# NUREG-0654/FEMA-REP-1, REVISION 2, STAKEHOLDER ENGAGEMENT MATERIAL

The enclosed information is provided in support of the Stakeholder Engagement sessions scheduled for October 29-31, 2013 (ADAMS Accession No. ML13193A171; <a href="www.regulations.gov">www.regulations.gov</a>, Docket ID: FEMA-2012-0026). The information that follows consists of preliminary draft evaluation criteria for Section II of NUREG-0654/FEMA-REP-1, Revision 2. The criteria are grouped by the planning standards found in Federal Emergency Management Agency (FEMA) and Nuclear Regulatory Commission (NRC) regulations (44 CFR 350.5(a) and 10 CFR 50.47(b) respectively).

Each planning standard was assigned to one of four writing teams, comprised of FEMA and NRC headquarters and regional emergency preparedness staff. The teams were tasked with developing new or revising current evaluation criteria based on changes to emergency preparedness-related regulations, policies, directives, technologies, and lessons learned since NUREG-0654/FEMA-REP-1, Revision 1, was issued. This is a key step in revising the document to provide enhanced guidance for the development, review, and evaluation of NRC licensee and offsite radiological emergency response planning and preparedness surrounding the Nation's commercial nuclear power plants.

Each preliminary draft criterion is presented in the following format:

- the wording of the criterion and list of applicable organizations;
- any clarifying or explanatory information associated with the criterion;
- the corresponding criterion (or criteria) and applicable organizations as found in NUREG-0654/FEMA-REP-1,
   Revision 1;
- a redline version of the criterion to show where changes have been made; and
- a general discussion of why changes were made to an existing criterion, why an existing criterion is no longer needed, or why a new criterion was added.

The writing teams will review the criteria with stakeholders during the sessions and be available for questions. Feedback provided by stakeholders will be considered by the writing teams in making any further changes to the criteria.

Several key changes have been incorporated into the preliminary draft evaluation criteria, as highlighted below:

- The criteria have been written using non-mandatory, active voice language to denote they are provided as
  recommendations for meeting the planning standards. These criteria would be used by FEMA and NRC reviewers
  for determining the adequacy of emergency plans and preparedness programs in the absence of an approved
  alternative approach.
- Additional explanatory information for the criteria will be placed in the FEMA REP Program Manual and a new NRC emergency preparedness guidance document to be developed in conjunction with NUREG-0654/FEMA-REP-1, Revision 2.
- The criteria for utility offsite radiological emergency response planning and preparedness, for those situations in
  which State and/or local governments decline to participate in emergency planning, have been incorporated into
  the criteria for other offsite response organizations (OROs) where appropriate. These criteria were located in
  Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and can now be identified by the term "Licensee ORO" in
  the list of applicable organizations.
- Tribal entities have been incorporated into the wording of the criteria and list of applicable organizations (where appropriate) in accordance with Federal policy.
- Separate criteria for early site permit (ESP) applicants are no longer provided, as the information within Supplement 2 to NUREG-0654/FEMA-REP-1, Revision 1, has been subsumed into the main document. Section I of NUREG-0654/FEMA-REP-1, Revision 2, will provide a discussion of the actions an ESP applicant will need to address for submitting an emergency plan as part of its application.
- Several criteria were revised or added to incorporate information from other FEMA and NRC guidance documents, including Supplement 4 of NUREG-0654/FEMA-REP-1, Revision 1, the FEMA REP Program Manual, NSIR/DPR-ISG-01, NUREG-0696, and NUREG-0737, Supplement 1.

In summary, the writing teams have been focused on developing preliminary draft evaluation criteria in Section II of NUREG-0654/FEMA-REP-1, Revision 2, for discussion on October 29-31, 2013. The revision of Section I and other changes to the document are in progress and will be available for public review at a later time.

# **Planning Standard J**

#### **Planning Standard Language**

A range of protective actions has been developed for the plume exposure pathway EPZ for emergency workers and the public. In developing this range of actions, consideration has been given to evacuation, sheltering, and, as a supplement to these, the prophylactic use of potassium iodide (KI), as appropriate. Evacuation time estimates have been developed by applicants and licensees. Licensees shall update the evacuation time estimates on a periodic basis. Guidelines for the choice of protective actions during an emergency, consistent with Federal guidance, are developed and in place, and protective actions for the ingestion exposure pathway EPZ appropriate to the locale have been developed.

Regulatory References: <u>10 CFR 50.47(b)(10)</u>, <u>44 CFR 350.5(a)(10)</u>

#### **Evaluation Criterion J.1**

#### **Preliminary Draft Rev. 2 Version**

The means and time required to alert and notify and provide a range of protective actions for onsite individuals and individuals who may be in areas controlled by the licensee (including members of the public) during an emergency or hostile action are established, to include:

Applicability: Licensee

J.1, Rev. 1 Version	Redline Version
Each licensee shall establish the means and time required to warn or advise onsite individuals and individuals who may be in areas controlled by the operator, including:	Each licensee shall establish tThe means and time required to warn or advise alert and notify and provide a range of protective actions for onsite individuals and individuals who may be in areas controlled by the operator, including:  licensee (including members of the public) during an emergency or hostile action are established, to include:
Applicability: Licensee	Applicability: Licensee

#### **General Discussion**

The proposed changes to evaluation criterion J.1 (including sub-criteria J.1.a-d) clarify that a range of protective actions is to be developed for onsite individuals, clarify that criterion J.1 applies to hostile action, and revise the wording to be consistent with NRC regulations and guidance. This change constitutes a revision of Evaluation Criterion J.1.

