

**HSS Independent Activity Report - Rev. 0****Report Number:** HIAR-OST-2011-03-04**Site:** Office of Secure Transportation (OST)**Subject:** Office of Independent Oversight's Office of Emergency Management Oversight Independent Activity Report for Appropriateness of Revisions to the Emergency Planning Hazards Assessment and Protective Action Recommendation Cards**Dates of Activity:** 03/02/2011 - 03/04/2011**Report Preparer:** Deborah Johnson**Activity Description/Purpose:**

The Office of Emergency Management Oversight (HS-63) conducted a review of a new revision of the Office of Secure Transportation (OST) emergency planning hazards assessment (EPHA) and protective action recommendation (PAR) cards. The review was conducted at the Headquarters OST Albuquerque Office. The purpose of the visit was to evaluate the appropriateness of OST's path forward in revising the EPHA and PAR cards.

**Result:**

OST has revised the EPHA and PAR cards to incorporate recommendations provided by HS-63 during a previous assessment, documented in *Independent Oversight Review of Emergency Management at the Headquarters Office of Secure Transportation*, dated April 2010.

This 2011 review focused on development of the revised EPHA, the consequence analyses performed on the identified hazardous materials, and the development of new PAR cards. The results of this review activity are positive.

**EPHA.** OST has taken into consideration that most of their shipments are in Department of Transportation (DOT) Type-B containers, which satisfy DOT regulations and specifications for hazardous materials transport. Department of Energy (DOE) Order 151.1C stipulates that if a shipment container satisfies DOT regulations and specifications, then the shipment is not required to be included in an EPHA. Although these shipments were covered by an exclusion from further consequence analyses in an EPHA, OST is using the Emergency Response Guidebook (ERG) Guides 163 and 165 to ensure that protective actions are taken in the event of an emergency involving radiological materials transported in the Type-B containers. Additionally, ERG Guide 112 is being used to ensure that protective actions are taken in the event of an accident involving the convoy vehicles containing ammunition.

**Consequence Analyses.** The consequence analyses performed for the hazardous materials that are not shipped in DOT Type-B containers are accurate and appropriately indicate that the radiological materials present the greatest hazard and are of greatest concern in an emergency event. OST is developing two PAR cards, one for aviation and one for ground transportation shipments, to ensure that adequate initial protective actions are taken in an emergency event. These PAR cards will provide pre-determined planning and preparedness PARs to reduce the impact to OST personnel, emergency responders, and the public in the event of an operational emergency. (**Note:** This was a recommendation in the 2010 Independent Oversight report.)

**PAR Cards.** To better control the scene of an accident event, the initial isolation zone distances shown on the two PAR cards are based on the blast zone distances obtained from the consequence analyses using the Hotspot software. The initial downwind PAR distances are based on the distance, outside the threshold for early lethality (100 rem) distance, that defines a protective action zone for which the available OST convoy personnel can ensure that affected persons take initial protective actions. The previous associated PAR card was based on the protective action criterion (one rem) distance, which exceeded the 10-mile maximum protective action distance recommended in DOE *Emergency Management Guide - Technical Planning Basis, Volume II*. Greater PAR distances, if required, will be provided to the Convoy Commanders in Charge (CCICs) after the consequence assessment team performs real-time analyses in the emergency operations center. Independent Oversight understood the philosophy behind this approach; however, as discussed with OST personnel during the review, the philosophy has not been documented for future reference or justification. Additionally, the relevant Emergency Response Organization Cadre (EROC) checklists (implementing procedures have not been developed) do not yet reflect the required actions that must be taken to provide adequate PARs throughout an emergency event, and the EROC personnel have not yet been trained on methods to implement the PARs.

In addition to changing and reducing the number of PAR cards, OST personnel have been training the CCICs on the PAR card changes. According to the training personnel, the CCICs are more comfortable with the approach being taken in the revised PAR cards, and they realize that they do not have to provide PARs for accident events that do not breach the safeguards transporter (SGT). One concern expressed by Independent Oversight in 2010 was that the issuance of the appropriate PAR card during an emergency event was not based on readily observable indicators, such as whether an explosion had occurred; whether there was a fire and, if so, whether it appeared to involve only the outside of the SGT or

had spread to the inside, exposing the cargo to the fire; and whether the SGT was breached. The PAR card terminology did not clearly state that an SGT breach and an explosion and/or fire would have to occur before the decision to issue a PAR is made. The new PAR cards provide the CCICs with a clearer understanding of when PARs need to be issued, and they remove the confusion regarding whether to choose the yellow or red PAR card if the card set contained both.

Previously, the Field Agent standard operating procedure required the CCIC to select the appropriate PAR card and ERG Guide for a particular cargo and issue both to first responders following a transportation event. Issuing both a PAR card and an ERG Guide could cause confusion for the first responder and could result in inappropriate protective actions. Most first responders are proficient in using the ERG but are unfamiliar with the terminology used on the PAR cards. With this in mind, OST has chosen to adopt the layout of the ERG Guides in developing the new PAR cards, making them easier for first responders to use.

In summary, this review activity concluded that OST is taking an appropriate path forward in revising the EPHA and PAR cards. The review also provided input to the OST EPHA and PAR card developers about potential actions for ensuring that the EROC is trained on the implementation of the PARs and documenting:

- The philosophy used in PAR card protective action distance determinations for future reference and justification.
- The required actions that the EROC checklists must include in order to provide adequate PARs throughout an emergency event.

<b>HSS Participants</b> (Full Name, Office Code)	<b>References</b>
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2.	

Were there any items for HSS follow up?  Yes  No

<b>HSS Follow Up Items</b>