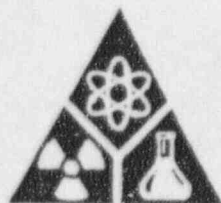


RADIOACTIVE WASTE PACKAGING INSTRUCTIONS



ADCO

Services, Inc.

1-800-282-2326

ADCO SERVICES, INC.

RADIOACTIVE WASTE PACKAGING INSTRUCTIONS

TABLE OF CONTENTS

Introduction	Page 2
Generator's Responsibility	Page 2
Uncompacted Solid Waste	Page 3
Compacted Solid Waste	Page 3
Unprocessable Solid Waste	Page 4
Deregulated Liquid Scintillation Vials	Page 4
Regulated Liquid Scintillation Vials	Page 5
Bulk Liquid Scintillation Fluid	Page 5
Aqueous Liquid	Page 6
Animal Carcasses	Page 6
Biological.....	Page 7
Sealed Sources.....	Page 8
Thorium and Uranium Compounds	Page 8
Incinerator Ash	Page 8
Decay in Storage	Page 8
Appendix A	Page 9
Appendix B	Page 10
Appendix C	Page 11
Appendix D	Page 12

INTRODUCTION

Adco Services, Inc. has developed these revised packaging instructions to assist our customers in preparing their waste for disposal. These instructions apply to Class A waste only and are not intended for Class B or C.

The primary focus of these instructions is to comply with the regulations of the disposal sites, NRC and DOT. It is imperative that each generator adhere to these instructions to avoid having waste materials refused and/or returned, thus incurring substantial additional charges. Improperly described or packaged waste materials can also result in denial of access to the burial facility. With these facts in mind the generator must take all reasonable measures to ensure conformance with these instructions and the site requirements.

Finally, due to the legislation that created the compacts it has become necessary to require certification from our customers that they can and will receive back any waste materials that cannot be disposed of for any reason. Adco's staff is able to provide assistance to you if there are any questions regarding packaging, labeling, transportation and disposal of your waste materials. Please contact us at 1-800-282-2326.

GENERATOR'S RESPONSIBILITY

The generator of the waste material is the most knowledgeable person regarding the contents of each package of waste. It is imperative that you keep specific records of these materials regarding each radioisotope, activity, and the physical contents of the container. Waste types should never be commingled but should be segregated according to the instructions that follow.

As the person responsible for waste shipments, it is important that you closely monitor your staff in preparing materials for disposal. If wastes are improperly described or packaged the generator faces return of the waste and/or additional charges. Adco will continue to provide updated information on any changes that may occur in packaging requirements.

SOLID WASTE

Uncompacted Solid Waste is Dry Active Waste, "DAW", containing less than .5% by volume of free standing liquid, that has not undergone any volume reduction and weighs less than 200 pounds per 55 gallon drum. The chemical form of this waste must be paper, plastic, or glass in nature, or be in a chemical form which can be easily processed through volume reduction methods.

DAW cannot contain any material which is biological, pathogenic or infecticus (e.g. syringes, capillary tubes). Similarly, DAW cannot contain any RCRA listed or characteristic material.

DAW can be packaged in a variety of containers, however, steel DOT approved drums are strongly preferred and are available from Adco. Steel bins and other DOT approved containers may be used with prior approval.

Packaging:

1. Open and inspect the empty container for holes or weak spots. If any are found, do not use. Adco will replace it on the next visit to your facility.
2. Place one 4 mil plastic liner inside empty drum. Drape top portion of bag over top edge of drum to prevent contaminating the outside. It is recommended that you place 2 inches of approved absorbent media in the bottom of the drum to absorb any residual liquids present (e.g. droplets left in test tubes). Approved absorbent media is available from Adco.
3. Maintain an exact record of the isotopes and activity for all material placed in the container.
4. When drum is full, close up the liner and tuck into drum.
5. Close lid, install locking ring, and call ADCO for removal.

Compacted Solid Waste is DAW containing .5% free standing liquid that has been compacted by some type of trash compactor, weighs 200 pounds or more per 55 gallon drum and has the same characteristics as Uncompacted Solid Waste.

Packaging:

1. Follow the instructions for Uncompacted Solid Waste but as you compact the waste, you must ensure that the integrity of the drum is maintained (e.g. no breaching, warping or bulging).

SOLID WASTE CONTINUED

Unprocessable Solid Waste is DAW, as described in the Compacted Solid Waste section of this guide, but made up of metals, machine parts, concrete, sand, clay, earths, incinerator ash, or other materials that can not be reduced in volume.

DAW that contains concentrations of isotopes that exceed 50% of the Class A limit as defined in 10CFR 61.55 are also considered unprocessable. See Appendix A for a table of these limits and the Terms and Conditions portion of Adco's price list for specific ^3H limits.

Always call for assistance and special pricing in advance when considering a shipment of this type of waste.

LIQUID SCINTILLATION FLUID

Liquid Scintillation Vials, or "LSV", are glass or plastic vials containing commercially available scintillation cocktails. Both organic (e.g. toluene, xylene) and biodegradable cocktails (e.g. Optifluor) are acceptable for incineration.

No Bactec, blood, or aqueous non-scintillation vials are to be placed in LSV containers. Vials containing stock solutions (e.g. NEN-Dupont, Amersham, Packard), calibration standards, or other vials or containers with non-scintillation type fluids shall not be packaged with scintillation vials.

Also, no solid or biological waste is to be packaged in these containers. This includes, but is not limited to, plastic bags, gloves, paper, needles, syringes, test tubes, flasks, animal tissues and carcasses.

Any such materials packaged with vials will result in rejection by the disposal facility and substantial return and handling charges to the generator.

Deregulated LSV contain only ^3H and/or ^{14}C , with a maximum concentration, individually or in combination, of .05 uCi/ml. It is the responsibility to verify that the concentration does not exceed these limits.

Packaging:

1. Open and inspect the empty container for holes or weak spots. If any are found, do not use. Adco will replace it on the next visit to your facility.
2. Place 4 mil plastic liner in drum.

LIQUID SCINTILLATION FLUID CONTINUED

Packaging Continued:

3. Place 4-6 inches of approved absorbent media in the bottom of a lined drum.
4. Place a second 4 mil plastic liner in drum over the layer of absorbent media and drape top portion of bag over the top edge of the drum.
5. Add scintillation vials to within 3 inches from the top. Do not add absorbent to inner liner with vials.
6. Close and seal liners.

Regulated LSV contain ^3H and ^{14}C and/or acceptable isotopes listed in Appendix B.

Packaging:

1. Regulated LSV is packaged the same way as Deregulated LSV.

BULK SCINTILLATION LIQUID

Bulk Scintillation Liquid is simply liquid scintillation fluid, either Deregulated or Regulated, not in vials. The requirements for bulk scintillation liquids are the same as for LSV's. Deregulated and Regulated fluid concentrations of ^3H and/or ^{14}C shall not exceed .05 uCi/ml. As with Regulated LSV, Regulated bulk scintillation liquid may contain only those isotopes listed in Appendix B and the fluid may be organic or biodegradable.

