

GASTON COUNTY, NC

**EMERGENCY WORKER DECON
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**

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PURPOSE

This Guidance gives recommendations for setting up and establishing an Emergency Worker Decon (EWD) facility at Stuart Cramer High School.

An EWD is for monitoring and removing any radioactive contamination from emergency workers and emergency vehicles should either Catawba or McGuire Nuclear Site experience an incident.

EMERGENCY WORKER DECON STATION RESPONSIBILITY

The primary responsibility to establish an EWD station rests with the Emergency Management Department. The task is accomplished through Gastonia Fire Department Hazardous Materials Team, the assigned assisting Fire Departments, Gaston Emergency Medical Services (GEMS) and the Gaston County Sheriff's or Police Department.

Gastonia Haz-Mat with support from assisting fire departments and GEMS's STAR representatives will ensure all persons, vehicles and equipment are properly decontaminated when necessary.

Gastonia Fire Department's Hazardous Materials Response Team (Haz-Mat) as the lead agency, GEMS and assisting Fire Departments will establish a process to monitor all persons and vehicles coming to the EWD station to determine if they are contaminated with nuclear radiation. Haz-Mat, assisting Fire Departments and GEMS 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 site. They will also provide transportation of persons needing medical attention to a physician or other medical care professional.

The Gaston County Sheriff will assist as needed to maintain order at the site.

ACTIVATION

Upon notification of the need to establish an Emergency Worker Decontamination Station 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 emergency workers 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.

