

May 2, 2011

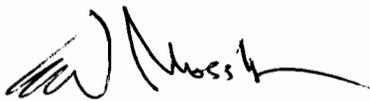
To: Janice E. Nguyen
Health Physicist
Division of Nuclear Materials Safety

From: Associated Specialists Inc.
License # 47-31344-02

The following is in response to your inspection of license #47-31344-02;

1. Radioactive waste and storage decay have been appropriately labeled radioactive.
2. Doses received from the pharmacy are within the current prescribed dose range of 40 mCi Cardiolite Stress dose and 13 mCi Cardiolite Resting dose.
3. Casey Mossallati, driver of the van used to transport equipment and doses to other site, has been hazmat trained.
4. Decay calculations have been used when dosing patients. Dose calibrator accuracy, linearity, and geometry and been performed and pass testing as of April 28, 2011. Procedure for calibrating dose calibrator has been developed. Decay method is being used when not at base site.
5. Emergency Procedure for transporting radioactive packages has been developed.
6. Procedure surveying and monitoring radioactive materials received and base office has been developed.
7. General information sheet has been updated to reflect current phone numbers of Authorized User, RSO, Nuclear Pharmacy, Dr. Mossallati, and Nuclear Technologist.
8. Procedure for area surveys and wipes has been developed.
9. Area badge has been ordered and will be placed in the hallway outside of hot lab to measure long term radiation exposure.

Thank you for your attention,



Saad Mossallati, MD

09/12/11
Rec'd in DNMS

ASI PACKAGE RECEIPT PROTOCOL

1. The Nuclear Medicine Technologist will place all orders for radioactive material and will ensure that the Radioactive Materials License authorizes the requested materials and quantities. Possession limits are not to be exceeded.
2. A written record that identifies the radionuclide, chemical form and activity level will be maintained.
3. Radioactive unit doses are ordered from Pharmalogic Nuclear Pharmacy (304-842-0935).

RECEIVING RADIOACTIVE MATERIALS

1. All packages are to be delivered to the home office only. It may be arranged for the delivery person to leave the package in a locked, secured area (hot lab) if delivery time is before normal working hours.
2. The technologist will verify delivery upon arrival for damage, quantity, etc.

MONITORING RADIOACTIVE MATERIALS

1. At no time should radioactive materials be stored, or left outside the hot lab without being monitored by authorized personnel. All radioactive materials will be stored in the hot lab, and the hot lab door must remain locked any time it is left unattended.
2. Radioactive Materials should never be left unattended while in transport. If the driver of the vehicle needs to stop for any reason, the vehicle must be secured upon exiting to prevent loss or theft.

OPENING PACKAGES CONTAINING RADIOACTIVE MATERIALS

1. Impermeable disposable gloves and ring and body badges must be worn.
2. The survey meter battery check and check source is checked and verified correct. If battery check fails replace battery. If check source falls +/- 10 percent notify the RSO (Mark Perna [REDACTED]).
3. Background measurement is taken and recorded.
4. Visually inspect the packages for any sign of damage (wetness, crushed). If damage is noted, stop procedure and notify RSO.
5. Measure and record in NMIS the exposure rate at one meter (1m) and at the package surface. If it is higher than expected, stop and notify RSO. The dose rate from packages with White I labels should be background at 1m and less than 0.5 mR/hr at the package surface. The transport index noted on the packages with Yellow II or Yellow III labels is the approximate dose rate at 1m from the package surface.

527 Medical Park Drive, Suite 204, Bridgeport, WV, 26330 – Tel:304-933-3800 Fax:304-933-3815

ASI PACKAGE RECEIPT PROTOCOL

PACKAGE LABELS AND EXPOSURE LIMITS (49 CFR 173.441)

PACKAGE LABEL	Exposure Rate-Surface	Exposure Rate-1 Meter
Limited Quantity	less or equal to 0.5 mR/hr	Background
White I	less or equal to 0.5 mR/hr	Background
Yellow II	< 50 mR/hr	< 1 mR/hr
Yellow III	< 200 mR/hr	< 10 mR/hr

6. Wipe test all incoming packages with alcohol pad or q-tip over and area of 100 cm² touching all 6 sides outside of the package. Measure and record readings in NMIS. Open package and wipe the inside of package on all sides including lead pigs that contain doses. Measure and record readings in NMIS.

