



RADIOGRAPHIC STANDARD SHOOTING SKETCH

Customer <u>EIO</u>	Pattern Number <u>MCWF-C-4</u>
Material <u>CF8MNM</u>	Traceability Number
Film Manufacturer <u>Fuji</u>	Source Number <u>23 ci 060</u>
IQI LEVEL <u>2-2T</u> From CQP 401 <input checked="" type="checkbox"/> Other (Specify, E.G. 2-4T, 2-1T) <u>N/A</u>	

Exposures (views)	75-76	92-93	116-117	B-C	C-D	E-F	F-G	G-H	H-I	I-J		
Thickness (IN.)	1 1/2" x 2"	1 1/2" x 2"	2 3/4"	3"-6"	3"-8"	3"-8"	3"-6"	3"-6"	3"-6"	3"-6"		
S/F Distance (IN.)	20"	→	15"	20"						→		
Penetrameter	30/40	→	50x2	60x2 120x2	60x2 120x2	→	60x2 120x2	60x2 120x2	60x2 120x2	→		
Time (MIN.)	7m	6m30s	10m	1hr45m	→	1hr45m				→		
Focal Spot (IN.)	1									→		
Film Size (IN.)	14x17									→		
Screen Size (Pb)	.01									→		
Front/Back										→		
S.W.E./D.W.E.	SWE									→		
S.W.V./D.W.V.	SWV									→		
Film Type	S9 160	→	S9 180	29 S9 180	29 S9 180	→				→		
Acceptance Standard	E446	→	E186	E186 E280						→		
Severity Level	See spec		SP54							→		

Shooting Sketch (Use Additional Pages as Needed)

See original Tech. Drawing

Technique Prepared By: Dave [Signature] Level: II
 Technique Approved By: [Signature] Level: III

Date: 10-24-05
 Date: 10-24-05

TEAM COOPERHEAT-MQS, INC.

CERTIFIED RADIOGRAPHIC INSPECTION REPORT

FORM 6061-RT- 002 Rev.2

5512 W. State St. Milwaukee, WI 53208 Tel:(414)771-3060 Fax:(414)771-9481 (800)818-6403 www.cooperheat-mqs.com

CUSTOMER		DATE	WORK ORDER NO.
NAME METAL TEK INTERNATIONAL		8/13/2005	361-02454-2
ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		21678	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 1 OF 6	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Slag	Por- osity	Lack of Fusion	Gas	Cracks	Hot Tears	Under cut	
MCWF-C-4		1-2			R					3-4			
		2-3	✓							1			
E.I.O. C040851		3-4	✓							2			
		4-5	✓							2		✓	
MS75920-4		5-6	✓							2			
		7-8	✓									✓	
		8-9	✓									✓	
		9-10			R					3-4			See Also ✓ 39-40
		11-12	✓										
		12-13	✓									✓	
		13-14	✓									✓	*
		15-16			R					4			
		16-17	✓							1-2		✓	
		18-19	✓									✓	
		19-20	✓									✓	✓
		20-21	✓									✓	
		21-22	✓							2	1	✓	
		23-24	✓								0-1		
		24-25	✓									✓	
		26-27	✓									✓	
		27-28	✓							2-3			
		29-30	✓								2	✓	✓
		30-31	✓							1		✓	
		32-33	✓							1	1	✓	
		33-34	✓									✓	

NO. ACCEPTED	0	NO. REJECTED	1	MQS TECH. NO.	12970	SHT.	REV. 1
COMMENTS	* added Film + 60 Pene for surface feature			CUST. RSS NO.		SHT.	REV.
				REVIEWER	John Petroski		
				CERTIFIED NOT LEVEL (RT)	RT-II		

