

MODEL 181361 SHIPPING PACKAGE
USNRC CERTIFICATE OF COMPLIANCE NO. 5796
FOR
3320 SERIES
COBALT SOURCE EXCHANGE CONTAINER

PACKING/UNPACKING INSTRUCTION

IMPORTANT - READ CAREFULLY



ADVANCED MEDICAL SYSTEMS, INC.
ISOTOPE FACILITY
1020 LONDON RD.
CLEVELAND, OHIO 44110

INTRODUCTION

This procedure is intended to provide enough information to allow the handler of a radioactive source container to safely pack, unpack, load, or unload a 3320AR Source Transport Container.

WARNING

THE FOLLOWING PROCEDURES MUST BE CAREFULLY AND THOROUGHLY ADHERED TO AS TO AVOID EXPOSURE TO HARMFUL RADIATION AND/OR SERIOUS BODILY INJURY.

1.0 Unpacking a loaded source exchange container (Model 181361)

Upon receipt of the container at the destination the following general procedure applies:

- A. The package must be removed from the transport vehicle with material handling equipment of a capacity equal to or greater than the gross package weight of 4000 lbs.
- B. Perform a radiation survey of the container to insure that the external radiation level does not exceed 200 mR/hr at the surface and 10 mR/hr at a distance of 1 meter from the surface. [If the level does exceed these limits, the appropriate NRC Regional Office and the final delivery carrier must be notified.]
- C. Verify that the shipping seal is intact. The shipping seal may be removed only by a person qualified to install the equipment. Until such a person is present, the container should be stored in accordance with 10CFR20.
- D. Upon the authorized removal of the shipping seal, the overpack may be removed.
Remove the four 1 inch and twenty 1/2 inch bolts securing the overpack to the pallet base (save the hardware for reuse).
- E. Remove the hex nuts from the thru rods, and the thru rods from the package.
- F. With a device capable of lifting 1000 lbs., lift the overpack from the pallet base.

NOTE: The overpack fits very close to the inner package.
- G. Remove the wooden jacket from the source exchange container. Do not allow the jacket to become wet or allow it to become misaligned due to rough handling (save the hardware for reuse).
- H. Remove the four bolts securing the source exchange container to the pallet base.
- I. With a lifting device capable of lifting 3000 lbs., lift the source exchange container off the pallet base.

- J. Install the casters (shipped in a separate box) to the base of the source exchange container. Using the elevating wrench (shipped attached to the inside of the skid rail), adjust the casters so that the distance between the floor and the bottom of the skid rails is $11 \frac{3}{4} \pm \frac{1}{4}$ inches.
- K. Move the source exchange container, still sealed, into the therapy room.

WARNING

THE CONCENTRATED WEIGHT ON THESE CASTERS WILL CRUMBLE MOST FLOOR SURFACES. SHEETS OF MASONITE SHOULD BE PLACED ON THE FLOOR FOR SURFACE PROTECTION (PLYWOOD WILL NOT SUFFICE, AS THE CASTERS WILL SINK IN AND MAKE MOVEMENT VERY DIFFICULT.) MASONITE SHOULD ALSO BE PLACED OVER DOOR SILLS TO FACILITATE CONTAINER MOVEMENT. DO NOT ATTEMPT TO USE THE MOMENTUM OF THE CONTAINER TO JUMP OVER DOOR SILLS OR OTHER SURFACE IRREGULARITIES. THE CASTERS WILL BE DAMAGED AND THE CONTAINER MAY TOPPLE OVER.

All further unpacking shall be performed by a properly qualified service engineer.

2.0 Preparing a loaded source exchange container (Model 181361) for shipment.

The following procedure applies once the source has been loaded into the 3320 source exchange container by a qualified service engineer.