7. Remove packing slips and verify the contents match.

8. Check the integrity of the source containers. Look for broken seals or vials, loss of liquid, condensation or discoloration of the packing materials.

9. If anything is other than expected stop and notify RSO and Nuclear Pharmacy.

RSO Mark Perna [REDACTED] Pharmalogic 304-842-0935

PREPARING PACKAGES FOR SHIPMENT

1. Secure the package in rear of van with straps to prevent movement during transport.
2. Leave all placards affixed as they arrived.
3. Fill out "Shipping paper for Dangerous Goods" form located in Hot Lab.
4. Keep shipping paper with driver at all times during transport.
5. File shipping paper upon return to the home office.

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Hazmat Training

Please read the following, take the short quiz, sign and date the form.

Radioactive materials are classified as hazardous materials by DOT. Employees who are involved in the preparation for shipment or actual transportation of materials are identified as HAZMAT employees.

The training requirements in DOT regulations under 49 CFR 172 subpart H is very specific and must include the following:

1. General awareness/familiarization training: HAZMAT employees must be familiar with the regulations that require training and be able to recognize and identify hazardous materials (radioactive materials). Regulations for the transportation of radioactive materials can be found in 49 CFR 172 Subpart H. It is assumed that a trained technologist can recognize radioactive materials without any additional training.
2. Function Specific training: HAZMAT employees must be provided with function specific training pertaining to their duties and responsibilities.
3. Safety training: HAZMAT employees must receive safety training concerning emergency responses and measures taken to protect the employees from the hazards associated with the hazardous materials to which they may be exposed in the work place.

When a package is prepared for shipment (i.e. back to the radiopharmacy), there are a number of items to which the employee must be aware.

1. Packages containing radioactive materials are designated as either Normal Form or Limited Quantity shipments. The difference is in the amount of activity that is being shipped and the package exposure rate. Limited Quantity shipments are those whose activity is less than the Limited Quantity activity for the radionuclide and when the surface exposure rate is not greater than 0.5 mR/hr. The Limited Quantity activity is a function of the radionuclide and its physical form (solid, liquid, gas). If these limits are exceeded, the package is a Normal Form shipment.
2. Normal Form packages require a security seal. The security seal can be a nylon tie, paper tape or other device that would show when the integrity of the package has been breached. It would not be advisable to use a padlock, for example, since the lock could be opened and re-closed without any telltale evidence. LQ packages do not require a security seal.
3. Normal Form shipments require the use of a Type A package. The containers must be certified as having passed tests that check a number of things: a free drop test, a water spray test, a compression test and a penetration test. Documentation of the certification must be available. Type A containers are not necessary for LQ

shipments. The package need only be strong, tight and in good condition. An ammo box is an example of a Type A package.

4. Package labeling requirements:

	3 feet	Surface
White I	Bkg	0.5 mR/hr
Yellow II	1 mR/hr	50 mR/hr
Yellow III	10 mR/hr	200 mR/hr

5. Limited Quantity Activity for various isotopes:

Tc-99m:	liquid	11 mCi
I-123:	solid	81 mCi
Tl-201:	liquid	11 mCi

New employees must be trained with 90 days of employment. Existing employees with new assignments must be trained within 90 days of performing the new assignment. Recurrent training must be conducted at least once every 3 years thereafter. Relevant training from other sites may be used to comply with this requirement.

The HAZMAT employer is responsible for compliance with the requirements of the regulation. Record keeping must be maintained on the training of each HAZMAT employee for the duration of their employment to include 90 days thereafter. The record must include:

1. the HAZMAT employee's name
2. The most recent training completion date
3. Description, copy and location of training materials used to meet the requirements
4. Name and address of the person providing the training
5. Certification that the HAZMAT employees have been trained and tested is required by the regulation.