Preliminary Draft Rev. 2 Version
Employees not having emergency assignments;
Applicability: Licensee

J.1.a, Rev. 1 Version	Redline Version
Employees not having emergency assignments;	Employees not having emergency assignments;
Applicability: Licensee	Applicability: Licensee
General Discussion	
No changes were made.	

Preliminary Draft Rev. 2 Version
Visitors;
Applicability: Licensee

J.1.b, Rev. 1 Version	Redline Version
Visitors;	Visitors;
Applicability: Licensee	Applicability: Licensee
General Discussion	
No changes were made.	

Preliminary Draft Rev. 2 Version
Contractor and construction personnel; and
Applicability: Licensee

J.1.c, Rev. 1 Version	Redline Version
Contractor and construction personnel; and	Contractor and construction personnel; and
Applicability: Licensee	Applicability: Licensee
General Discussion	
No changes were made.	

# **Preliminary Draft Rev. 2 Version**

Other persons who may be in the public access areas, passing through the site, or within the owner controlled area. Any special provisions (e.g., different from the onsite means), such as coordination with offsite authorities, needed to alert and notify these persons is described.

Applicability: Licensee

J.1.d, Rev. 1 Version	Redline Version
Other persons who may be in the public access areas on or passing through the site or within the owner controlled area.	Other persons who may be in the public access areas, on or passing through the site, or within the owner controlled area. Any special provisions (e.g., different from the onsite means), such as coordination with offsite authorities, needed to alert and notify these persons is described.
Applicability: Licensee	Applicability: Licensee

#### **General Discussion**

The proposed changes clarify the need for specifying any special provisions beyond the onsite means for alerting and notifying persons who may be in public access areas, passing through the site, or within the owner controlled area. <u>This change constitutes a revision of Evaluation Criterion J.1.d.</u>

# **Preliminary Draft Rev. 2 Version**

Procedures are developed that outline site actions in response to a security event. The procedures address different contingencies for onsite protective actions including:

Applicability: Licensee

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Procedures are developed that outline site actions in response to a security event. The procedures address different contingencies for onsite protective actions including:
Applicability: n/a	Applicability: <u>Licensee</u>

#### **General Discussion**

Preliminary Draft Rev. 2 Version
Evacuation of personnel from target buildings (including security personnel);
Applicability: Licensee

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Evacuation of personnel from target buildings (including security personnel);
Applicability: n/a	Applicability: <u>Licensee</u>

# **General Discussion**

Preliminary Draft Rev. 2 Version
Site evacuation by opening, while continuing to defend, security gates;
Applicability: Licensee

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Site evacuation by opening, while continuing to defend, security gates;
Applicability: n/a	Applicability: <u>Licensee</u>

# **General Discussion**

Preliminary Draft Rev. 2 Version	
Dispersal of licensed operators to increase survivability;	
Applicability: Licensee	

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Dispersal of licensed operators to increase survivability;
Applicability: n/a	Applicability: <u>Licensee</u>
General Discussion	
This criterion was added to include guidance from Section IV.F of NSIR/DPR-ISG-01. This change constitutes the creation of	

Preliminary Draft Rev. 2 Version	
Sheltering of personnel in structures away from potential site targets; and	
Applicability: Licensee	

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Sheltering of personnel in structures away from potential site targets; and
Applicability: n/a	Applicability: <u>Licensee</u>

# **General Discussion**

Preliminary Draft Rev. 2 Version	
Arrangements for accounting for personnel after the attack (See J.7).	
Applicability: Licensee	

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Arrangements for accounting for personnel after the attack (See J.7).
Applicability: n/a	Applicability: <u>Licensee</u>

# **General Discussion**

# **Preliminary Draft Rev. 2 Version**

A decision-making tool is developed to aid the shift manager in rapidly determining the best protective action for onsite personnel during hostile action-based events, such as site evacuation via normal exits, site evacuation via alternate means, or if little time is available, appropriate locations for sheltering and buildings to be evacuated.

Applicability: Licensee

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	A decision-making tool is developed to aid the shift manager in rapidly determining the best protective action for onsite personnel during hostile action-based events, such as site evacuation via normal exits, site evacuation via alternate means, or if little time is available, appropriate locations for sheltering and buildings to be evacuated.
Applicability: n/a	Applicability: <u>Licensee</u>

#### **General Discussion**

# **Preliminary Draft Rev. 2 Version**

Provisions are made for evacuation routes and transportation for onsite individuals to some suitable offsite location. Selection of location considers the potential for inclement weather, high traffic density, and potential radiological conditions. Alternate location(s) and route(s) are identified.

Applicability: Licensee, State, Local, Tribal, Licensee ORO

J.2, Rev. 1 Version	Redline Version
Each licensee shall make provisions for evacuation routes and transportation for onsite individuals to some suitable offsite location, including alternatives for inclement weather, high traffic density and specific radiological conditions.	Each licensee shall make pProvisions are made for evacuation routes and transportation for onsite individuals to some suitable offsite location. including alternatives  Selection of location considers the potential for inclement weather, high traffic density, and specific potential radiological conditions. Alternate location(s) and route(s) are identified.
Applicability: Licensee, State, Local	Applicability: Licensee, State, Local, Tribal, Licensee ORO

#### **General Discussion**

Editorial changes were made for clarity. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.2.

