
Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants

**U.S. Nuclear Regulatory
Commission**



**Federal Emergency Management
Agency**

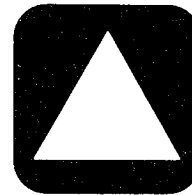


TABLE 1

GUIDANCE ON SIZE OF THE EMERGENCY PLANNING ZONE

<u>Accident Phase</u>	<u>Critical Organ and Exposure Pathway</u>	<u>EPZ Radius</u>
Plume Exposure Pathway	Whole Body (external) Thyroid (inhalation) Other organs (inhalation)	about 10 mile radius*
Ingestion Pathway	Thyroid, whole body, bone marrow (ingestion)	about 50 mile radius**

* Judgment should be used in adopting this distance based upon considerations of local conditions such as demography, topography, land characteristics, access routes, and local jurisdictional boundaries.

**Processing plants for milk produced within the EPZ should be included in emergency response plans regardless of their location.

TABLE 2

GUIDANCE ON INITIATION AND DURATION OF RELEASE

Time from the initiating event to start of atmospheric release	0.5 hours to one day
Time period over which radioactive material may be continuously released	0.5 hours to several days
Time at which major portion of release may occur	0.5 hours to 1 day after start of release
Travel time for release to exposure point (time after release)	5 miles -- 0.5 to 2 hours 10 miles - 1 to 4 hours

J. Protective Response (continued)

<u>Evaluation Criteria</u>	<u>Applicability and Cross Reference to Plans</u>		
	<u>Licensee</u>	<u>State</u>	<u>Local</u>
e. Provisions for the use of radioprotective drugs, particularly for emergency workers and institutionalized persons within the plume exposure EPZ whose immediate evacuation may be infeasible or very difficult, including quantities, storage, and means of distribution.		X _____	X _____
f. State and local organizations' plans 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 pre-determined conditions under which such drugs may be used by offsite emergency workers; ¹		X _____	X _____
g. Means of relocation;		X _____	X _____
h. Relocation 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; (See J.12).		X _____	X _____
i. Projected traffic capacities of evacuation routes under emergency conditions;		X _____	X _____
j. Control of access to evacuated areas and organization responsibilities for such control;		X _____	X _____
k. Identification of and means for dealing with potential impediments (e.g., seasonal impassability of roads) to use of evacuation routes, and contingency measures;		X _____	X _____
l. 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		X _____	X _____

¹/ See DHEW (new DHHS) Federal Register notice of December 15, 1978 (43 FR 58798) entitled "Potassium Iodide as a Thyroid-Blocking Agent in a Radiation Emergency." Other guidance concerning the storage, stockpiling, and conditions for use of this drug by the general public, is now under development by the Bureau of Drugs, DHHS.