24590-LAW-MX-LMP-01057005				
		1:2					REV 01	

LAW SPARE MELTER 1 BUBBLER ASSEMBLY (WTP-M-12100)



SECTION E-E

FROM SH 003
ITEM 3, 12, 14, 18 AND 19 NOT SHOWN FOR CLARITY

VIEW K-K

ACCUMULATOR (WTP-M-12102-4) REMOVED FOR CLARITY

CM		REVISION HISTORY		
ISSUED BY RPPWTPD	PROJECT No. 24590	RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354		
SITE HANFORD	AREA 200E	CONTRACT No.: DE-AC27-01RV14136		
ISSUE STAMP	BUILDING No. 20	WTP SUBCONTRACT No.: 24590-101-TSA-W000-0010		
ORIGINATOR 	BY 2/19/19	DATE		
CHECKER 	2-28-19			
REVIEWER 	1/14/19			
APPROVER 	3/6/19			
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				
ADR NO. 24590-LAW-ADR-ML-14-0001 REV: 0				
SCALE: 1/2	24590-LAW-MX-LMP-01057006			REV 0

LAW SPARE MELTER 1
BUBBLER ASSEMBLY
(WTP-M-12100)

LAST SAVED BY: usparks
FILE NAME: 24590-LAW-MX-LMP-01057006
DATE: 2/21/2019 11:19:17 PM

24590-LAW-MX-LMP-01303001

SUPPLIER DWG NO
WTP-M-12103

SH

1

6

5

4

3

2

1

LIMITED RIGHTS LEGEND (APRIL 2001)

THIS TECHNICAL DATA CONTAINS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" FURNISHED UNDER CONTRACT NO. DE-AC27-01RV14136 WITH THE U.S. DEPARTMENT OF ENERGY WHICH MAY BE DUPLICATED AND USED BY THE GOVERNMENT WITH THE EXPRESS LIMITATIONS THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY NOT BE DISCLOSED OUTSIDE OF THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE CONTRACTOR, EXCEPT THAT FURTHER DISCLOSURE OR USE MAY BE MADE SOLELY FOR THE FOLLOWING PURPOSES:

(A) USE (EXCEPT FOR MANUFACTURE) BY SUPPORT SERVICES CONTRACTORS WITHIN THE SCOPE OF THEIR CONTRACTS. THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE DISCLOSED FOR EVALUATION PURPOSES UNDER THE RESTRICTION THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED;

(B) THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE DISCLOSED TO OTHER CONTRACTORS OR SUBCONTRACTORS PARTICIPATING IN THE GOVERNMENT'S FOLLOW-ON PILOT MELTER PROGRAM AT THE COLUMBIA SITE IN COLUMBIA, MARYLAND, AND FOR THE DESIGN, CONSTRUCTION, AND OPERATION OF THE WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP), OR FOR THE TREATMENT OF HANFORD TANK WASTE, FOR INFORMATION OR USE IN CONNECTION WITH THE WORK PERFORMED UNDER THEIR CONTRACTS OR SUBCONTRACTS AND UNDER THE RESTRICTION THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED;

(C) THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE USED BY THE GOVERNMENT OR OTHERS ON ITS BEHALF FOR EMERGENCY REPAIR OR OVERHAUL WORK UNDER THE RESTRICTIONS THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED; OR

