

# BALTIMORE GAS AND ELECTRIC COMPANY

P.O. BOX 1475

BALTIMORE, MARYLAND 21203

NUCLEAR POWER DEPARTMENT  
CALVERT CLIFFS NUCLEAR POWER PLANT  
LUSBY, MARYLAND 20657

May 31, 1985

U.S. Nuclear Regulatory Commission  
Division of Licensing  
Washington, DC 20555

ATTENTION: Mr. David H. Jaffe, Project Manager  
Operating Reactors Branch #3

SUBJECT: Calvert Cliffs Nuclear Power Plant  
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318  
Inservice Inspection Program

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REFERENCE: (1) BG&E Letter from A. E. Lundvall, Jr., to J. R. Miller, dated February 4, 1985, Inservice Inspection Program Request for Relief from ASME Code Section XI

Gentlemen:

Reference (1) letter referenced requested relief from performing certain examination requirements on the Reactor Coolant Pump (RCP) casings. Additional information concerning the RCPs at Calvert Cliffs is provided herein.

Each RCP has vibration monitoring instrumentation with a key phaser circuit for quantitative vibration analysis. Both X and Y plane vibration is displayed in the Control Room on a single monitor for each pump. Both audible and visual alarm annunciation is provided to warn Operators of high vibration conditions.

Reactor coolant flow is monitored and displayed in the Control Room. Should flow degrade to 97% of design the Reactor Protective System will annunciate pre-trip conditions. Further reduction of flow to 95% of design will result in automatic tripping of the reactor.

The Reactor Coolant System is monitored for impact due to loose parts or foreign objects. Eight piezo-electro accelerometers are mounted throughout the system. The loose parts monitor recorder is located in the Control Room and alarm annunciation occurs at predetermined impact values.

Reactor Coolant Pump motor current is indicated in the Control Room. The RCP motor also has a high vibration alarm annunciator.

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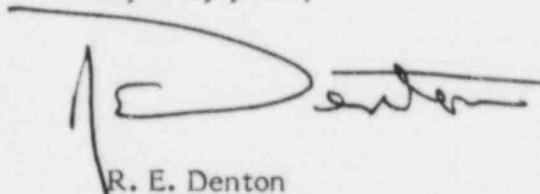
Mr. David H. Jaffe  
May 31, 1985  
Page 2

Enclosed please find several fabrication radiographic standard shooting sketches showing the casting-to-casting weld locations in a pump case. Also enclosed is drawing 6750-M-545-1 showing dimensions of the pump and motor assembly.

We have considered the performance of a surface examination on the RCP case outer weld surface to reassess pump integrity. We have concluded that a liquid penetrant exam of the outer weld surface would not answer the sensitivities or provide beneficial knowledge to further assurance of pump integrity. To perform a liquid penetrant examination of the outer casing weld of one RCP it is estimated that 290 manhours and three manrem would be required. This estimate includes scaffolding, insulation removal and replacement, and the examination manhours and exposure.

Should you have further questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'R. E. Denton', with a large, stylized initial 'D'.