Do not pour bulk scintillation fluid directly into absorbent media. If you currently have drums packaged in this manner, call Adco for special instructions. In some cases, we may be able to dispose of the material. If the drums are shipped and later need to be returned to you because of improper packaging, you will be billed additional handling and transportation fees.

Packaging:

1. Open double-walled drum (outer drum) and then perform usual visual inspection.
2. Remove 2" bung from the top of the inner 15 gallon plastic carboy and set bung aside.
3. Check that approved absorbent media around inner container fills void space between walls of inner and outer containers.
4. Carefully fill carboy with liquid scintillation liquid.

BULK SCINTILLATION LIQUID CONTINUED

Packaging Continued:

5. Reinstall bung cap to inner container and tighten.
6. Close outer drum and call ADCO for pick up.

AQUEOUS LIQUID

Aqueous Liquid is contaminated solution that is mostly water (e.g. buffers) and is acceptable for disposal only in a solidified state. There can be no RCRA listed or characteristic material present in this type of waste. Generators may be required to provide additional certification that there is no such contaminant in the aqueous liquid.

Packaging:

1. Solidification of aqueous liquid can be a messy and laborious task. Please call Adco for guidance when considering the preparation of aqueous liquids for solidification and transport. If you prefer Adco can provide experienced waste technicians to solidify this waste at your facility.

ANIMAL CARCASSES

Animal Carcasses are any animal body or part and as such must be packaged in a special double walled container. This is generally a 32 gallon drum inside of a 45 gallon drum or a 30 gallon drum inside a 55 gallon outer drum.

Packaging:

1. Open and inspect drums. Place 2 inches of approved absorbent media inside inner drum.
2. Insert one 4 mil plastic liner and drape over top edge of the inner drum and add at least 4 inches of the absorbent and lime. Remember, it is important to have most of the absorbent below the carcass and the lime above it.
3. Add animal carcasses, layering with approved absorbent and lime. Use enough lime to prevent odor and bloating of the drum, but leave sufficient room for absorbent to prevent standing liquid as the carcass decomposes. Fill to within 3 inches from top.
4. Close bag and seal with tape or wire.

ANIMAL CARCASSES CONTINUED

Packaging Continued:

5. Close inner drum, install locking ring, and tighten.
6. Fill space between inner and outer drums with approved absorbent.
7. Close outer drum, install locking ring, and call ADCO for pick-up.

BIOLOGICAL WASTE

Biological Waste is waste containing biological, pathogenic, or infectious material (e.g. animal bedding containing excreta) or equipment used to handle such material. This material must be autoclaved prior to packaging to render it non-pathogenic. The double-walled packaging scheme is also utilized for biological waste.

Packaging:

1. Open and inspect drums. Use only disposal site approved absorbent media provided by Adco. Place 2 inches of absorbent media inside inner drum.
2. Insert 4 mil plastic liner and drape over top edge of inner drum. Add biological waste, layering with absorbent media and lime (if necessary to reduce odor). Fill to within 3 inches from top.
3. Close bag and seal with tape or wire.
4. Close inner drum, install locking ring, and tighten.
5. Fill space between inner and outer drums with approved absorbent media.
6. Close outer drum, install locking ring, and call ADCO for pick-up.

SEALED SOURCES

Sealed Sources are radioactive sources sealed in a container or having a bonded cover. The container or cover is intended to prevent contact with, or dispersion of, the radioactive material during normal conditions of use. If you wish to ship sealed sources with Adco, please call for specific pricing and packaging instructions in advance.

URANIUM AND THORIUM COMPOUNDS

Uranium and Thorium Compounds are materials such as Uranium Acetate Thorium Nitrate. As with sealed sources, if you wish to dispose of these materials, please call Adco in advance for pricing and packaging information.

INCINERATOR ASH

Incinerator Ash is residue from the incineration of solid waste, animal carcasses, and any other type of material that would lend itself to burning. It is acceptable at the burial site, but must be rendered non-dispersable prior to disposal. This can be done by solidification or overpacking in a larger drum following super-compaction (e.g. 30/55 overpack). Please call Adco for packaging guidance.

DECAY IN STORAGE

Decay in Storage, or "DIS" waste, is solid waste contaminated with isotopes having a half-life of less than 90 days (see Appendix C). Adco's radioactive material license permits us to store this material until it decays to background levels. At that point, following our required surveys, the material can be disposed of in accordance with our license at considerably reduced cost when compared to LLRW disposal fees.

Generators who wish to participate in this program should contact Adco for details of the program. A certification is required for each container of D.I.S. Waste shipped (see Appendix D).

61.55 WASTE CLASSIFICATION

TABLE 1

Radionuclide	Class A			Class C		
	Ci/m ³	Ci/30 gal	Ci/55 gal	Ci/m ³	Ci/30 gal	Ci/55 gal
C-14	0.8	0.0912	0.17072	8.0	0.9129	1.7072
C-14 Acc. Metal	8.0	0.9129	1.7072	80.0	9.129	17.072
Ni 59	22.0	2.510	4.6948	220.0	25.105	46.948
Nb 94	0.02	0.0022	0.00426	0.2	0.0228	0.04268
Tc 99	0.3	0.0342	0.06402	3.0	0.3423	0.6402
I-129	0.008	0.00091	0.001707	0.08	0.0091	0.01707
TRU>5 yr. T/2	-----10.00nCi/gm-----			-----100.00nCi/gm-----		

TABLE 2

Radionuclide	Class A			Class B			Class C		
	Ci/m ³	Ci/30 gal	Ci/55 gal	Ci/m ³	Ci/30 gal	Ci/55 gal	Ci/m ³	Ci/30 gal	Ci/55 gal
Total T _{1/2} 5 yrs	700	79.88	149.38	-	-	-	-	-	-
H-3	40	4.56	8.53	-	-	-	-	-	-
Co-60	700	79.88	149.38	-	-	-	-	-	-
Ni-63	3.5	0.399	0.7469	70	7.988	14.938	700	79.88	149.38
Ni-63 Act. Metal	35	3.994	7.469	700	79.88	149.38	7000	798.805	1493.8
Sr-90	0.04	0.0045	0.0085	150	17.117	32.01	7000	798.805	1493.8
Ce-137	1	0.114	0.2134	44	5.021	9.3896	4600	524.929	981.64

