

Attachment

Report of Change and Summary of 50.54(q) Analysis Emergency Plan Implementing Procedure 5.7.11, Revision 19

Change Description

Revision 19 of Emergency Plan Implementing Procedure (EPIP) 5.7.11, Early Dismissal/Evacuation of Site Personnel, is a total re-write to meet new format and performance guidance provided by Cooper Nuclear Station's (CNS) procedure writer's guide. The revisions included section/step sequence changes, changing notes containing actions into procedure steps, deleting redundant steps/duplicate information, re-writing steps to improve human performance, and a change to the level of use category.

Other major changes made to the EPIP were as follows:

- Established Logistics Coordinator as lead in executing dismissal/evacuation.
- Clarified Radiological Control Manager as having the responsibility of decision maker for when to terminate dismissal and begin evacuation, and for determination of evacuation routes.
- Added new Attachments 1 and 2, (Dismissal Flowchart and Evacuation Flowchart), and transferred instructions for dismissal/evacuation actions into a flowchart format. Also added a Caution to these attachments concerning the potential threat of exposing personnel to severe weather or hostile action during dismissal or evacuation.
- Added a new Section 3.10 to provide administrative controls for the new Dismissal and Evacuation Flowchart hard cards.

Change Summary of Analysis (10 CFR 50.54(q) evaluation)

Licensing Basis Affected by Change:

CNS Emergency Plan (E-Plan), Section 6.5, discusses actions that will be taken for on-site personnel whenever a radiological emergency has occurred which might result in concentrations of airborne activity or radiation levels in excess of pre-determined limits and other emergency situations where personnel safety is threatened.

E-Plan, Section 6.5.4, discusses initial assembly and accountability of personnel. This section also references EPIP 5.7.11 for direction on site dismissal and evacuation.

E-Plan, Appendix A, describes procedures that implement the E-Plan, including EPIP 5.7.11.

How Change Complies with Regulations and Previous Commitments:

10 CFR 50.47(b)(10) requires, in part, that a range of protective actions are developed for the plume exposure pathway EPZ for emergency workers and the public with consideration given to

evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide, as appropriate.

The change continues to comply with the above regulation for establishing protective actions for plant emergency workers during emergency conditions.

There were no regulatory commitments identified related to dismissal or evacuation.

Affected Emergency Planning Functions/Impact on Effectiveness of Emergency Planning Functions:

10 CFR 50.47(b)(10); Function - A range of protective actions is available for plant emergency workers during emergencies, including those for hostile action events.

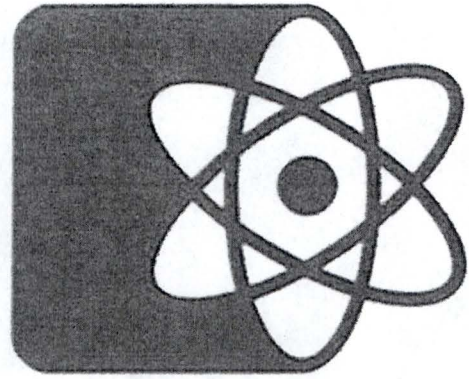
The change made to EPIP 5.7.11 does not affect the meaning or intent of descriptions, facilities/equipment, or the process for site dismissal or evacuation. Clarification of responsibilities and the addition of flow charts are considered enhancements to improve usability of the EPIP. The change continues to meet the above planning standard and does not constitute a decrease in effectiveness of the E-Plan.

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Emergency Plan Implementing Procedure 5.7.11, Revision 19

COOPER NUCLEAR STATION



Operations Manual Emergency Preparedness

EMERGENCY PLAN IMPLEMENTING PROCEDURE

5.7.11

EARLY DISMISSAL/EVACUATION OF SITE PERSONNEL

Level of Use: MULTIPLE

Quality: QAPD RELATED

Effective Date: 6/13/18

Approval Authority: ITR-RDM

Procedure Owner: EP ON-SITE COORD

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1. ENTRY CONDITIONS [REFERENCE USE]

1.1 As directed per EPIP 5.7.2.

2. INSTRUCTIONS [REFERENCE USE]

2.1 **DETERMINE** if dismissal or evacuation required.