Preliminary Draft Rev. 2 Version	
Radiological monitoring of personnel evacuated from the site is provided.	
Applicability: Licensee	

J.3, Rev. 1 Version	Redline Version
Each licensee shall provide for radiological monitoring of people evacuated from the site.	Each licensee shall provide for rRadiological monitoring of people personnel evacuated from the site is provided.
Applicability: Licensee	Applicability: Licensee
General Discussion	
Editorial changes were made for clarity. This change constitutes a revision of Evaluation Criterion J.3.	

# **Preliminary Draft Rev. 2 Version**

The evacuation of onsite non-essential personnel in the event of a Site Area Emergency or General Emergency is provided for, as is decontamination capabilities at or near the monitoring point specified in J.5.

Applicability: Licensee

J.4, Rev. 1 Version	Redline Version
Each licensee shall provide for the evacuation of onsite non- essential personnel in the event of a Site or General Emergency and shall provide a decontamination capability at or near the monitoring point specified in J.3.	Each licensee shall provide for tThe evacuation of onsite non-essential personnel in the event of a Site Area Emergency or General Emergency is provided for, as is and shall provide a decontamination capability capabilities at or near the monitoring point specified in 1.3.1.5.
Applicability: Licensee	Applicability: Licensee
General Discussion	

Editorial changes were made for clarity. This change constitutes a revision of Evaluation Criterion J.4.

# **Preliminary Draft Rev. 2 Version**

A capability exists to account for all individuals onsite at the time of the incident. The names of missing individuals are ascertained within 30 minutes of the declaration of a Site Area Emergency or General Emergency, and all onsite individuals are accounted for continuously thereafter. Accountability procedures contain contingencies for hostile action-based events, such as prompt accountability after the site is secure. Accountability procedures do not interfere with personnel safety, safe shutdown activities, or known medical emergencies.

Applicability: Licensee

J.5, Rev. 1 Version	Redline Version
Each licensee shall provide for a capability to account for all individuals onsite at the time of the emergency and ascertain the names of missing individuals within 30 minutes of the start of an emergency and account for all onsite individuals continuously thereafter.	Each licensee shall provide for aA capability exists to account for all individuals onsite at the time of the emergency-incident. and ascertain the The names of missing individuals are ascertained within 30 minutes of the start of an emergency and account for all declaration of a Site Area Emergency or General Emergency, and all onsite individuals are accounted for continuously thereafter. Accountability procedures contain contingencies for hostile action-based events, such as prompt accountability after the site is secure. Accountability procedures do not interfere with personnel safety, safe shutdown activities, or known medical emergencies.
Applicability: Licensee	Applicability: Licensee

#### **General Discussion**

This criterion was revised to include guidance from Section IV.F of NSIR/DPR-ISG-01. <u>This change constitutes a revision of Evaluation Criterion J.5.</u>

# **Preliminary Draft Rev. 2 Version**

Provisions are made for personal protection, both industrial and radiological, for individuals remaining or arriving onsite during the emergency.

Applicability: Licensee

J.6 and J.6.a-c Rev. 1 Versions	Redline Version
<b>J.6:</b> Each licensee shall, for individuals remaining or arriving onsite during the emergency, make provisions for:	Each licensee shall, Provisions are made for personal protection, both industrial and radiological, for individuals
J.6.a: Individual respiratory protection	remaining or arriving onsite during the emergency, make provisions for:
J.6.b: Use of protective clothing; and	J.6.a: Individual respiratory protection
<b>J.6.c:</b> Use of radioprotective drugs, (e.g., individual thyroid protection).	J.6.b: Use of protective clothing; and J.6.c: Use of radioprotective drugs, (e.g., individual thyroid protection).
Applicability: Licensee	Applicability: Licensee

# **General Discussion**

Changes were made to this criterion to clarify the purpose of the provisions for personal protection. <u>This change constitutes</u> a revision of Evaluation Criteria J.6 and J.6a-c.

# **Preliminary Draft Rev. 2 Version**

Procedures are established for recommending protective actions for the plume exposure pathway emergency planning zone to the responsible offsite response organizations.

Applicability: Licensee, State

J.7, Rev. 1 Version	Redline Version
Each licensee shall establish a mechanism for recommending protective actions to the appropriate State and local authorities. These shall include Emergency Action Levels corresponding to projected dose to the populationat-risk, in accordance with Appendix 1 and with the recommendations set forth in Tables 2.1 and 2.2 of the Manual of Protective Action Guides and Protective Action for Nuclear Incidents (EPA-520/1-75-001). As specified in Appendix 1, prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within the plume exposure pathway Emergency Planning Zone.	Each licensee shall establish a mechanism for Procedures are established for recommending protective actions to the appropriate State and local authorities. These shall include Emergency Action Levels corresponding to projected dose to the population-at-risk, in accordance with Appendix 1 and with the recommendations set forth in Tables 2.1 and 2.2 of the Manual of Protective Action Guides and Protective Action for Nuclear Incidents (EPA 520/1 75 001). As specified in Appendix 1, prompt notification shall be made directly to the offsite authorities responsible for implementing protective measures within for the plume exposure pathway Emergency Planning Zone to the responsible offsite response organizations.
Applicability: Licensee	Applicability: Licensee, State

#### **General Discussion**

This criterion is now subdivided into new evaluation criteria J.9.a, J.9.b, and J.9.c for emphasis and to clarify the guidance for making protective action recommendations, including the use of KI. Editorial changes clarified the intent of establishing procedures and reporting to authorities with responsibility to implement protective actions. Evaluation criterion J.9 includes recommendations formulated by OROs in addition to the licensee as PAR formulation by the OROs was not adequately addressed in other criteria. This change constitutes a revision of Evaluation Criterion J.7.