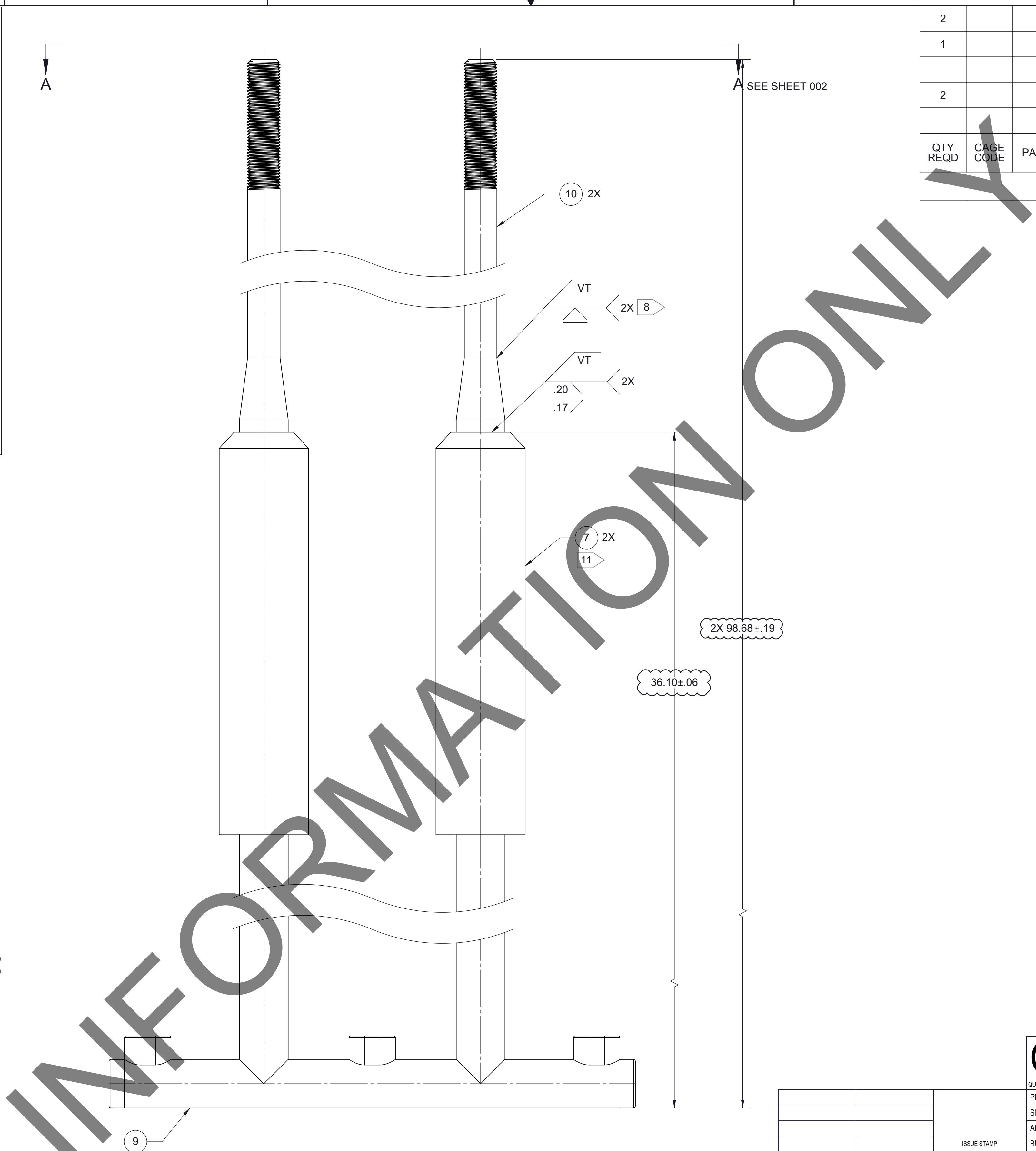
(D) DOE MAY MAKE THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" AVAILABLE TO GOVERNMENTAL DEPARTMENTS AND AGENCIES IN A MANNER THAT PROVIDES FOR THE PROTECTION OF PROPRIETARY DATA TO ENABLE DOE, OR ANY CONTRACTOR ACTING ON ITS BEHALF TO OBTAIN NECESSARY PERMITS AND LICENSES.

LIMITED RIGHTS DATA OR PROPRIETARY DATA SHALL MEAN TECHNICAL DATA WHICH EMBODY TRADE SECRETS DEVELOPED AT PRIVATE EXPENSE, SUCH AS DESIGN PROCEDURES OR TECHNIQUES, CHEMICAL COMPOSITION OF MATERIALS, OR MANUFACTURING METHODS, PROCESSES, OR TREATMENTS, INCLUDING MINOR MODIFICATIONS THEREOF, PROVIDED THAT SUCH DATA: (I) ARE NOT GENERALLY KNOWN OR AVAILABLE FROM OTHER SOURCES WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY; (II) HAVE NOT BEEN MADE AVAILABLE BY THE OWNER TO OTHERS WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY; AND (III) ARE NOT ALREADY AVAILABLE TO THE GOVERNMENT WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY.