HAZMAT Employee's Name Casey Mossalati

Most recent training completion date: 4/26/2011

See Attached copy of training materials (above)

Name and address of person providing training: Mark Perna, 


Certification HAZMAT Employee has been trained and tested as required by 49 CFR 172.704(d)(5)

It is certified that the above named employee has been trained and tested as required by 49 CFR 172.704(d)(5)

HAZMAT Employee quiz

Employee Carey Marshall Date 4/20/2011

1. To ship a package containing no more than limited quantities the surface survey must not be greater than:
 - a) 50 mR/hr
 - b) 0.5 mR/hr
 - c) .05 mR/hr
 - d) 10 mR/hr

2. Packages containing radioactive materials are designated as either Normal Form or Limited Quantity shipments. The difference between the shipping designations is/are:
 - a) the amount of radioactivity contained in the package.
 - b) The removable contamination results
 - c) The exposure rate at the surface of the package
 - d) Both a and b
 - e) Both a and c

3. Limited quantity packages require a Type A container
 - a) true
 - b) false

4. The Normal Form package requires a security seal
 - a) true
 - b) false

5. Type A containers are required for Limited Quantity packages
 - a) true
 - b) false

6. An ammo box is an example of a Type A container
 - a) true
 - b) false

7. An strong cardboard box could be acceptable as a Limited Quantity container
 - a) true
 - b) false

for 2nd Quarter

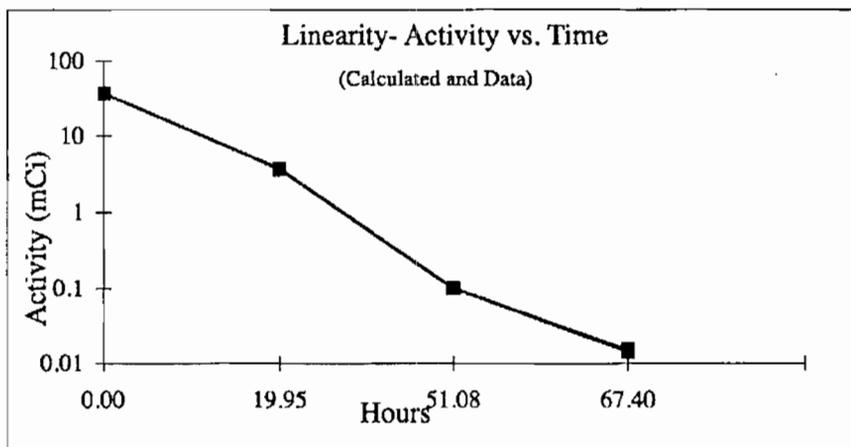
Dose Calibrator Linearity

2011

Facility: ASINC.
 Dose Cal: CRC 25W #260234
 Date: 28-Apr-11
 Person performing test: Amber Wright.

Date	Hour	Assay (mCi)	Calculated	% deviation	CF
4/25/11 11:45	0.00	36.3	36.3000	0.00%	
4/26/11 7:42	19.95	3.65	3.6241	0.72%	
4/27/11 14:50	51.08	0.099	0.0994	0.43%	
4/28/11 7:09	67.40	0.01	0.0151	7.30%	

The data submitted for the linearity determination of the dose calibrator was analyzed and found to be linear. The Radiation Safety Officer should sign where indicated and this report should be retained for regulatory review.



Data Analysis Performed by:
PERNA HEALTH PHYSICS, INC.
MARK PERNA
Digitally signed by MARK PERNA
 DN: cn=MARK PERNA, o=Perna Health Physics, Inc., ou=US
PERNA
 Mark T. Perna, M.S., DABR,
 Radiation Safety Officer

Perna Health Physics, Inc.

DOSE CALIBRATOR ACCURACY

Hospital: Associated Specialists, Inc.
Model: Capintec CRC 25W
Serial Number: 260234
Date Conducted: 22-Apr-11

Radionuclide	Measured Activity (mCi)	Average Activity (mCi)	Calculated Activity (mCi)	Percent Error
Co-57	0.735	0.735	0.748	1.73%
	0.735			
	0.735			
Cs-137	0.199	0.199	0.193	2.85%
	0.199			
	0.199			

Trigger level = 10%

SOURCE INFORMATION

Calibration Calibration

MARK PERNA
Radiation Safety Officer

Digitally signed by MARK PERNA
DN: cn=MARK PERNA, o=Perna Health Physics, Inc., ou, [REDACTED] US
Date: 2011.04.22 11:41:29 -04'00'

Perna Health Physics, Inc.