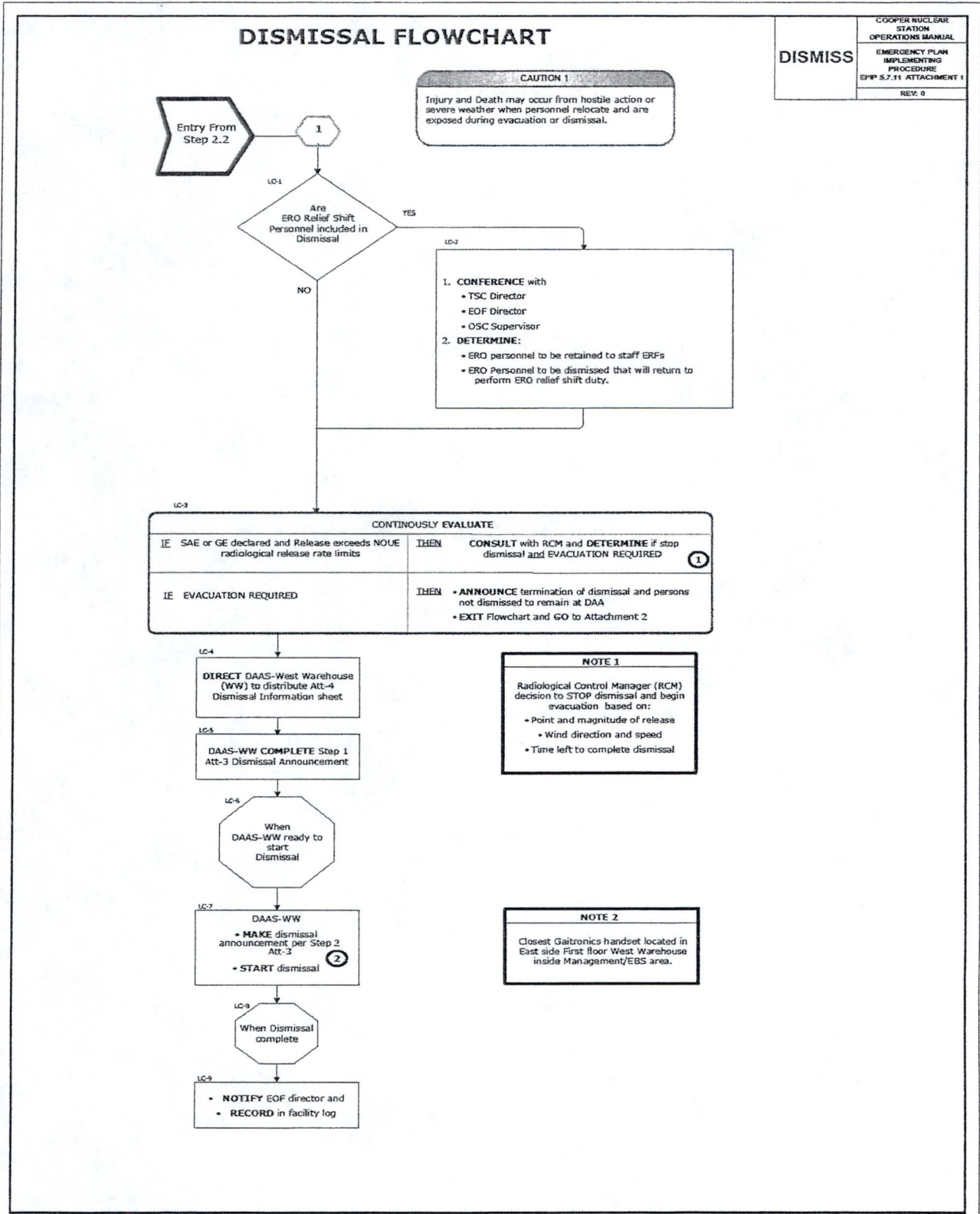
2.1.1 IF either of following are true:

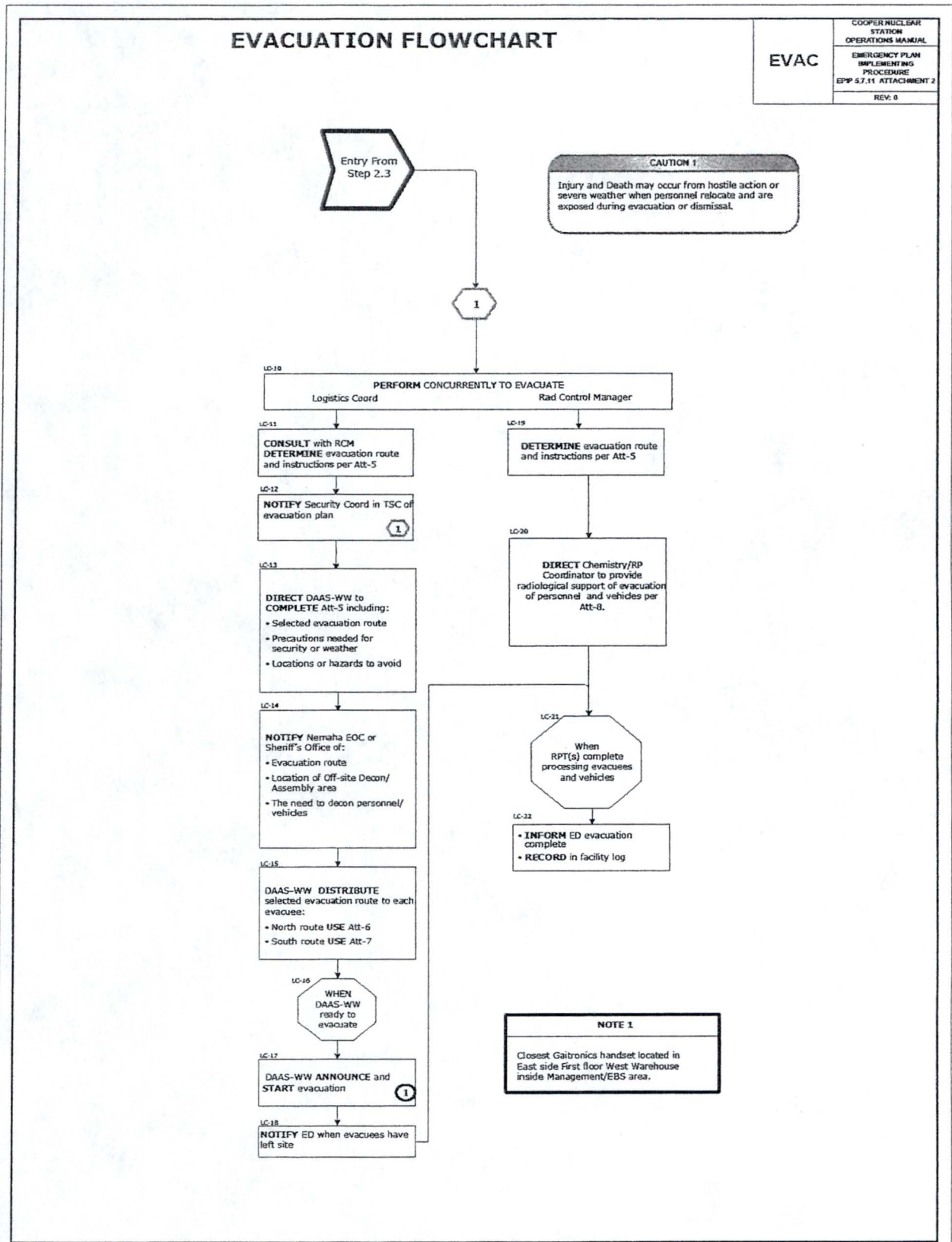
- Emergency Classification Site Area Emergency or higher classification.
- Release of contaminated personnel for decontamination at off-site location desired.

THEN **PERFORM** Step 2.3 for evacuation of non-ERO and ERO Relief Shift personnel.

2.2 **DIRECT** Logistics Coordinator to coordinate dismissal of personnel per Attachment 1.

2.3 IF evacuation directed,
THEN Logistics Coordinators **PERFORM** evacuation per Attachment 2.





1. **USE** this attachment to announce dismissal of non-ERO and ERO Relief Shift personnel (ERO personnel being dismissed and who are to return later to perform ERO relief duty).

1.1 IF not all personnel to be dismissed,
THEN COMPLETE blank (1) in Step 2.1.

1.1.1 **IDENTIFY** those personnel to be dismissed.

1.2 IF there are hazards to be avoided,
THEN COMPLETE blank (2) in Step 2.3.

1.2.1 **PROVIDE** locations to be avoided, specific routes to be taken due to emergency conditions, and precautions needed for security events/severe weather conditions.

