

**GASTON COUNTY, NC**

**RECEPTION CENTER  
GUIDANCE  
for  
STUART CRAMER HIGH SCHOOL**

**In support of North Carolina Emergency Response Plans  
for Catawba and McGuire Nuclear Stations**

**Use with Radiological Monitoring and  
Exposure Control Guidance.**

**This guidance can be altered and modified when needed for  
specific conditions and situation**

**On line edition of guidance is current  
for the nuclear plan**

**Prepared by:**

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## **PURPOSE**

This Guidance gives recommendations for setting up and establishing a Reception Center and or a Congregate Care facility at Stuart Cramer High School.

A Reception Center is for monitoring and removing any radioactive contamination from evacuees and vehicles should either Catawba or McGuire Nuclear Site experience an incident.

## **DEFINITIONS**

**Reception Center** - Reception Centers are locations where persons from the evacuation area are monitored to determine if they are contaminated with Nuclear Radiation or other chemicals. Contaminated individuals are decontaminated prior to permitting them to enter into the congregate care area or proceed to other locations. Evacuee's vehicles are addressed in the Radiation Monitoring, Decontamination and Exposure Control Guidance.

**Congregate Care Facility** - Congregate care facilities are established to provide shelter and care for persons dislocated from their homes because of emergency conditions.

## **RECEPTION CENTER and CONGREGATE CARE RESPONSIBILITY**

The primary responsibility to establish a reception and congregate care center rests with the Emergency Management Department. The task is accomplished through Red Cross, the Department of Health & Social Services, Gastonia Fire Department Hazardous Materials Team, the assigned assisting Fire Departments, Gaston Emergency Medical Services (GEMS/STAR) and the Gaston County Sheriff's or Police Department.

Red Cross and Department of Health & Human Services (DHHS) are responsible to ensure that all persons coming to the Reception and Congregate Care Center are registered on approved forms.

Gastonia Haz-Mat with support from GEMS's STAR representatives will assist in ensuring all persons are properly decontaminated when necessary.

Gastonia Fire Department's Hazardous Materials Response Team (Haz-Mat) as the lead agency, GEMS and assigned assisting Fire Departments will establish a process to monitor all persons coming to the reception center to determine if they are contaminated with nuclear radiation. Haz-Mat, GEMS and the Fire Departments will assist in decontamination of persons and vehicles as needed. Gastonia Fire will also assign an Incident Commander and optional Safety Officer.

GEMS will also assist injured or infirmed persons as required at the center. They will also provide transportation of persons needing medical attention to a physician or other medical care professional.

The Gaston County Sheriff Office will assist as needed to maintain order at the Reception Center.

## ACTIVATION

Upon situation arising that requires the need to establish a Reception and Monitoring Station (RM&D) at Stuart Cramer High School, the EOC will notify personnel from all involved agencies of the need. Personnel will then proceed to prepare the site for receipt of evacuees and to monitor for possible contaminated people and vehicles.

**Each RM&D station worker is responsible for:** wearing self-reading dosimeters and a TLD badge while on duty; reading the dosimeters at least once every 30-minutes; and maintaining a Personal Exposure Record Card or if all station workers are in a close work area, in lieu of each worker wearing a 0-20R dosimeter, a centrally located dosimeter may be used and that reading monitored every 30 minutes and the assumption is that all in the work area is receiving the same dose reading, if any is present.

## INCIDENT COMMAND / RAD OFFICER

Each monitoring and decon site will assign a person to be the lead IC/RAD officer over the operation. The IC/RAD officer will assign staff as needed to the following positions and can add or modify as needed to meet the objective of the site:

- Monitors, for both the portal monitors and hand held units
- Record Keepers to record data
- Decontamination workers who will assist contaminated person thru the process
- Vehicle personnel to handle monitoring and decon of emergency vehicles and or secure evacuees vehicles as needed

The IC/RAD officer will instruct all staff of proper exposure control measures that are needed to be taken and monitor thru out the process.