THIS LEGEND SHALL BE MARKED ON ANY REPRODUCTION OF THIS DATA IN WHOLE OR IN PART, AND SUPERSEDES ANY EARLIER LEGEND. EACH PAGE CONTAINING DATA ASSERTED TO BE LIMITED RIGHTS DATA OR PROPRIETARY DATA SHALL BE IDENTIFIED ACCORDINGLY AND THE COVER SHEET OF EACH DOCUMENT CONTAINING SUCH PROTECTABLE DATA SHALL BE MARKED WITH THE LEGEND SET FORTH ABOVE.

NOTES:

1. ALL DIMENSIONS, TOLERANCES, LIMITS OF SIZE, FORM, LOCATION, AND RELATED TERMINOLOGY AND SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH ASME Y14.5M-1994.
2. FOR FABRICATION AND MANUFACTURING SEE PROCUREMENT SPECIFICATION 24590-LAW-3PS-LMP-T0010.
3. REMOVE ALL BURRS AND SHARP EDGES.
4. NOT USED.
5. WELD JOINT SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH AWS A2.4 AND AWS A3.0.
6. ALL TRACES OF SULPHURIZED AND CHLORINATED METAL WORKING FLUIDS USED DURING THE FABRICATION PROCESS SHALL BE REMOVED FROM THE PARTS SURFACE USING A CLEANING PRODUCT COMPATIBLE WITH THE PART.
7. ALL INCONEL SHALL BE PROTECTED FROM CARBON STEEL CORROSION. ANY METAL SURFACE THAT COMES IN CONTACT WITH INCONEL DURING FABRICATION SHALL BE STAINLESS STEEL.
8. A .50 INCH MINIMUM DIAMETER DOWEL MUST BE ABLE TO PASS WELDS INSIDE BOTH LEGS.
9. NOT USED.
10. NOT USED.
11. ITEM 7 (SLEEVE), MUST FIT OVER SUPPORT TUBE, LOWER (PART OF ITEM 9, WTP-M-12107 ITEM 1), OUT OF ROUNDNESS THAT DOES NOT IMPAIR THIS FIT IS ACCEPTABLE.
12. NOT USED.
13. INCONEL MA-758 CAN NOT BE SUCCESSFULLY TESTED USING A LIQUID PENETRANT TEST. IN-PROCESS VISUAL EXAMINATION SHALL BE USED TO INSPECT EACH WELD LAYER PERFORMED ON INCONEL MA-758.
14. - 17. NOT USED.
18. USE THE LOWEST REASONABLE TEMPERATURE FOR WELDING INCONEL MA-758.
19. ADDED TOLERANCE TO DIMENSIONS IN ZONE E4 & D4. REFER TO 24590-QL-POB-MEEM-00001-RFI-21-00012



DRAWING INDEX		
SH	DOCUMENT NO	TITLE
001	24590-LAW-MX-LMP-01303001	LAW SPARE MELTER 1 BUBBLER PIPE ASSEMBLY (WTP-M-12103)
002	24590-LAW-MX-LMP-01303002	LAW SPARE MELTER 1 BUBBLER PIPE ASSEMBLY (WTP-M-12103)