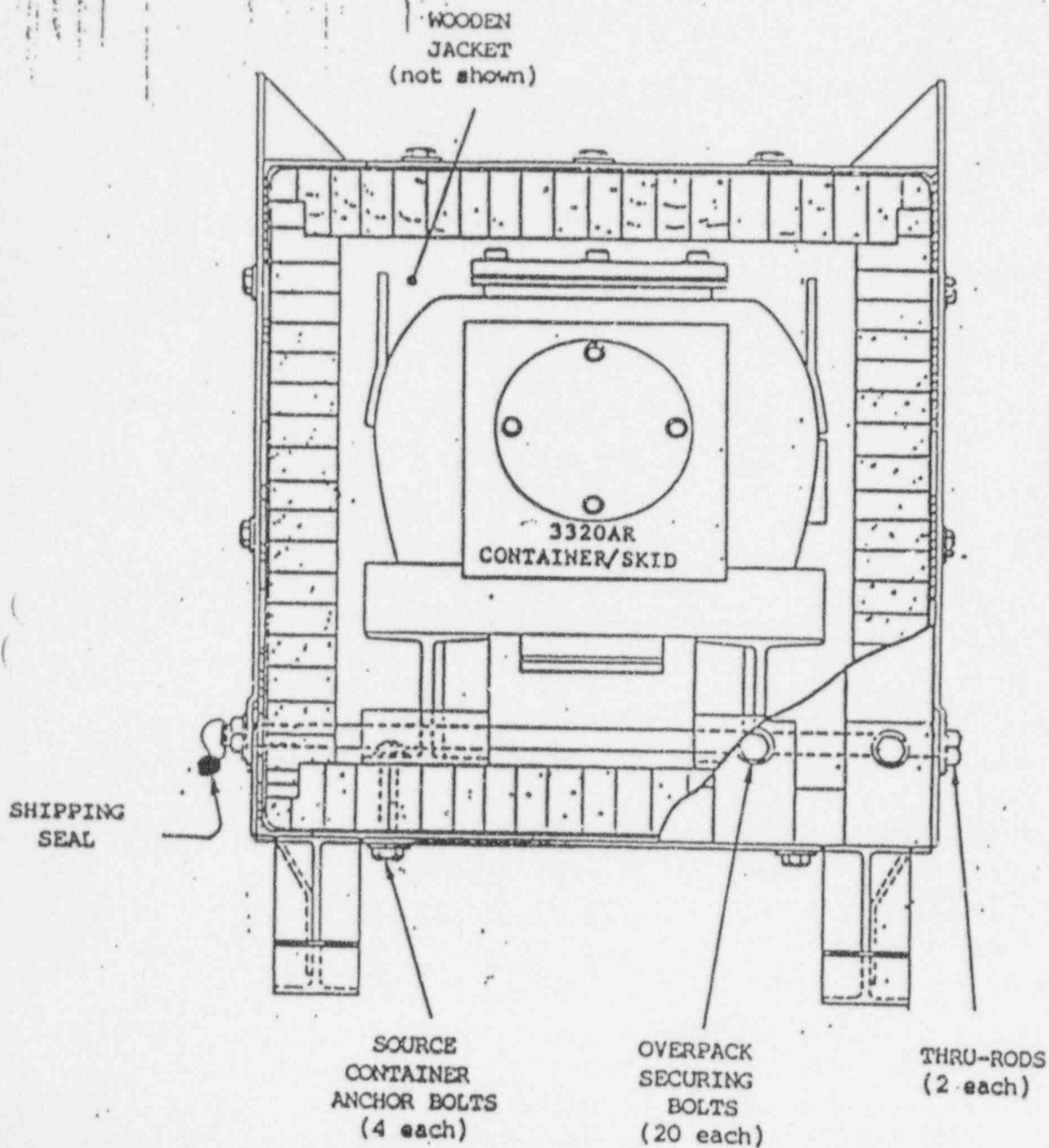
NOTE: QA Procedure 1014 must be completed prior to shipment.

- A. Inspect the source exchange container to insure that all components and covers are in place, bolted and seal wired.
- B. Make a wipe survey of the external surfaces of the container.
- C. Apply two Radioactive Yellow III labels to the container.
- D. With a lifting device capable of lifting 1000 lbs., lift the container, remove the casters, and place the container on the pallet base, using orientation marks as a guide.
- E. Carefully secure the wooden jacket around the container. Take care that the jacket is properly aligned with the container.
- F. Insert the thru rods as a check for proper alignment. Secure the container to the pallet base with the four 1 inch bolts.
- G. Remove the thru rods. Lower the overpack onto the pallet base, using the colored index markings for alignment. NOTE: There is only 1/4 inch clearance between the overpack and the jacket.
- H. Insert the thru rods, seating the square ends to prevent rotation. Secure the thru rods with the hex nuts.
- I. Attach the seal wire to the pallet base.
- J. Perform a radiation survey of the package at the surface (maximum reading 200 mR/hr), and at 1 meter from the surface (maximum reading 10 mR/hr). If the radiation levels exceed these limits, the package shall not be released for shipment. Notify the Radiation Safety Officer for further instructions.