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CITY PEVELY STATE MO ZIP 63070		21678	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 2 OF 6	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS	
			Accept- table	Reje- cted	Inclu- sion	or Por- osity	Lack of Fusion	Gas Cracks	Hot Tears	Under cut	Sur- face			
MCWF-C-4	3536	✓										✓	✓	
	3637			R				3-4				✓	✓	
E.I.O. C040851	3839			R						R		✓		
	3940			R				4						See Also V9/10
MS75920-4	4142			R				3				✓		
RBK	4243			R					4-5			✓		
RBK	4445	✓		OK					10*			✓		
Re Test RBK	4546	✓		R				4				✓		
	4748			R						R		✓		
	4849			R						R		✓		
	49-50-51	✓										✓		
	5253	✓										✓		
	5354	✓												
	* 5455	✓												
	5556			R					2-3					
	5657	✓												
	5758	✓										✓		
	5859	✓										✓		
	5960	✓										✓		
	6061	✓										✓		
	6263	✓										✓		
	6364			R						R				
	6566			R					3-4					
	6768			R						R				
	6869	✓										✓		

NO. ACCEPTED 0	NO. REJECTED 1	MQS TECH. NO. 12970	SHT.	REV. 1
COMMENTS * R.S. when returned for upgrade 40 Pins not present.		CUST. RSS NO.	SHT.	REV.
		REVIEWER <i>John Petruske</i>		
		CERTIFIED NDT LEVEL (RT)		
		RT II		

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ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		21678	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 3 OF 6	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Por- osity	Lack of Fusion	Gas	Cracks	Hot Tears	Under cut	Sur- face	
MCWF-C-4	6970	✓	✓						1-2		✓		
	*												
E.I.O. C040851	7172	✓	✓						1-2		✓		
	7273	✓	✓										
MS75920-4	7374			R				3					
	7475	✓									✓		
	7576	✓		R				2-3			✓		
	7677	✓									✓	✓	
	7879			R				4-5					
	7980			R				5					
	8081	✓						1-2			✓		
	8182	✓						0-1	1-2		✓		
	8384			R					45		✓		
	8586			R						R	✓		
	8687	✓							0-1		✓		**
	8788	✓									✓		
	9091	✓									✓		
	9293			R						R	✓		
	8889	✓											
	V94	✓						2				✓	
	V95	✓			1							✓	
	9697			R				5	Visible To Surface				
	9798			R						R	✓	✓	
	9899	✓									✓		
	100-101	✓							1				

NO. ACCEPTED 0	NO. REJECTED 1	MQS TECH. NO. 12970	SHT. .	REV. 1
COMMENTS* No V64 - Not needed, Dig out view from previous Pc. ** Three additional Film used for density		CUST. RSS NO.	SHT.	REV.
		REVIEWER <i>John P. [Signature]</i> CERTIFIED NDT LEVEL (RT) RT-II		

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CUSTOMER		DATE	WORK ORDER NO.
NAME METAL TEK INTERNATIONAL		8/13/2005	361-02454-2
ADDRESS 8600 COMMERCIAL BLVD		P.O. NUMBER	XRAY X
CITY PEVELY STATE MO ZIP 63070		21678	GAMMA
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999	SHEET 4 OF 6	

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS
			Accept- table	Reje- cted	Inclu- sion	or Slag	Por- osity	Lack of Fusion	Gas Cracks	Hot Tears	Under cut	Sur- face	
MCWF-C-4	101-102			R					45	45			
	102-103			R							R	✓	
E.I.O. C040851	103-104			R							R	✓	
	104-105			R							R		✓
MS75920-4	106-107			R					3-4		R	✓	
	107-108			R						3-4		✓	
	108-109												
	109-110	✓								1			
	111-112	✓											
	112-113	✓										✓	
	114-115			R						4-5			
	115-116	✓											
	116-117			R						4-5	R		

NO. ACCEPTED <i>0</i>	NO. REJECTED <i>1</i>	MQS TECH. NO. 12970	SHT.	REV. 1
COMMENTS		CUST. RSS NO.	SHT.	REV.
		REVIEWER <i>[Signature]</i> CERTIFIED NDT LEVEL (RT) <i>RT-II</i>		