2. **ANNOUNCE** following over station gaitronics:

2.1 Attention all non-ERO and ERO Relief Shift personnel. The Emergency Director has directed that non-ERO

(¹) (and _____
_____) personnel be dismissed from the site.

2.2 Leave site immediately and proceed directly to your homes obeying all traffic laws.

2.3 Stay clear of (²) _____

2.4 **REPEAT** announcement.

1. You are being dismissed from CNS due to an emergency condition.
2. This condition is serious enough that it warrants full attention of Operations Crew and Emergency Response Organization.
3. Normally scheduled work is suspended.
4. Dismissal is unrestricted release of personnel from plant site. No re-assembly or radiological monitoring is required.
5. This Protective Action is mandatory. Unless you have been specifically notified to remain on-site, you are to immediately go to your home.
6. Drive your normal route home unless given other instructions.
7. Obey all traffic laws and instructions given by CNS Security personnel.
8. Remain fit-for-duty until your next scheduled work shift.

NOTE – Do not contact Control Room for event updates.

9. Call CNS Employee Emergency Information Hotline (402) 825-5559 prior to traveling to CNS for your next scheduled shift.
10. Report for duty ~ 1/2 hour prior to your shift.

1. **USE** this attachment to announce evacuation of non-ERO and ERO Relief Shift personnel (ERO personnel being evacuated and who are to return later to perform ERO relief duty).

2. Radiological Control Manager (RCM), **DETERMINE** evacuation route.
 - 2.1 IF wind direction from 90° to 180°, THEN USE south route.

 - 2.2 IF wind direction from 0° to 89° or 181° to 360°, THEN USE north route.
 - 2.2.1 RCM **PROVIDE** evacuation route to Logistics Coordinator.

 - 2.2.2 Logistics Coordinator **DIRECT** DAAS-WW to record evacuation route in blank (1) in Step 4.2.

3. IF there are hazards to be avoided, THEN COMPLETE blank (2) in Step 4.3.
 - 3.1 **PROVIDE** locations to be avoided or specific routes to be taken due to emergency conditions and any precautions needed for security events/severe weather conditions.

4. **ANNOUNCE** following over station gaitronics:
 - 4.1 Attention all non-ERO and ERO Relief Shift personnel. The Emergency Director has directed that non-ERO and ERO Relief Shift personnel be evacuated from the site.

 - 4.2 Non-ERO and ERO Relief Shift personnel are being evacuated to the Off-Site Assembly Area in Auburn using the (1) _____ route. Proceed directly to the Off-Site Assembly Area and remain there until released.

 - 4.3 Stay clear of (2) _____

_____.

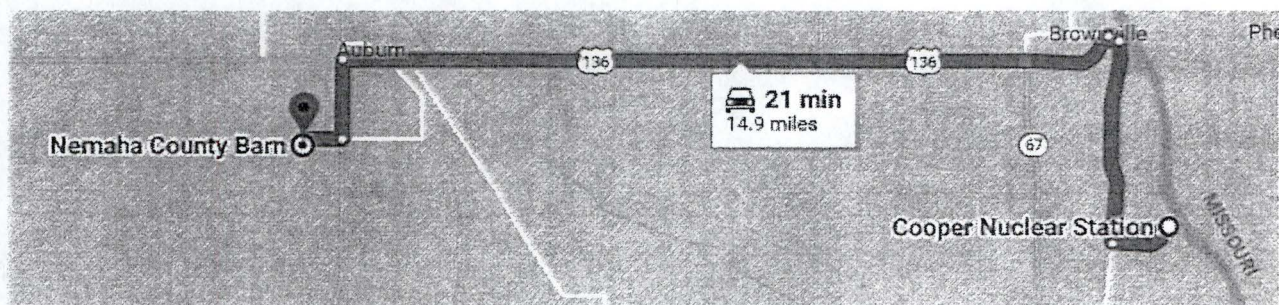
 - 4.4 **REPEAT** announcement.

