

The operational constraints and management problems associated with the planning and implementation of peripheral radiological countermeasures have been investigated in this report.

The four peripheral countermeasures studied (postattack evacuation, applied shielding, dose equalization - including group shielding - and exposure scheduling) can be useful to the local civil defense organization in providing a significant degree of control over radiation exposure in the early postattack period, and their use may result in a reduction of dose to personnel and/or a decrease in the time till emergence from shelter is possible.

Moreover, the flexibility in scheduling made possible by the use of peripheral countermeasures can increase the scope of lifesaving activities and permit earlier initiation of the recovery phase.

Operational constraints, such as when, how and where to act, can be lessened by a limited preattack planning effort in the part of the local civil defence organization.

Such planning includes recognition of potential postattack demands for peripheral countermeasures (through war gaming techniques which test informational and resource requirements) and probable response capabilities (from a preattack inventory of vital resources and supplies).

In addition to preattack planning (which is not necessarily essential, but is certainly of great benefit) the implementation of peripheral countermeasures depends on availability of planning aids and procedures which permit the rapid evaluation of inputs so that decisions can be made as to possible action options. A number of such planning aids and procedures are included in the report.

The major management constraint on the use of peripheral countermeasures concerns the rapidity with which decisions can be reached so that action can be initiated.

Response time can best be minimized by delegating authority for local action to the local level, i.e., to the shelter. However, such a division of responsibility is feasible (without sacrificing the coordination function of the EOC) only if the extent of local action, both as to area and duration, is clearly defined in preattack planning.