- K. Apply the proper labels to the package. Verify that the package content description and caution markings are visible.
- L. Complete the shipping papers. Copies of QA 1014, shipping papers and other documentation should be returned to Advanced Medical Systems for record keeping purposes.
- M. All shipments of radioactive material destined for Advanced Medical Systems should be shipped to:

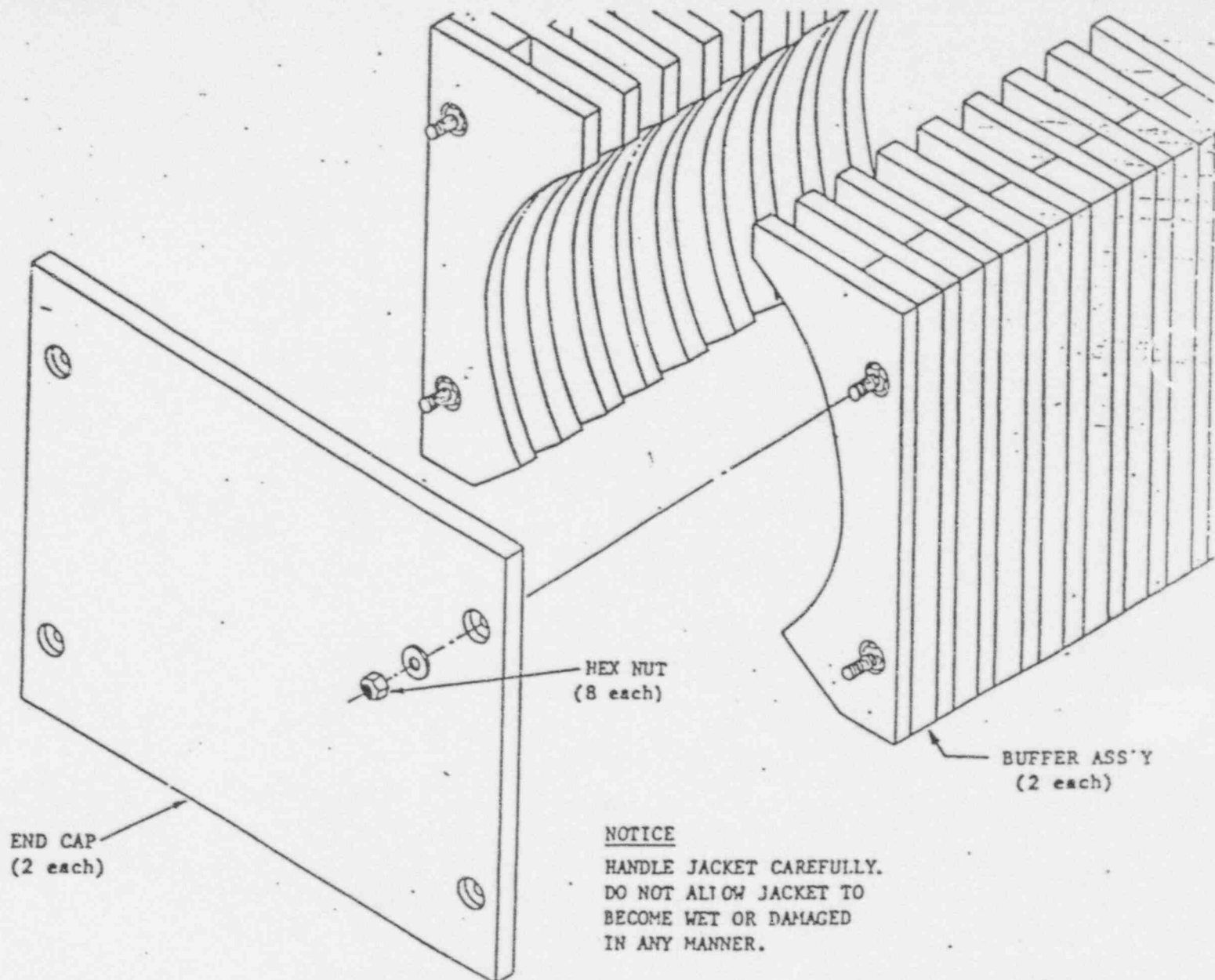
Advanced Medical Systems, Inc.
1020 London Road
Cleveland, Ohio 44110