Geometric Variation

Facility: Associated Specialists Inc.
Dose Cal: CRC-25W #260234
Date: 22-Apr-11
Person Performing Test: A. Wright/M. Perna

A. Syringe Method Start time: 11:30 AM End time: 11:31 AM
Typical volume used for injections: 3.0 cc

Total Volume (cc)	Activity	% Error
0.5 cc	5.29 mCi	0.38%
1.0 cc	5.27 mCi	0.00%
1.5 cc	5.27 mCi	0.00%
2.0 cc	5.26 mCi	0.19%

Deviation is less than 5%, therefore no correction factor is required.
Please direct any questions to the undersigned.

Data analysis by:
PERNA HEALTH PHYSICS, INC.

MARK

PERNA

Mark T. Perna, M.S., DABR
Certified Medical Physicist

Digitally signed by MARK PERNA
DN: cn=MARK PERNA, o=Perna
Health Physics, Inc., ou,
[REDACTED], c=US
Date: 2011.04.22 11:30:00 -0400

Radiation Safety Officer

Perna Health Physics, Inc.

Instrument QC

Facility: Associated Specialists, Inc.
Date tested: 22-Apr-11

Well Counter Efficiency, Resolution and Chi-Squared

Instrument:	CRC-25W	
	Cs-137	Co-57
background	612	612
cpm:	42650	5020
dpm=	147789.31	4809.72
Efficiency =	28.44%	91.65%
Resolution:	N/A	

Chi-Squared Test	
data	data
4264	4258
4297	4253
4176	4258
4247	4108
4231	4227
chi-squared=	6.10

4.1 < Chi < 13.4

Evaluation: ok

Survey Meters

Meter	Calibration Date	Due	Battery	Ck Src Rding
Ludlum 14C	10/14/10	10/14/11	ok	ok

Procedure for Calibrating Dose Calibrator

1. Test for the following at the indicated frequency. **IF ANY TEST FALLS OUTSIDE THE SUGGESTED TOLERANCES CONTACT THE RSO (Mark Perna [REDACTED])**

Consider repair, replacement, or arithmetic correction if the dose calibrator falls outside the suggested tolerances. (These recommended tolerances are more restrictive than those in the regulations to ensure that corrective action will be taken before the dose calibrator is outside permissible tolerances.)

- a. Constancy at least once each day prior to assay of patient dosages (+10 percent).
- b. Linearity at installation and at least quarterly thereafter (+10 percent).
- c. Geometry dependence at installation (+10 percent).
- d. Accuracy at installation and at least annually thereafter (+10 percent).

2. After repair of the dose calibrator, repeat the above tests as appropriate.

3. Constancy means reproducibility in measuring a constant source over a long period of time. Assay at least one relatively long-lived source such as Cs-137, Co-60, Co-57 using a reproducible geometry each day before using the calibrator.

Consider the use of two or more sources with different photon energies and activities. Use the following procedure:

- a. Assay each reference source using the appropriate dose calibrator setting (i.e., use the Cs-137 setting to assay Cs-137).
 - b. Measure background at the same setting, and subtract or confirm the proper operation of the automatic background subtract circuit if it is used.
 - c. For each source used log in a book the background level for each setting checked and the net activity of each constancy source.
 - d. Using one of the sources, repeat the above procedure for all commonly used radioisotope settings. Log the results.
 - e. Establish an action level or tolerance for each recorded measurement at which the individual performing the test will automatically notify the chief technician or authorized user of suspected malfunction of the calibrator.
- These action levels will be written in the log book.

The regulation requires repair or replacement if the error exceeds 10 percent.

4. Inspect the instrument on a quarterly basis to ascertain that the measurement chamber liner is in place and that the instrument is zeroed according to the manufacturer's instructions.

5. Linearity means that the calibrator is able to indicate the correct activity over the range of use of that calibrator. This test is done using a vial or syringe of Tc-99m whose activity is at least as large as the maximum activity normally assayed in a prepared radiopharmaceutical kit, in a unit dosage syringe, or in a radiopharmaceutical therapy, whichever is largest.