LIST OF ACCEPTABLE ISOTOPES FOR BULK LIQUID & RADIOACTIVE VIALS

CD 109	CADMIUM	AU 195	GOLD
CA 45	CALCIUM	C 14	CARBON
C 14	CARBON	CA 45	CALCIUM
CE 141	CERIUM	CD 109	CADMIUM
CL 36	CHLORINE	CE 141	CERIUM
CR 51	CHROMIUM	CL 36	CHLORINE
CO 57	COBALT	CO 57	COBALT
CU 64	COPPER	CR 51	CHROMIUM
GD 153	GADOLINIUM	CU 64	COPPER
GA 67	GALLIUM	FE 59	IRON
GE 68	GERMANIUM	GA 67	GALLIUM
AU 195	GOLD	GD 153	GADOLINIUM
IN 111	INDIUM	GE 68	GERMANIUM
I 125	IODINE	H 3	TRITIUM-HYDROGEN
I 131	IODINE	HG 203	MERCURY
FE 59	IRON	I 125	IODINE
HG 203	MERCURY	I 131	IODINE
P 32	PHOSPHORUS	IN 111	INDIUM
P 33	PHOSPHORUS	NA 22	SODIUM
Rb 86	RUBIDIUM	P 32	PHOSPHORUS
SE 46	SCANDIUM	P 33	PHOSPHORUS
SE 75	SELENIUM	RB 86	RUBIDIUM
NA 22	SODIUM	S 35	SULFUR
S 35	SULFUR	SE 46	SCANDIUM
TC 99	TECHNETIUM	SE 75	SELENIUM
SN 113	TIN	SN 113	TIN
SN 119	TIN	SN 119	TIN
H 3	TRITIUM-HYDROGEN	TC 99	TECHNETIUM
ZN 65	ZINC	ZN 65	ZINC

D.I.B. ISOTOPES (HALF-LIVES LESS THAN 90 DAYS)

Al - 28	Hf - 175	Pb - 203	Tc - 99m
As - 73	Hf - 181	Pb - 214	Th - 234
As - 74	Hg - 203	Pd - 109	Tl - 201
As - 76	I - 121	Pt - 195	Tl - 202
Au - 198	I - 123	Pu - 234	V - 48
Be - 7	I - 124	Pu - 235	W - 178
Bi - 210	I - 125	Rg - 222	Xe - 127
Bi - 214	I - 131	Rb - 81	Xe - 133
Br - 82	In - 111	Rb - 82	Y - 90
Ca - 47	In - 113	Rb - 86	Yb - 166
Cd - 115	In - 114	Ru - 103	Yb - 169
Ce - 135	Ir - 192	S - 35	Zn - 64
Ce - 140	K - 42	Sb - 124	Zr - 95
Ce - 141	Mg - 28	Sb - 128	
Ce - 143	Mn - 57	Sc - 46	
Co - 56	Mo - 99	Sc - 47	
Co - 58	Na - 24	Sn - 117	
Cr - 51	Nb - 95	Sn - 131	
Cu - 64	Ni - 65	Sr - 82	
Cu - 65	Nb - 96	Sr - 85	
Fe - 59	Os - 191	Sr - 89	
Ga - 67	P - 32	Sr - 92	
Ga - 68	P - 33	Ta - 184	
Gd - 159	Pa - 234	Tb - 160	

**SHORT HALF-LIFE ISOTOPE
CERTIFICATION BY GENERATOR**

Whereas, the undersigned ("Customer") has requested that Adco Services, Inc. ("Adco") provide pick-up, storage and/or disposal services for low-level radioactive waste ("LLRW") with a half-life of less than 90 days ("SHL-LLRW") generated by Customer; and

Whereas, the Customer is required to certify that such LLRW is in fact SHL-LLRW;

Now therefore, the undersigned hereby certifies and agrees as follows:

1. The LLRW identified as _____

_____ consists exclusively of SHL-LLRW and contains no LLRW with a half-life of 90 days or more.

2. Customer understands that such SHL-LLRW will be disposed of in accordance with Adco's licenses, either by incineration or by depositing same in a sanitary landfill, once the level of radiation diminishes to levels permitting such disposal and after monitoring for radioactivity.

3. The package containing said SHL-LLRW contains no loose "sharps"; all such "sharps", consisting of needles, syringes and like objects are properly packaged in an approved sharps container.

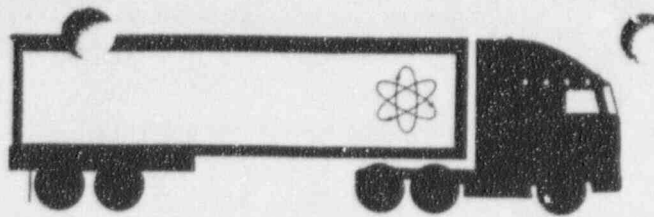
4. The package containing said SHL-LLRW contains no chemical, hazardous or mixed waste.

5. In the event any of the foregoing statements shall be inaccurate or in the event Customer otherwise breaches this Agreement, Adco shall have the right to return, and Customer shall accept, any and all packages, containers, items and other things which do not conform to this Agreement. This document shall be the sole authority necessary for Customer's personnel to accept such returned packages, etc., without any refund of any fees previously paid by Customer to Adco. Furthermore, Customer shall reimburse Adco for any and all costs and expenses incurred by reason of such inaccuracies or breaches, together with any unpaid storage and other fees customarily charged by Adco.

Signed at _____, _____ this
_____ day of _____, 199____.

Customer: _____

By: _____

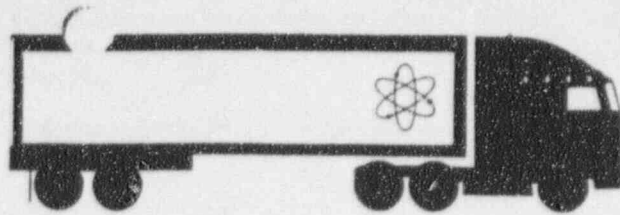


ADCOM EXPRESS, INC.

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DESCRIPTION OF HAZARDOUS WASTE
HAZARDOUS MATERIALS HAULER TRAINING PROGRAM
TABLE OF CONTENTS

1. Training Program
2. Personnel Receiving the Training
 - A. Levels I thru XI
3. Personnel Delivering the Training
 - A. Donald B. Horn, ADCOM Transportation Manager
 - B. Other ADCO Management Personnel
4. Frequency of Training
5. Examinations
 - A. Written Exams
 - B. Verbal Exams
 - C. On-the-Job Supervised Performance
6. Evaluations of Training Program
 - A. Continuous Review
7. Summary Description of Written Exams for the ADCOM Levels of Training
 - A. Levels I thru XI
 - Attachment: Instructions for ADCOM EXPRESS, INC. Employees - Course Outline for the Eleven Training Levels
 - Attached: Copies of Exams for the Different Levels of Training



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DESCRIPTION OF ADCOM EXPRESS, INC. HAZARDOUS WASTE HAZARDOUS MATERIAL HAULER TRAINING PROGRAM

1. Training Program Contents

The attached "Instructions for ADCOM EXPRESS Employees" gives the outline of topics I thru XI to be covered.

2. Personnel Receiving the Training

All ADCOM EXPRESS employees receive Levels I thru XI training within the first two weeks of their employment with ADCOM and review subject matter during regular monthly Driver Training and Safety Meetings.

3. Personnel Delivering the Training

Donald B. Horn, Transportation Manager of ADCOM EXPRESS, INC. has the primary responsibility to conduct the bulk of the training defined in Levels I thru VI and IX thru XI.

4. Frequency of Training

Donald B. Horn, Transportation Manager and other ADCOM supervisors review training on a monthly basis to make certain new ADCOM personnel are oriented as soon as possible and to evaluate the availability of other ADCOM personnel for training. Longer term ADCOM personnel who have attended many training classes and reviews must still participate in at least annual refresher sessions.