## ACTION LEVEL

The term ACTION LEVEL in this guidance is the radiation level which separates "contaminated" from "uncontaminated." At the Action Level, response personnel initiate personal protective measures along with decontamination efforts. The Action Level, measured with hand-held instrument, is defined as follows:

**Action Level = 300 Counts Per Minute (CPM).**

If the initial reading of the area exceeds 300 Counts Per Minute (CPM), contact the EOC for guidance.

*Gaston County's Action Level of 300 CPM deviates from that specified by the North Carolina Division of Radiation Protection (April 16, 1993 letter from Duane Brown and Billy Ray Cameron) when using a CDV-715 instrument. Gaston County's background radiation, measured with the hand-held monitor averaged around 50 counts per minute whereas the reading was much lower with the CDV-715.*

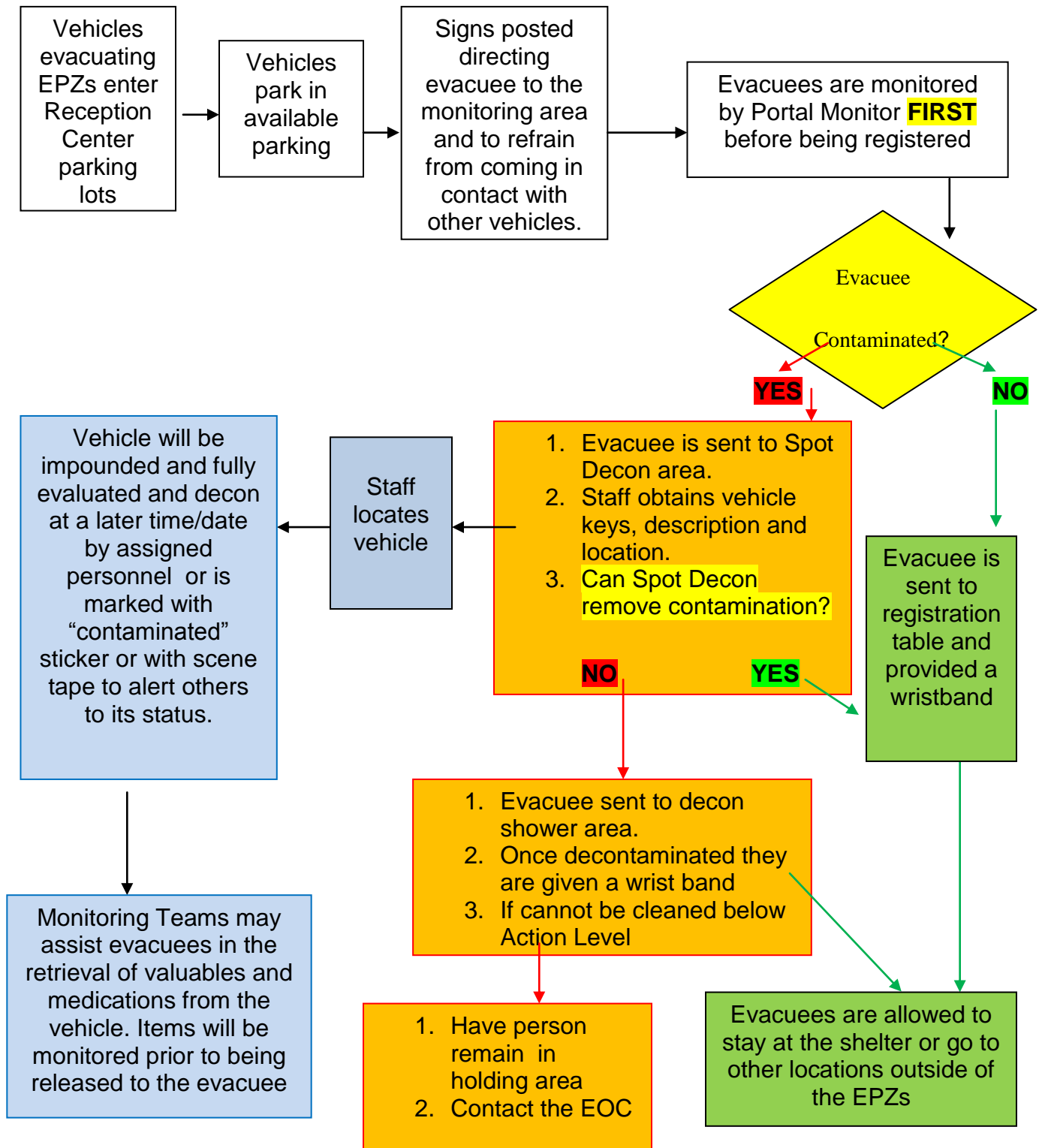
## RADIATION LEVELS REQUIRING ACTION

**Action Level – 300 counts per minute.** Individuals or vehicles having this level must be decontaminated.

**Reporting Level – 1 R.** Report this level of exposure to the EOC and/or Radiological Officer.

**Turn Back Level – 2.5 R.** If this exposure is reached, evacuate the area to an uncontaminated area and report your exposure to the Radiological Officer (or EOC)

## EVACUEE DECON PROCESS FLOW CHART GUIDANCE



## **KEY POINTS FOR ESTABLISHING THE RECEPTION CENTER**

The following steps outline recommendations for establishing Stuart Cramer High School Reception Center.

1. The center's site will be on the South side of the campus near the main student's parking lot and athletic fields.
2. Entrance into the site will be from Lakewood Road. There are two (2) entrances off Lakewood Road and evacuees can enter from either entrance.
3. Evacuee's vehicles entering the site will be directed to park in available parking.
4. Evacuees will be directed to the monitoring station and refrain from coming in contact with other vehicles
5. Do a reading of the monitoring area prior to setting up to ensure that the area is free of any radiation contamination.
6. Issue TLD's, dosimeters and Dose Cards to all Emergency Workers. READ dosimeters every 30 minutes until any movement of the needle is detected and if so read every 15 minutes and monitor or place one dosimeter in the each work area and read one dosimeter for all emergency workers.

### **Portal Monitor Station:**

1. **The first step is to check the evacuees for contamination by use of either portal monitoring and/or hand-held monitors.** Send evacuees thru monitors first before doing any paperwork documentation.
2. Follow guidance for either clean or contaminated evacuees after monitoring.  
**NOTE: Contaminated evacuees** will need a portal monitor result sheet filled out noting the areas of contamination.