Decay Method

- a. Assay the Tc-99m syringe or vial in the dose calibrator, and subtract background to obtain the net activity in millicuries. Record the date, time to the nearest minute, and net activity on the Dose Calibrator Linearity Test Form (see Exhibit 8). This first assay should be done in the morning at a regular time, for example, 8 a.m.
- b. Repeat the assay on subsequent days until the assayed activity is less than 30 microcuries. For dose calibrators on which you select a range with a switch, select the range you would normally use for the measurement.
- c. Convert the time and date information you recorded to hours elapsed since the first assay.
- d. Calculate its deviation from expected value for each reading.
- f. If the worst deviation is more than +10%, the dose calibrator should be repaired or adjusted. If this cannot be done, it will be necessary to make a correction table or graph that will allow you to convert from activity indicated by the dose calibrator to "true activity."

Shield Method

If you decide to use a set of "sleeves" of various thicknesses to test for linearity, it will first be necessary to calibrate them.

- a. Begin the linearity test as described in the decay method described above. Should we elect to use the sleeve method, we will only perform this step the first time we use the sleeves.
- b. We will follow the sleeve manufacturer's instructions for completing the linearity. Our 3 tolerances will be 10% deviation from expected values.

6. Geometry independence means that the indicated activity does not change with volume or configuration. This test should be done using a syringe that is normally used for injections. Licensees who use generators and radiopharmaceutical kits should also do the test using a vial similar in size, shape, and construction to the radiopharmaceutical kit vials normally used. The following test assumes injections are done with 3-cc plastic syringes and that

radiopharmaceutical kits are made in 30-cc glass vials. If you do not use these, change the procedure so that your syringes and vials are tested throughout the range of volumes commonly used.

- a. In a small beaker or vial, mix 2 cc of a solution of Tc-99m with an activity concentration between 1 and 10 mCi/ml. Set out a second small beaker or vial with nonradioactive saline. You may also use tap water.
- b. Draw 0.5 cc of the Tc-99m solution into the syringe and assay it. Record the volume and millicuries indicated on the Dose Calibrator Geometry and Accuracy Form (see Exhibit 9).
- c. Remove the syringe from the calibrator, draw an additional 0.5 cc of nonradioactive saline or tap water, and assay again. Record the volume and millicuries indicated.
- d. Repeat the process until you have assayed a 2.0-cc volume.
- e. Select as a standard the volume closest to that normally used for injections. For all the other volumes, divide the standard millicuries by the millicuries indicated for each volume. The quotient is a volume correction factor. Alternatively, you may graph the data and draw horizontal 10 percent error lines above and below the chosen "standard volume."
- f. If any correction factors are greater than 1.10 or less than 0.90, or if any data points lie outside the 10 percent error lines, it will be necessary to make a correction table or graph that will allow you to convert from "indicated activity" to "true activity." If this is necessary, be sure to label the table or graph "syringe geometry dependence," and note the date of the test and the model number and serial number of the calibrator.
- g. To test the geometry dependence for a 30-cc glass vial, draw 1.0 cc of the Tc-99m solution into a syringe and then inject it into the vial. Assay the vial. Record the volume and millicuries indicated.
- h. Remove the vial from the calibrator and, using a clean syringe, inject 2.0 cc of nonradioactive saline or tap water, and assay again. Record the volume and millicuries indicated.
- i. Repeat the process until you have assayed a 19.0-cc volume. The entire process must be completed within 10 minutes.
- j. Select as a standard the volume closest to that normally used for mixing radiopharmaceutical kits. For all the other volumes, divide the standard millicuries by the millicuries indicated for each volume. The quotient is a volume correction factor. Alternatively, you may graph the data and draw

horizontal 5 percent error lines above and below the chosen "standard volume."

k. If any correction factors are greater than 1.10 or less than 0.90 or if any data points lie outside the 10 percent error lines, it will be necessary to make a correction table or graph that will allow you to convert from "indicated activity" to "true activity." If this is necessary, be sure to label the table or graph "vial geometry dependence," and note the date of the test and the model number and serial number of the calibrator.

