

# WM/P2: Regulatory Requirements

Department: Environmental Protection

Program: Waste Minimization and Pollution Prevention

Owner: Program Manager, Rich Cellamare

Authority: ES&H Manual, Chapter 22, Waste Minimization and Pollution Prevention

Regulatory Driver	General Requirements	Implementation Requirements	Reporting Requirements	Lead
<p>Title 42, <i>United States Code</i>, "The Public Health and Welfare"<sup>1</sup></p> <ul style="list-style-type: none"> <li>▪ Chapter 133, "Pollution Prevention" (42 USC 13001 and following)</li> </ul>	<p>Congress declares it to be the national policy of the US that pollution should be prevented or reduced and requires that the US EPA establish a program to collect and disseminate information on source reduction activities.</p>	<p>This law requires that facilities use the pollution prevention hierarchy – first, source reduction, second, reuse, third, recycling and finally, disposal.</p>	<p>Annual Pollution Prevention Report for the DOE reports on municipal, industrial, hazardous and radioactive waste generation and reduction progress and measures planned or implemented to reduce wastes in these categories</p> <p>WasteGeneration</p> <p>The following waste types must be reported as <i>routine</i> or <i>non-routine</i>, in liquid or solid forms by each program office on site.</p> <ul style="list-style-type: none"> <li>▪ High level</li> <li>▪ Transuranic</li> <li>▪ Mixed transuranic</li> <li>▪ Low-level radioactive</li> <li>▪ Low-level mixed (radioactive and hazardous)</li> <li>▪ RCRA regulated</li> <li>▪ State regulated (industrial waste)</li> <li>▪ TSCA regulated</li> <li>▪ Mixed TSCA</li> </ul> <p>Site-wide Recycling or Reuse Activities and Sanitary Waste Generation Reporting</p> <p>Report amounts of waste recycling and/or reuse from the following categories:</p> <p>Paper Products</p>	<p>WM/P2 program manager</p>

<sup>1</sup> "United States Code: Main Page", <http://www.gpoaccess.gov/uscode/index.html>

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			<ul style="list-style-type: none"><li>▪ Office and mixed paper</li><li>▪ Corrugated cardboard</li><li>▪ Phone books</li><li>▪ Newspapers/magazines</li></ul>	
			Scrap Metals	
			<ul style="list-style-type: none"><li>▪ Stainless steel</li><li>▪ Copper</li><li>▪ Iron/steel</li><li>▪ Aluminum</li><li>▪ Aluminum cans</li><li>▪ Lead</li><li>▪ Zinc</li><li>▪ Other scrap metals (such as mercury)</li></ul>	
			Precious Metals	
			<ul style="list-style-type: none"><li>▪ Silver</li><li>▪ Gold</li><li>▪ Platinum</li><li>▪ Other precious metals</li></ul>	
			Other Items	
			<ul style="list-style-type: none"><li>▪ Antifreeze</li><li>▪ Engine oils</li><li>▪ Toner cartridges</li><li>▪ Batteries</li><li>▪ Tires</li><li>▪ Food waste</li><li>▪ Concrete/asphalt</li><li>▪ Glass</li><li>▪ Fluorescent bulbs</li><li>▪ Ballasts</li><li>▪ Plastic</li><li>▪ Styrofoam</li><li>▪ Transformers</li></ul>	