R. E. Denton  
General Supervisor -  
Training & Technical Services

RED/BCR/gla

Enclosures

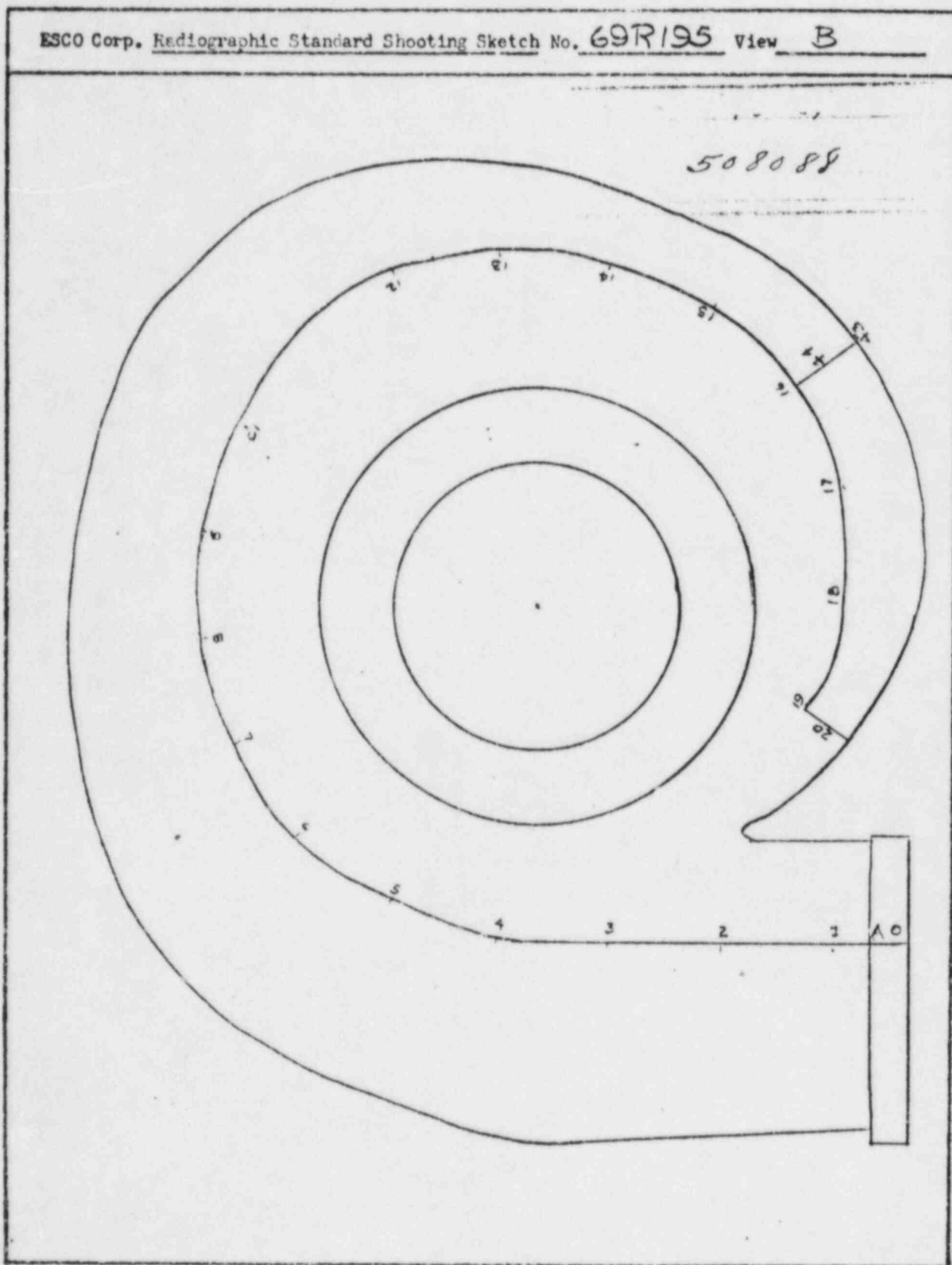
cc: D. A. Brune, Esquire	(w/o Enclosures)
G. F. Trowbridge, Esquire	"
T. Foley	"

CUSTOMER COMBUSTION ENGR.  
P.O. NO. 980241  
PROJECT BALTIMORE I

RC NO. 31032  
ITEM NO. 1-1  
DRG. NO. 508088  
PART NO. CASE-FAB.

