

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: June 19, 2001
REPLY TO
ATTN OF: CBFO:QA:MLC:VW:01-1146:UFC:2300
SUBJECT: CBFO Surveillance Report S-01-18, Packaging Technology, Inc., Caliber Inspection/Alaskan Copper, Seattle, WA
TO: Robert A. Johnson, Pac Tec, Inc

The Carlsbad Field Office (CBFO) conducted a surveillance to evaluate the implementation and effectiveness of radiographic film interpretation of the TRUPACT-II. The surveillance team determined that the activities evaluated relating to the film interpretation were satisfactorily implemented and effective.

One concern that was isolated in nature was identified, resulting in one observation that addressed the lack of objective evidence indicating a completed disposition for radiographic view 0-1 of S/N 121-A1-00-02 (0012-121-A1 Job 6755-01), weld 2.

An additional observation was noted which addressed some large anomalies, possibly arc strikes, on the base metal material. It is requested that an evaluation of these anomalies be performed with the results documented in a letter. It is further requested that this letter be formally submitted to CBFO as soon as possible.

If you have any questions or comments concerning this report, please contact me at (505) 234-7476.


Michael R. Brown
Transportation Packaging Manager

Attachment



Robert A. Johnson

-2-

June 19, 2001

cc: w/attachment
I. Triay, CBFO
K. Watson, CBFO
L. Chism, CBFO
S. Vega, CBFO
D. Winters, DNFSB
S. Monroe, EPA
M. Eagle, EPA
S. Zappe, NMED
B. Walker, EEG
M. Gerle, WTS Operating Record
G. Williams, WTS
T. Bowden, CTAC



U.S. DEPARTMENT OF ENERGY
CARLSBAD FIELD OFFICE

SURVEILLANCE REPORT S-01-18
OF THE
PACKAGING TECHNOLOGY, INC
CALIBER INSPECTION / ALASKAN COPPER

Seattle, WA

RADIOGRAPHIC FILM INTERPRETATION

May 21, 2001



Prepared by:

Steve Davis for

Betty J. R. Chavez, ASNT Level III
Surveillance Team Leader

Date:

6/8/01

Concurrence by:

Mike Brown

Mike Brown
CBFO Contracting Officer Technical Rep.

Date:

6/14/2001

1.0 EXECUTIVE SUMMARY

CBFO Surveillance S-01-18 was conducted to evaluate Packaging Technology (Pac Tec, Inc.) subcontractors (Caliber Inspection, and Alaskan Copper) radiographic film interpretation of the TRUPACT-II. The surveillance team consisted of a CTAC ANSI Level III and observers from Packaging Technology, Inc. (Pac Tec, Inc). The surveillance was conducted at the Seattle, Washington facility on May 21, 2001. The surveillance team determined that the activities evaluated relating to the film evaluation were satisfactorily implemented and effective. One concern that was isolated in nature was identified, resulting in one observation that addressed the lack of objective evidence indicating a completed disposition for radiographic view 0-1 of S/N 121-A1-00-02. (0012-121-A1 Job 6755-01), weld 2. In addition, one recommendation was offered to management relative to the use of dual film technique instead of single film technique for clarity.

2.0 SCOPE

CBFO Surveillance S-01-18 was conducted to evaluate the implementation and effectiveness of Caliber Inspection and Alaskan Copper radiographic film interpretation of welds on the TRUPACT-II.

3.0 SURVEILLANCE TEAM

Betty J. R. Chavez, ASNT Level III Surveillance Team Leader, CTAC

4.0 SURVEILLANCE PARTICIPANTS

A list of personnel contacted during the course of the surveillance is provided as Attachment 1 of this report.

5.0 SUMMARY OF SURVEILLANCE RESULTS

5.1 Surveillance Activities

Details of surveillance activities, along with the specific objective evidence reviewed and the results of the reviews are contained within the surveillance overview checklists. The radiographic overview checklists are maintained as QA records.

The surveillance team verified compliance with the American Society for Nondestructive Testing, (ASNT) Recommended Practice SNT-TC-1A, *Personnel Qualification and Certification in Nondestructive Testing*, ASME Section III, Article NF-5000, Article NB-5000, and Article VI-1000 "Rounded Indications." The surveillance team reviewed the qualifications of Caliber Inspection and Alaskan Copper radiographic film interpretation personnel and determined that

the qualification documentation met the intent of the ASNT SNT-TC-1A Recommended Practice.