5. Examinations

ADCOM personnel are tested for their comprehension of the eleven levels of training by the following three methods:

A. Written Exams

Written exams are useful for documentation purposes and to show when an individual instructor may have problems communicating, or when an individual student is having unusual comprehension difficulties. However, if the same written exams are always given, this can be too predictable and would be potentially an ineffective testing measure, if relied upon exclusively. (Nevertheless, copies of "core" exams for the different Levels of training are attached for documentation purposes).

B. Verbal Exams

Verbal questions by the instructor when giving the training are less predictable and are a more flexible measure of the comprehension of the class members. The disadvantage is lack of documentation of details.

C. On the Job Supervised Performance

It is part of company policy to send a safety man, (Donald B. Horn, Transportation Manager) with any new Adcom personnel to evaluate safety and performance. This practice is performed on an annual basis for all Adcom personnel. Performance of workers under supervision is the most practical and useful test of workers comprehension and application of their training. Some workers may do very well on written exams without necessarily being conscientious in applying their skills or in using their theoretical knowledge under various field conditions. Other workers may "clutch" in written exams or express themselves less verbally than others; yet, have very good common sense and be extremely capable and conscientious in actual practice.

6. Evaluations of Training Program

The Adcom training programs are continually under review for updated compliance through various agencies or regulatory groups, (Department of Transportation, State and Federal EPA). Any suggestions for refinements by these various groups are generally implemented as soon as possible or to the extent that is practically feasible.

7. Summary Description of Written Exams for Levels of Training

Level I Certification of Written Examination for Drivers

- A. The sixty-six (66) questions attached (with separate answer sheet) gives a reasonable measure of personnel understanding about the basics of the Bureau of Motor Carrier Safety, and Transportation of Hazardous Material. Drivers receive both Federal Motor Carrier Safety Regulations, (FMCSR) and Drivers Pocket Guide to Hazardous Materials. (ORS-2)
- B. Oral orientation with booklets on Defensive Driving, and Emergency Maneuvers. What to do at the scene of an accident including: 20 minute video tape and 20 question quiz attached (with separate answer sheet).

Level II Vehicle Operation

- A. Written record of road test and instruction is documented by the Transportation Manager. Completion certification is then added to the drivers files.
- B. Instructions include a definition of driver's responsibilities and conducting pretrip vehicle inspections (with a step-by-step outline) including: Walkaround inspection sequence, Fifteen minute video tape

and Twenty-three question quiz attached (with separate answer sheet).
(Emergency Equipment check sheet is also attached.)

Level III Proper Handling of Hazardous Waste

Proper procedures to use. Identification, Labels, Placards, Attendance, Parking, Routes, Fires, Smoking, Fueling, Tires, and Railroad Crossings. Oral orientation in conjunction with training booklet on Hauling Hazardous Materials, Safety First and Last.

Level IV Notification Procedures

- A. Company and drivers responsibilities for notification are covered orally with Company Emergency Procedures to Hazardous Waste Incidents Check List (Attached).
- B. All Adcom personnel are familiarized with various emergency response numbers, for example: Chemtrec, Dept. of Trans. Hot line, and EPA Regional Emergency Response numbers. (Attached in Emergency Procedures.)
- C. All personnel are oriented in the completion of a Hazardous Materials Incident Field Report, (Attached) which is supplied in all vehicles hauling Hazardous Materials.

Level V Emergency Procedures

Training on the proper use of Emergency Response Guide Book has been covered orally and acknowledged by receipt from all Adcom Driver personnel. All other initial actions for the Driver to take are clearly defined in the Adcom/Adco Emergency Procedures.

Level VI Emergency Equipment Use

- A. Training for fire extinguishers has been provided by a training booklet entitled "Vehicle Fires: How to Prevent Them and How to Fight Them". Further training material was obtained from the FMCSR Sec. 397.11 parts A and B, and Sec. 397.13 parts A and B.
- B. Training on flares and reflective devices has been reviewed from Sec. 392.22 Emergency Signals; disabled vehicles, Sec. 392.24 Emergency Signals; flame producing, and Sec. 392.25 Emergency Signals; dangerous cargos. (See receipt of FMCSR attached.)
- C. Absorbents and Personal Protective Equipment is covered on Emergency equipment check list and acknowledged by Adcom personnel performing inspection of all devices. (Attached)

Levels VII Thru X Shipping Paper Requirements/Manifest Requirements

- A. Video on "Employee Introduction to RCRA"
- B. Discussion on requirements of the DOT governing the transportation of hazardous waste:

1. General Information
2. Shipping Papers (Manifests)
3. Marking (Hazard Waste Labels)
4. Labeling (Flammability)
5. Placarding
6. General Requirements for Shipments and Packaging

Level XI U.S. DOT Requirements - Safety

All Adcom personnel receive an eight page summary of "Hours of Service Regulations" and a fifteen minute video tape including: twenty (20) question quiz. (Attached)

ADCOM EXPRESS, INC.

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HAZARDOUS WASTE/HAZARDOUS MATERIALS HAULER TRAINING PROGRAM

I. PROGRAM INTRODUCTION

- A. Purpose of program
 - 1. Driver Certification
 - 2. Drive safely to avoid accidents
 - 3. Liabilities and criminal consequences
 - 4. Carrier responsibilities
- B. Review of unique state regulations

II. VEHICLE OPERATION

- A. How to verify the drivers ability to safely operate vehicle
 - 1. Check qualifications
 - 2. Perform road test
 - 3. Document results as required
- B. Driver responsibilities
 - 1. Conducting a pretrip inspection
 - a. Safety equipment - in good order
 - b. Emergency equipment - in place and ready for use.
 - 2. Inspecting cargo for potential problems

III. PROPER HANDLING OF HAZARDOUS WASTE

- A. Proper procedures to use
- B. Toxic properties of the materials and potential risks - protection for driver and the public.
- C. Proper loading of hazardous waste and hazardous materials.

IV. NOTIFICATION PROCEDURES

- A. When notification is required
 - 1. Company responsibility
 - 2. Driver responsibilities
- B. Who must be notified (names and phone numbers)
 - 1. Company contact
 - 2. State, federal and local contacts
- C. What must be included in the report
- D. Availability of notification information

V. EMERGENCY PROCEDURES

- A. Assessing the emergency (Emergency Response Guide Book)
- B. Emergencies likely to occur
- C. Initial actions for the drivers to take
 - 1. Fire control
 - 2. Spill control
- D. Clean up after an incident

VI. EMERGENCY EQUIPMENT USE

- A. Fire extinguishers
- B. Flares and reflective devices
- C. Absorbant materials
- D. Protective clothing and devices.