ATTACHMENT 6 NORTH EVACUATION INSTRUCTIONS AND ROUTE MAP [INFORMATION USE]

1. North evacuation route selected by Radiological Control Manager based on wind direction and release rates.
2. **EXIT** CNS and **TURN** right (north) at end of access road.
3. **TRAVEL** north to Brownville, then **TURN** left (west) on Highway 136 to Auburn.
4. At stop light (intersection of Highways 136 and 75), **TURN** left (south).
5. **TRAVEL** through town to 26th Street (last street on south edge of town).
6. **TURN** right (west) and **TRAVEL** ~ 1/2 mile to 'P' Street.
7. **TURN** left (south) one block. Off-Site Assembly Area is the Nemaha County Maintenance Yard (Nemaha County Barn).
8. **PARK** in an orderly fashion in gravel lot and **REMAIN** in your vehicle until directed by workers to be monitored.
9. Once released, **REMAIN** fit for duty and available for call-in (until your next scheduled shift).

NOTE – Do not contact Control Room for event updates.

10. **CALL** CNS Employee Emergency Information Hotline (402) 825-5559 prior to traveling to CNS for next scheduled shift.
11. **REPORT** for duty ~ 1/2 hour prior to beginning of your shift.

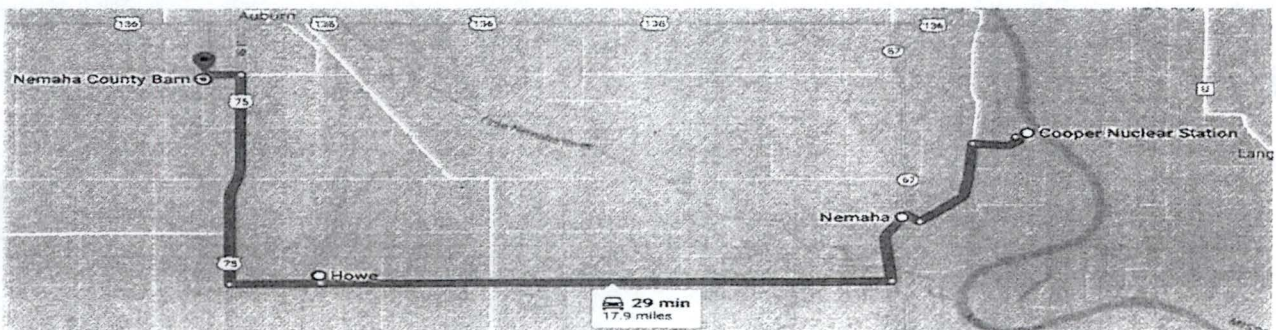


ATTACHMENT 7 SOUTH EVACUATION INSTRUCTIONS AND ROUTE MAP [INFORMATION USE]

1. South evacuation route selected by Radiological Control Manager based on wind direction and release rates.
2. **EXIT** CNS and **TURN** left (south) at end of access road.
3. **FOLLOW** gravel road south to Nemaha.
4. At stop sign in Nemaha, **TURN** left (south).
5. **PROCEED** through town and over Nemaha River bridge (~ 1/2 mile south of Nemaha).
6. Just over Nemaha River bridge, **TURN** right (west) on 724 Rd.
7. **TRAVEL** ~ 10 miles west to Highway 75 and **TURN** right (north) on Highway 75 to Auburn.
8. In Auburn, **TURN** left (west) on 26th Street (first city street).
9. **TRAVEL** ~ 1/2 mile to 'P' Street and **TURN** left (south) one block. Off-Site Assembly Area is Nemaha County Maintenance Yard (Nemaha County Barn).
10. **PARK** in orderly fashion in gravel lot and **REMAIN** in your vehicle until directed by workers to be monitored.
11. Once released, **REMAIN** fit for duty and available for call-in.

NOTE – Do not contact Control Room for event updates.

12. **CALL** CNS Employee Emergency Information Hotline (402) 825-5559 prior to traveling to CNS for next scheduled shift.
13. **REPORT** for duty ~ 1/2 hour prior to beginning of your shift.



1. TSC Chemistry/RP Coordinator **DISPATCH** RP Tech (RPT) to conduct radiological surveys during evacuation at Nemaha County Decontamination Center.
 - 1.1 IF time permits,
THEN RPT **OBTAIN** following prior to leaving site:
 - Copy of EPIP 5.7.11.
 - Survey instruments.
 - Decontamination supplies.
 - 1.2 IF time does not permit,
THEN **USE** decontamination equipment stored at Nemaha County Decontamination Center.
2. IF parking lots are used as monitoring points,
THEN **ATTEMPT** to remove all vehicles in parking lot prior to arrival of evacuees.
3. Upon arrival, RPT **DIRECT** evacuees to remain in their vehicles until surveyed and released.
4. RPT **PERFORM** radiological surveys of personnel and vehicles.
5. RPT **PERFORM** decontamination of personnel and vehicles to meet Attachment 11, Table 1, for Unrestricted Release Limits.
 - 5.1 **RECORD** results of evacuee surveys on Attachment 9.
 - 5.2 **RECORD** results of vehicles or equipment surveys on Attachment 10.
6. RPT **RELEASE** clean or decontaminated personnel or vehicles to their homes per Attachment 11, Table 1.
 - 6.1 IF unrestricted release limits not achieved,
THEN RPT **INFORM** Chemistry/RP Coordinator.
 - 6.1.1 Chemistry/RP Coordinator **CONSULT** with Radiological Control Manager (RCM) and Governmental Authorities to determine course of action.