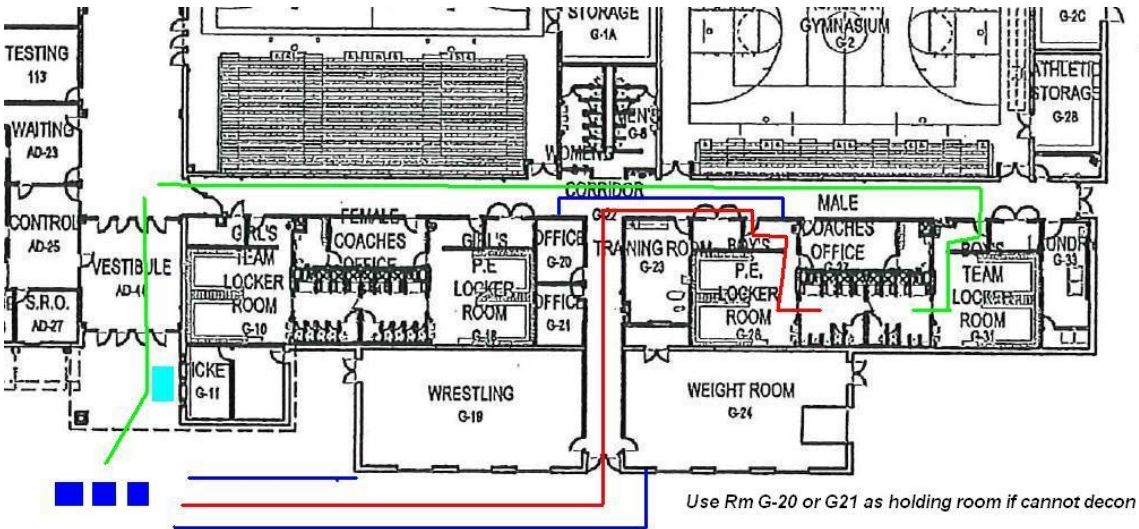
### **Registration Table:**

1. Clean (uncontaminated) persons to have information recorded and can be issue a wristband and directed to the Red Cross table inside the school. Label the wristband with the date and time that the person was checked for contamination and attach to the person's arm. Advise Red Cross the "official" color of the wrist band.

### **Spot Decon / Shower Area(s):**

1. Spot decon may remove contamination below the Action Level of 300 CPM. All actions and options to remove contamination here should be used within reason.
2. If contamination can be removed, send evacuee to Registration Table.
3. If contamination cannot be removed, send evacuee to Showers
4. Ensure all contaminated persons are decontaminated in the shower area below the Action Level of 300 CPM following guidelines written in Radiation Monitoring, Decontamination and Exposure Control Guidance. If contamination still exists, have the person re-shower then monitor again. **SHOULD CONTAMINATION STILL REMAIN** after three (3) attempts to decon, contact the EOC for directions. Upon decontamination, issue them Tyvek coverall or gown for clothing.
5. Issue all uncontaminated persons a wristband with the date and time and direct them to the Red Cross table

- Spot Decon to be conducted in locker area of showers.
- All evacuees contaminated routed to “male” showers.
- Alternate males and females processing thru the decon and or shower process



The Dark Blue squares are the portal monitors

The Green lines are path that “clean” evacuees would travel.

Light Blue square is table for Registration of people thru Portal Monitors

The RED lines are path that “Contaminated” evacuees would travel

Dark Blue lines are where barriers would be erected

If evacuee is clean at portal monitor then direct straight thru to light blue table to be signed in and then into building where Red Cross will take over

Erect barricades etc to separate clean from contaminated along outside sidewalk and inside main hall

If contamination found at a portal monitor, then person would travel red path and first go to the Spot Decon area of the shower room. **If cleaned here** that person would exit out opposite door (green) and back to Registration table for Red Cross.

**If person cannot be cleaned** below action level in the Spot Decon area then the person would go to showers to wash.

**Install an arm band with date/time on all evacuees coming from showers and also record name and info on each person processed**

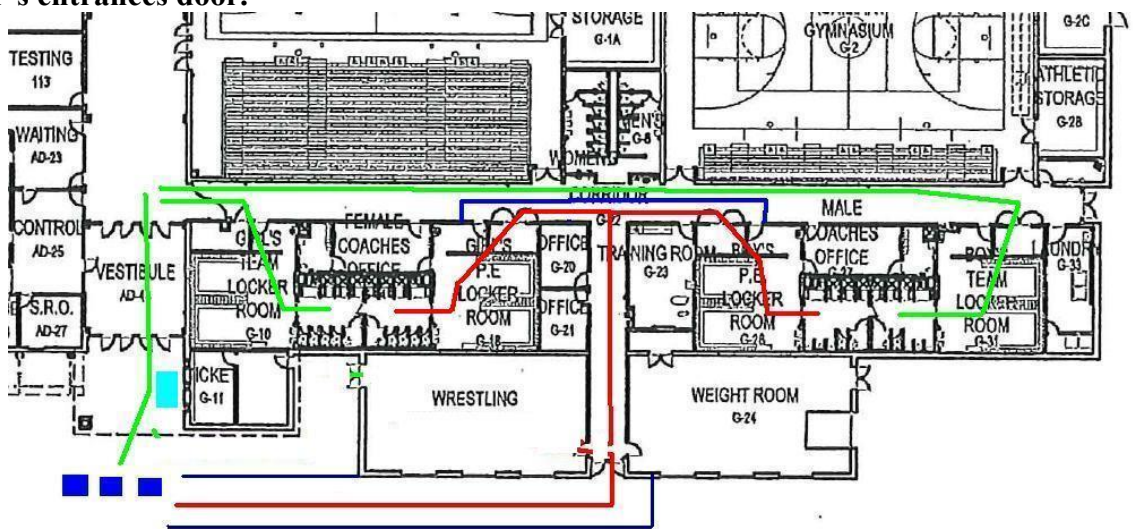
**Will have to erect barrier in hall to separate contaminated from clean (dark blue line).**