VII. SHIPPING PAPER REQUIREMENTS

- A. Purpose of documentation
- B. General required information
 - 1. Hazardous materials description
 - 2. Hazardous substances
 - 3. Limited quantities
 - 4. Shipper certification

VIII. MANIFEST REQUIREMENTS

- A. Purpose of manifest
- B. General manifest information
 - 1. EPA I.D. Nos. of generator, transporter & TSDF
 - 2. Vehicle certification or I.D. No.
 - 3. Names/addresses/phone numbers
 - 4. General emergency telephone number
 - 5. Hazardous waste description
 - 6. Signatures - generator, transporter, TSDF/Certification
 - 7. Disposition of manifest copies
- C. Handling a manifest that is refused by designated TSDF
 - 1. Call generator
 - 2. Change manifest
 - 3. Obtain new manifest or return
 - 4. Complete trip

IX. DRIVER DUTIES - HAZARDOUS WASTE/MATERIALS

- A. Sign manifest/shipping paper
- B. Check containers - labels and markings
- C. Compare containers with manifest
 - 1. Type and number of containers
 - 2. Proper shipping name
- D. Compare bulk lading with manifest
 - 1. I.D. numbers
 - 2. Placards provided
 - 3. Placards required

X. U. S. DOT REQUIREMENTS HM/HW

- A. Definitions
- B. Table
- C. Shipping papers - manifest
- D. Marking
- E. Labeling
- F. Placarding

XI. U. S. DOT REQUIREMENTS - SAFETY

- A. Driving rules - Parts 392 & 397
 - 1. Pretrip
 - 2. Railroad crossings
 - 3. Route restrictions
 - 4. Smoking
 - 5. Parking - attendance
 - 6. Tire checks
- B. Driver responsibility - Part 177
 - 1. Carrying of manifest/shipping paper
 - 2. Loading
- C. Driver logs - Part 395
 - 1. 100 mile radius - 12 hours
 - 2. Formats - new
 - 3. Hours of service

CERTIFICATE

This is to certify that

has satisfactorily participated in
and successfully completed the

Hazardous Waste/Hazardous
Materials Hauler Training
of

ADCOM Express Inc.
Transportation & Safety Program

and is awarded this

Certificate of Recognition

on this date of

Instructor

EMPLOYEE CERTIFICATION

for

HAZARDOUS MATERIALS' TRAINING and TESTING

HM-126 F

This is to certify that

WILLARD A. HORN

has on this date April 17, 19 95 completed

the training and has been tested on the following

COURSE OF STUDY

GENERAL AWARENESS/FUNCTION SPECIFIC/SAFETY TRAIN/DRIVER TRAINING

ADCOM EXPRESS, INC.

TRAINER

17650 Duvan Drive

ADDRESS

FILE COPY

Tinley Park, IL 60477

(X)	HAZMAT EMPLOYEE TRAINING REQUIRED	
X	General Awareness	X Safety Training
X	Function Specific	X Driver Training
Recurrent Training Date		

REGULATIONS

§172.704(d) Recordkeeping. A record of current training, inclusive of the preceding two years, in accordance with this subpart shall be created and retained by each hazmat employer for each hazmat employee for as long as that employee is employed by that employer as a hazmat employee and for 90 days thereafter. The record shall include: (1) The hazmat employee's name; (2) The most recent training completion date of the hazmat employee's training; (3) A description, copy, or the location of the training materials used to meet the requirements in paragraph (a) of this section; (4) The name and address of the person providing the training; and (5) Certification that the hazmat employee has been trained and tested as required by this subpart.

§172.704(e) Limitation. A hazmat employee who repairs, modifies, reconditions, or tests packagings as qualified for use in the transportation of hazardous materials, and who does not perform any other function subject to the requirements of this subchapter, is not subject to the safety training requirements of paragraph (a)(3) of this section.

INSTRUCTIONS

The training requirements in §172.704 and 177.816 cover four areas of training for hazmat employees. Based on the training required for the above named hazmat employee, provide the training and testing for compliance. Satisfy the recordkeeping requirements in 172.704(d) by completing the information on this form.

[illegible]

Provide information from previous Hazmat employment training. Attach appropriate current records from the previous employer.

ADCO RADIATION SAFETY TRAINING EXAMINATION

EMPLOYEE: _____ DATE: _____

TRUE/FALSE

1. T F The half life is the time needed for one half of the radioactive atoms to decay.
2. T F The Roentgen is a unit of exposure.
3. T F The Curie is a measure of activity.
4. T F All occupationally exposed individuals working with radiation must wear dosimetry.
5. T F Alpha particles are the most penetrating form of radiation.
6. T F A G.M. meter with a pancake probe can detect alpha, beta and gamma radiations.
7. T F All exposures to radiation have some biological effect.

Multiple Choice

8. An individual will be assigned a radiation badge or dosimeter if:
 - a) There is a potential for any exposure to radiation.
 - b) If the individual is working with alpha emitters.
 - c) If there is a chance that an individual could receive 10% of the allowable dose.
 - d) None of the above.
9. An effect of radiation exposure is:
 - a) Cancer
 - b) Leukemia
 - c) Burning of the skin
 - d) All of the above
10. Who regulates the uses of radiation?
 - a) Nuclear Regulatory Commission
 - b) Food and Drug Administration
 - c) Illinois Department of Nuclear Safety
 - d) Occupational Health and Safety Administration

11. What is the maximum allowable whole body exposure a radiation worker may receive in one year?

- a) 3 Rem
- b) 5 Rem
- c) 10 Rem
- d) 100 Rem

FILL IN THE BLANKS

12. Name three ways to minimize radiation exposure.

- a) _____
- b) _____
- c) _____

13. In order to stop gamma rays, you could shield the material with _____.

14. What does ALARA stand for?

15. When working with Am-Be or Pu-Be sources, what type of radiations are emitted?

16. What type of meters are needed to survey the above package in question number 15 for shipment?

17. Wax, lucite, wood and plastic are used most effectively for shielding what type of radiation?

18. Steel and lead are most effective in shielding what types of radiation? _____

19. Using the inverse square law, calculate the dose rate of a source at 36" using the following assumptions:

Given: Equation $(D_1) (Dist_1)^2 = (D_2) (Dist_2)^2$

EMPLOYEE SIGNATURE: _____

P.O. BOX 1129 • TINLEY PARK, IL 60477 • 708-429-1660

[illegible][illegible][illegible]

NOTE #1 - Waste Description Codes: Choose up to THREE. Select those which are predominant by volume. Use the most SPECIFIC Code(s) available.

- CODE (State)
- 1 Dry Soil
 - 2 Overcast Rainy
 - 3 Saturated Rainy
 - 4 Saturated Rainy
 - 5 Compacted Dry Active Waste
 - 6 Non-Compacted Dry Active Waste
- CODE (Trapped Liquids)
- 1 Saturated Liquids
 - 2 Surface Aquifers (solid)
 - 3 Surface Non-Aquifers Liquid
 - 4 Aquifers Liquids in Vials in Surface
 - 5 Sealed-in Oil
- CODE (Geological)
- 1 Biological (Non-Carcinogenic Waste)
 - 2 Animal Carcinogens in Lungs and Surface

- CODE (Scint Fluids)
- 12 Radioactive Organic Bulk Scint Fluid
 - 18 Radioactive Bio-Degradable Scint Fluid
 - 17 De-Regulated Bio-Degradable Scint Fluid
 - 19 De-Regulated Organic Scint Fluid
 - 30 Radioactive Organic Bulk Scint Fluid
 - 31 De-Regulated Organic Bulk Scint Fluid
 - 22 Radioactive Bio-Degradable Bulk Scint Fluid
 - 23 De-Regulated Bio-Degradable Bulk Scint Fluid
- CODE (Wash)
- 15 Gas
 - 06 Other**

- CODE (FMS) :
15. 944
00. Other

RECEIVED AT ADCO SERVICES, INC. ON: _____ BY: _____

NOTE #2 - Sorption, Solidification, Stabilization Media Codes: CODE 98 = NONE REQUIRED

Choose up to THREE. Select those which are predominant by volume. See disposal site license for limitations on each media.