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			<ul style="list-style-type: none"> <li>▪ Wood (chips, compost)</li> <li>▪ Computers/electronic equipment</li> <li>▪ Other recycled materials (such as paint, furniture, appliances, pallets, equipment)</li> </ul>	
<p>Title 40, <i>Code of Federal Regulations</i>, "Protection of the Environment", Chapter 1, "Environmental Protection Agency"<sup>2</sup></p> <ul style="list-style-type: none"> <li>▪ Part 247, "Comprehensive Procurement Guideline for Products Containing Recovered Materials" (40 CFR 247)</li> </ul>	Government agencies are mandated to increase their purchases of products containing recovered materials (that is, waste materials and by-products that have been recovered or diverted from solid waste).	US EPA issued procurement guidelines that designate specific items that are or can be made with recovered materials, and recommends practices with respect to the procurement of recovered materials and items containing such materials. Federal agencies and their contractors are required to buy designated items with the highest recovered material content practicable.	Annual Environmental Preferable Purchasing (EPP) Report for DOE reports on progress in increasing the procurement of environmental preferable products (including bio-based products) and services	Purchasing Department EPP program manager
Executive Order 13101, "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition" (EO 13101) <sup>3</sup>		Requires federal agencies to incorporate waste prevention and recycling into their operations, and to increase and expand markets for recovered materials by establishing the federal government's preference for recycled products.	Annual Environmental Preferable Purchasing (EPP) Report for DOE reports on progress in increasing the procurement of environmental preferable products (including bio-based products) and services	Purchasing Department EPP program manager
<p>Title 40, <i>Code of Federal Regulations</i>, "Protection of the Environment", Chapter 1, "Environmental Protection Agency"<sup>4</sup></p> <ul style="list-style-type: none"> <li>▪ Part 370, "Hazardous Chemical Reporting: Community Right-to-Know" (40 CFR 370)</li> <li>▪ Part 372, "Toxic Chemical Release Reporting: Community Right-to-Know" (40 CFR 372)</li> </ul>	Facilities using toxic chemicals that exceed threshold quantities in a given year must complete a toxic chemical release inventory (TRI) report, which requires the facilities to provide source reduction and recycling efforts for the reported toxic chemicals.	Implement source reduction and recycling into operations that use or generate toxic chemicals	TRI Report prepared annually for the US EPA and DOE reports on toxic materials used by SLAC that are released to air, surface waters, and land	Air quality program manager
Title 22, <i>California Code of Regulations</i> , "Social Security", Division 4.5, "Environmental Health	The US EPA published guidelines to identify the basic elements that constitute a waste minimization	Hazardous waste manifests require that the generators certify that they have a program in place to reduce the volume and toxicity of	Hazardous Waste Biennial Report for the US EPA and the California Department of Toxic Substances Control and reports on the types	Hazardous waste program manager

2 "Code of Federal Regulations (CFR): Main Page", <http://www.gpoaccess.gov/cfr/index.html>

3 "NARA – Federal Register – Executive Orders Disposition Table", <http://www.archives.gov/federal-register/executive-orders/>

4 "Code of Federal Regulations (CFR): Main Page", <http://www.gpoaccess.gov/cfr/index.html>