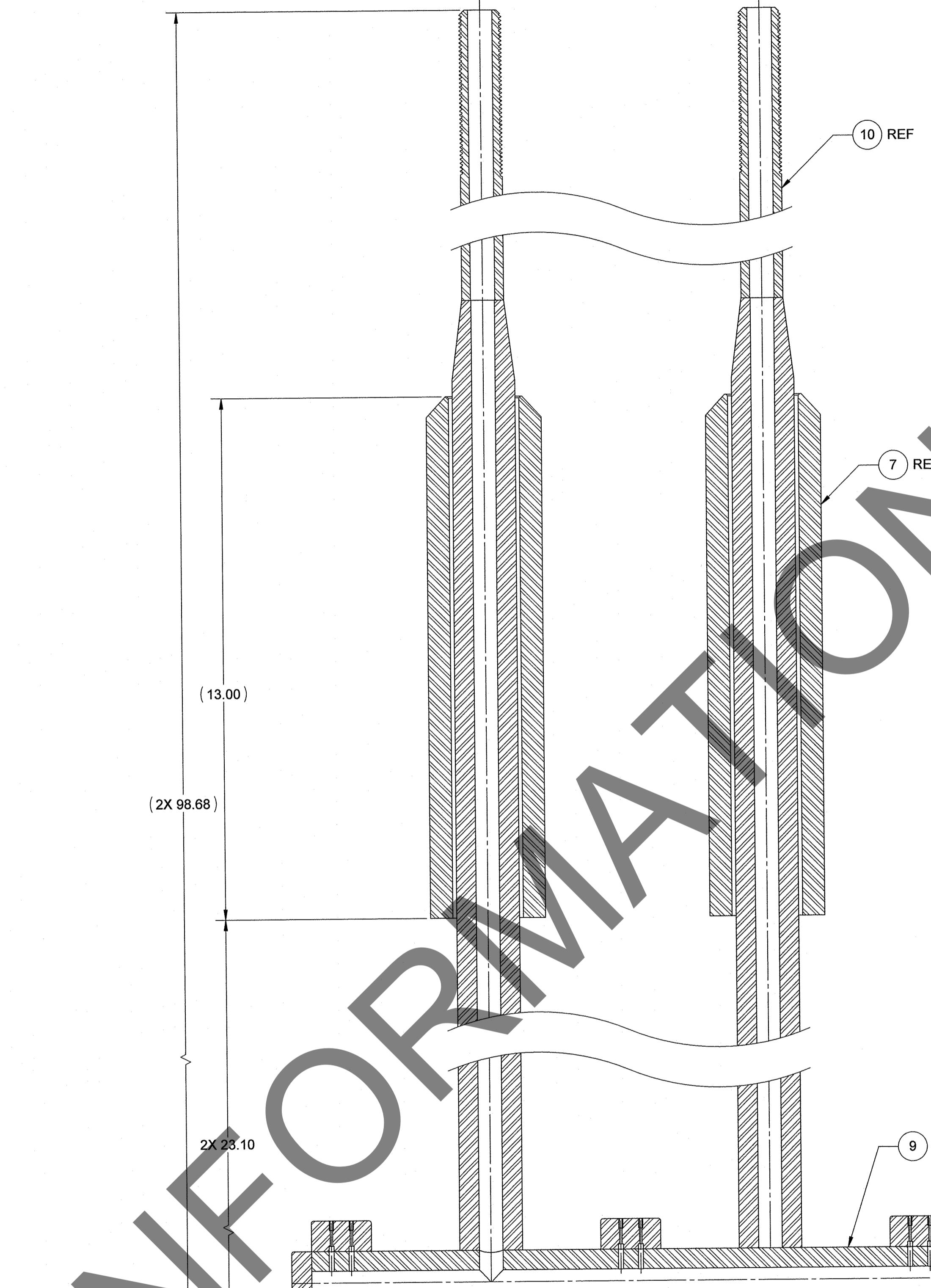
ISSUE STAMP	PROJECT No.	24590	BUILDING No.	20
	SITE	HANFORD		
WTP-M-12100-1	ORIGINATOR	T SPARKS	2/25/2019	
NEXT ASSY	USED ON	CHECKER	D MCGREW	2/28/2019
		REVIEWER	L LEWIS	3/4/2019
		APPROVER	C ROBERTS	3/6/2019

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE: DECIMALS ANGLES $X \pm .06$ $\pm .5^\circ$ $XXX \pm .005$ DO NOT SCALE DRAWING	CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
SUPPLIER DWG NO: WTP-M-12103	SH 1 ADR NO: 24590-LAW-ADR-ML-14-0001 REV: 0