0438  
BYRON JACKSON SER. NO.  
681-N- 0440

ESCO Corp. Radiographic Standard Shooting Sketch No. 69R195 View B



X9275 - X9276

2248-1

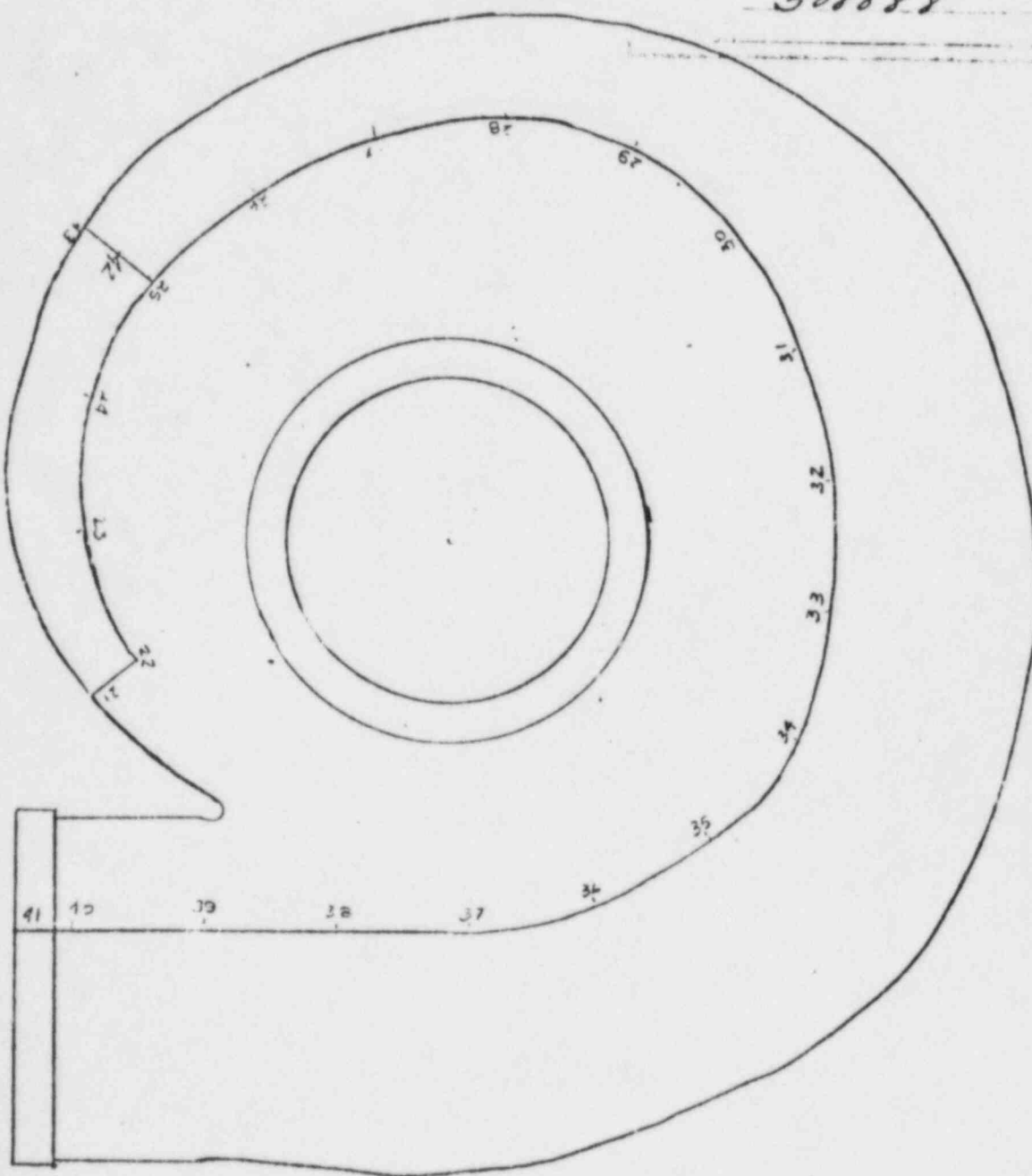
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PROJECT BALTIMORE I

RC NO. 31032  
ITEM NO. 1-1  
DRG. NO. 508088  
PART NO. CASE-FAB.