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CUSTOMER

NAME METAL TEK INTERNATIONAL
 ADDRESS 8600 COMMERCIAL BLVD
 CITY PEVELY STATE MO ZIP 63070

DATE 8/13/2005

WORK ORDER NO.
361-02454-2

P.O. NUMBER
21678

XRAY X
 GAMMA

PROCEDURE SPECIFICATION
 ASTM E94-93

ACCEPTANCE CRITERIA
 MSS-SP-54-1999

SHEET 5 OF 6

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Slag	Por- osity	Lack of Fusion	Gas Cracks	Hot Tears	Under cut	Sur- face	
MCWF-C-4		A-B			R					4-5			
RAIL		B-C			R					4-5		✓	
E.I.O. C040851		C-D			R					4-5		✓	
		D-E	✓									✓	
MS75920-4		E-F	Xon		R					3-4		✓	
		F-G			R					3-4			
		G-H			R					4-5			
		H-I			R					5			
		I-J			R					5			
		J-K			R					4		✓	
		K-L	✓									✓	
		L-M	✓									✓	
		M-N	✓							0-1		✓	
		N-O	✓									✓	
		O-P	✓							0-1	Z		
		P-Q	✓										
		Q-R	✓							0-1		✓	
		R-S			R					4-5			
		S-T			R						R		
		T-U	✓							0-1		✓	
		U-V	✓							2		✓	✓
		V-W	✓							1		✓	
		W-X	✓							2-3		✓	
		X-Y	✓							1		✓	
		Y-Z			R					4		✓	

NO. ACCEPTED

0

NO. REJECTED

1

MQS TECH. NO.

12970

SHT.

REV. 1

COMMENTS

CUST. RSS NO.

SHT.

REV.

REVIEWER

CERTIFIED NDT LEVEL (RT)

RT II

CERTIFIED RADIOGRAPHIC INSPECTION REPORT

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CUSTOMER		DATE 8/13/2005	WORK ORDER NO. 361-02454-2
NAME METAL TEK INTERNATIONAL		P.O. NUMBER 21678	XRAY X
ADDRESS 8600 COMMERCIAL BLVD			GAMMA
CITY PEVELY STATE MO ZIP 63070		SHEET 6 OF 6	
PROCEDURE SPECIFICATION ASTM E94-93	ACCEPTANCE CRITERIA MSS-SP-54-1999		

[illegible]

NO. ACCEPTED	NO. REJECTED	MQS TECH. NO.	12970	SHT.	REV. 1
COMMENTS		CUST. RSS NO.		SHT.	REV.
		REVIEWER	[Signature]		
		CERTIFIED	NOT LEVEL (RT)		
			RT-IT		

TEAM COOPERHEAT-MQS, INC.

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CUSTOMER

NAME METAL TEK INTERNATIONAL
 ADDRESS 8600 COMMERCIAL BLVD
 CITY PEVELY STATE MO ZIP 63070

DATE

10/09/2005

WORK ORDER NO.

361-02596

P.O. NUMBER

22184

XRAY

X

GAMMA

PROCEDURE SPECIFICATION
 ASTM E94-93

ACCEPTANCE CRITERIA
 MSS-SP-54-1999*

SHEET OF

*WCSX-CSPEC-
141-03-08 Ref
Para. 3.1.1.7*

PART NUMBER	Serial No	View	No Apparent Indications		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS	
			Accep- table	Reje- cted	Inclu- sion	Dross or Por- osity	Lack of Fusion	Gas	Cracks	Hot Tears		Under cut
MCWF-C-4	4 (RI)	1-2	✓									
	* 4-5	✓										
E.I.O. C040851	* 5-6	✓									✓	
	9-10	✓						1-2				
MS75920-4	15-16	✓						1			✓	
	36-37	✓									✓	
	38-39	✓										
	39-40	✓										
	41-42	✓										
	42-43	✓									✓	
	45-46	✓								✓		
	47-48	✓										
	48-49	✓			✓							
	53-56	✓										
	63-64	✓						1-2				
	65-66	✓									✓	
	67-68	✓										
	73-74	✓										
	75-76				R			3				
	78-79	✓										
	79-80	✓										
	83-84	✓			2-3							
	85-86	✓										
	92-93				R			R				
	96-97	✓									✓	

NO. ACCEPTED

0

NO. REJECTED

1

MQS TECH. NO.

