

LBNL ENVIRONMENTAL MANAGEMENT PROGRAM

<b>EMP Coordinator(s) and Organization(s):</b> Patrick Thorson (EH&S)		<b>Revision Date:</b> 9/14/2010	<b>EMP No.:</b> 07-03B
<b>Aspect:</b> Solid waste generation (diversion)	<b>Objective:</b> Increase solid waste diversion.	<b>Target:</b> Increase solid waste diversion by 5% by the end of Fiscal Year (FY) 2010 relative to previous year (FY09).	
<b>Category:</b> <input checked="" type="checkbox"/> Improve <input type="checkbox"/> Control <input type="checkbox"/> Study (short term)			
<b>Strategy:</b> Executive Order 13514, <i>Federal Leadership in Environmental, Energy, and Economic Performance</i> , is the latest of a series of Executive Orders intended to promote pollution prevention and eliminate waste. In this case, EO 13514 requires that LBNL: <ul style="list-style-type: none"> <li>(i) minimize the generation of waste and pollutants through source reduction;</li> <li>(ii) divert at least 50 percent of non-hazardous solid waste, excluding construction and demolition debris, by the end of FY15;</li> <li>(iii) divert at least 50 percent of construction and demolition materials and debris by the end of FY15; and</li> <li>(iv) increasing diversion of compostable and organic material from the waste stream</li> </ul> <p>According to past Berkeley Sanitary Service reports, the overall diversion rate is approximately 55% to 60% (calendar year 2006). Efforts in the past on this EMP have confirmed the baseline data, reviewed StopWaste.org waste audit reports, and implemented those actions that are appropriate and work toward meet the goal of diverting waste from landfills. Future efforts will focus on increasing collection of compostable materials across the entire site, plus promoting and documenting landfill diversion of construction and demolition materials and debris.</p>			
<b>Actions to Achieve Objective:</b>			
<b>Upcoming Actions</b>	<b>Lead</b>	<b>Due Date</b>	<b>Completion</b>
1. Update Facilities' Construction Design Guidelines section 017419, Construction Waste Management, to account for new construction and demolition materials and debris goals.	P. Thorson	9/30/10	
2. Contract with Richmond Sanitary Service to collect compost collection containers across site	B. Llewelyn	10/31/10	
3. Identify next building(s) in 3R rollout	P. Thorson/J. Griffin	10/31/10	
4. Launch 3R Recycling Program at EH&S-occupied buildings.	P. Thorson/J. Griffin	11/1/10	
5. Launch 3R Recycling Program at Bldgs 70/70A.	P. Thorson/J. Griffin	12/1/10	
6. Collect quarterly construction and demolition logs from project managers representing applicable projects.	P. Thorson	1/1/11	
7. Final report to StopWaste.org on results of mini-grant project.	P. Thorson/B. Llewelyn	3/30/11	

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<b>Completed Actions</b>	<b>Lead</b>	<b>Due Date</b>	<b>Completion</b>
1. Meet with Berkeley Sanitary Service (Parenti) to clarify tonnage and service.	Norem	5/1/07	5/15/07
2. Meet with LBNL managers (Pauer, Rothermich, Llewellyn) to review StopWaste report and confirm EMP approach.	Sakaki	4/20/07	4/20/07
3. Research food scrap recycling vendors for LBNL.	Norem	5/11/07	5/10/07
4. Establish baseline data for trash and recyclables.	Norem	5/30/07	5/30/07
5. Train janitorial staff, including wastebasket liner removal practices.	Sakaki/Llewellyn	11/30/07	5/23//08
6. Work with cafeteria to implement food scrap recycling.	Llewellyn	1/30/08	2/25/08
7. Prepare recycling outreach and awareness material(s). ( <i>see comment a</i> )	P. Thorson/B. Llewellyn	6/1/09	2/19/10
8. Launch 3R Recycling Program at Bldg 90.	J. Griffin	6/1/09	4/26/10
9. Submit mini-grant application to StopWaste.org to acquire recycle and compost containers.	P. Thorson/B. Llewellyn	4/31/10	4/28/10
10. Assess Building 90 program, make recommendations for expansion.	P. Thorson/J. Griffin	6/30/10	6/30/10
<b>Metrics (Environmental Performance Indicators):</b>			
<ol style="list-style-type: none"> <li>1. Square footage of Lab area (Hill and 937).</li> <li>2. Tons of solid waste collected and landfilled.</li> <li>3. Tons of recyclables collected.</li> <li>4. % diverted from landfill.</li> <li>5. \$ paid for waste collection and recycling.</li> </ol>			
<b>Comments:</b>			
<p>a) (<u>July 2008</u>): The waste contract was being renewed at this time. With a possibility of a new waste hauler, the pilot program to “revive” the recycling program (action items 7, 8, 10) was delayed until the end of FY09.</p>			
<b>EMP Closure Summary:</b>			
Not applicable at this time.			

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**NOTES / INSTRUCTIONS**

<b>FORM FIELD</b>	<b>NOTE</b>
EMP Coordinator(s)	Name the person(s) responsible for the accomplishment of the Environmental Management Program (EMP); That is, overseeing the workplan, monitoring and reporting progress, requesting changes to the workplan as appropriate.
Organization(s)	Name the organization(s) primarily impacted or affected by this EMP. If only one department of an organization is affected, note that department.
Revision Date	Date that identifies when EMPs are modified or updated.
EMP Number	Number will be assigned by the EMS Manager.
Aspect	The significant aspect (e.g. energy use, chemical usage).
Objective	Focusing on the impacts related to this significant aspect, state the goal. What is it you want to achieve? Use action words (e.g., reduce, improve, control).
Target	State "how much and by when." The target is the performance element and should be quantitative and measurable.
Category	The categories identify and help to focus the EMP. The definitions of these categories are: <ul style="list-style-type: none"> <li>• Improve: improve the performance in this area</li> <li>• Control: current environmental controls are sufficient, but EMP objective is to maintain and strengthen the level of control</li> <li>• Study: the issue or area has been designated as significant, but historic or baseline data must be studied and compiled to determine the direction of future action</li> </ul>
Strategy	In this section, describe the overall approach to the problem. Some of the questions to be addressed include: <ul style="list-style-type: none"> <li>• How much has or has not been already been accomplished in this area?</li> <li>• Why is this important? Are there relevant drivers (e.g., regulations, directives, public pressure)?</li> <li>• What are the impacts to be addressed in this EMP?</li> </ul>
Actions	List the specific actions to be taken to achieve the objective and target. List the action and identify the responsible parties and dates by which the actions should be accomplished.
Metrics	Metrics are the Environmental Performance Indicators, how you measure the accomplishments. List the specific, quantifiable measurements or metrics (e.g., percent of employees trained, kilowatt hours saved, tons of waste diverted, gallons of material).
Comments	Add details to support changes to any of the fields on the form.
EMP Closure Summary	After the EMP and all actions within the EMP are complete, a concise description of the EMP's ability to achieve its objective and target should be provided.