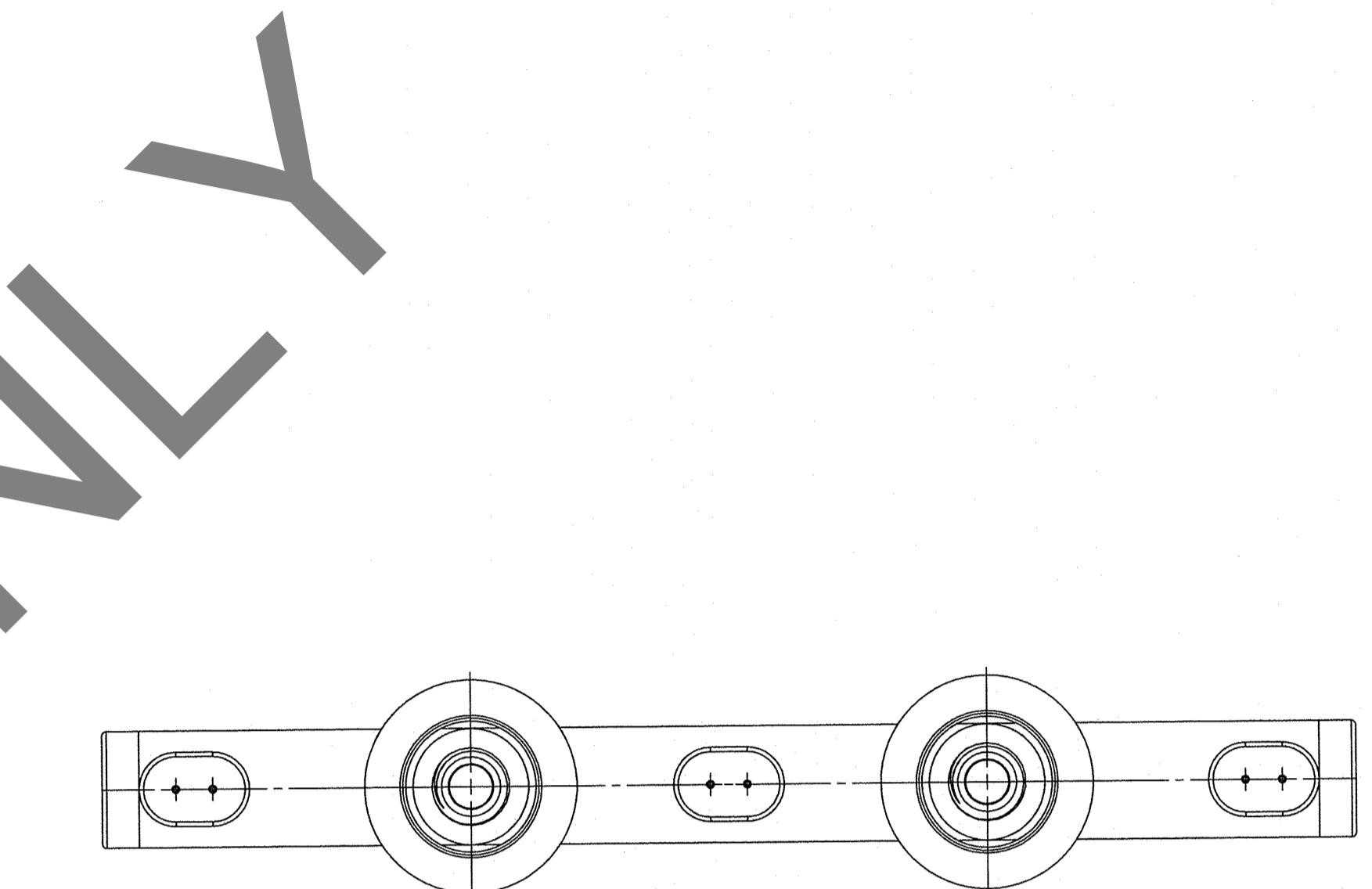
RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354	CONTRACT No: DE-AC27-01RV1416	WTP SUBCONTRACT No: 24590-101-TSA-W000-0010
	BECHTEL	REVISION HISTORY

LAW SPARE MELTER 1 BUBBLER PIPE ASSEMBLY (WTP-M-12103)

"PROPRIETARY DATA" USE OR DISCLOSURE IS SUBJECT TO THE RESTRICTIONS IN THE LIMITED RIGHTS LEGEND (APRIL 2001) LOCATED ON SHEET 001 OF THIS ASSEMBLY.