7. Accuracy means that, for a given calibrated reference source, the indicated millicurie value is equal to the millicurie value determined by the National Bureau of Standards (NBS) or by the supplier who has compared that source to a source that was calibrated by the NBS. Certified sources are available from the NBS and from many radioisotope suppliers. At least two sources with different principal photon energies (such as Co-57, Co-60, or Cs-137) should be used. The regulations require that one must have a principal photon energy between 100 keV and 500 keV. The regulations also require that, if a Ra-226 source is used, it must be at least 10 microcuries; other sources must be at least 50 microcuries. Consider using at least one reference source whose activity is within the range of activities normally assayed.

a. Assay a calibrated reference source at the appropriate setting (i.e., use the Co-57 setting to assay Co-57), and then remove the source and measure background. Subtract background from the indicated activity to obtain the net activity. Record this measurement on the Dose Calibrator Geometry and Accuracy Form (see Exhibit 9). Repeat for a total of three determinations.

b. Average the three determinations. The average value should be within 5 percent of the 4 certified activity of the reference source, mathematically corrected for decay.

c. Repeat the procedure for other calibrated reference sources.

d. If the average value does not agree, within 5 percent, with the certified value of the reference source, the dose calibrator may need to be repaired or adjusted. The regulation requires repair or replacement if the error exceeds 10 percent.

e. At the same time the accuracy test is done, assay the source that will be used for the daily constancy test (it need not be a certified reference source) on all commonly used radioisotope settings. Record the settings and indicated millicurie values with the accuracy data.

8. The RSO will review and sign the records of all geometry, linearity, and accuracy tests.

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GENERAL INFORMATION

Associated Specialists, INC.
Physician's Office Building
527 Medical Park Dr.
Suite 204
Bridgeport, WV. 26330
Phone: 304-933-3800 , Fax: 304-933-3815

Site Telephone: 304-933-3800

Site Fax: 304-933-3815 or 14

Materials License Number: 47-31344-02

Radiopharmacy Service: Pharma – Logic, Clarksburg, WV
304-842-0935

Radiation Safety Officer: Mark Perna
[REDACTED]

Authorized User: Yousef Abdunabi
[REDACTED]

Emergency Contact: Mark Perna, RSO
[REDACTED]
Yousef Abdunabi, M.D., AU
[REDACTED]
Saad Mossallati, M.D. , F.I.C.S
[REDACTED]
Amber Wright, CNMT
[REDACTED]

ASI PROCEDURE FOR AREA SURVEY

1. Area surveys are to be performed and the end of each day to evaluate contamination. Trigger limits for Unrestricted areas (injection room, stress lab, camera room, patient restrooms, and waiting room) are 0.1 mR/hr. Contamination found in unrestricted areas and on personal clothing will be immediately decontaminated to background levels. If it cannot be decontaminated, the area should be shielded or posted and restricted from use. If area survey exceeds trigger limit, notify RSO (Mark Perna [REDACTED]) immediately.
2. Trigger limits for Restricted area (hot lab) is to not exceed 5.0 mR/hr. If limit is exceeded notify RSO immediately.
3. When survey each room at the end of the day make sure to include all areas where possible contamination could be detected. All surfaces, counters, tables, floors, walls, and equipment (including van if radioactive materials were transported) that were used through the course of the day should be surveyed.

ASI PROCEDURE FOR AREA WIPES

1. Area wipe tests are performed at the end of the day in area used to detect removable contamination. Trigger limits for Unrestricted areas (injection room, stress lab, camera room, patient restrooms, and waiting room) are 200 dpm/100cm² and for Restricted areas (hot lab) 20000 dpm/100cm². Contamination found in unrestricted areas and on personal clothing will be immediately decontaminated to background levels. If it cannot be decontaminated, the area should be shielded or posted and restricted from use. If area survey exceeds trigger limit, notify RSO (Mark Perna [REDACTED]) immediately.

2. The amount of removable radioactive material per 100 cm² of surface area should be determined by wiping that area with filter or soft absorbent paper, applying moderate pressure, and assessing the amount of radioactive material on the wipe with the well counter. All surfaces, counters, tables, floors, walls, and equipment (including van if radioactive materials were transported) that were used through the course of the day should be surveyed.

Emergency Contact Number:

Mark Perna, Radiation Safety Officer (RSO)



*In the result of an emergency, please contact the RSO, available 24 hours.

