

**SOURCE REDUCTION/WASTE MINIMIZATION PLAN
EXECUTIVE SUMMARY
TEXAS STATE UNIVERSITY –SAN MARCOS**

Name of Facility: Texas State University – San Marcos

Due Date for Plan: 90 days from becoming a LQG (per 30TAC335.475 (6))

Address: 601 University Drive
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Date: January 2005

General Description: Texas State University is a 4-year accredited university located in San Marcos, Texas. The University is the sixth largest university in the state with a student population of greater than 26,000. The University offers undergraduate and graduate programs in seven colleges: Applied Arts, Business Administration, Education, Health Professions, Fine Arts and Communication, Liberal Arts and Science. Hazardous and solid wastes are generated as a result of teaching, research and operational activities.

Permits/I.D. Numbers

EPA ID: TXD980812168
TCEQ Air Permit: 0-01568,P50-TX-657
TCEQ Solid Waste Reg. No. 66137
SIC Code: 8221, Colleges, Universities and Professional Schools
NAICS Code: 61131

Hazardous Waste Generated:

Table 1 lists the hazardous wastes generated for the base year (2004) and the three years prior to that. This information was obtained from waste disposal records (2004) and from the annual waste summary reports on the STEERS database.

Table 1: Hazardous Waste Generation

TCEQ Waste Code	WasteDescription	Base Year 2004 (lbs)	2003 (lbs)	2002 (lbs)	2001 (lbs)
0001204H	Water w/spent nonhalogenated and halogenated solvents	257	104	500	0
0002103H	Generic acid with metals	1,277	2,170	2,230	400
0003003H	Mixed lab packs with hazardous chemicals	10,284	5,797	4,531	3,883
0004198H	Bulk fixer waste, may contain silver or be reactive	1,159	694	1,065	1,200
0007119H	Inorganic laboratory waste: may include cadmium ww	704	648	680	400
0010117H	Mercury waste or mercury ww	1,831	511	920	200
0014211H	Paint thinner or petroleum distillates, flammable liquids	7,153	3,394	1,990	0
0016219H	Caustic (basic) liquids, flammable bases	223	581	230	0
0017219H	Flammable acids	1,976	1,187	720	0
0022203H	Spent non halogenated solvents and aqueous mixtures (new code for 2004)	123	n/a	n/a	n/a
UNIV209H	Paint waste (changed to universal status in 2004)	3,150	1,703	n/a	n/a
Total (lbs)		28,137	16,789	12,866	6,083
Total (tons)		14	8	6	3

Pollutant Reduction List:

The following wastes have been identified as priority wastes to be reduced:

1. Generic acids with metals
2. Mixed lab packs with hazardous chemicals
3. Bulk fixer/photographic wastes
4. Mercury wastes or mercury wastewater
5. Paint thinner or petroleum distillates (flammable liquids)
6. Flammable acids

Source Reduction Goals:

Our goal is to reduce the volume of these wastes (total combined) by 30% over the next five years.

Environmental and Human Health Risks Considered:

Reduction of the volume of hazardous waste generated will result in less waste to manage onsite, transport offsite and dispose of offsite. The reduction will result in less exposure and risk to human health and the environment.

Pollutants Changed or Shifted:

The source reduction activities planned will result in no shift of chemical usage or exposure to alternate chemicals in all cases except for the chemical substitution project. For this project, the substitution, if feasible, will be to generally less toxic substances (e.g. ethanol instead of formaldehyde).

Future Reduction Goals

Future reduction goals will be established in 2009 after evaluation of the effectiveness of the aforementioned goals and examination of other reduction opportunities.

Project Milestones:

Table 2. SR/WM Potential Projects and Milestones

Source Reduction Activity	Schedule of Implementation
1. Use micro scale experiments instead of full scale experiments in laboratory testing (classroom and EARDC).	Assess during the first quarter of calendar year 2005 and implement if feasible during fiscal year 2006. Will need budget approval to purchase micro scale equipment and supplies.
2. Recycle photographic waste silver/additional testing to classify photographic solutions.	Implement testing during the first quarter of 2005 for all departments that generate photographic waste. Obtain new non-hazardous waste code, if necessary, during the first or second quarter 2005 and implement segregated disposal procedures immediately.
3. Neutralize acid and base wastes during the experiment or lab test to remove the hazardous waste characteristic of corrosivity. Collect and segregate the non-hazardous waste for treatment on site or offsite.	Assess during the first quarter of calendar year 2006 and implement if feasible during fiscal year 2007. Should not require capital expenditure, but will require addition of several steps to the end of each experiment or laboratory test that generates acidic waste. This project does <i>not</i> apply to wastewaters containing any of the 8 RCRA metals above the TC limit (e.g. mercury or cadmium wastewaters).
4. Product substitution in teaching labs, research labs and EARDC labs.	Determine feasibility of each product substitution during first quarter 2007 and implement feasible substitutions in first quarter 2008.
5. Implement a Chem Swap program to use commercial chemical products rather than discard them.	Research options used at other Universities during the second quarter 2005. Discuss feasibility and implementation issues with departments utilizing chemicals. If feasible, phase in project over the third and fourth quarter 2005.

Certificate of Completion:

This document certifies that the Source Reduction/Waste Minimization Plan has been completed and meets the specific requirements of the Waste Reduction Policy Act of 1991, the Solid Waste Disposal Act, and 30 TAC Sections 335.471 – 335.480, and that the information provided herein is true, correct and complete.

This document also certifies that the person whose signature appears below has the authority to commit the resources necessary to implement the plan.

Approved by UPPS 04.05.06, December 15, 2004

Dr. Denise Trauth

President

Texas State University – San Marcos