7. IF Decontamination Center parking lot vehicles not removed prior to arrival of evacuees,
THEN RPT **SURVEY** each vehicle prior to allowing them to leave.
8. RPT **INFORM** Chemistry/RP Coordinator when all evacuees and vehicles released and **RECORD** in facility log.

ATTACHMENT 9 EVACUEE MONITORING DATA [INFORMATION USE]

Location: _____ Date: _____

Instrument Used: _____

Instrument S/N: _____

Background cpm: _____

Person Performing Survey: _____

TABLE 1					
NAME	TIME	DIRECT SURVEY RESULTS (MAXIMUM)		MAXIMUM READING LOCATION	TIME RELEASED
		1ST	2ND		

ATTACHMENT 10 POST-EVACUATION VEHICLE MONITORING DATA [INFORMATION USE]

Location: _____ Date: _____

Instrument Used: _____

Instrument S/N: _____

Background cpm: _____

Person Performing Survey: _____

TABLE 1							
LICENSE NUMBER	OWNER	TIME	DIRECT SURVEY RESULTS		SMEAR SURVEY RESULTS		TIME VEHICLE RELEASED
			1ST	2ND	1ST	2ND	

TABLE 1 ⁽¹⁾	
SUBJECT	UNRESTRICTED CONTAMINATION LIMITS
Personnel	<p>No detectable activity found when using an instrument with sensitivity of ≤ 100 net cpm/probe area using GM detector with pancake probe.</p> <p>or</p> <p>Clearance of functioning portal monitor.</p>
Personal Effects/ Equipment/Vehicles	<p>No detectable activity found when using an instrument with sensitivity of ≤ 100 net cpm/probe area using GM detector with pancake probe.</p> <p>or</p> <p>No detectable activity found when using instrumentation with sensitivity of ≤ 2.2 nCi as determined by gross gamma analysis with gamma sensitive counter.</p>

⁽¹⁾ Derived from Procedure 9.RADOP.2, unrestricted contamination limits.

1. PURPOSE¹

- 1.1 Perform dismissal or evacuation of personnel from plant site as required by EPIP 5.7.2 or as directed by Emergency Director.

2. PRECAUTIONS AND LIMITATIONS

- 2.1 Evacuation of non-ERO personnel is required at Site Area Emergency or General Emergency.
- 2.2 Dismissal of non-ERO personnel is permissible if NOUE or ALERT and release rate is less than NOUE limits.

3. DISCUSSION

- 3.1 In event of emergency at CNS, it may be desirable to minimize number of personnel on-site by dismissing them. If emergency is a Site Area Emergency or General Emergency, or involves radiological release with the potential to cause contamination of personnel or vehicles, then evacuation of personnel is required to minimize exposure and contamination.
- 3.2 Personnel will be assembled at their Designated Assembly Area per EPIP 5.7.10. Completion of EPIP 5.7.10 will result in Security Coordinator having a list of any missing persons within Protected Area.
- 3.3 After assembly and accountability has been completed, dismissal or evacuation of personnel will be initiated as required per EPIP 5.7.2 or at discretion of Emergency Director.
- 3.4 Logistics Coordinator will utilize Logistics Coordinator DAAS West Warehouse to perform dismissal or evacuation per this procedure.
- 3.5 Dismissed or evacuated personnel shall follow all instructions with regard to dismissal or evacuation and obey all traffic laws.
- 3.6 This procedure provides guidance in four areas:
 - 3.6.1 Determination of need for dismissal of personnel.
 - 3.6.2 Determination of need for site evacuation.
 - 3.6.3 Determination of evacuation route and assembly area.