# **Preliminary Draft Rev. 2 Version**

A site-specific protective action strategy, informed by the evacuation time estimate study, is developed, maintained, and coordinated with OROs. Currently accepted and/or endorsed Federal methodologies are used.

**Applicability:** Licensee

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	A site-specific protective action strategy, informed by the evacuation time estimate study, is developed, maintained, and coordinated with OROs. Currently accepted and/or endorsed Federal methodologies are used.
Applicability: n/a	Applicability: <u>Licensee</u>

#### **General Discussion**

This criterion was added to clarify the guidance for establishing procedures for making protective action recommendations. This change constitutes the creation of a new criterion.

# **Preliminary Draft Rev. 2 Version**

Each plan addresses evacuation and sheltering as protective actions. The prophylactic use of potassium iodide (KI) is considered as a supplement to evacuation and sheltering for the general public, as appropriate (e.g., for States where a KI program is implemented). Currently approved federal methodologies are used.

**Applicability:** Licensee

**Additional Information for Licensees:** The Environmental Protection Agency, Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (Draft for Interim Use and Public Comment), March 2013 is the currently approved guidance for EPA protective action guidance limits and should be utilized in the development of PAR strategies.

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Each plan addresses evacuation and sheltering as protective actions. The prophylactic use of potassium iodide (KI) is considered as a supplement to evacuation and sheltering for the general public, as appropriate (e.g., for States where a KI program is implemented). Currently accepted and/or endorsed Federal methodologies are used.
Applicability: n/a	Applicability: <u>Licensee</u>

#### **General Discussion**

This criterion was added to clarify consideration of potassium iodide use as a supplement to sheltering and evacuation. This change constitutes the creation of a new criterion.

# **Preliminary Draft Rev. 2 Version**

Protective action recommendations are provided directly to the offsite response organization responsible for making the protective action decisions within the plume exposure pathway emergency planning zone. See Evaluation Criteria E.1 and E.3.

Applicability: Licensee

**Additional Information for Licensees:** PARs may be provided as part of the initial General Emergency notification that goes out to other OROs where that is the accepted and established method or practice.

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Protective action recommendations are provided directly to the offsite response organization responsible for making the protective action decisions within the plume exposure pathway emergency planning zone. See Evaluation Criteria E.1 and E.3.
Applicability: n/a	Applicability: <u>Licensee</u>

#### **General Discussion**

This criterion was added to clarify that PARs are to be provided directly to the ORO with responsibility for implementing protective actions at the General Emergency. This change constitutes the creation of a new criterion.

# **Preliminary Draft Rev. 2 Version**

An analysis of the time estimates for evacuation within the plume exposure emergency planning zone is developed in accordance with currently accepted and/or endorsed Federal methodologies.

**Applicability:** Licensee

J.8, Rev. 1 Version	Redline Version
Each licensee's plan shall contain time estimates for evacuation within the plume exposure EPZ. These shall be in accordance with Appendix 4.	Each licensee's plan shall contain An analysis of the time estimates for evacuation within the plume exposure emergency planning zone is developed in accordance with currently accepted and/or endorsed Federal methodologies. These shall be in accordance with Appendix 4.
Applicability: Licensee	Applicability: Licensee

#### **General Discussion**

This criterion has been revised to update the reference for ETE development. <u>This change constitutes a revision of Evaluation Criterion J.8.</u>

# **Preliminary Draft Rev. 2 Version**

A capability for implementing protective measures based upon protective action guides and other criteria is established. The process is explained to sufficiently ensure coordination of protective action decisions with all appropriate jurisdictions

Applicability: State, Local, Tribal, Licensee ORO

J.9, Rev. 1 Version	Redline Version
Each State and local organization shall establish a capability for implementing protective measures based upon protective action guides and other criteria. This shall be consistent with the recommendations of EPA regarding exposure resulting from passage of radioactive airborne plumes, (EPA-520/1-75-001) and with those of DHEW (DHHS)/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register of December 15, 1978 (43 FR 58790).	Each State and local organization shall establish aA capability for implementing protective measures based upon protective action guides and other criteria is established. This shall be consistent with the recommendations of EPA regarding exposure resulting from passage of radioactive airborne plumes, (EPA-520/1-75-001) and with those of DHEW (DHHS)/FDA regarding radioactive contamination of human food and animal feeds as published in the Federal Register of December 15, 1978 (43 FR 58790). The process is explained to sufficiently ensure coordination of protective action decisions with all appropriate jurisdictions.
Applicability: State, Local	Applicability: State, Local, <u>Tribal, Licensee ORO</u>

# **General Discussion**

Editorial changes were made for clarity and old references were removed. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.9.