SECTION B-B

VIEW A-A
FROM SHEET 001

CM		ISSUED FOR CONSTRUCTION			REV	DESCRIPTION	ORG	CHKD	RVWD	APVD	DATE
		0	3/16/19								
QUALITY DESIGNATOR		REVISION HISTORY									
ISSUED BY RPP-WTP POD		PROJECT No. 24590		RIVER PROTECTION PROJECT							
		SITE HANFORD		WASTE TREATMENT PLANT							
		AREA 200E		2435 STEVENS CENTER PLACE							
ISSUE STAMP		BUILDING No. 20		RICHLAND, WA 99354							
BY		DATE		CONTRACT No: DE-AC27-01RV14136							
ORIGINATOR		2-28-19		WTP SUBCONTRACT No: 24590-101-TSA-W000-0010							
CHECKER		2-28-19									
REVIEWER		3/1/2009									
APPROVER		3/16/19									
CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO											
ADR No. 24590-LAW-ADR-ML-14-0001 REV: 0											
SCALE: 1:2		24590-LAW-MX-LMP-01303002		REV 0							

LAW SPARE MELTER 1
BUBBLER PIPE ASSEMBLY
(WTP-M-12103)

LAST SAVED BY: tsparks
FILE NAME: 24590-LAW-MX-LMP-01303002
DATE: 2/28/2019 10:05:05 AM

LIMITED RIGHTS LEGEND (APRIL 2001)

THIS TECHNICAL DATA CONTAINS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" FURNISHED UNDER CONTRACT NO. DE-AC27-01RV14136 WITH THE U.S. DEPARTMENT OF ENERGY WHICH MAY BE DUPLICATED AND USED BY THE GOVERNMENT WITH THE EXPRESS LIMITATIONS THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY NOT BE DISCLOSED OUTSIDE OF THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE CONTRACTOR, EXCEPT THAT FURTHER DISCLOSURE OR USE MAY BE MADE SOLELY FOR THE FOLLOWING PURPOSES:

(A) USE (EXCEPT FOR MANUFACTURE) BY SUPPORT SERVICES CONTRACTORS WITHIN THE SCOPE OF THEIR CONTRACTS. THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE DISCLOSED FOR EVALUATION PURPOSES UNDER THE RESTRICTION THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED;

(B) THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE DISCLOSED TO OTHER CONTRACTORS OR SUBCONTRACTORS PARTICIPATING IN THE GOVERNMENT'S FOLLOW-ON PILOT MELTER PROGRAM AT THE COLUMBIA SITE IN COLUMBIA, MARYLAND, AND FOR THE DESIGN, CONSTRUCTION, AND OPERATION OF THE WASTE TREATMENT AND IMMOBILIZATION PLANT (WTP), OR FOR THE TREATMENT OF HANFORD TANK WASTE, FOR INFORMATION OR USE IN CONNECTION WITH THE WORK PERFORMED UNDER THEIR CONTRACTS OR SUBCONTRACTS AND UNDER THE RESTRICTION THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED;

(C) THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" MAY BE USED BY THE GOVERNMENT OR OTHERS ON ITS BEHALF FOR EMERGENCY REPAIR OR OVERHAUL WORK UNDER THE RESTRICTIONS THAT THE "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" BE RETAINED IN CONFIDENCE AND NOT BE FURTHER DISCLOSED; OR