3320AR SOURCE CONTAINER OVERPACK #181361

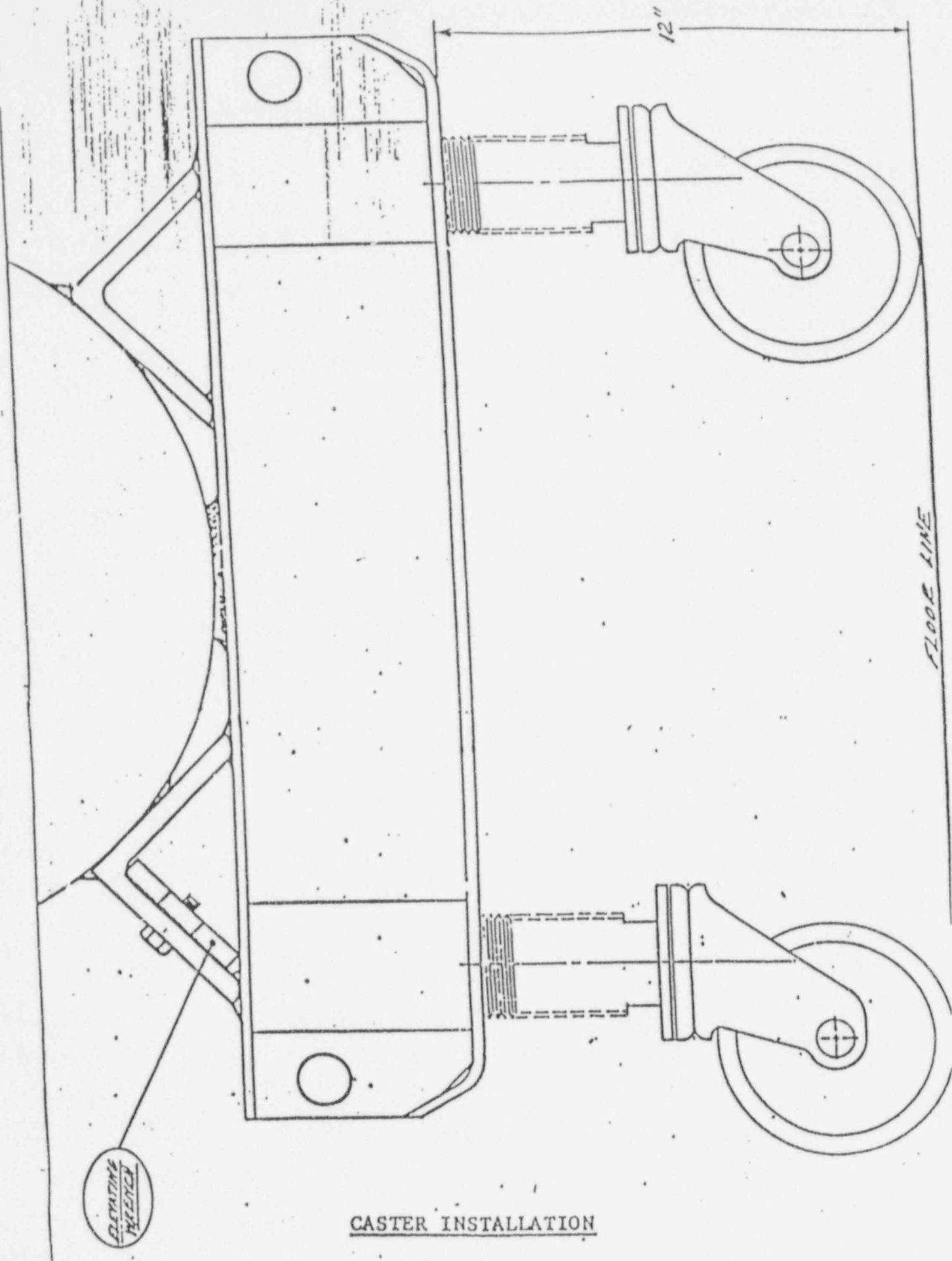


CAUTION

A RADIATION SURVEY MUST BE PERFORMED BEFORE REMOVAL OF A LOADED SOURCE CONTAINER FROM THE OVERPACK.



WOODEN JACKET FOR 3320AR
SOURCE CONTAINER OVERPACK



CASTER INSTALLATION

SOURCE S/N _____

ADVANCED MEDICAL SYSTEMS

TITLE:

Exchange Container Contamination
Control Record

Procedure No: QA 10148

Revision: _____

Date Issued: 3/20/87

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Prior to next use and/or shipment, the container must be wiped clean of contamination. Clean is considered to be less than 200 CPM above background, using the office well counter.