# **Preliminary Draft Rev. 2 Version**

The plan for implementing protective measures for the plume exposure pathway is described including items such as those listed below, if available. Where appropriate, a description of contacts and arrangements made among offsite agencies with emergency planning responsibilities is included:

Applicability: Licensee, State, Local, Tribal, Licensee ORO

J.10, Rev. 1 Version	Redline Version
The organization's plans to implement protective measures for the plume exposure pathway shall include:	The organization's plans to implement The plan for implementing protective measures for the plume exposure pathway shall include: is described including items such as those listed below, if available. Where appropriate, a description of contacts and arrangements made among offsite agencies with emergency planning responsibilities is included:
Applicability: n/a	Applicability: Licensee, State, Local, Tribal, Licensee ORO

#### **General Discussion**

Editorial changes were made to the existing criterion and wording was clarified. Additionally, "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.

# **Preliminary Draft Rev. 2 Version**

Maps, charts, or other information showing evacuation routes, evacuation areas, reception centers in host areas, and shelter areas. Plans provide methods of identifying radiological monitoring and sampling points used to characterize the plume. Identification of radiological sampling and monitoring points includes the designators in Table J-1 or an equivalent uniform system described in the plan. This includes identifying the organization responsible for updating and maintaining maps;

Applicability: Licensee, State, Local, Tribal, Licensee ORO

J.10.a, Rev. 1 Version	Redline Version
Maps showing evacuation routes, evacuation areas, preselected radiological sampling and monitoring points, relocation centers in host areas, and shelter areas; (identification of radiological sampling and monitoring points shall include the designators in Table J-1 or an equivalent uniform system described in the plan);	Maps, charts, or other information showing evacuation routes, evacuation areas, preselected radiological sampling and monitoring points, relocation centers in host areas, and shelter areas; reception centers in host areas, and shelter areas. Plans provide methods of identifying radiological monitoring and sampling points used to characterize the plume. (ildentification of radiological sampling and monitoring points shall includes the designators in Table J-1 or an equivalent uniform system described in the plan). This includes identifying the organization responsible for updating and maintaining maps;
Applicability: Licensee, State, Local	Applicability: Licensee, State, Local, Tribal, Licensee ORO

#### **General Discussion**

This criterion was revised to update terminology from "relocation center" to "Reception center", which is now a common term throughout the program and is more applicable to early phase protective actions. Using pre-determined monitoring points may be acceptable practice, but in some areas OROs do not take measurements that allow for characterization of the plume. Language was revised to allow for other methods of identifying monitoring and sampling points. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.a.

# **Preliminary Draft Rev. 2 Version**

Maps, tables, or other information showing population distribution around the nuclear facility by evacuation areas. Licensees provide State, local, and tribal organizations this information.

Applicability: Licensee, State, Local, Tribal, Licensee ORO

J.10.b, Rev. 1 Version	Redline Version
Maps showing population distribution around the nuclear facility. This shall be by evacuation areas (licensees shall also present the information in a sector format);	Maps, <u>tables</u> , <u>or other information</u> showing population distribution around the nuclear facility <u>by evacuation areas</u> .  This shall be by evacuation areas (licensees shall also present the information in a sector format); <u>Licensees</u> provide State, local, and tribal organizations this information;
Applicability: Licensee, State, Local	Applicability: Licensee, State, Local, Tribal, Licensee ORO
General Discussion  Editorial changes were made for clarity. This change constitutes a revision of Evaluation Criterion J.12.b.	

# **Preliminary Draft Rev. 2 Version**

Primary and backup means for notifying all segments of the transient and resident population. The means for notifying members of the public present within the owner controlled area is addressed (See J.1.d);

Applicability: Licensee, State, Local, Tribal, Licensee ORO

J.10.c, Rev. 1 Version	Redline Version
Means for notifying all segments of the transient and resident population;	Primary and backup Mmeans for notifying all segments of the transient and resident population. The means for notifying members of the public present within the owner controlled area is addressed (See J.1.d);
Applicability: Licensee, State, Local	Applicability: Licensee, State, Local, Tribal, Licensee ORO

#### **General Discussion**

This criterion was revised to clarify that the EPZ includes the owner controlled area. <u>This change constitutes a revision of Evaluation Criterion J.10.c.</u>

#### **Preliminary Draft Rev. 2 Version**

Means for identifying and protecting access/functional needs groups such as transportation-dependent residents and those within special facilities or correctional facilities whose mobility may be impaired, or residents who would have difficulty in implementing protective measures without assistance. These means include notification and support and assistance in implementing protective measures where appropriate;

Applicability: State, Local, Tribal, Licensee ORO

J.10.d, Rev. 1 Version	Redline Version
Means for protecting those persons whose mobility may be impaired due to such factors as institutional or other confinement;	Means for protecting those persons identifying and protecting access/functional needs groups such as transportation-dependent residents and those within special facilities or correctional facilities whose mobility may be impaired, due to such factors as institutional or other confinement or residents who would have difficulty in implementing protective measures without assistance. These means include notification and support and assistance in implementing protective measures where appropriate;
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

#### **General Discussion**

This criterion was revised and expanded to convey the sense that all special population groups that may require assistance in implementing protective actions should be considered. The revision also included defining what is meant by "means" and updated language to be consistent with latest Federal guidance. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.d.