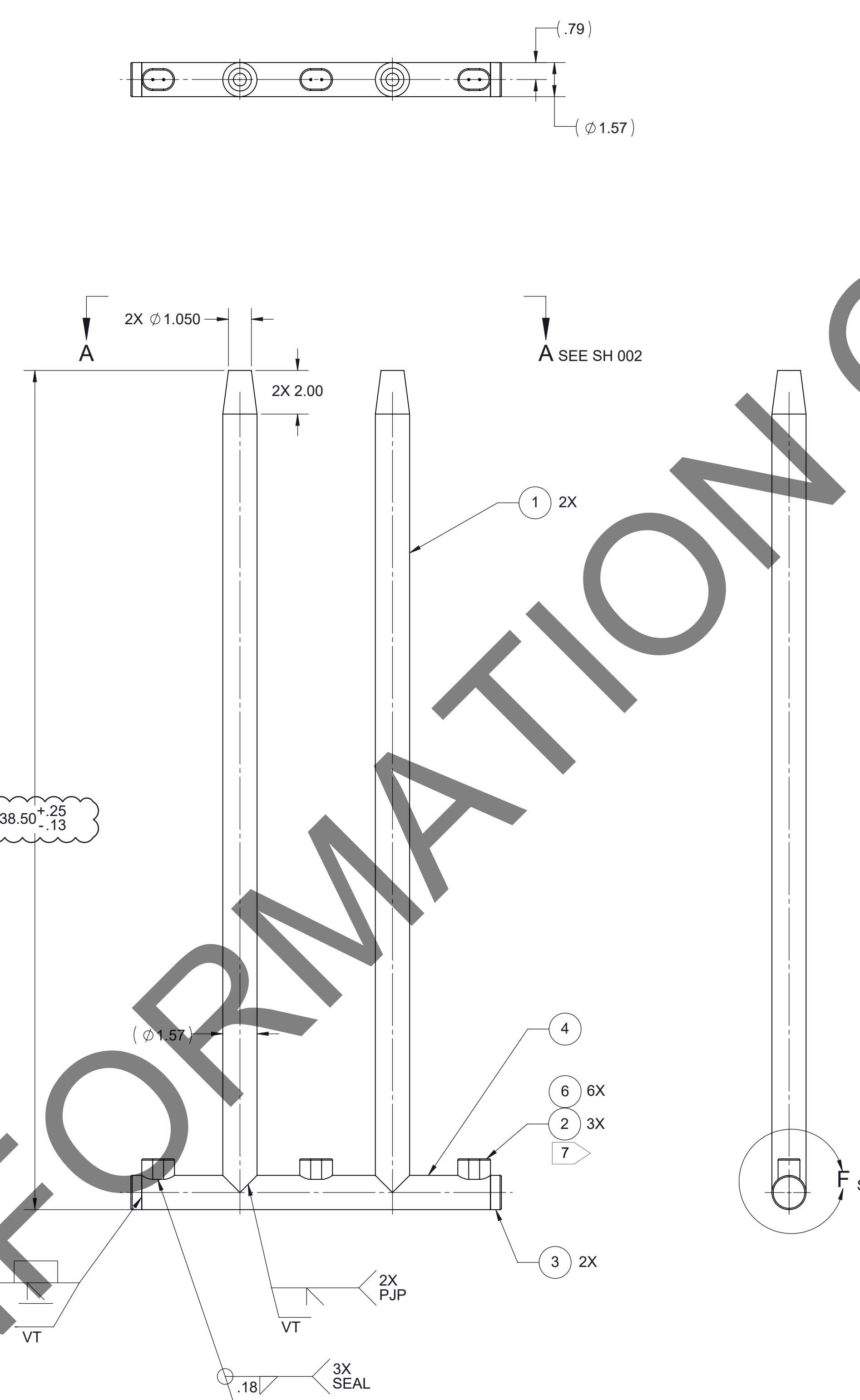
(D) DOE MAY MAKE THIS "LIMITED RIGHTS DATA" WHICH MAY ALSO BE MARKED AS "PROPRIETARY DATA" AVAILABLE TO GOVERNMENTAL DEPARTMENTS AND AGENCIES IN A MANNER THAT PROVIDES FOR THE PROTECTION OF PROPRIETARY DATA TO ENABLE DOE, OR ANY CONTRACTOR ACTING ON ITS BEHALF TO OBTAIN NECESSARY PERMITS AND LICENSES.

LIMITED RIGHTS DATA OR PROPRIETARY DATA SHALL MEAN TECHNICAL DATA WHICH EMBODY TRADE SECRETS DEVELOPED AT PRIVATE EXPENSE, SUCH AS DESIGN PROCEDURES OR TECHNIQUES, CHEMICAL COMPOSITION OF MATERIALS, OR MANUFACTURING METHODS, PROCESSES, OR TREATMENTS, INCLUDING MINOR MODIFICATIONS THEREOF, PROVIDED THAT SUCH DATA: (I) ARE NOT GENERALLY KNOWN OR AVAILABLE FROM OTHER SOURCES WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY; (II) HAVE NOT BEEN MADE AVAILABLE BY THE OWNER TO OTHERS WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY; AND (III) ARE NOT ALREADY AVAILABLE TO THE GOVERNMENT WITHOUT OBLIGATION CONCERNING THEIR CONFIDENTIALITY.