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<p>Standards for the Management of Hazardous Waste”<sup>5</sup></p> <ul style="list-style-type: none"> <li>▪ Chapter 12, “Standards Applicable to Generators of Hazardous Waste”, (22 CCR 66262 and following)</li> </ul>	<p>program. In addition, hazardous waste generators must submit a biennial report describing efforts to reduce the volume and toxicity of hazardous waste generated.</p>	<p>waste to a degree determined to be economically practicable.</p>	<p>and quantities of hazardous and mixed wastes generated by a facility during a two-year period.</p>	
<p><i>California Health and Safety Code</i>, Division 20, “Miscellaneous Health and Safety Provisions”, Chapter 6.5, “Hazardous Waste Control”</p> <ul style="list-style-type: none"> <li>▪ Article 11.9, “Hazardous Waste Source Reduction and Management Review Act of 1989” (HSC 25244.12–25244.24)<sup>6</sup></li> </ul>	<p>Applicable hazardous waste generators must conduct a source reduction evaluation review and plan every four years outlining potentially viable source reduction approaches, rationales for approaches that will be taken, and numerical goals and reporting of waste reduction achieved during the four year period. Each plan must have both a technical certification and a financial certification completed by an individual responsible for site operations or by a professional engineer or environmental assessor with expertise in hazardous waste management. The performance report is used to track hazardous waste reduction relative to a baseline year (1990).</p>	<p>California Hazardous Waste Source Reduction and Management Review Plan and Report for the California Department of Toxic Substances Control requires that a facility prepare plans to use source reduction and recycling measures to reduce state-regulated hazardous wastes that are greater than five percent of the total hazardous waste generated over four year reporting period cycle which starts in 1991. The plan is revised every four years to account for new waste streams that become greater than five percent of the total hazardous waste generated.</p>	<p>Reports to the California Department of Toxic Substances Control on the types and quantities of hazardous waste generated in a four year reporting period and the plans to further reduce hazardous wastes (greater than five percent of the total hazardous waste generated) for the next four year reporting period.</p> <p>The types of waste reported are based on the California hazardous waste code categories; those typically generated at SLAC include</p> <ul style="list-style-type: none"> <li>▪ Waste description, state code</li> <li>▪ Alkaline solutions, 122</li> <li>▪ Aqueous solutions with metals, 132</li> <li>▪ Off-spec, surplus inorganics, 141</li> <li>▪ Asbestos, 151</li> <li>▪ Other inorganic solids, 181</li> <li>▪ Halogenated solvents, 211</li> <li>▪ Oxygenated solvents, 212</li> <li>▪ Waste oil, 221</li> <li>▪ Oily solids, 223</li> <li>▪ Polymeric resins, 272</li> <li>▪ Latex waste, 291</li> <li>▪ Off-spec, surplus organics, 331</li> </ul>	<p>WM/P2 program manager</p>

5 “California Code of Regulations”, <http://ccr.oal.ca.gov/>

6 “California Law”, <http://www.leginfo.ca.gov/calaw.html>

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			<ul style="list-style-type: none"> <li>▪ Organic liquids with halogens, 341</li> <li>▪ Organic liquids with metals, 342</li> <li>▪ Unspecified organic liquid mixture, 343</li> <li>▪ Organic solids with halogens, 351</li> <li>▪ Other organic solids, 352</li> <li>▪ Paint sludge, 461</li> <li>▪ Drilling mud, 521</li> <li>▪ Photochemical/photoprocessing waste, 541</li> <li>▪ Laboratory waste chemicals, 551</li> <li>▪ Gas scrubber waste, 581</li> <li>▪ Remediation, 611</li> <li>▪ Cyanide liquids, 711</li> <li>▪ Arsenic liquids, 721</li> <li>▪ Mercury, 725</li> <li>▪ Halogenated organic liquids, 741</li> <li>▪ Solids or sludges w/organic compounds, 751</li> <li>▪ Other inorganic &amp; organic solids, 181, 352</li> <li>▪ Oxygenated &amp; chlorinated solvents, 212, 741</li> <li>▪ Pcb remediation, 261, 611</li> <li>▪ Pcb equip. Removal, 261, 731</li> <li>▪ Empty containers &lt;30 gal or &gt;30 gal, 512, 513</li> <li>▪ Empty containers &lt;30 gal, other inorganic solids, 513, 181</li> <li>▪ Empty containers &lt;30 gal, other organic solids, 513, 352</li> <li>▪ Spent acids with and without metals, 791, 792</li> </ul>	