CODE (descriptor)	CODE (descriptor)	CODE (descriptor)	CODE (descriptor)	CODE (descriptor)	CODE (descriptor)
1 Sewage Dis.	21 Public In.	11 Sew. Works	31 Refriger. & Air	41 Sewerage Electric	47 Lin. Isolating Equip.
2 Sewage Dis.	22 Sewage Dis.	26 Refriger.	42 Sewage Structural	42 Sewage Structural	48 Sewage Treatment Equip.
3 Sewage Dis.	23 Sewage Dis.	41 Refriger. & Air	43 Sewage Control Equip.	43 Sewage Control Equip.	49 Wastewater Mgmt. Equip.
4 Sewage Dis.	24 Sewage Dis.	42 Refriger. & Air	44 Sewage Control Equip.	44 Sewage Control Equip.	50 Wastewater Mgmt. Equip.
5 Sewage Dis.	25 Sewage Dis.	43 Refriger. & Air	45 Sewage Control Equip.	45 Sewage Control Equip.	51 Wastewater Mgmt. Equip.
6 Sewage Dis.	26 Sewage Dis.	44 Refriger. & Air	46 Sewage Control Equip.	46 Sewage Control Equip.	52 Wastewater Mgmt. Equip.
7 Sewage Dis.	27 Sewage Dis.	45 Refriger. & Air	47 Sewage Control Equip.	47 Sewage Control Equip.	53 Wastewater Mgmt. Equip.
8 Sewage Dis.	28 Sewage Dis.	46 Refriger. & Air	48 Sewage Control Equip.	48 Sewage Control Equip.	54 Wastewater Mgmt. Equip.
9 Sewage Dis.	29 Sewage Dis.	47 Refriger. & Air	49 Sewage Control Equip.	49 Sewage Control Equip.	55 Wastewater Mgmt. Equip.
10 Sewage Dis.	30 Sewage Dis.	48 Refriger. & Air	50 Sewage Control Equip.	50 Sewage Control Equip.	56 Wastewater Mgmt. Equip.
11 Sewage Dis.	31 Sewage Dis.	49 Refriger. & Air	51 Sewage Control Equip.	51 Sewage Control Equip.	57 Wastewater Mgmt. Equip.
12 Sewage Dis.	32 Sewage Dis.	50 Refriger. & Air	52 Sewage Control Equip.	52 Sewage Control Equip.	58 Wastewater Mgmt. Equip.
13 Sewage Dis.	33 Sewage Dis.	51 Refriger. & Air	53 Sewage Control Equip.	53 Sewage Control Equip.	59 Wastewater Mgmt. Equip.
14 Sewage Dis.	34 Sewage Dis.	52 Refriger. & Air	54 Sewage Control Equip.	54 Sewage Control Equip.	60 Wastewater Mgmt. Equip.
15 Sewage Dis.	35 Sewage Dis.	53 Refriger. & Air	55 Sewage Control Equip.	55 Sewage Control Equip.	61 Wastewater Mgmt. Equip.
16 Sewage Dis.	36 Sewage Dis.	54 Refriger. & Air	56 Sewage Control Equip.	56 Sewage Control Equip.	62 Wastewater Mgmt. Equip.
17 Sewage Dis.	37 Sewage Dis.	55 Refriger. & Air	57 Sewage Control Equip.	57 Sewage Control Equip.	63 Wastewater Mgmt. Equip.
18 Sewage Dis.	38 Sewage Dis.	56 Refriger. & Air	58 Sewage Control Equip.	58 Sewage Control Equip.	64 Wastewater Mgmt. Equip.
19 Sewage Dis.	39 Sewage Dis.	57 Refriger. & Air	59 Sewage Control Equip.	59 Sewage Control Equip.	65 Wastewater Mgmt. Equip.
20 Sewage Dis.	40 Sewage Dis.	58 Refriger. & Air	60 Sewage Control Equip.	60 Sewage Control Equip.	66 Wastewater Mgmt. Equip.

Customer represents and warrants that data set forth in the Radioactive Waste Shipment & Disposal Manifest is true and correct in all respects.

Generator Signature

I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packaged, marked and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

Authorized Signature _____

144

EMERGENCY PROCEDURES: HAZARDOUS WASTE INCIDENTS

In accordance with ADCO Services, Inc. policies, the following emergency procedures have been adopted to address potential transportation incidents.

In any instance where there is an immediate threat to life and health, only professional "first responders", trained in accordance with local, state, and federal directives will be summoned to manage the scene.

To minimize the effect of any spill, or incident that may potentially cause damage to life or the environment, all ADCO Services, Inc./ADCOM Express personnel will review the following list of procedures.

1. Review your cargo of ORM-E Hazardous Waste items, and confirm their package, composition, and volume with the EPA form 8700-22, Uniform Hazardous Waste Manifest.
2. Your personal "library" should contain:
 - a. 1993 issue of Emergency Response Guidebook D.O.T. page 5800.5 Guidebook for initial response to Hazardous Materials Incidents.
 - b. HM-215A, Driver's Pocket Guide to Hazardous Materials. Compliance with OHMT and OMCS regulations on Hazardous Materials and Waste.
 - c. Your Environmental Awareness notebook, obtained during the 40 hour plus program, containing a copy of your Certificate of Completion.
3. Read the D.O.T. guides, and place a paper clip on the appropriate pages that apply to your cargo. Anticipate your actions should an incident occur.
4. Record in your log:
 - a. Time of day, weather conditions, locations at start of trip, and destination for the day.

- b. Road conditions, and anticipated route of travel.
- c. Cargo description, with D.O.T. shipment numbers, waste.

In the event of any incident that results in an accident, spill, or accidental discharge of your cargo that could result in endangerment, or distribution of material, YOU MUST CONTACT ONE OF THE FOLLOWING IN ADDITION TO INTERSOL:

DAY:	ADCO Services, Inc.	(708) 429-1660
	ADCOM Express	(708) 429-3013
	Intersol	(800) 255-3924

NIGHT:	Intersol	(800) 255-3924
	James Bell, R.S.O.	[REDACTED]

	Don Horn	Pager	(800) 581-3385
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	Bill Petrich	Pager	(800) 581-3263
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1. Provide first aid where possible to injured persons. Do not move injured persons, unless:
 - a. A trained emergency medical technician requests removal, and instructs you as to the proper method.
 - b. The person's life is in immediate danger.
 - c. It is apparent that no further injury will result.

2. If there is a fire, and your cargo is threatened, alert fire department personnel, and/or instruct someone to call the fire department.