RADIOACTIVE SPILL AND DECONTAMINATION PROCEDURE

General Considerations:

1. Prevent spread of contamination: The RSO should be called for assistance as soon as possible whenever a spill occurs. The first consideration shall include tracking by persons, movement by air currents (hoods, fans, etc), water, mopping and other physical actions. To confine, decontaminate spill from outside toward center.
2. Monitoring: Make full use of instruments and available assistance. Each step of decontamination should be monitored. One person should be kept clean to operate instruments and do other monitoring. When instruments become contaminated, any further progress is hopeless. Protective clothing, footwear, gloves, and masks should be worn.
3. Records: Complete records should be made of each action. Copies should be sent to the RSO. In most cases, the RSO will be involved in the clean-up, thus a joint report can be filed.
4. Waste Disposal: Provisions must be made for the disposal of cleaning solutions and contaminated articles. In some instances, it made be judged better to dispose of a contaminated article rather than to attempt to decontaminate.

YA

Associated Specialists, Inc.

Subject: Transporting Isotopes to Sites/Emergency Procedures

Policy: All Radioactive shipments must be delivered in accordance to NRC regulations

Purpose: To ensure the safety of all employees and members of the public

Procedure:

- A. All radioactive shipments will use:
 - a. Approved packages; the container containing radioisotopes shall be of an approved 7A Type A DOT container conforming to conditions and limitations specified in 49 CFR 173.421 for radioactive material, accepted package-limited quantity of material, UN 2910 and will be securely placed in the rear of the van. A calibrated, operational survey will be maintained with the driver of the van.
 - b. Approved labeling of each package conforming to standards in 49 CFR 170-189, surveys will be conducted to assure proper labeling.
 - c. Complete and accurate shipping papers will be prepared and kept with the driver in the event of an accident.
 - d. Packages will be secured in the back of the van
 - e. The radioactive material will always be secured or under direct surveillance. The driver's compartment will be locked when the driver is not present.
 - f. Management will audit the program annually including a review of shipping papers and survey reports
 - g. Radioactive waste will be secured in the back of the van and transported from the client site back to the base site for disposal.
 - h. Written Emergency procedures will be maintained with the driver in the event of an accident.

A handwritten signature or set of initials, possibly 'JA', located at the bottom center of the page.

B. Emergency Procedures

- a. 24 hour emergency contact numbers:
 - i. Mark Perna, RSO [REDACTED]
 - ii. Amber Wright, technologist [REDACTED]
- b. NRC emergency contact number: (800) 432-1156
- c. In the event of an accident,
 - i. the driver if not injured, will visually inspect the transport container for leakage. If no leakage is evident, it will be assumed that no contamination is present. If leakage is evident, he will mark off the van with Caution-Radioactive Materials tape to keep people from approaching the vehicle until the RSO or the chief nuclear medicine technologist arrives to perform a contamination survey. Given the extremely small quantities of radioisotopes that will be in the van at any one time, a true radiologically hazardous situation cannot really occur. Radioactive spill procedures will be followed to contain and clean up any contamination
 - ii. The RSO and Chief Nuclear Medicine Technologists will be contacted immediately. The RSO is approximately 90 minutes away.
 - iii. If no injuries occur and the vehicle is intact and drivable and the radioactive shipment is secure, the driver will proceed to the client site
 - iv. If injuries occur or the vehicle is not drivable and the radioactive shipment is secure, our radiopharmacy (Pharmalogic (304) 842-0935) will be contacted to retrieve the shipment and return with it to the radiopharmacy. They have agreed to perform this service.
 - v. A decontamination kit shall be kept in the van when transporting isotopes in case of an emergency. The kit shall include: rubber gloves, radioactive cleaning wash, absorption pads, plastic bags and Caution: Radioactive Materials tape to mark off potentially contaminated areas.

WA

ASSOCIATED SPECIALISTS, INC.
PHYSICIAN'S OFFICE BUILDING

527 Medical Park Drive

Suite 204

Bridgeport, WV 26330

(304) 933-3800, Fax (304) 933-3815

DOSE RANGE FOR NUCLEAR STRESS TESTING:

RESTING TC – 99M CARDIOLITE: 8-13 mCi

STRESS TC – 99M CARDIOLITE: 25-40 mCi

RESTING TL – 201: 1-2 mCi

STRESS TL – 201: 3-5 mCi

All of the above doses are to be administered I.V.



Yousef Abdulnadi, M.D.

5/31/11
Date