The surveillance included an overview of a sample population of radiographic film of TRUPACT-II S/N 121-A1-00-01 & 02, 0012-121-A1, Job 6755 and P.O 00088-00012/126, N497, and 42211, N495-2 W4 & W5 by an ASNT Level III in radiography. Results are submitted of this report, consisting of five radiographic film interpretation overview sheets and two radiographic technique sheets. One Observation was identified which addressed the lack of objective evidence to indicate completed disposition of radiographic view 0-1. One Recommendation was also offered to management concerning the use of dual film techniques (see Section 6.0 for details). Nondestructive testing personnel training and vision records were reviewed for the following: Dennis W. Evans, RTIII, MTIII, ASNT Level III DA-798 1965 – Present; Dennis Kujawa, Level II RT, MT, PT, 1974-Present; and Douglas L. Nalley, Level II RT, 1975 – Present. There were no discrepancies identified. The radiographic film interpretation overview sheets are maintained as QA records and provide specific evidence of the results of the surveillance activity.

The surveillance team determined that the evaluated Caliber Inspection and Alaskan Copper activities were satisfactorily implemented based on the sampled radiographic film population. As a result, the surveillance team concluded that the requirements related to the activities evaluated during the surveillance were adequate, satisfactorily implemented and effective.

5.1.1 Organization

The surveillance team evaluated the adequacy of documents depicting the qualifications of radiographic film interpretation personnel to ASNT Recommended Practice SNT-TC-1A, *Personnel Qualification and Certification in Nondestructive Testing*. Caliber Inspection and Alaskan Copper adequately incorporated the requirements of ASNT SNT-TC-1A and certified personnel adequately interpreted the radiographic film in accordance with ASME Section III, Article NF-5000, Article NB-5000, and Article VI-1000. The Pac Tec, Inc. subcontractor's radiographic film interpretation program has been satisfactorily implemented and is effective.

6.0 OBSERVATIONS AND RECOMMENDATION

The surveillance team identified one Observation during the surveillance for the lack of objective evidence investigating the complete disposition of radiographic view 0-1 of S/N 121-A1-00-02. (0012-121-A1 Job 6755-01), weld 2.

It is noted that some film was shot using a single film technique. It is recommended that a dual film technique be used in order to clarify film interpretation.

Some large anomalies were noted on the base metal material (not the weld area) and should be further evaluated.

7.0 ATTACHMENTS

Attachment 1:

Radiographic Technique Sheets (2 pages...1 from Caliber Inspection and 1 from Alaskan Copper)

Attachment 2:

Radiographic Film Interpretation of Weldments, TRUPACT-II (5 pages)

PERSONNEL CONTACTED DURING SURVEILLANCE S

PERSONNEL CONTACTED				
NAME	ORG/TITLE	IN BRIEF	CONTACTED DURING AUDIT	OUT BRIEF
Counterman, Bernard.	Pac Tec, Inc., QA Manager	X	X	X
Chavez, Betty J. R.	CTAC / Surveillance Team Lead	X	X	X
Morgan, Dale	Caliber Inspection, Laboratory Superintendent	X	X	
Andrew Key	Pac Tec, Inc.		X	