# **Preliminary Draft Rev. 2 Version**

Provisions for the administration of radioprotective drugs for the general population when appropriate, and emergency workers and institutional persons within the plume exposure emergency planning zone whose immediate evacuation may be infeasible or very difficult, including means of communicating recommendations, maintenance of supplies, quantities, storage, and means of distribution;

Applicability: State, Local, Tribal, Licensee ORO

J.10.e, Rev. 1 Version	Redline Version
Provisions for the use of radioprotective drugs, particularly for emergency workers and institutional persons within the plume exposure EPZ whose immediate evacuation may be infeasible or very difficult, including quantities, storage, and means of distribution;	Provisions for the use administration of radioprotective drugs , particularly for the general population when appropriate, and emergency workers and institutional persons within the plume exposure emergency planning zone whose immediate evacuation may be infeasible or very difficult, including means of communicating recommendations, maintenance of supplies, quantities, storage, and means of distribution;
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

# **General Discussion**

This criterion was revised to better address the means of communicating protective action recommendations. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.e.

#### **Preliminary Draft Rev. 2 Version**

Methods by which decisions are made by the responsible offsite authority for administering radioprotective drugs to the general population during an emergency and the pre-determined conditions under which such drugs may be used by offsite emergency workers<sup>1</sup>;

Applicability: State, Local, Tribal, Licensee ORO

J.10.f, Rev. 1 Version	Redline Version
State and local organizations' plan should include the method by which decisions by the State Health Department for administering radioprotective drugs to the general population are made during an emergency and the predetermined conditions under which such drugs may be used by offsite emergency workers;	State and local organizations' plan should include the mMethods by which decisions are made by the State Health Department the responsible offsite authority for administering radioprotective drugs to the general population during an emergency and the pre-determined conditions under which such drugs may be used by offsite emergency workers;
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

#### **General Discussion**

Revisions to this criterion include an editorial change that replaces "State Health Department" with "responsible offsite authority". "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.f.

<sup>&</sup>lt;sup>1</sup> The Food and Drug Administration (FDA) issued "Potassium Iodide as a Thyroid-Blocking Agent in a Radiation Emergency," on December 11, 2001 (66 FR 238:64046).

#### **Preliminary Draft Rev. 2 Version**

Means of evacuation, including the consideration of staged evacuation, which will be informed by the updated evacuation time estimates, are included. Plans and procedures describe alternate evacuation routes and transportation resources to be utilized. Plans include projected traffic capacities of evacuation routes under emergency conditions and general plans to implement traffic control schemes during evacuation;

Applicability: State, Local, Tribal, Licensee ORO

J.10.g, J.10.i, and J.10.l Rev. 1 Versions	Redline Version
J.10.g: Means of relocation;	Means of evacuation, including the consideration of
<b>J.10.i:</b> Projected traffic capacities of evacuation routes under emergency conditions;	staged evacuation, which will be informed by the updated evacuation time estimates, are included. Plans and procedures describe alternate evacuation routes and
<b>J.10.l:</b> Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (See Appendix 4);	transportation resources to be utilized. Plans include projected traffic capacities of evacuation routes under emergency conditions and general plans to implement traffic control schemes during evacuation;
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

#### **General Discussion**

This criterion has been revised to account for evacuation as an early-phase protective action that should be considered and requires advance planning on the part of offsite response organizations. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criteria J.10.j, J.10.i, and J.10.l.

# **Preliminary Draft Rev. 2 Version**

Reception centers in host areas which are at least 5 miles, and preferably 10 miles, <u>beyond</u> the boundaries of the plume exposure emergency planning zone. Plans include locations of pre-identified reception centers, organizations responsible for managing reception centers, arrangements for handling service animals, and provisions for radiological monitoring (see J.14);

Applicability: State, Local, Tribal, Licensee ORO

J.10.h, Rev. 1 Version	Redline Version
Relocation centers in host areas which are at least 5 miles, and preferably 10 miles, beyond the boundaries of the plume exposure emergency planning zone;	Relocation Reception centers in host areas which are at least 5 miles, and preferably 10 miles, beyond the boundaries of the plume exposure emergency planning zone; Plans include locations of pre-identified reception centers, organizations responsible for managing reception centers, arrangements for handling service animals, and provisions for radiological monitoring (see J.14);
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

# **General Discussion**

The criterion was updated to include more appropriate terminology. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.h.

# **Preliminary Draft Rev. 2 Version**

Means for the initial and ongoing control of access to evacuated areas and organization responsibilities for such control, including identifying pre-selected control points;

Applicability: Licensee, State, Local, Tribal, Licensee ORO

J.10.j, Rev. 1 Version	Redline Version
Control of access to evacuated areas and organization responsibilities for such control;	Means for the initial and ongoing Control of access to evacuated areas and organization responsibilities for such control, including identifying pre-selected control points;
Applicability: State, Local	Applicability: Licensee, State, Local, Tribal, Licensee ORO

#### **General Discussion**

Editorial changes were made to the existing criterion and wording was clarified. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.j.