Using the same showers for male and female decon would keep clean the “females” showers to be used for shelter evacuees.

**We would need to control whether a male or female evacuee uses either showers at a time.**

**Option to Expand Shower Areas:**

**If need to expand to both showers then extend separation barrier in hall to cover both shower’s entrances door.**



**SET UP GUIDELINES**

Entrances and parking lots

1. Install signage along the entrances that instructs evacuees on parking and avoiding contact with others
2. Barricades and dividing items to identify flow path to Monitoring Station

Monitoring Station

1. Erect portal monitors(s) as needed at the South side of the building near the side entrance. See Monitoring Flow Stats on page 10 to determine number needed.
  - If found to be clean evacuees can be sent thru to the registration desk
  - If found to be contaminated evacuees will need
2. Paperwork for recording findings filled out
3. Foot covering for evacuees found to be contaminated that will go to the Spot Decon



- area
4. Disposal paper or other covering to assist in preventing cross contamination
  5. Hand held monitor to check portal monitor for any contamination

#### Spot Decon / Shower(s) Area

1. Handheld monitors to identify level of contamination and detailed locations. See recommended practice on Page 11
2. Paperwork to record findings and results on person and vehicle information
3. Decon cleaning kits and supplies to perform spot cleaning
4. Supplies needed for evacuees to take showers if needed
5. Erect barrier in hall to separate contaminated from clean
6. Privacy curtains
7. Clothing, Tyvek or gowns for evacuees who clothes are contaminated
8. Means of securing personal property – Use of other law enforcement to handle this may be needed

#### **Companion Pets/Animals**

- Residents may evacuate and bring their companion pets with them to the shelter. The Wrestling Room or Weight Room can possibly be used to set up cages to house pets.
- Assistance from Animal Control and the CART group will be needed to handle this function
- Monitoring and decon of any contaminated pets will follow guidelines when written or provided by State agencies. Until then if a real incident we will follow guidance from local Animal Control/CART and hazmat personnel.

#### **ESTABLISHING THE CONGREGATE CARE FACILITY – Red Cross lead agency**

- Shelter operation will be headed by the Red Cross and the exact layout and use of interior space will be per their plan.
- Coordinate security concerns at the Congregate Care Facility with the County Sheriff Office, Gaston County Police or Cramerton Police. They have numerous police officers and security guards available who are familiar with the facility and persons to contact regarding needed locations. If additional security is needed, contact the Emergency Operations Center to obtain support from the Law Enforcement Group.

#### **DECOMMISSIONING THE DECONTAMINATION STATION**

Place all papers and other protective material into the Haz trash bags provided. Contact the EOC for disposal directions. Monitor the station and area surrounding the station for

contamination. Contact the EOC if the station or grounds are contaminated. Working with the Radiation Protection Branch of North Carolina's government, plans will be developed to remedial action plans.

**Monitoring Stats to Determine Flow: As of 2014 figures**

20% of the evacuated areas population must be monitored within 12 hours.

For Gaston, the McGuire EPZs are the largest and 20% population of those areas are 3,328 people required to be process in 12 hours.

For Catawba the 20% population number is 1,910 people in 12 hours.