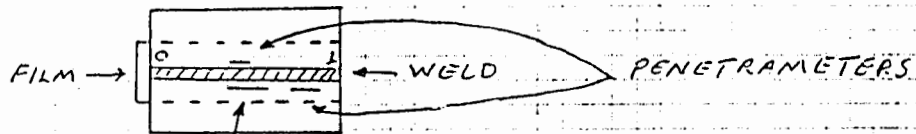
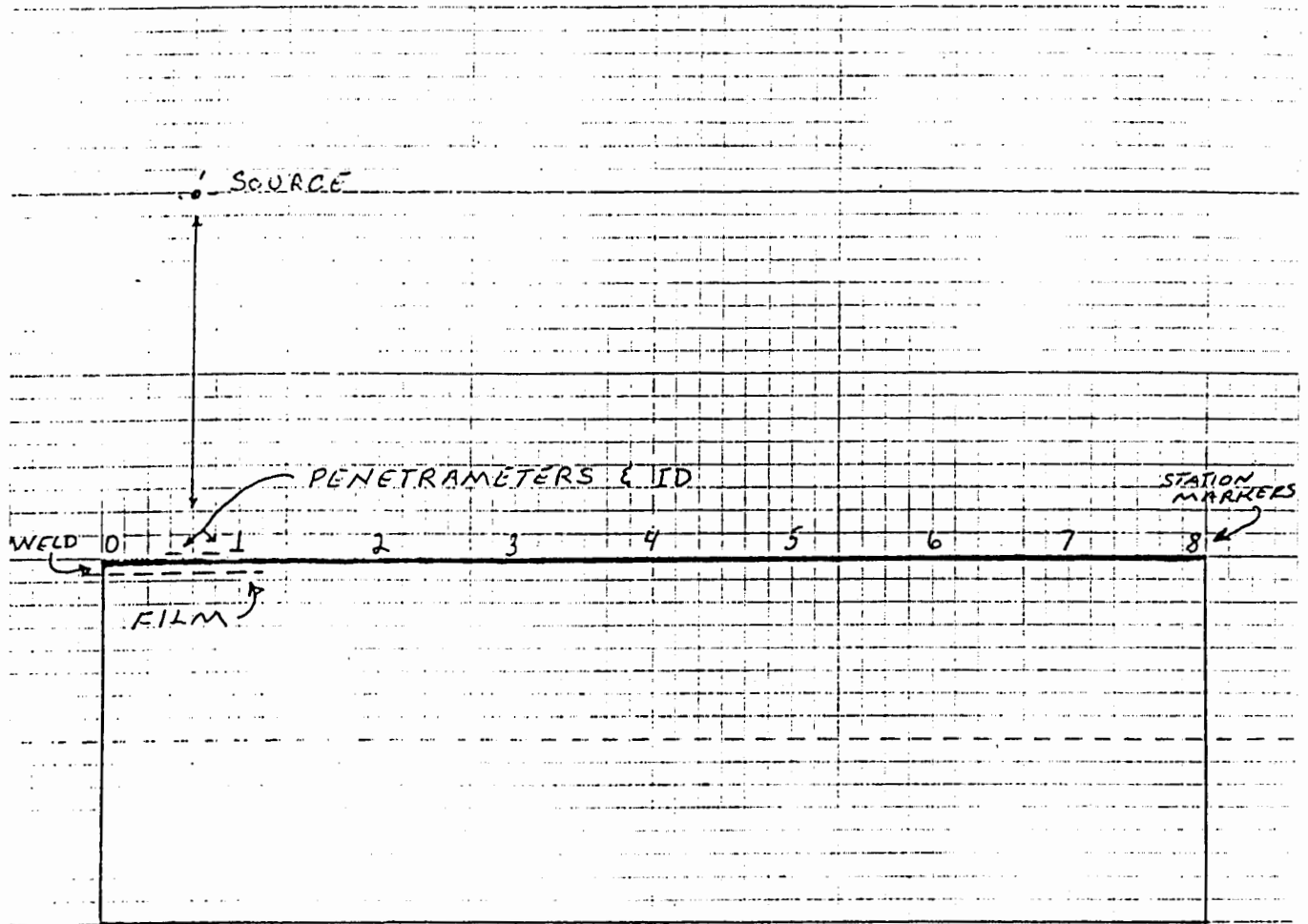


P.O. BOX 3546 - SEATTLE, WA. 98124

ATTACHMENT 1
PAGE 1 OF 2
JMM
4/18/01

SPECIAL RADIOGRAPHIC SETUP INFORMATION

Show cross section of the component along with the placement of the source, the film and the penetrometer. Show the location marker placement and numbering sequence of the markers.



