

**Radio Frequency Identification (RFID) Stakeholder Meeting**  
**Dallas, Texas**  
**August 23, 2005**

Discussion Points

- Participants highlighted the need to establish performance criteria and business rules.
- Need to establish clear goal statement for the pilot, e.g., track and notify officials of the movement of hazardous wastes being generated by maquiladoras in Mexico and shipped by truck into the U.S. for disposal in U.S. disposal facilities.
- Discussion of limiting pilot to trucks, or whether other modes of transport would be considered. Questioned what tracking is already being done by the trucking industry.
- RFID system will need to be able to track multiple transporters/shippers and storage in warehouses; waste shipment may be divided before proceeding to disposal area. It does not appear that the shipments can be tracked by the truckload, but waste containers will need to be tracked on an individual basis.
- Discussion of making the tags “seamless” and “invisible.”
- How/where tags are placed is important. Informing all appropriate officials of the existence of the tags will prevent misunderstandings.
- Security is an issue, to preclude other systems reading the tag.
- National Aeronautics and Space Administration (NASA) research determined that RFID alone will not produce 100% read rate; need multiple sensors, e.g., temperature sensor.
- Need to manage data in the event of a power loss.
- Explore lessons learned from fusion center in San Antonio (and elsewhere).
- Discussion of wastes going into Mexico from U.S., and utility of existing data. Discussed Mexican and U.S. laws concerning shipments to Mexico.
- EPA Region 6 experiences with wastes brought from Mexico and abandoned in warehouses in Texas. Warehousing of hazardous waste in the U.S. will need to be factored into the design of the system.
- Falsified documents are an issue, and include need to recognize and react. Issue of finding violations during the pilot need to be addressed.
- In some cases, truck drivers may not know what they are carrying.
- Recognize that states have their own Resource Conservation and Recovery Act (RCRA) tracking/manifest forms, and do not utilize the federal form (though this will change next year). Current form does not provide a space on the form for Port of Entry, though this has been addressed for new forms.
- Explore how to utilize the Border Compliance Center, which currently tracks paper-based hazardous waste manifests.
- Waste identification codes are frequently not reported accurately. Pilot will need to recognize this issue.

- Emergency responders would like to see the RFID tracking of hazardous waste expanded to hazardous materials, which would help in the rapid identification of chemicals after an incident.
- Potential partners to be identified through the various Maquiladora Associations, with assistance of EPA Region 6 and Texas Commission on Environmental Quality.
- Texas legislature very interested in resolving hazardous waste tracking issues because of impacts on Texas air and water from illegal disposal.
- El Paso receives the greatest quantity of hazardous waste coming from Mexico into Texas, crossing all five lanes Monday through Friday, 8:00 a.m. to 5:00 p.m. No hazardous wastes permitted in the FAST lanes. Other potential ports of entry, based on large quantities of waste crossing, are Brownsville, Texas, and Otay Mesa in California.

**Attendees:**

Janet Bearden, U.S. EPA Office of Enforcement and Compliance Assurance

Davis Jones, U.S. EPA Office of Enforcement and Compliance Assurance [attended by phone]

Deborah Kopsick, U.S. EPA Office of Radiation and Indoor Air

Albes Gaona, U.S. EPA Office of International Affairs [attended by phone]

Mark Thomas, U.S. EPA Office of Solid Waste [attended by phone]

Gina Weber, U.S. EPA Region 6, Multi-Media Planning and Permitting Division

Bonnie Romo, U.S. EPA Region 6, Compliance Assurance and Enforcement Division

Gerardo Acosta, U.S. EPA Region 6, Compliance Assurance and Enforcement Division

Alfredo Cay, U.S. EPA Region 6, Multi-Media Planning and Permitting Division

Mark Hansen, U.S. EPA Region 6, Compliance Assurance and Enforcement Division

John Martin, U.S. EPA Region 6, Office of the Administrator/Office of Homeland Security

Richard Franklin, U.S. EPA Region 6, Superfund Division

Adolphus Talton, U.S. EPA Region 6, Compliance Assurance and Enforcement Division

Miguel Flores, U.S. EPA Region 6, Water Quality Protection Division

Norma Duran, U.S. EPA Region 6, Border Office [attended by phone]

Maria Sisneros, U.S. EPA Region 6, Border Office [attended by phone]

Matthew Witosky, U.S. EPA Office of International Affairs, U.S. Embassy, Mexico City, Department of State [attended by phone]

Reynaldo Tejada, Department of Homeland Security/Customs and Border Protection/Brownsville, TX [attended by phone]

Lorinda Gardner, Texas Commission on Environmental Quality/R15

Steve Niemeyer, Texas Commission on Environmental Quality/Border Affairs

Ralph Anton, National Aeronautics and Space Administration/Dryden

Vincent Kinsey, National Aeronautics and Space Administration/Dryden

Angela Erb, National Aeronautics and Space Administration/Dryden

Tony Turner, Oak Ridge National Laboratory [attended by phone]

Paul Chalmer, National Center for Manufacturing Sciences with Border Compliance Assistance Center [attended by phone]