0438  
BYRON JACKSON SER. NO.  
681-N-0440

ESCO Corp. Radiographic Standard Shooting Sketch No. 69R195 View C

508088



X4275 414276

2248-1

CUSTOMER COMBUSTION ENGR.  
P.O. NO. 980241  
PROJECT BALTIMORE I

RC NO. 31032

ITEM NO. 1-1

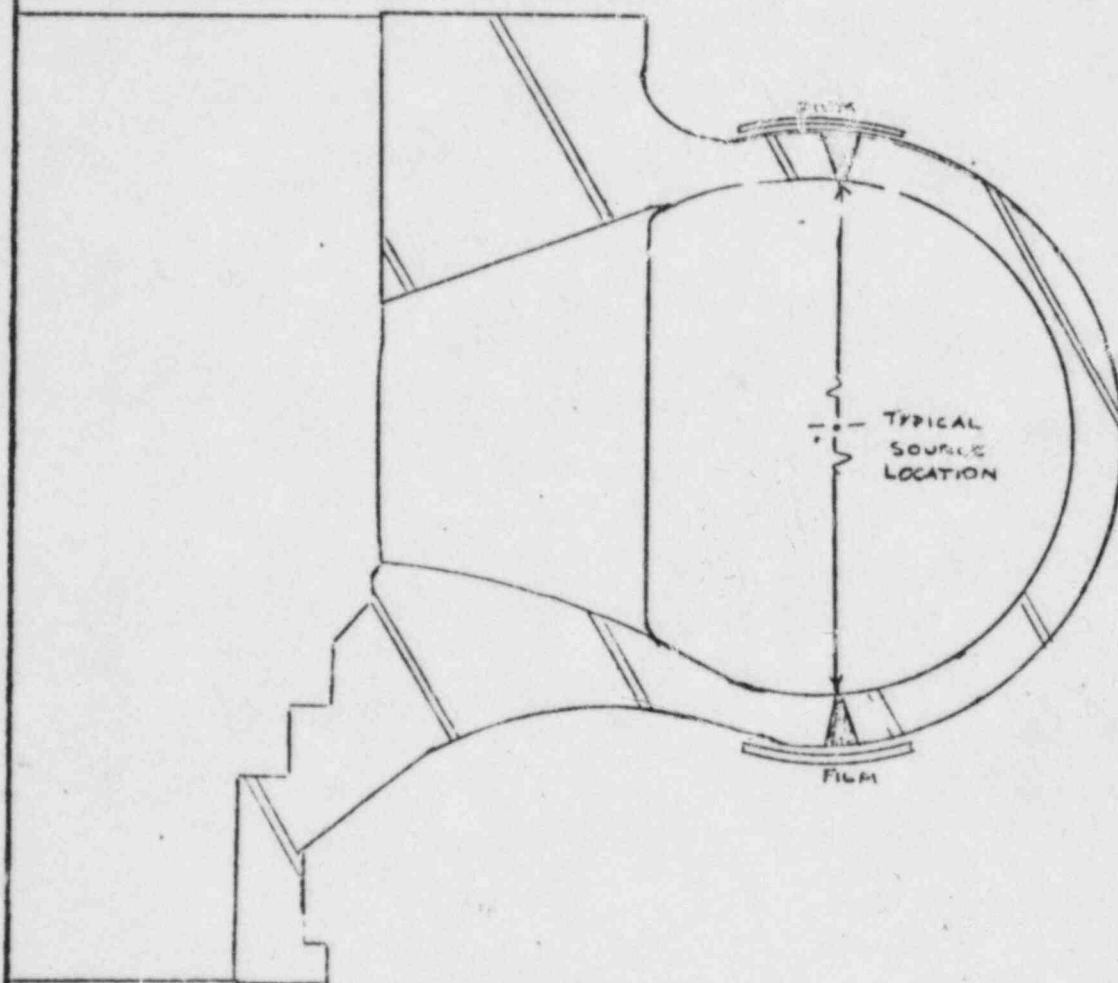
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PART NO. C7SE-FAB.