...ION 67J	CUST. P.O. p000ff
1 NO.	DRAWING NO.
1	00012-126

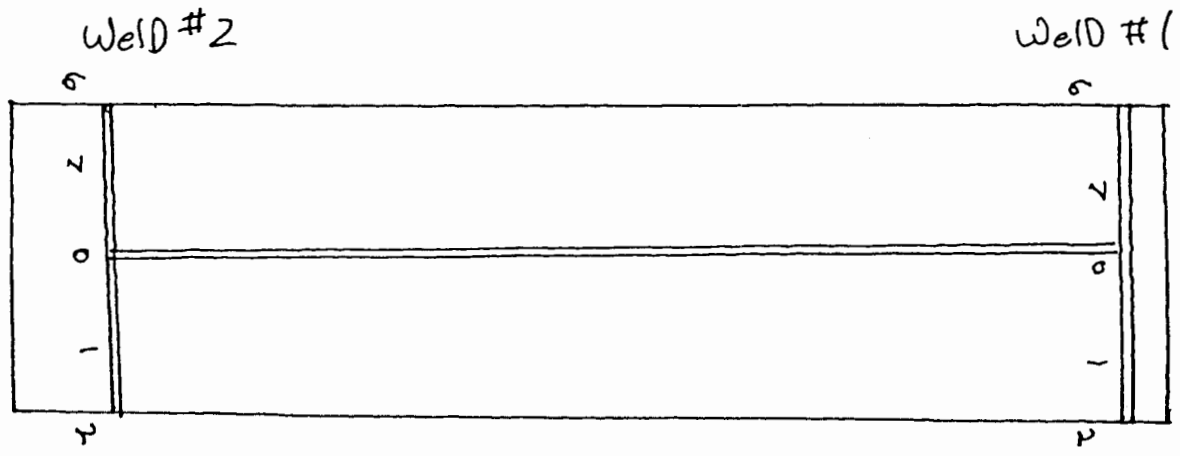


3/14/01

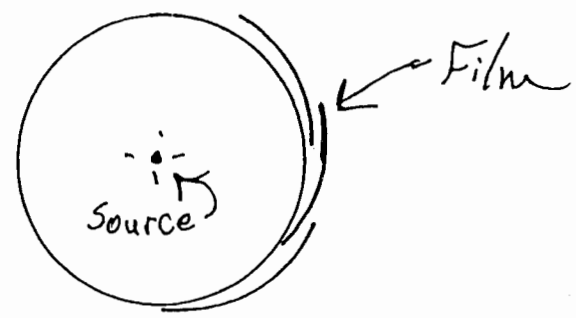
DATE 5-6-01 CALIBER INSPECTION RADIOGRAPHIC TECHNIQUE PAGE NO. 1 OF 1 REPORT NO. 102270

Customer Ideal Machine + MFG. P.O. No. 1089
 Part No. 0012-121-A1 Tube or Source No. 3
 Radiation Source Ir 192 Curie Strength 86
 Focal Spot or Source Size .1 x .1 Angle of Beam 90°
 KV _____ MA _____ Film Focal Distance 16"
 Material Thickness & Type 3/8" S.S. + buildup
 Penetrometer Type ASTM Size 10
 Penetrometer Shim 1/16" TO 1/8" S.S. Sensitivity Level 2-4T
 Penetrometer Film Side _____ Source Side XX
 Film Type AGFA D4-D4 XX Size 4 1/2 x 17"
 Pb Screens - Front 1005 Back 1010
 Exposure Time 1 min 20 sec Single View XX Double View _____
 No. of Views 8 per weld
 Specification Procedure ASME SEC. V + SEC. III
 Specification Acceptance ASME SEC. III Div. 1 SubSec. NB-5000
 Development: Automatic 9 Minute Cycle @ 26 Degrees C. Manual

Approved By [Signature] Level III



*Double LOADS -
Same Screens



Radiographer Dennis Kujawa Level II ASNT-TC-1A

CTAC SURVEILLANCE RADIOGRAPHIC FILM INTERPRETATION OF WELDMENTS TRUPACT-II

RADIOGRAPHIC OVERVIEW

Organization Evaluated Caliber Inc / Pac Tech Location Seattle, WA
 Contact(s) Berene Courten Surveillance # 52101
 Activities Evaluated RT Date(s) of Surveillance 5/21/01
 Controlling Document(s) ASME Sec III NB5000, ASME Sect V
 Surveillance Team Member(s) Betty Chavez / Bonnie Carburn
 CAR: Yes NO CAR Initiator _____ CAR Date _____
 Radiographic Procedure Number Caliber Inc. QA Manual, Rev 5 / Report 102270
 Radiographer Qualifications Dennis Kujawa, Level III, Dennis Evans LIII Technicians
 Material and thickness range 3/8" + Building Stainless Steel RT7
 TRUPACT-II Serial Number 0012-121-A1 Job 6755-01, S/N 121A1-00-02

Weld	View	IQI	Original Disposition	Accept	Reject	Comments
1	0-1	#704T	(A) P, S	✓		P < .020" @ 0.5
	1-2	~2.64	(A)	✓		
	2-3		(A)	✓		
	3-4		(A)	✓		P Cluster @ 3.3 ← .045"
	4-5		(R) S		✓	P LOP elavs. ind. @ 5.1 P ~ .050" & LOP @ 5.8 marked as ref
	5-6		(A)	✓		Artifacts
	6-7		(A)			
	7-0		(A)			Reweld not available
2	0-1		N/A	✓		No Disposition
	1-2		(A)	✓		
	2-3		(A)	✓		
	3-4		(A) S	✓		
	4-5		(A) P	✓		P @ 4.3
	5-6		(A) P	✓		P @ 4.3 < .020"
	6-7		(A)	✓		
	7-0		(A)	✓		
						densitometer & density strip Cal. beta dlu 7/01

Film Evaluated By: Betty Chavez ASNT Level III, RT on 5-21-01
 Signature, ASNT Certification # _____ Date