Take wipes on the following areas. Record the 1st wipe before cleaning, and all subsequently counted wipes for that particular area.

Container S/N _____ last contained source S/N _____

Background _____ CPM

STD Activity _____ uCi
STD Counts _____ CPM

1st Wipe

A. Skid Runners bottom		
B. Skid Runners top		
C. Exterior Surface		
D. Cover- bottom		
E. Cover- top		
F. Cover- side		
G. Push rod		
H. Trap		
I. Drawer		
J. Drawer cavity		
K. Vertical hole		
L. Top plug		
M. Lifting Ears		

Date: _____

By: _____

Advanced Medical Systems

Quality Assurance Department

Prepared by

Approval

Revisions

Howard R. Jones

RADIOACTIVE MATERIAL SHIPPING RECORD

Number QA 101-111

Revision 0

Date Issued: Nov. 5, 1984

Page 1 of 2

CUSTOMER: _____
LOCATION _____

CONTROL NUMBER

CERTIFICATE OF
COMPLIANCE NO. _____

CERTIFICATE OF
COMPLIANCE HOLDER: _____

CERTIFICATE IN OUR FILES _____

DATE OF SHIPMENT _____

AMS REGISTERED USER: _____

D/L NUMBER _____

SOURCE INFORMATION:

Isotope _____
Mfg./Cat. No. _____
Curies _____
Wipe Test Reading _____

Serial No. _____
Curies Date _____
Wipe Test Date _____

CONTAINER INSPECTION AND MAINTENANCE

CONTAINER INFORMATION

Model No. _____

Serial No. _____

CHECK IF OK

REPAIR NOTES

Internal Contamination	_____
External Contamination	_____
Preliminary Radiation Survey	_____
Mechanical Functions	_____
Shutter or Drawer Locked	_____
Shutter or Container Sealed	_____
Gaskets in Good Condition (if any)	_____
Lifting Loops in Good Condition (if any)	_____
Tie Down Devices in Good Condition and Secured	_____
Casters in Good Condition	_____
Container Identification Legible	_____
Radiation Warning Signs	_____

Advanced Medical Systems

Quality Assurance Department

Prepared by

Approval

Revisions

Norman Kelbley

Howard R. Stern

0 Delete Kelbley,
Reposition ID info.

RADIOACTIVE MATERIAL SHIPPING RECORD

Number QA 1014A

Revision 0

Date Issued: Nov. 5, 1984

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OVERPACK QA INSPECTION AND MAINTENANCE

OVERPACK INFORMATION

Model No. _____

Serial No. _____

CHECK IF OK

INSTALLATION KIT

INITIAL

Mechanical Functions _____
 All Wood Joints Tight _____
 No Holes or Voids _____
 Lifting Loops in Good Condition _____
 Tie Down Devices in Good Condition and Secure _____
 Skid in Good Condition and Tight _____
 All Bolts Tight _____
 Overpack Identification Legible _____
 Overpack Sealed _____
 Maximum Radiation Level at 1m. _____ mR/hr
 Maximum Radiation Level on Surface _____ mR/hr
 Transport Index _____
 Labels Attached _____
 Opening Instructions Attached _____
 General Condition _____

Complete per O/M Survey Meter

Model No. _____

Serial No. _____

Date Calibrated _____

List Any Items in Need of Repair

DATE INSPECTED: _____

INSPECTOR (Initials) _____

APPROVAL OF LICENSED PERSON _____

REPAIR NOTES: ***** Enter repairs made to bring container or overpack into proper condition. Include initials of individual(s) making repairs and date of repairs.

FIELD NOTE:

THIS SHEET MUST BE RETURNED IN THE PRESTAMPED, SELF ADDRESSED ENVELOPE ALONG WITH THE WAYBILL. IN THE EVENT THE WAYBILL AND THIS SHEET ARE SEPARATED, RETURN THESE SHEETS AS INDICATED BELOW:

Advanced Medical Systems, Inc.
 Radiation Safety Officer
 1020 London Road
 Cleveland, Ohio 44110

AUDIT
 DATE _____

Advanced Medical Systems

Quality Assurance Department

Prepared by

Approval

Revisions

Norman K. Tobey

Harold R. Lewis