# **Preliminary Draft Rev. 2 Version**

Identification of and means for dealing with potential impediments to use of evacuation routes (e.g., seasonal impassability of roads) and contingency measures. Plans describe resources available to clear impediments and responsibility for re-routing traffic, as necessary;

Applicability: State, Local, Tribal, Licensee ORO

J.10.k, Rev. 1 Version	Redline Version
Identification of and means for dealing with potential impediments (e.g., seasonal impassability of roads) to use of evacuation routes, and contingency measures;	Identification of and means for dealing with potential impediments (e.g., seasonal impassability of roads) to use of evacuation routes (e.g., seasonal impassability of roads) and contingency measures. Plans describe resources available to clear impediments and responsibility for rerouting traffic, as necessary;
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

#### **General Discussion**

Editorial changes were made to the existing criterion and wording was clarified. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.k.

# **Preliminary Draft Rev. 2 Version**

Evacuation time estimate study results that support protective action strategies; and

Applicability: State, Local, Tribal, Licensee ORO

J.10.l, Rev. 1 Version	Redline Version
Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (See Appendix 4); and	Time estimates for evacuation of various sectors and distances based on a dynamic analysis (time-motion study under various conditions) for the plume exposure pathway emergency planning zone (See Appendix 4); and Evacuation time estimate study results that support protective action strategies; and
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

#### **General Discussion**

This criterion was revised to ensure OROs incorporate results of the ETE study in plans for developing protective action strategies. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.10.l.

#### **Preliminary Draft Rev. 2 Version**

Rationales for any pre-planned precautionary actions (e.g., at Site Area Emergency).

Applicability: Licensee, State, Licensee ORO

J.10.m, Rev. 1 Version	Redline Version
The bases for the choice of recommended protective actions from the plume exposure pathway during emergency conditions. This shall include expected local protection afforded <sup>2</sup> in residential units or other shelter for direct and inhalation exposure, as well as evacuation time estimates.	The bases for the choice of recommended protective actions from the plume exposure pathway during emergency conditions. This shall include expected local protection afforded <sup>3</sup> in residential units or other shelter for direct and inhalation exposure, as well as evacuation time estimates. Rationales for any pre-planned precautionary actions (e.g., at Site Area Emergency).
Applicability: Licensee, State	Applicability: Licensee, State, Licensee ORO

#### **General Discussion**

This criterion was revised to address precautionary actions and remove redundant language for other protective actions already addressed in previous criteria. "Licensee ORO" was added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1. This change constitutes a revision of Evaluation Criterion J.10.m.

<sup>&</sup>lt;sup>2</sup> The following reports may be considered in determining protection afforded. 1."Public Protection Strategies for Potential Nuclear Reactor Accidents" Sheltering Concepts with Existing Public and Private Structures" (SAND 77-1725), Sandia Laboratory. 2. "Examination of Offsite Radiological Emergency Measures for Nuclear Reactor Accidents Involving Core Melt" (SAND 78-0454), Sandia Laboratory. 3. "Protective Action Evaluation Part II, Evacuation and Sheltering as Protective Actions Against Nuclear Accidents Involving Gaseous Releases" (EPA 520/1-78-001B), U.S. Environmental Protection Agency.

#### **Preliminary Draft Rev. 2 Version**

Protective measures to be used for the ingestion pathway are specified, including the methods for protecting the public from consumption of contaminated foodstuffs. This includes criteria for deciding whether dairy animals should be put on stored feed. The plan identifies procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion, and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps, tables, or charts for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, watersheds, water supply intake and treatment plants, and reservoirs are maintained. If these maps, tables, or charts are not written directly into the plan, the plan references their availability and location and plan for their use. Maps start at the facility and include the entire 50-mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, are maintained. Plans include methodology for designating areas of concern where monitoring and sampling will be implemented and for the collection of agricultural samples.

Applicability: State, Licensee ORO

#### J.11, Rev. 1 Version

Each State shall specify the protective measures to be used for the ingestion pathway, including the methods for protecting the public from consumption of contaminated foodstuffs. This shall include criteria for deciding whether dairy animals should be put on stored feed. The plan shall identify procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion, and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, water sheds, water supply intake and treatment plants and reservoirs shall be maintained. Provisions for maps showing detailed crop information may be by including reference to their availability and location and a plan for their use. The maps shall start at the facility and include all of the 50-mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, shall be maintained.

#### **Redline Version**

Each State shall specify the protective measures to be used for the ingestion pathway, Protective measures to be used for the ingestion pathway are specified, including the methods for protecting the public from consumption of contaminated foodstuffs. This shall includes criteria for deciding whether dairy animals should be put on stored feed. The plan shall identify identifies procedures for detecting contamination, for estimating the dose commitment consequences of uncontrolled ingestion, and for imposing protection procedures such as impoundment, decontamination, processing, decay, product diversion, and preservation. Maps, tables, or charts for recording survey and monitoring data, key land use data (e.g., farming), dairies, food processing plants, water sheds, water supply intake and treatment plants and reservoirs shall be are maintained. If these maps, tables, or charts are not written directly into the plan, the plan references their availability and location and plan for their use. Provisions for maps showing detailed crop information may be by including reference to their availability and location and a plan for their use. The maps shall Maps start at the facility and include all of the entire 50mile ingestion pathway EPZ. Up-to-date lists of the name and location of all facilities which regularly process milk products and other large amounts of food or agricultural products originating in the ingestion pathway Emergency Planning Zone, but located elsewhere, shall be are maintained. Plans include methodology for designating areas of concern where monitoring and sampling will be implemented and for the collection of agricultural samples. Applicability: State, Licensee ORO

# **Applicability: State**

Editorial changes were made to the existing criterion and wording was clarified. "Licensee ORO" was added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1. This change constitutes a revision of Evaluation <u>Criterion J.11.</u>

**General Discussion** 

#### **Preliminary Draft Rev. 2 Version**

The means for registering and monitoring of evacuees, service animals, vehicles, and possessions at reception centers in host areas are described. The personnel and equipment available are capable of monitoring 20 percent of the EPZ population, including transients, assigned to each facility within a 12-hour period. Decontamination procedures, including action levels that indicate the need for decontamination and methods for contamination control, are included in plans. Physical layout diagrams show the flow of operations, including means to separate contaminated and uncontaminated people and service animals.