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<p><i>California Health and Safety Code</i>, Division 20, "Miscellaneous Health and Safety Provisions", Chapter 6.5, "Hazardous Waste Control"</p> <ul style="list-style-type: none"> <li>Article 10.3, "Electronic Wastes" (HSC 25214.10)<sup>7</sup></li> </ul>	<p>Under federal initiatives retailers are encouraged to share in the responsibility of safe electronics recycling; under state-implemented law (Electronic Waste Recycling Act of 2003) costs have been imposed on purchases of electronic equipment to fund the collection and recycling of equipment. The State of California has also imposed the Cell Phone Recycling Act of 2004 to require retailers of cell phones sold in California to collect cell phone for reuse, recycling or proper disposal.</p>	<p>Assure that electronic waste are managed in accordance with hazardous waste control laws</p>	<p>Report to the California Department of Toxic Substances Control on quantities of electronic waste generated.</p>	<p>Hazardous waste program manager</p>
<p>Executive Order 13148, "Greening the Government through Leadership in Environmental Management" (EO 13148)<sup>8</sup></p>	<p>Requires federal agencies to Establish and implement environmental compliance audit programs and policies emphasizing pollution prevention, and implementation of an environmental management system</p>	<p>Requires SLAC departments (CGS, CEF, WM) to</p> <ul style="list-style-type: none"> <li>Reduce their toxic chemical releases and offsite transfers of toxic chemicals annually by 10 percent beginning with the 2002 reporting year, with a goal of a 40 percent reduction (based on 2001 reporting year amounts) by December 31, 2006</li> <li>Achieve a 50 percent reduction in their use of persistent, bio-accumulative, and toxic (PBT) chemicals and/or hazardous substances and pollutants, or the generation of hazardous and radioactive waste at federal facilities by December 31, 2006</li> <li>Develop a plan to phase-out the procurement of Class I ozone-depleting substances for all non-excepted uses by December 31, 2010</li> <li>Promote sustainable management of federal facility lands by implementing cost-</li> </ul>	<p>Reported annually to DOE as part of the Annual Pollution Prevention Report</p>	<p>WM/P2 program manager</p>

<sup>7</sup> "California Law", <http://www.leginfo.ca.gov/calaw.html>

<sup>8</sup> "NARA – Federal Register – Executive Orders Disposition Table", <http://www.archives.gov/federal-register/executive-orders/>

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Executive Order 13123, "Greening of the Government through Efficient Energy Management" (EO 13123) <sup>9</sup>	Develop cost-effective plans to reduce energy and water usage and promote the usage of renewable energy products	<p>effective and environmentally sound landscaping practices and programs</p> <p>Includes goals for</p> <ul style="list-style-type: none"> <li>▪ <i>Greenhouse Gases Reduction Goal.</i> Through life-cycle cost-effective energy measures, each agency shall reduce its greenhouse gas emissions attributed to facility energy use by 30 percent by 2010 compared to such emissions levels in 1990. In order to encourage optimal investment in energy improvements, agencies can count greenhouse gas reductions from improvements in nonfacility energy use toward this goal to the extent that these reductions are approved by the Office of Management and Budget (OMB).</li> <li>▪ <i>Energy Efficiency Improvement Goals.</i> Through life-cycle cost-effective measures, each agency shall reduce energy consumption per gross square foot of its facilities, excluding facilities covered in section 203 of this order, by 30 percent by 2005 and 35 percent by 2010 relative to 1985. No facilities will be exempt from these goals unless they meet new criteria for exemptions, to be issued by the Department of Energy (DOE).</li> <li>▪ <i>Industrial and Laboratory Facilities.</i> Through life-cycle cost-effective measures, each agency shall reduce energy consumption per square foot, per unit of production, or per other unit as applicable by 20 percent by 2005 and 25 percent by 2010 relative to 1990. No facilities will be</li> </ul>	Federal Energy Management and Conservation Program Reporting for DOE prepared annually by the SLAC Energy and Water Conservation program manager in the Conventional and Experimental Facility Department (CEF) reports on projects and measures to conserve energy and water usage	CEF energy and water conservation Program manager

<sup>9</sup> "NARA – Federal Register – Executive Orders Disposition Table", <http://www.archives.gov/federal-register/executive-orders/>

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		<p>exempt from these goals unless they meet new criteria for exemptions, as issued by DOE.</p> <ul style="list-style-type: none"><li>▪ <i>Renewable Energy.</i> Each agency shall strive to expand the use of renewable energy within its facilities and in its activities by implementing renewable energy projects and by purchasing electricity from renewable energy sources. In support of the Million Solar Roofs initiative, the Federal Government shall strive to install 2,000 solar energy systems at Federal facilities by the end of 2000, and 20,000 solar energy systems at Federal facilities by 2010.</li></ul>		