(Fire departments also have organized "Hazardous Material Response Teams" in many instances, if so, ask for their immediate assistance). Tell all emergency responders that your cargo contains "hazardous waste".

3. Supply "first responders" with copies of your manifests, and other pertinent data (Material Safety Data Sheets) that can inform them of the nature of your cargo.
4. Should the first responders designate your vehicle, and the immediate surrounding area, a "hot zone", evacuate yourself, and others from that area immediately.

5. DO NOT ATTEMPT TO ASSIST THE FIRST RESPONDERS UNLESS YOU ARE WEARING THE EXACT SAME LEVEL OF PERSONAL PROTECTION THAT THEY ARE.

6. If the incident is a minor spill of material, use your on-board spill kit, but ONLY AFTER YOU HAVE DONNED YOUR PERSONAL PROTECTIVE CLOTHING, INCLUDING YOUR RESPIRATOR, BOOTS, GLOVES, EYE AND FACE PROTECTION.
7. All spills must be reported. Use the methods outlined in Section 7, of your Environmental Awareness notebook. YOU MUST REPORT ANY AND ALL SPILLS:

NATIONAL RESPONSE CENTER:

1-800-424-8802

8. Should you need assistance, and if you are directed to do so, you may call any of the following numbers:

CHEMTREC (24 HOUR EMERGENCY NUMBER)

1-800-424-9300

DEPARTMENT OF TRANSPORTATION HOTLINE

1-800-424-8802

ASSOCIATION OF AMERICAN RAILROADS
BUREAU OF EXPLOSIVES

1-202-639-2222

EPA REGIONAL EMERGENCY RESPONSE NUMBERS:

<u>REGION</u>	<u>LOCATION</u>	<u>MAIN NO.</u>	<u>24 HOUR NO.</u>
I	Lexington, MA	(617) 860-4300	(617) 223-7265
II	Edison, NJ	(908) 321-6657	(908) 548-8730
III	Philadelphia, PA	(215) 597-9898	(215) 597-9898
IV	Atlanta, GA	(404) 347-3004	(404) 347-4062
	U.S. Coast Guard		(800) 424-8802
V	Chicago, IL	(312) 353-2102	(312) 353-2318
VI	Dallas, TX	(214) 665-2100	(214) 665-2222
VII	Kansas City, KS	(913) 551-7395	(913) 236-3778
VIII	Denver, CO	(303) 312-6312	(800) 227-8914
IX	San Francisco, CA	(415) 744-1305	(415) 744-2000
X	Seattle, WA	(206) 553-1263	(206) 553-1263

9. If material has been spilled, and you determine that your spill control kit can handle it, place absorbed material into the emergency container you are carrying for such purposes. DO NOT ALLOW BY-STANDERS OR OTHER PERSONS NOT WEARING PROTECTIVE CLOTHING AND EQUIPMENT TO ASSIST YOU OR BECOME INVOLVED WITH ANY OF THE TASKS.
10. Do not leave the area of the incident until you have been relieved by someone from the company. If you are injured, follow the direction of any attending medical personnel. DO NOT AGGRAVATE ANY INJURY TO YOURSELF BY ATTEMPTING TASKS BEYOND YOUR PHYSICAL SITUATION. GET HELP.

In each and every instance, recognize that the procedures you are to follow are outlined in either the Emergency Response Guidebook, D.O.T. or in you Special Instructions given at the time the cargo was loaded or prior to the pick up.

Circumstances of each incident are different, however each driver should be able to exercise judgement and seek the type of assistance needed to minimize impact of leaks and spills.

APPLICABLE REGULATIONS:

49 CFR Sections 171.8, 173.500 (b) (5)

40 CFR Part 262

40 Part 123, Subpart F

49 CFR Section 172.101 (3)

Title III, SARA, Sections 304, 311, 312, 313

DRIVERS HAZARDOUS/FLAMMABLE MATERIALS GUIDE

POTENTIAL HAZARDS

FIRE OR EXPLOSION

Flammable/combustible material may be ignited by heat, sparks or flames.

Vapors may travel to a source of ignition and flashback.

Container may explode in heat of fire.

Vapor explosion hazard indoors, outdoors or in sewers.

Run-off to sewer may create fire or explosion hazard.

HEALTH HAZARDS

May be poisonous if inhaled or absorbed through skin.

Vapors may cause dizziness or suffocation.

Contact may irritate or burn skin and eyes.

Fire may produce irritating or poisonous gases.

Run-off from fire control or dilution water may cause pollution.

FIRE

Small Fires: Dry chemical, CO₂, Halon, water spray or standard foam.

Large Fires: Water spray, fog or standard foam is recommended. Move container from fire area if you can do it without risk. Cool containers that are exposed to flames with water from the side until well after fire is out. Stay away from ends of tanks. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.

SPILL OR LEAK

Shut off ignition sources; no flares, smoking or flames in hazard area.

Stop leak if you can do it without risk.

Revised 11/95

Water spray may reduce vapor; but it may not prevent ignition in closed spaces.

Small spills: Take up with sand or other noncombustible absorbent material and place into containers for later disposal.

Large spills: Dike far ahead of liquid spill for later disposal.

FIRST AID

Move victim to fresh air and call emergency medical care; if not breathing, give artificial respiration; if breathing is difficult, give oxygen. In case of contact with material, immediately flush eyes with running water for at least 15 minutes. Wash skin with soap and water. Remove and isolate contaminated clothing and shoes at the site. Follow the "American Red Cross First Aid and Personal Safety Guide."

DRIVER RADIOACTIVE MATERIAL GUIDE

POTENTIAL HAZARDS

HEALTH HAZARDS

External radiation from unshielded radioactive material.

Internal radiation from inhalation, ingestion or skin absorption.

Radioactive material; degree of hazard will vary greatly, depending on type and quantity of radioactive material.

Runoff from fire control or dilution water may cause pollution.

EMERGENCY ACTION

Keep unnecessary people at least 150 feet upwind; greater distances may be necessary if advised by qualified Radiation Authority.

Isolate hazard area and deny entry.

Enter spill area only to save life; limit entry to shortest possible time.

Self-contained breathing apparatus (SCBA) and structural firefighter's protective clothing will provide limited protection for short-term exposure to these materials.

Detain uninjured persons and equipment exposed to radioactive material until arrival or instruction of qualified Radiation Authority.

Delay clean-up until arrival or instruction of qualified Radiation Authority.

CALL CHEMTREC AT 1-800-424-9300 FOR EMERGENCY ASSISTANCE. If water pollution occurs, notify the appropriate authorities.

FIRE

Some of these materials may burn but none of them ignites readily. Do not move damaged containers; move undamaged containers out of fire zone.

Small Fires: Dry chemical, CO₂, Halon, water spray or standard foam.

Large Fires: Water spray, fog or standard foam is recommended.

For massive fire in cargo area, use unmanned hose holder or monitor nozzles.

Fight fire from maximum distance. Stay away from ends of tanks.

SPILL OR LEAK

Do not touch damaged containers or spilled material.
Damage to outer container may not affect primary inner container.