12970

SHT.

REV.

COMMENTS

CUST. RSS NO.

SHT.

REV.

REVIEWER

John Petroske
 CERTIFIED NDT LEVEL (RT)

John Petroske RT II Exp. 01/08

TEAM COOPERHEAT-MQS, INC.

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CUSTOMER

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 ADDRESS 8600 COMMERCIAL BLVD
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DATE

10/09/2005

WORK ORDER NO.

361-02596

P.O. NUMBER

22184

XRAY

X

GAMMA

PROCEDURE SPECIFICATION
 ASTM E94-93

ACCEPTANCE CRITERIA

MSS-SP-54-1999 *

SHEET OF

NCSX-CSPEC-
141-03-08 Ref
Para. 3.1.1.7

PART NUMBER	Serial No	View	No Apparent Indications		Dross		Incomplete Penetration		Shrinkage		Film Artifacts		REMARKS
			Accep- table	Reje- cted	Inclu- sion	or Por- osity	Lack of Fusion	Gas	Cracks	Hot Under Tears cut	Sur- face		
MCWF-C-4	4 (RI)	97-98	✓										
		101-102	✓									✓	
E.I.O. C040851		102-103	✓										
		103-104	✓									✓	
MS75920-4		104-105	✓										
		106-107	✓										
		107-108	✓										
		114-115	✓										
		116-117			R					4			
		A-B	✓						1				
	*	B-C			R					2			
	*	C-D			R				1				
	*	F-G			R				2				
	*	G-H			R				2				
	*	H-I			R				5				
		E-J			R				45				
		J-K	✓						1				
		R-S	✓							1			
		S-T	✓							1			
		Y-Z	✓						2				
		Z-AA	✓										
		CC-DD	✓						1				
		DD-A	✓						1				

NO. ACCEPTED

0

NO. REJECTED

1

MQS TECH. NO.

12970

SHT.

REV.

COMMENTS

CUST. RSS NO.

SHT.

REV.

REVIEWER

CERTIFIED NDT LEVEL (RT)

John Petroske RT II Exp. 01/08

MetalTek

INTERNATIONAL

RADIOGRAPHIC INTERPRETATION REPORT

CUSTOMER	PURCHASE ORDER NUMBER	DATE	CONTROL NO.	PAGE						
E.I.O	PPPL - FP - LTS - 2	10-24-05	40851	1 of 1						
PART NO.	SPECIFICATION	CLASS	TOTAL PIECES	PIECES ACCEPTED						
MCWF-C-4	E44/E186/E280	See Spec.	1							
RADIOGRAPHED BY:	INTERPRETED BY:	ASNT LEVEL								
Midgett/Kelley	Midgett/Kelley	#								
FILM TYPE	MATERIAL	ISOTOPE	CODE							
29/59/80	CF8M/MN	IRIDIUM 192 COBALT 60 /	ASTM E94 /	ASME MIL-STD-453						
V I E W	P E N E	A C C E P T	R E J E C T	S H R I N K	I N C L U S I O N	P O R O S I T Y	L I N E A R	S U R F A C E	L O F / L O P	COMMENTS
MS75920-4										
MCWF-C-4	75-76	30/40 /				2		/		
R2	92-93	↓ /				1		/		
	116-117	50 /				2		/		
	B-C	60/120	X			X				
	F-G	↓ /				1		/		
	G-H	60/80/120	X		OK	X				
	H-I	60/120	X		X	X				
	I-J	↓ /				2		/		
	C-D	60/120/140	/			1				
	E									
R1	E-F	60/120/140 /			1	2				

MetalTek

INTERNATIONAL

RADIOGRAPHIC INTERPRETATION REPORT

[illegible]