Applicability: State, Local, Tribal, Licensee ORO

J.12, Rev. 1 Version	Redline Version
Each organization shall describe the means for registering and monitoring of evacuees at relocation centers in host areas. The personnel and equipment available should be capable of monitoring within about a 12 hour period all residents and transients in the plume exposure EPZ arriving at relocation centers.	Each organization shall describe tThe means for registering and monitoring of evacuees, service animals, vehicles, and possessions at relocation reception centers in host areas are described. The personnel and equipment available should be are capable of monitoring 20 percent of the EPZ population, including transients, assigned to each facility within about a 12 hour period. all residents and transients in the plume exposure EPZ arriving at relocation centers. Decontamination procedures, including action levels that indicate the need for decontamination and methods for contamination control, are included in plans. Physical layout diagrams show the flow of operations, including means to separate contaminated and uncontaminated people and service animals.
Applicability: State, Local	Applicability: State, Local, Tribal, Licensee ORO

#### **General Discussion**

Editorial changes were made to the existing criterion and wording was clarified. "Relocation" was changed to "reception" in the first sentence of the criterion consistent with previous criteria. "Tribal" and "Licensee ORO" entities have been added as part of this revision to consolidate Supplement 1 to NUREG-0654/FEMA-REP-1, Revision 1, and align with FEMA's Tribal policy. This change constitutes a revision of Evaluation Criterion J.12.

# **Preliminary Draft Rev. 2 Version**

General plans for the removal or continued exclusion of individuals from restricted areas are developed. Relocation plans include:

Applicability: State

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	General plans for the removal or continued exclusion of individuals from restricted areas are developed.  Relocation plans include:
Applicability: n/a	Applicability: <u>State</u>

#### **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action. <u>This change constitutes the creation of a new criterion.</u>

Preliminary Draft Rev. 2 Version
Plans to implement currently accepted and/or endorsed Federal protective action guidelines for relocation;
Applicability: State, Local, Tribal

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Plans to implement currently accepted and/or endorsed Federal protective action guidelines for relocation;
Applicability: n/a	Applicability: State, Local, Tribal

# **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action. <u>This change constitutes the creation of a new criterion.</u>

Preliminary Draft Rev. 2 Version	
Means to identify and determine the boundaries of relocation areas, including a buffer zone;	
Applicability: State	

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Means to identify and determine the boundaries of relocation areas, including a buffer zone;
Applicability: n/a	Applicability: State

# **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action, as well as guidance from the REP Program Manual. <u>This change constitutes the creation of a new criterion.</u>

# **Preliminary Draft Rev. 2 Version**

Prioritization of relocation based on projected dose to the individual and the timeframe for relocation (i.e., prioritize areas where relocation should occur within days or weeks over months. Higher priority should be given to higher exposure rate areas (hotspots) identified based on actual field data);

**Applicability: State** 

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Prioritization of relocation based on projected dose to the individual and the timeframe for relocation (i.e., prioritize areas where relocation should occur within days or weeks over months. Higher priority should be given to higher exposure rate areas (hotspots) identified based on actual field data);
Applicability: n/a	Applicability: <u>State</u>

#### **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action, as well as guidance from the FEMA REP Program Manual. <u>This change constitutes the creation of a new criterion.</u>

Preliminary Draft Rev. 2 Version	
Control of access to and egress from relocation areas and plans for providing security of depopulated areas;	
Applicability: State, Local, Tribal	

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Control of access to and egress from relocation areas and plans for providing security of depopulated areas;
Applicability: n/a	Applicability: State, Local, Tribal

#### **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action, as well as guidance from the FEMA REP Program Manual. <u>This change constitutes the creation of a new criterion.</u>

Preliminary Draft Rev. 2 Version	
Contamination control during relocation; and	
Applicability: State, Local, Tribal	

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Contamination control during relocation; and
Applicability: n/a	Applicability: State, Local, Tribal

# **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action, as well as guidance from the REP Program Manual. This change constitutes the creation of a new criterion.

# Preliminary Draft Rev. 2 Version Means for coordinating and providing assistance during relocation. Applicability: State, Local, Tribal

Rev. 1 Version	Redline Version
New criterion; no previous version exists.	Means for coordinating and providing assistance during relocation.
Applicability: n/a	Applicability: State, Local, Tribal

#### **General Discussion**

This criterion was created to address relocation plans/procedures, as relocation is a protective action, as well as guidance from the FEMA REP Program Manual. This criterion is not intended to reference long-term housing or recovery, but rather to cover relocation as defined in the FEMA REP Program Manual. This change constitutes the creation of a new criterion.