

SECURITY VULNERABILITY ASSESSMENTS AND EPHAS

QUESTION: From DOE O 151.1C: “Radioactive materials that may be excluded from further analysis in an EPHA include: sealed radioactive sources; materials in solid form for which there is no plausible dispersal mechanism; materials stored in DOT Type B shipping containers.” However, bounding analyses performed in Vulnerability Analyses (VAs) may assume this material is at risk, without regard to postulated conditions (e.g., Type B containers.) In DOE emergency management, on the other hand, it is expected that this inventory would be identified in the Hazards Survey, and then explicitly excluded from consideration as a Material-at-Risk (MAR); no subsequent quantitative analysis would be performed on this inventory in an EPHA. To summarize, if material is excluded from a facility's inventory in the HS, is it necessary to postulate any release of that excluded material because a bounding analysis (i.e., without regard to the Type B containers) has been performed for a security VA?

ANSWER: If an extreme malevolent event, which assumes the materials are removed from the Type B containers and dispersed, is postulated and analyzed in a facility VA, then recognition indicators and protective actions should be developed for the event using emergency planning parameters and assumptions. Additional but less severe malevolent event release scenarios that may also have been analyzed in the facility VA should be included in the technical planning basis, either as separate analysis cases or by comparison with other cases already analyzed.