Small liquid Spills: Take up with sand, earth or other noncombustible absorbent material.

Large Spills: Dike far ahead of liquids spill for later disposal.

FIRST AID

Call emergency medical care.

If not affecting injury, remove and isolate contaminated clothing and shoes; wrap victim in blanket before transporting.

If not injured, remove and isolate clothing and shoes; shower victim with soap and water.

Except for the injured, detain persons and equipment exposed to radioactive material until arrival or instruction of Radiation Authority.

Advise medical care personnel that injured persons may be contaminated with radioactive material.

MASTER LIST OF STATE RADIATION CONTROL ASSISTANCE
FOR RADIOACTIVE MATERIALS INCIDENTS

NOTE: IN CASE OF SPILL, CONTACT THE AGENCY OF THE STATE IN WHICH
THE SPILL OCCURS.

<u>STATE</u>	<u>SPILL REPORTING NUMBER</u>	
	<u>BUSINESS HOURS</u>	<u>24 HOURS</u>
ALABAMA	334-613-5391	334-242-4378
ALASKA	907-465-3019	907-465-4000
ARIZONA	602-255-4845	602-223-2212
ARKANSAS	501-661-2301	501-661-2136
CALIFORNIA	916-323-2756	800-852-7550
COLORADO	303-692-3030	303-756-4455
CONNECTICUT	203-424-3029	203-424-3333
DELAWARE	302-739-3787	302-834-4531
DIST. OF COLUMBIA	202-727-7218	202-727-6161
FLORIDA	407-297-2095	407-297-2095
GEORGIA	404-362-2675	800-241-4113
HAWAII	808-586-4700	808-734-2161
IDAHO	208-334-0436	208-334-4570
(IN STATE)		800-632-8000
ILLINOIS	217-786-6365	217-785-0600
INDIANA	317-383-6150	317-383-6144
IOWA	515-281-3478	515-281-3231
KANSAS	913-296-1561	913-296-3176
KENTUCKY	502-564-3700	502-564-7815
LOUISIANA	504-765-0140	504-765-0160
MAINE	207-287-5676	207-624-7000
MARYLAND	410-631-3300	410-631-3000
MASSACHUSETTS	617-727-6214	617-727-9710
MICHIGAN	517-335-8200	517-336-6100
MINNESOTA	612-215-0944	612-649-5451
(IN STATE)		800-422-0798
MISSISSIPPI	601-354-6657	601-352-9100
MISSOURI	314-751-6160	314-751-2748
MONTANA	406-444-3671	406-444-6911
NEBRASKA	402-471-2168	402-471-4545
NEVADA	702-687-5394	702-687-5300
NEW HAMSHIRE	603-271-4588	603-271-3636
NEW JERSEY	609-987-6402	609-292-7172
NEW MEXICO	505-827-4358	505-827-9329
NEW YORK	518-458-6451	518-457-2200
NEW YORK CITY	718-643-7967	212-340-4494
NORTH CAROLINA	919-571-4141	919-733-3861
NORTH DAKOTA	701-328-5188	701-328-2121
OHIO	614-644-2727	614-644-2727
OKLAHOMA	405-271-5338	800-522-0206

REVISED 11/95

OREGON	503-731-4014	503-731-4014
PENNSYLVANIA	717-787-2480	717-783-8150
RHODE ISLAND	401-277-2438	401-421-7333
SOUTH CAROLINA	803-896-4095	803-253-6488
SOUTH DAKOTA	605-773-3351	605-773-3231
TENNESSEE	615-532-0360	615-741-C901
TEXAS	512-834-6688	512-458-7460
UTAH	801-536-4250	801-536-4123
VERMONT	802-865-7730	802-244-8727
VIRGINIA	804-786-5932	804-674-2400
WASHINGTON	206-464-7274	206-NUCLEAR
WEST VIRGINIA	304-558-3526	304-558-5380
WISCONSIN	608-267-4792	800-943-0003
WYOMING	307-777-4900	307-777-4321

EMERGENCY PROCEDURES: RADIOLOGICAL INCIDENTS

EMERGENCY PROCEDURES TO BE FOLLOWED BY VEHICLE DRIVER IN THE EVENT OF AN ACCIDENT:

1. Provide first aid to any injured person(s). DO NOT MOVE injured person(s) unless:
 - a. It is apparent that no further injury will result.
 - b. The person's life is in immediate danger.
 - c. A trained emergency medical technician requests removal of the injured person(s).
2. In any situation where an event occurs that could lead to the dispersal or potential dispersal of radioactive material, immediately contact one of the following:

DAY:	7:00 A.M. to 4:30 P.M. (ADCO)	(708) 429-1660	
	8:00 A.M. TO 4:00 P.M.	(619) 727-6120	
	(PWN ENVIRONMENTAL)		
NIGHT:	James P. Bell, R.S.O.	[REDACTED]	EXG
	Pager:	(800) 581-3385	
	Jerry P. Wiza	[REDACTED]	EXG
	Pager:	(800) 581-3340	
	Don Horn, Transportation Mgr.	[REDACTED]	EXG
	Pager:	(800) 581-3263	
	Tim Tucker (PWN Environmental)	(619) 942-5516	
3. If there is a fire, keep everyone upwind and do not breathe any of the smoke and fumes from the fire. Notify the fire department and inform them that the truck is carrying radioactive materials.
4. In the event of any accident, survey the vehicle and containers for release of radioactive material. Contact James Bell, Radiation Safety Officer, or Jerry P. Wiza, Alternate Radiation Safety Officer, immediately.
5. If material has been released, survey the area immediately. DO NOT attempt to recover the material until the contaminated area has been roped off and the proper warning placards are in place. If there has been no apparent release of material, monitor the area as a precautionary measure.
6. Advise all unauthorized persons near the area of the nature of the hazard.

Revised 11/95

7. Have someone notify the state and local police immediately.
8. If possible, return the released material to the containers. If unsure as to correct method for handling the material, maintain control of the affected area and wait for instruction from Radiation Safety Officer.
9. DO NOT LEAVE the area until relieved by your company.
10. NOTE!! Control of the affected area is of the utmost importance to the health and welfare of the general public. Every effort must be made to keep the affected area under control until the hazard is removed.
11. If you are injured and must be removed, immediately see that your instruction sheet is given to police, firemen or other responsible personnel who are first to arrive on the scene.

"NOTE TO CIVIL AUTHORITIES:

DO NOT ATTEMPT TO HANDLE THIS MATERIAL. KEEP
AREA CLEAR OF ALL UNAUTHORIZED PERSONNEL.
NOTIFY ADCO SERVICES, INC. IMMEDIATELY.
IMMEDIATE STEPS WILL BE TAKEN BY TRAINED
PERSONNEL OF THIS COMPANY TO RESTORE THE AREA.

****SPECIAL NOTE****

These procedures shall be available with the shipping papers in each vehicle.

All vehicles shall carry emergency equipment to limit the spread of contamination resulting from any accident which produces a spill. (This will include warning signs, and/or flares, rope to barricade the area, survey equipment, fire extinguishers, respirators, shoe covers, gloves, etc.