0428  
BYRON JACKSON SER. NO.  
681-N-0446

ESCO Corp. Radiographic Standard Shooting Sketch No. 69R195 View A

508088



X4275 3-1-76

2248-1

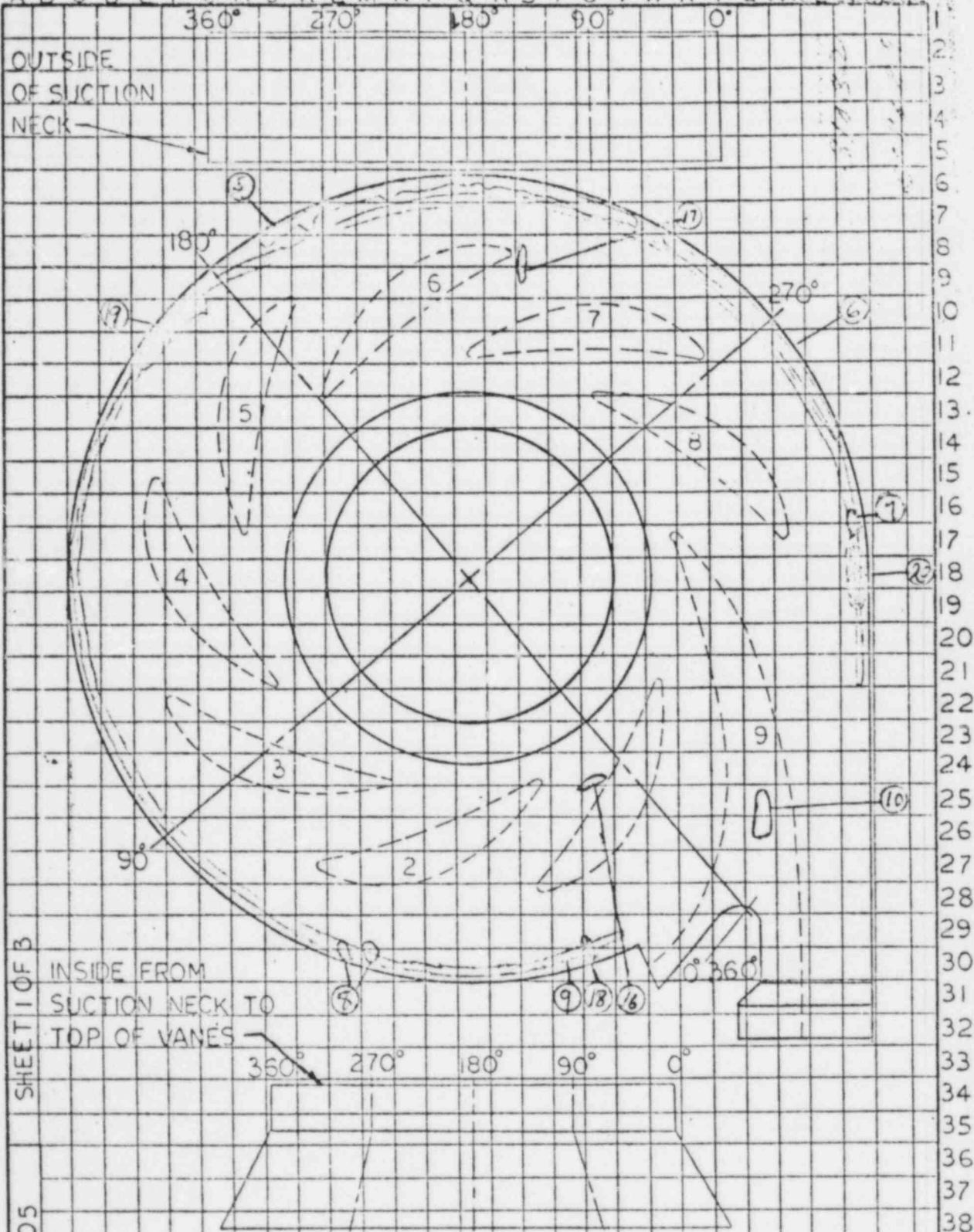


CUSTOMER COMBUSTION ENGR.  
P.O. NO. 980241  
PROJECT "BALTIMORE 1"

RC NO. 31032  
ITEM NO. 1-1  
DRG. NO. 508088  
PART NO. CASE-HUB

BYRON JACKSON SER. NO.  
681-N-0440

A B C D E F G H J K L M N P Q R S T U V W X Y Z A A B C C D D E E



PATTERN: X4276

HT. NO. 44734-1

CUSTOMER COMBUSTION ENGR.  
P.O. NO. 980241  
PROJECT "BALTIMORE 1"

