

### Part 3: Reduction Achievement for the Report Year

Waste minimization typically applies to operating facilities. The only wastes generated at this Union Pacific Railroad Houston Tie Plant Facility are environmental media as a result of the specific investigation or post-closure care activities (investigative-derived wastes (IDW)) directed by the Texas Commission on Environmental Quality (TCEQ) under the Permit and Compliance Plan. These IDW are related to the scope of the RCRA Facility Investigation (RFI) activities, as approved and required by the TCEQ under the Permit and Compliance Plan.

However, UPRR has implemented procedures at the Facility to reduce the amount of IDW generated during these activities. Investigative techniques such as low-flow ground water sampling and direct-push or sonic drilling technologies are utilized when possible during installation and sampling of soil borings, monitor wells and piezometers in order to reduce the volume of soil cuttings and purge water generated for off-site disposal. Since the waste is generated on an intermittent basis depending on required actions dictated by the RFI activities and the TCEQ, specific measurable reduction goals are difficult to quantify and year-to-year reductions are not applicable given the uncertainty in IDW generated one year compared to another.

As previously stated, the only hazardous waste generated at the Facility is from IDW associated with periodic groundwater monitoring, site investigations as required to complete the RFIs, and interim remedial activities. There are no wastes generated as part of any industrial processes at the Facility. Based on a review of the Notice of Registration (NOR) for the Facility and waste generation activities for the facility, the following hazardous waste codes and quantities were generated as part of the RFI/Affected Property Assessment at the Facility during 2010 compared to 2011:

<i>TCEQ Waste Code</i>	<i>NOR Waste Description</i>	<i>Annual Quantity Generated in 2011 (pounds)</i>	<i>Annual Quantity Generated in 2012 (pounds)</i>
0909101H	Aqueous waste with low solvents, includes groundwater generated from drilling activities for investigative purposes.	350	0
0914101H	Aqueous waste with low solvents, includes groundwater generated from purging of various monitor wells for investigative purposes. Produced on an intermittent basis.	800	4,600
0915301H	Soil contaminated with organics, includes soil derived from the boring of monitoring wells for investigative purposes, produced on an intermittent basis	85	13,000

<i>TCEQ Waste Code</i>	<i>NOR Waste Description</i>	<i>Annual Quantity Generated in 2011 (pounds)</i>	<i>Annual Quantity Generated in 2012 (pounds)</i>
0917406H	Empty fiber or plastic containers, includes plastic and used Personal Protective Equipment generated as a result of monitor well and/or soil sampling.	0	200

The amount of waste generated in 2011 compared to 2012 was approximately 1,185 pounds and 17,800 pounds, respectively. The increase in 2012 was a result of additional IDW generated (i.e., soil cuttings and development/purge groundwater) from monitoring wells installed at the Site.

The environmental media wastes listed above are generated on an intermittent basis. Currently, the only waste generated on a regular basis is “Aqueous waste with low solvents” (TCEQ Waste Codes 0914101H) associated with groundwater monitoring activities at the RCRA Unit No. 1 (SWMU No. 1) and site-wide groundwater monitoring activities.