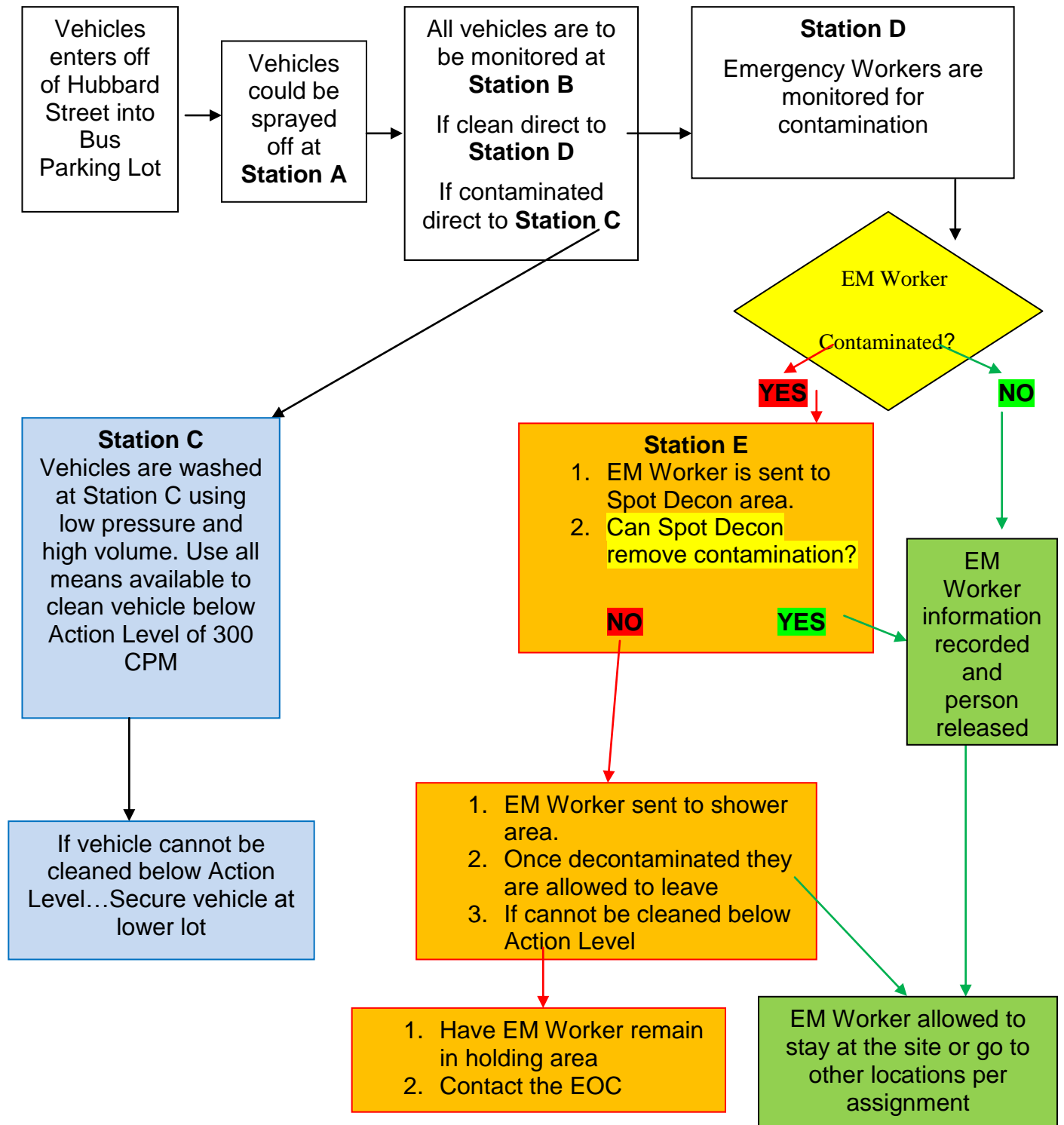
RADIATION LEVELS REQUIRING ACTION

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)

EMERGENCY WORKER DECON PROCESS FLOW CHART GUIDANCE



ESTABLISHING THE EWD STATION

The following steps outline recommendations for establishing Stuart Cramer High School Emergency Worker Decon (EWD) Station. The EWD site will be on the North side of the campus near the main bus parking lot.

***** Document all vehicles and personnel staff coming thru the EWD station *****

A – All emergency vehicles enter off of Hubbard Street. Prior to entering lot, could water spray all vehicles here as option if staffing is available

B – All vehicles monitored here.

EXTERIOR:

At minimum front bumper, grill, wheel wells, door handles and rear bumper

**** Emergency Workers stays in vehicle but has feet and hands monitored for any contamination while in vehicle ****

INTERIOR: At minimum Foot pedals, steering wheel, seats

*** Issue foot covering to Emergency Worker before they are allowed to exit vehicle ***

- If contamination found direct driver to to location “C”
- If no contamination found direct driver to location “D”

C – Vehicles to get detailed washing of areas contaminated. If need to impound, vehicles would be parked at back of this lot