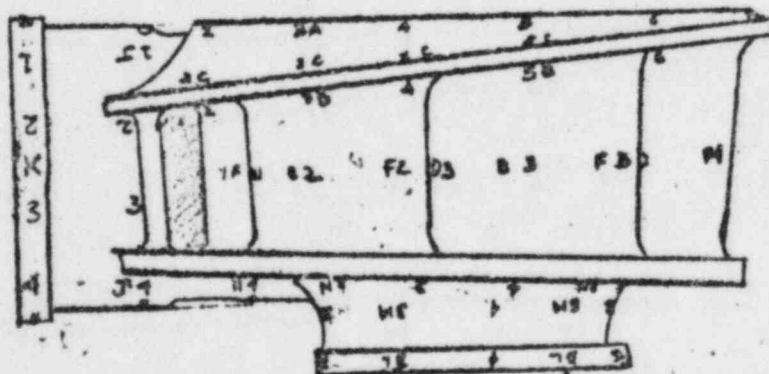
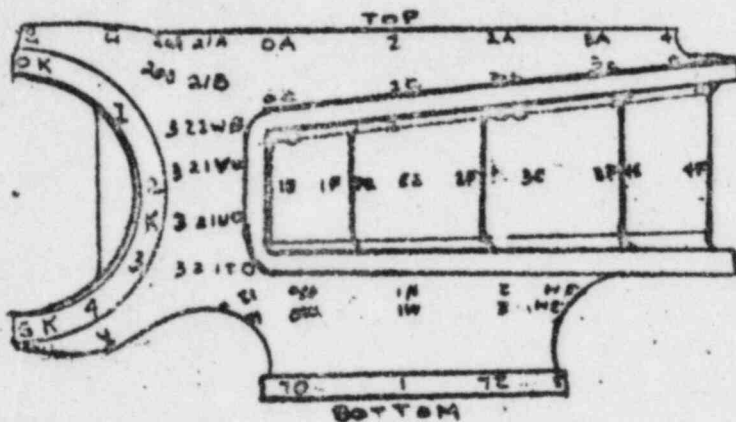
RC NO. 31032  
ITEM NO. 1-1  
DRG. NO. 508088  
PART NO. CASE-HUB

BYRON JACKSON SER. NO.  
681-N-0440

Esco Form R6965

Esco Corp. Radiographic Standard Shooting Sketch No. 68193 View E

508088



90°

X4276

CUSTOMER COMBUSTION ENGR.  
P.O. NO. 980241  
PROJECT "BALTIMORE 1"