Depending on the number of portal monitors operating will give us different requirements per hour to meet this objective.

**Currently 4 portal monitors are on hand in Gaston County. 3 would be at the Reception Center and 1 at the Emergency Worker Decon Station**

# of Portal Monitors Used at Same Time	Minimum Persons per minute/monitor
<b>4 monitors</b> used = $3,328 / 4 = 832$ people per monitor/per 12 hrs $832 / 12$ hrs = 70 people per hour $70 / 60$ mins = 1.17 or 1.2	<b>2</b>
<b>3 monitors</b> used = $3,328 / 3 = 1109$ people per monitor $1109 / 12$ hrs = 93 people per hour $93 / 60$ mins = 1.55 or 1.6	<b>2</b>
<b>2 monitors</b> used = $3,328 / 2 = 1664$ people per monitor $1664 / 12$ hrs = 139 people per hour $139 / 60$ mins = 2.31	<b>3</b>
<b>1 monitors</b> used = 3,328 people per monitor $3328 / 12$ hrs = 277 people per hour $277 / 60$ mins = 4.61	<b>5</b>

**FORMS**

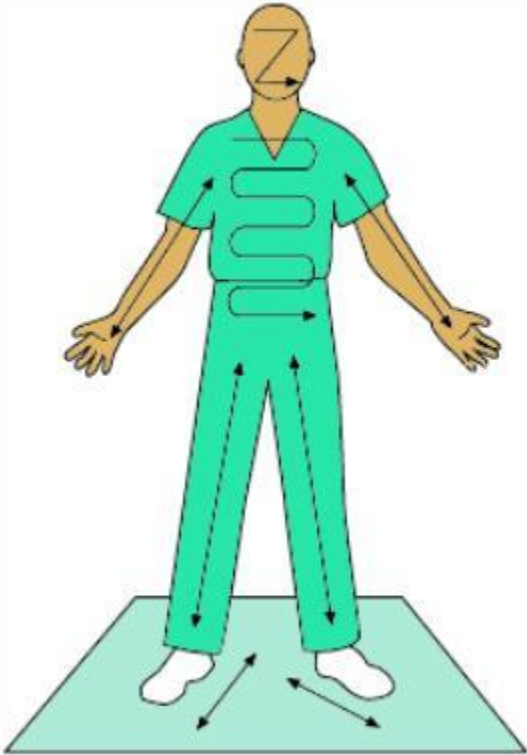
Forms to record results will be provided at the site. Due to the need to modify certain forms from time to time prevents them from being included in this guidance.

Forms that will be used:

- Portal Monitor results
- Hand Monitor scan results
- Vehicle results and tracking
- Registration to track evacuees thru monitoring process

## Hand Monitoring Recommendation

The purpose of hand monitoring is to **locate the exact area(s) of contamination** on the person and also to **identify the level of contamination** in Count Per Minute (CPM). Once area(s) have been identified above the Action Level then Spot Decon practices can be employed to attempt to remove contamination or at minimum below the Action Level.