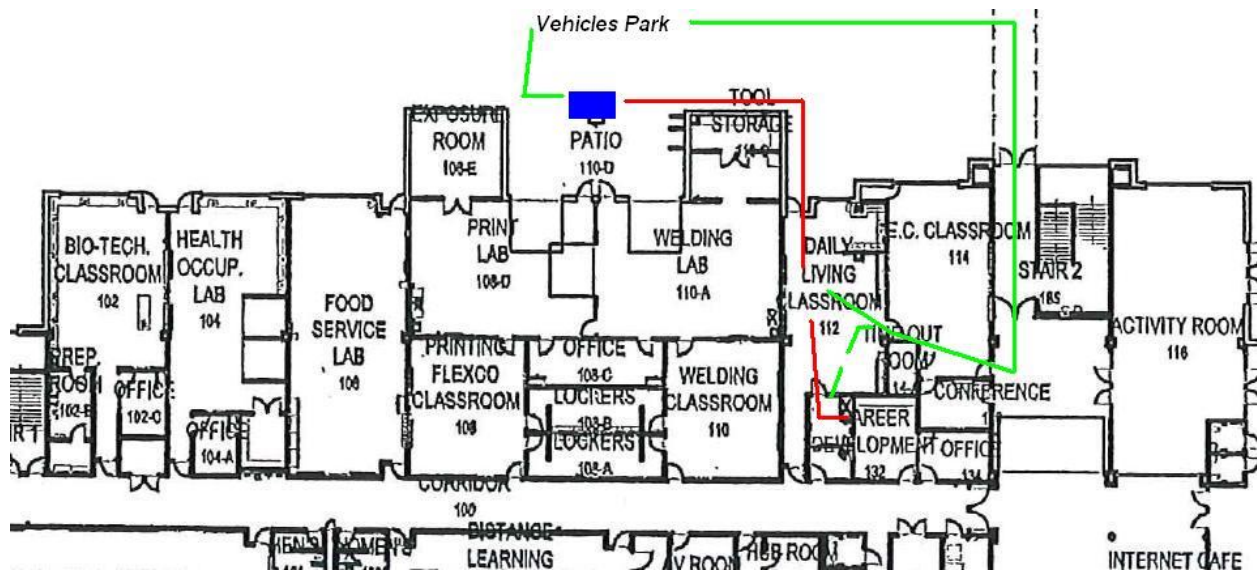
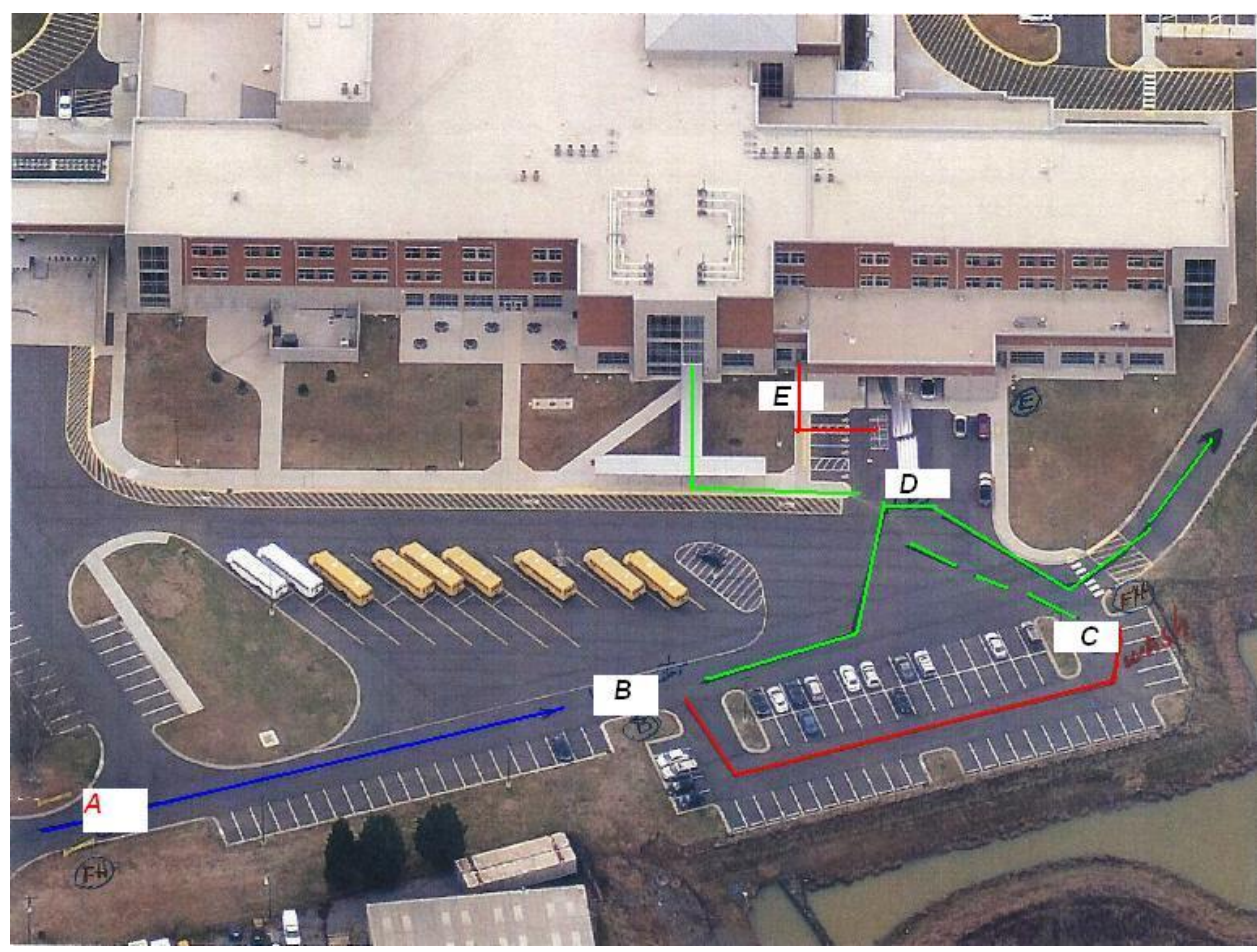
D – Emergency Workers exits vehicles here to be checked. Portal Monitor to be set up under or near canopy. **EM Workers to be provided foot covers before exiting vehicles to walk to Portal Monitor**

E – Emergency Worker found to be **clean** can be released to return to Staging or assigned area.

If Emergency Worker found **contaminated** at Portal Monitor, then worker proceeds to “Daily Living Classroom” where spot cleaning will be attempted, if contamination cannot be removed or reduced below Action Level then worker will use shower in this room to do additional cleaning.

Once emergency vehicles and personnel cleared they can exit out to main drive of campus and report back to their assigned location.