RC NO. 31032  
ITEM NO. 1-1  
DRG. NO. 508088  
PART NO. CASE-HUB

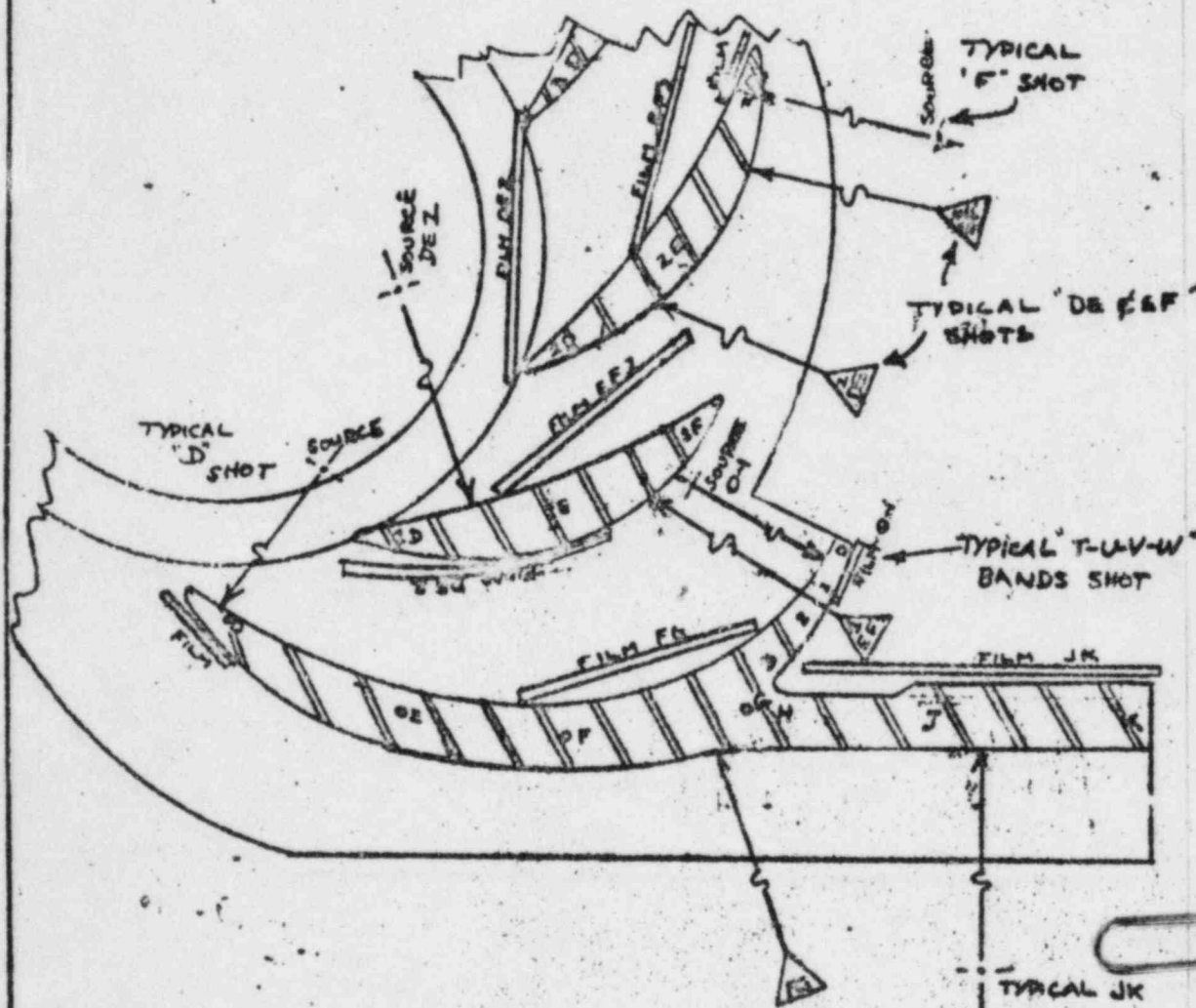
BYRON JACKSON SER. NO.  
681-N-0440

Reco Form R6965

Reco Corp. Redlograph Standard Shooting Sketch Form 60003 View B

508088

CROTCH AREA & TYPICAL LANE SHOTS



X4276



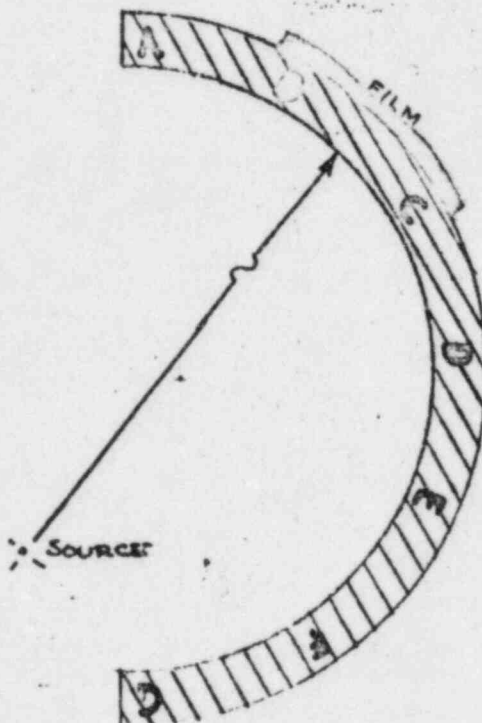
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P.O. NO. 980241  
PROJECT "BALTIMORE I"

RC NO. 31032  
ITEM NO. 1-1  
DRG. NO. 508088  
PART NO. CASE-SCROLL

BYRON JACKSON SER. NO.  
681-N- 3440

See Form 26965

Radioactive Standard Shooting Sketch No. 603193 View A



TYPICAL  
SETUP

RC NO.	
DRG. NO.	508088
PUMP SN.	

EXPANDED VIEW OF  
CASTING LAYOUT

44275

X-4275