A = Accept
 R = Reject
 UWB = Uneven Weld Bead

LOF = Lack of Fusion
 LOP = Lack of Penetration
 P = Porosity

CTAC SURVEILLANCE RADIOGRAPHIC FILM INTERPRETATION OF WELDMENTS TRUPACT-II

RADIOGRAPHIC OVERVIEW

Organization Evaluated Caliber Inc. Location Seattle, WA
 Contact(s) Bernie Courteran Surveillance # _____
 Activities Evaluated RT Film Date(s) of Surveillance _____
 Controlling Document(s) ASME Sect III, NB5000, ASME Sect V
 Surveillance Team Member(s) Betty Chavez
 CAR: Yes NO CAR Initiator _____ CAR Date _____
 Radiographic Procedure Number ASME Sect III NB5000 + ASME Sect V
 Radiographer Qualifications Dennis Kujawa Level II, Dennis Evans, Level III
 Material and thickness range 3/8" SS & buildup
 TRUPACT-II Serial Number 0021-121-A SS, Rept. 102270-1 5/6/01
121-A1-00-01

Weld	View	IQI	Original Disposition	Accept	Reject	Comments
W1	0-1	#10	(A)	✓		
	1-2		(A)	✓		
	2-3		(A)	✓		
	3-4		(A)	✓		
	4-5		(A) P	✓		P < .025 Cluster
	5-6		(A) P	✓		P < .025 Cluster @ 5.3
	6-7		(A)	✓		Artifacts
	7-0		(A)	✓		
W2	0-1		(A)	✓		
	1-2		(A)	✓		
	2-3		(A)	✓		
	3-4		(A) Flange	✓		HDI on Parent Metal
	4-5		(A)	✓		HDI .075" x .030" @ 3.7
	5-6		(A)	✓		P < .035"
	6-7		(A)	✓		
	7-0		(A)	✓		

Texture Weave

Film Evaluated By: _____ ASNT Level III, RT on _____
 Signature, ASNT Certification # _____ Date _____

A = Accept
 R = Reject
 UWB = Uneven Weld Bead

LOF = Lack of Fusion
 LOP = Lack of Penetration
 P = Porosity

JAM
c/lebo

CTAC SURVEILLANCE RADIOGRAPHIC FILM INTERPRETATION OF WELDMENTS TRUPACT-II

RADIOGRAPHIC OVERVIEW

Organization Evaluated Alaska Copper/Pacific Location Seattle
 Contact(s) Bernie Cowterm Surveillance # _____
 Activities Evaluated RT Date(s) of Surveillance 5/21/01
 Controlling Document(s) ASME Sect III, NB5000, ASME Sect. V
 Surveillance Team Member(s) Betty Chavez
 CAR: Yes NO CAR Initiator _____ CAR Date _____
 Radiographic Procedure Number Technique 6255 PA P00088 - 00012/126
 Radiographer Qualifications Chuck Gibbs Level II
 Material and thickness range 32.00" O.D. x 3/8" Wall S2601 x 112 1/2" Nominal length
 TRUPACT-II Serial Number N497 42211 N497-2

T304
ASTM
240

Weld	View	IQI	Original Disposition	Accept	Reject	Comments
N497-1		0-1	(A)	✓		HST <.030"
		1-2	(A)	✓		HST <.030"
		2-3	(A)	✓		HST <.020"
		3-4	(A) surface	✓		Surface Cond.
		4-5	(A) surface	✓		"
		5-6	(A)	✓		HST .025"
		6-7	(A)	✓		
		7-8	(A)	✓		
N497-2		0-1	(A)	✓		HST <.040"
		1-2	(A)	✓		HST <.040"
		2-3	(A)	✓		HST <.040"
		3-4	(A)	✓		HST <.040"
		4-5	(A) surface	✓		HST <.040" surface Base
		5-6	(A)	✓		HST
		6-7	(A)	✓		
		7-8	(A) Tungsten	✓		HST <.030" dia
N497-3		0-1	(A)	✓		HST <.030" dia
		1-2	(A)	✓		P <.040" dia
		2-3	(A)	✓		Surface Cond.
		3-4	(A)	✓		HST + Surface Cond.
		4-5	(A)	✓		Surface Cond.
		5-6	(A)	✓		Surface Cond. + HST .050"
		6-7	(A)	✓		Surface Cond.
		7-8	(A)	✓		

N497-1

single film tech.

N497-2

single film technique

N497-3

single film tech

Surface Base metal indicated ~ 13 indicators >.040" dia in ~ 1" diam area >1" long

Film Evaluated By: Betty Chavez ASNT Level III, RT on 5/21/01
 Signature, ASNT Certification # _____ Date

A = Accept
R = Reject
UWB = Uneven Weld Bead

LOF = Lack of Fusion
LOP = Lack of Penetration
P = Porosity