- 3.6.4 Conducting evacuation and subsequent assembly, monitoring, and release of personnel in an orderly manner.

3.7 DEFINITIONS

- 3.7.1 Dismissal - Unrestricted release of personnel from plant site. No re-assembly or radiological monitoring required.
- 3.7.2 ERO Relief Shift personnel - ERO personnel being dismissed or evacuated and who are designated to return later to perform ERO relief duty.
- 3.7.3 Evacuation - Controlled release of personnel from site to off-site re-assembly point due to potential for radiological contamination or exposure to direct radiation. Evacuation requires specified routes be taken to an off-site re-assembly point where radiological monitoring (and decontamination, if required) will be performed prior to unrestricted release.

3.8 DISMISSAL

- 3.8.1 If radiological conditions do not indicate need for evacuation but Emergency Director deems it appropriate to reduce number of personnel on-site, personnel will be dismissed to their homes.
- 3.8.2 Logistics Coordinator will coordinate this dismissal when instructed.
- 3.8.3 Logistics Coordinator Designated Assembly Area Supervisor (DAAS) in West Warehouse (WW) distributes Attachment 4 dismissal instructions to personnel being dismissed.
- 3.8.4 DAAS-WW to complete Attachment 3 dismissal form and to make a site-wide announcement with instructions regarding dismissal.

3.9 EVACUATION

- 3.9.1 If radiological conditions (or emergency classification) indicate need for evacuation, Logistics Coordinator will coordinate evacuation when instructed.
- 3.9.2 Radiological Control Manager (RCM) will determine evacuation route and provide to Logistics Coordinator.
- 3.9.3 Logistics Coordinator will contact DAAS-WW and provide appropriate evacuation route attachment and instructions to be distributed to each evacuee.
- 3.9.4 Logistics Coordinator will direct DAAS-WW to complete Attachment 5 and provide site-wide announcement regarding evacuation of personnel.
- 3.9.5 Radiological Protection personnel provide surveying and releasing of evacuee and vehicles at Off-site Assembly Area.

3.10 DISMISSAL OR EVACUATION FLOWCHART

- 3.10.1 Attachment 1, Dismissal Flowchart, and Attachment 2, Evacuation Flowchart, are printed on an 11 inch by 17 inch laminated sheet and mounted on foam board.
- 3.10.2 Header data on upper right flowchart will contain revision number.
- 3.10.3 Table 1 specifies current revision of Dismissal Flowchart and Evacuation Flowchart.

TABLE 1	
EGIP 5.7.11 Flowchart	Revision Number
Attachment 1, Dismissal Flowchart	0
Attachment 2, Evacuation Flowchart	0

- 3.10.4 It is not necessary that flowchart revision number be revised with each revision of this procedure.
- 3.10.5 If flowchart revised, then Attachment 12 is revised to reflect new flowchart revision data.

4. RECORDS

4.1 Following completed attachments from actual events shall be forwarded to EP Manager within 5 working days of their completion (quality record upon completion).

- Attachment 9.
- Attachment 10.

5. REFERENCES

5.1 CODES AND STANDARDS

5.1.1 NPPD Emergency Plan for CNS.

5.1.2 NRC Safety Evaluation Report (SER), TAC
Number ME0849 - ADAMS Accession Number ML100080231.

5.1.3 Nuclear Energy Institute (NEI) Document 99-01, Revision 5,
Methodology for Development of Emergency Action Levels.

5.1.4 NUREG 0654, Revision 1, Criteria for Preparation and Evaluation
of Radiological Emergency Response Plans and Preparedness in
Support of Nuclear Power Plants.

5.1.5 10CFR20.

5.2 PROCEDURES

5.2.1 Emergency Plan Implementing Procedure 5.7.2, Emergency
Director EPIP.

5.2.2 Emergency Plan Implementing Procedure 5.7.10, Personnel
Assembly and Accountability.

5.2.3 Rad Protection Procedure 9.RADOP.2, Radiation Safety Standards
and Limits.

5.3 MISCELLANEOUS

5.3.1 QA Audit 93-05.

5.3.2 Radiological White Paper 03-01.

5.3.3 @¹ TIP Action Plan 5.2.2.1, Action Step 8, Revision 2. Revised Procedures 5.7.10 and 5.7.11 to address changes in dismissal/evacuation. Affects entire procedure. Attachment 12, Section 1, Purpose is flagged.