Emergency Worker Decon Process Flow



Green lines indicates “clean” path and Red lines indicates “Contaminated” path
SET UP GUIDELINES

Station A

1. If used, fire hose connected to hydrant and use high volume low pressure to rinse off exterior of vehicles prior to vehicles entering campus’s lot

Station B

1. Hand held monitors
2. Paperwork for recording findings
3. Foot coverings for workers exiting vehicles

Station C

1. Fire hose to wash down vehicle, use high volume low pressure from hydrant.
2. Brushes to scrub vehicles
3. Car wash liquid or other similar product if needed and available
4. Foot covering for workers found contaminated that goes to the Spot Decon/Shower

Station D

1. Portable monitor erected under or near canopy
2. Disposal paper or other covering to assist in preventing cross contamination
3. Paperwork for recording findings
4. Hand held monitor to check portal monitor for any contamination
5. Foot covering for workers found contaminated that goes to the Spot Decon/Shower

Station E

1. Handheld monitors to identify level of contamination and detailed locations. See Page 10 for procedure recommendation.
2. Decon cleaning kits and supplies to perform spot cleaning
3. Supplies needed for workers to take showers if needed
4. Clothing, Tyvek or gowns for workers who clothes are contaminated
5. Privacy curtains or similar covering
6. Means of securing any firearms or other personal property – Use of other law enforcement to handle this may be needed
7. Control any cross contamination at shower’s door by using paper on floor, foot coverings or other effective measure.

KEY POINTS TO REMEMBER

1. Do a reading of the area prior to setting up to ensure that the area is free of any radiation contamination.
2. Issue TLD's to all Emergency Workers
3. Issue 0-20R dosimeters and READ every 30 minutes until any movement of the needle is detected and if so read every 15 minutes and monitor.
4. Record dosimeter info, readings and times on Dose Cards for record keeping.
5. If a reading of 1R is detected, report this to the EOC. This is the "reporting" level.
6. If a reading of 2.5R is detected, clear the area. This is the "turn-back" level.
7. Have all subjects enter the Portal Monitor when ready.
8. If any portal monitor indicates contamination, start a portal monitor form, and a personnel monitor form and mark the findings on the paperwork. Have the subject step forward and hand monitor using the handhelds to obtain the level of contamination. If reading is below 300 CPM then the subject does not have to be deconned. If reading is 300 CPM or HIGHER then decon is required.
9. All paperwork will be handed to the staff conducting the portal monitor survey. DO NOT hand back to the subject until the subject has been monitored and deem to be clean of contamination.

DECOMMISSIONING THE DECONTAMINATION STATION

Place all papers and other protective material into the 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.

FORMS

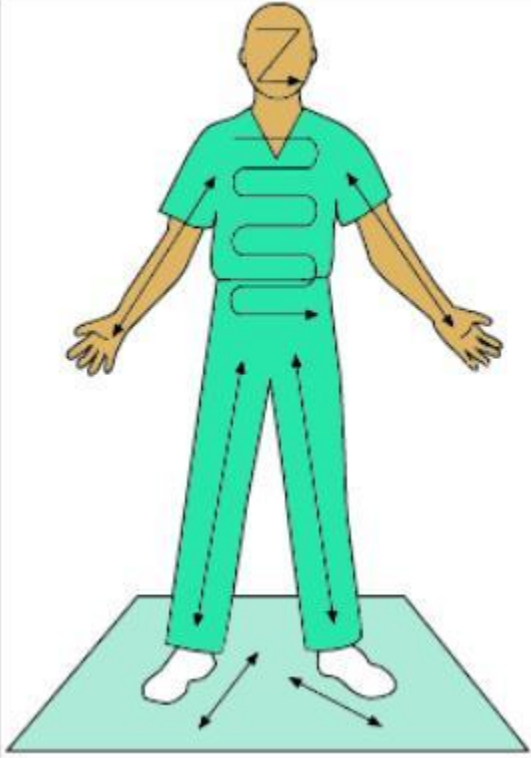
Forms to record results will be provided at the site. Due to the need to modify certain forms from time to time prevents them from being included in this guidance.

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.

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|  | <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">• Survey front and back of person using hand held monitor• 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• Maintain 1-3 inches above the surface• Maintain survey pace at 1 to 3 inches per second• Address functional needs of person for balance as necessary• Survey soles of shoes• Use silent/discreet monitoring mode if possible so to prevent panic of person• Supervisor directs the person• Staff monitors the person• Scribe records finding when contamination found• Avoid loud verbal discussions of contamination so as to prevent panic. |
|--|---|

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