THIS LEGEND SHALL BE MARKED ON ANY REPRODUCTION OF THIS DATA IN WHOLE OR IN PART, AND SUPERSEDES ANY EARLIER LEGEND. EACH PAGE CONTAINING DATA ASSERTED TO BE LIMITED RIGHTS DATA OR PROPRIETARY DATA SHALL BE IDENTIFIED ACCORDINGLY AND THE COVER SHEET OF EACH DOCUMENT CONTAINING SUCH PROTECTABLE DATA SHALL BE MARKED WITH THE LEGEND SET FORTH ABOVE.

NOTES:

1. ALL DIMENSIONS, TOLERANCES, LIMITS OF SIZE, FORM, LOCATION, AND RELATED TERMINOLOGY AND SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH ASME Y14.5M-1994.
2. FOR FABRICATION AND MANUFACTURING SEE PROCUREMENT SPECIFICATION 24590-LAW-3PS-LMP-T0010.
3. REMOVE ALL BURRS AND SHARP EDGES.
4. WELD JOINT SYMBOLS SHALL BE INTERPRETED IN ACCORDANCE WITH AWS A2.4 AND AWS A3.0.
5. ALL TRACES OF SULPHURIZED AND CHLORINATED METAL WORKING FLUIDS USED DURING THE FABRICATION PROCESS SHALL BE REMOVED FROM THE PART'S SURFACE USING A CLEANING PRODUCT COMPATIBLE WITH THE PART.
6. ALL INCONEL SHALL BE PROTECTED FROM CARBON STEEL CORROSION. CUTTING SUPPORTS, ETC., SHALL BE STAINLESS STEEL.
7. ALIGN HOLES IN ITEM 2 (ORIFICE BLOCK), WITH HOLES IN ITEM 4 (SUPPLY MANIFOLD), PRIOR TO WELDING.
8. NOT USED.
9. INCONEL MA-758 CANNOT BE SUCCESSFULLY TESTED USING A LIQUID PENETRANT TEST. IN-PROCESS VISUAL EXAMINATION SHALL BE USED TO INSPECT EACH LAYER PERFORMED ON INCONEL MA-758.
10. SPECIAL METALS CO.
3200 RIVERSIDE DRIVE
HUNTINGTON, WV 25705
11. NOT USED.
12. USE THE LOWEST REASONABLE TEMPERATURE FOR WELDING INCONEL MA-758.
13. ADDED DIMENSION TOLERANCE FOR DIMENSION IN ZONE D6. REFER TO 24590-QL-POB-MEEM-00001-RFI-21-00012



DRAWING INDEX		
SH	DOCUMENT NO	TITLE
001	24590-LAW-MX-LMP-01307001	LAW SPARE MELTER 1 BUBBLER PIPE (WTP-M-12107)
002	24590-LAW-MX-LMP-01307002	LAW SPARE MELTER 1 BUBBLER PIPE (WTP-M-12107)

ISSUED BY RPP-WTP PDC	PROJECT NO.	24590
	SITE	HANFORD
ISSUE STAMP	AREA	200E
	BUILDING NO.	20
WTP-M-12103-1	BY	DATE
NEXT ASSY	ORIGINATOR	TG SPARKS
USED ON	CHECKER	DL MCGREW
APPLICATION	REVIEWER	LC LEWIS
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES, TOLERANCES ARE: DECIMALS ANGLES XX ± .05 ± .5° XXX ± .005 DO NOT SCALE DRAWING	APPROVER	CE ROBERTS 3/16/2019
SUPPLIER DWG NO.	SH	CONTENT APPLICABLE TO ALARA? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO
WTP-M-12107	1	ADR NO. 24590-LAW-ADR-ML-14-0001 REV: 0

CM

QUALITY DESIGNATOR

REVISION HISTORY	
BECHTEL	RIVER PROTECTION PROJECT WASTE TREATMENT PLANT 2435 STEVENS CENTER PLACE RICHLAND, WA 99354
CONTRACT No: DE-AC27-01RV14136	WTP SUBCONTRACT No: 24590-QL-HC4-W000-0011
2	LAST SAVED BY: jtemp
1	FILE NAME: 24590-LAW-MX-LMP-01307001

LAW SPARE MELTER 1
BUBLER PIPE
(WTP M-12107)