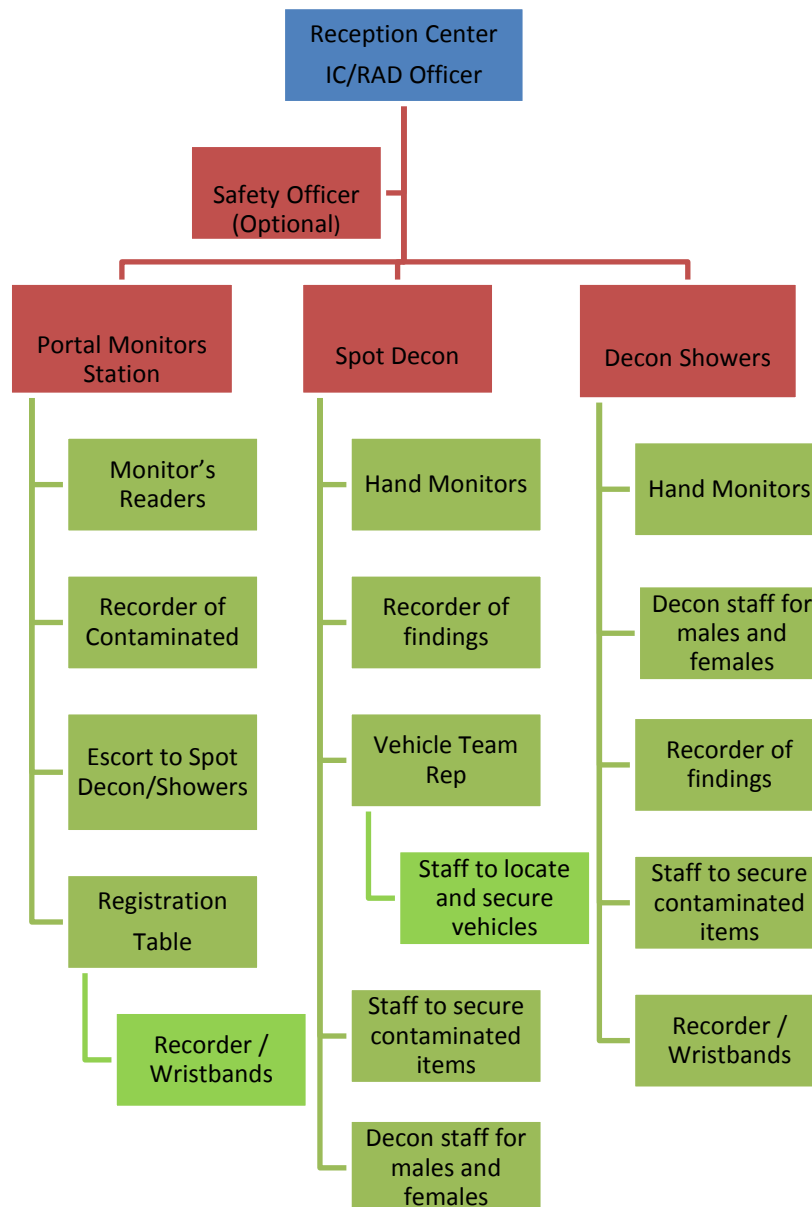
	<p>Hand monitoring is performed in close quarters under controlled conditions. General technique is:</p> <p><i>Front-Back-Sides-Head-Feet</i></p> <ul style="list-style-type: none"><li>• Survey front and back of person using hand held monitor</li><li>• Protect the probe/head against contamination using one layer of thin food grade plastic wrap. Replace as needed or if comes in contact with evacuee</li><li>• Maintain 1-3 inches above the surface</li><li>• Maintain survey pace at 1 to 3 inches per second</li><li>• Address functional needs of person for balance as necessary</li><li>• Survey soles of shoes</li><li>• Use silent/discreet monitoring mode if possible so to prevent panic of person</li><li>• Supervisor directs the person</li><li>• Staff monitors the person</li><li>• Scribe records finding when contamination found</li><li>• Avoid loud verbal discussions of contamination so as to prevent panic.</li></ul>
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**REMEMBER:** Contamination may be just on the outer layer of clothing and removal of these items may remove the contamination and the reading below 300 CPM, then the subject will not have to shower.

**ALSO** if contamination appears to be over a large area of the body, **ASK** the subject if they had any radiation treatment lately that may still be inside the body. Decon will not remove internal radiation.

## Organization Chart Suggestion

- A IC/RAD Officer will be assigned to be over the whole operation
- It is suggested if staff is available to assign a Supervisor at each of the stations to monitor activity and give guidance as needed to workers
- The IC/RAD Officer and or Supervisor should give a safety briefing prior to operations starting so all staff will know protective measures and limits



Staffing in the Spot Decon and Shower areas will be determined based on amount of flow. If low volume same staff could work both stations until higher volume started then expand staff to speed up the process in both areas.

