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June 28, 2004

Ms. Denise Roy
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QUARTERLY PROGRESS REPORT FOR CALIFORNIA MERCURY LAMP RECYCLING OUTREACH PROGRAM (GRANT ID # X1-83138501-0)

Dear Ms. Roy:

Enclosed is the quarterly progress report for the California Mercury Lamp Recycling Outreach Program (X1-83138501-0), which covers the period from November 29, 2003 through February 27, 2004. In this reporting period, the Department of Toxic Substances Control (DTSC) has made significant progress in the direct outreach element of the program.

As documented in our proposal for the outreach program, DTSC plans to make extensive use of the materials produced by the Association of Lighting and Mercury Recyclers (ALMR) in Phase I of the project. Because we still have not received these materials, we have made little progress in developing the content of the California Compliance School (CCS) and online training elements of the program. We are hopeful that we will receive these materials in the near future, which will allow us to meet the schedules presented in the report.

Please feel free to call me at (916) 445-2625, if you have any questions about the information contained in the enclosed report.

Sincerely,

Karl Palmer, Chief
Regulatory Program Development Branch

Enclosure

cc: See next page

Ms. Denise Roy

June 28, 2004

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California Mercury Lamp Recycling Outreach Program

Second Quarterly Progress Report

June 17, 2004

This report covers the period from November 29, 2003 through February 27, 2004.

Background

The Association of Lighting and Mercury Recyclers (ALMR) has estimated that 670 million waste fluorescent lamps were generated in the United States in 2002. Based on the State's 12 percent share of the U.S. population, about 80 million of these lamps were generated in California. Nationally, approximately 27.2 percent of waste fluorescent lamps generated by the business sector are currently recycled. The nation's overall recycling rate is even lower, at 22.4 percent, and the rate at which households recycle their lamps is lower still – approximately 2.1 percent. Thus, the mercury in the nearly 80 percent of the waste lamps generated each year continues to enter the environment, where it poses risks to people and wildlife.

Goals of the Lamp Recycling Outreach Program

The goals of the program are to ensure that at least 40 percent of waste mercury-containing lamps generated by businesses are recycled by 2005 and that at least 80 percent are recycled by 2009. The *California Mercury Lamp Recycling Outreach Program* is a major part of DTSC's efforts to increase lamp recycling rates toward these goals.

The program has three objectives:

1. To develop and implement an online training course for the business sector in lamp recycling requirements, in partnership with the College of Continuing Education at California State University, Sacramento (CCE/CSUS).
2. To provide in-person presentations on lamp recycling to businesses and organizations, using materials developed in phase I of the "Development and Implementation of a Mercury Lamp Recycling Outreach Program."
3. To incorporate information on lamp management and recycling into the existing curriculum of the California Compliance School (CCS).

Our success in achieving these objectives will be evaluated based on several measures, including:

- The number of CCS attendees;
- The number of training sessions for businesses (and the number of attendees at each);
- California's lamp recycling rate;
- Lamp recycling compliance rates (based on inspection and enforcement data); and
- The effectiveness of outreach and enforcement by local agencies (based on reports from triennial evaluations).

Summary of Accomplishments

DTSC has still yet to receive the deliverables produced by ALMR, the grantees for the first phase of this project. ALMR has produced an interactive CD-ROM containing information on lamp recycling, including PowerPoint training presentations, trainer notes, and a booklet. DTSC plans to use information contained on the CD-ROM (modified, as necessary, to reflect California's unique requirements) in the online training and California Compliance School components of its recycling outreach program. At present, EPA is reviewing the CD-ROM. DTSC is hopeful that it will soon be ready for distribution to grantees and the public.

In the meantime, DTSC has done the preliminary work for the online training and compliance school elements of the project and has participated in all-recipient conference calls for grantees, organized by EPA. DTSC staff have also spoken about lamp recycling to audiences of businesses and other organizations that generate mercury lamps, as well as the local agencies that enforce the requirements to properly manage and recycle lamps. While it was our intention to use presentation materials developed by ALMR in our direct outreach to lamp generators, DTSC developed its own materials for these events. DTSC staff made presentations to the following organizations and events:

1. U.S. Postal Service - LAX and South Central Districts.

2. Industrial Environmental Coalition of Orange County. The Industrial Environmental Coalition of Orange County (IECOC) is a regional non-profit organization of businesses that provides information to its members on current and proposed environmental health and safety laws and regulations. The organization holds monthly meetings in Costa Mesa, California, at which state, regional and local environmental health and safety agencies regularly make presentations on topics of interest to the group. At a recent meeting of IECOC, DTSC staff presented an overview of the state's hazardous waste management program, including the state's requirements for managing and recycling universal waste lamps.

3. City of Los Angeles Environmental Affairs Dept. - "The City's Environmental Affairs Department [EAD] seeks to protect and enhance the environmental quality of life for residents, communities, workers, and visitors in the City by: recommending environmental policies and programs to the Mayor and City Council; implementing and coordinating Citywide environmental initiatives; securing and assisting others in securing resources for the implementation of environmental initiatives; facilitating public education; providing assistance to businesses; responding to requests for information on environmental issues; and ensuring that solid waste facilities in the City are operated in a manner that protects the public health, safety, and environment."¹ DTSC staff recently spoke to EAD staff on the state's regulation of universal wastes, including mercury-added lamps.

4. Sixth Annual Unified Program Conference, Santa Clara. More than 550 people attended this conference. The largest group represented was Certified Unified Program Agencies (CUPAs) and Participating Agencies (PAs). Under California's Unified Hazardous Waste and Hazardous Materials Management Program (Unified Program), these local agencies are responsible for enforcing the state's hazardous waste generator requirements, including the requirements to properly manage and recycle waste mercury lamps.

The CUPAs and PAs have direct, daily interaction with businesses that generate mercury lamps. By providing information on lamp recycling to them, DTSC can get the word out to many more generators than we could possibly speak to directly. At the Unified Program Conference, DTSC staff provided an overview of the state's universal waste regulations, and discussed the recently effective designation of all discarded mercury-containing lamps as hazardous waste and the requirement that all such lamps be recycled to be eligible for management as universal waste. Approximately 75 people attended the session.

5. Philips Lighting Crossroads Seminars. This series of five seminars for businesses was organized by Philips Lighting Company. A panel composed of representatives from Philips, DTSC, and two lamp recycling firms (Advanced Environmental Recycling Corporation and Earth Protection Services, Inc.) spoke on topics that included the health and environmental hazards of mercury, the purpose of mercury in fluorescent lamps, and how lamps are processed by recycling facilities. DTSC's representatives discussed the state's requirement that all mercury-added waste lamps be properly managed and recycled as universal waste.

¹ City of Los Angeles, Environmental Affairs Department Web site:
http://www.ci.la.ca.us/EAD/about_ead.htm, accessed May 18, 2004.

Table1: Direct Outreach on Lamp Recycling by DTSC

Date	Event	Location	Audience	Approx. # Attendees
12/11/03	Universal Waste Rules, U.S. Postal Service, LAX. District	Los Angeles	Postal Service Employees	30
12/15/03	Universal Waste Rules, U.S. Postal Service, LAX. District	Los Angeles	Postal Service Employees	28
12/30/03	Universal Waste Rules, U.S. Postal Service, LAX. District	Los Angeles	Postal Service Employees	34
1/14/04	Overview of Hazardous Waste Management in California including Universal Waste Rules to U.S. Postal Service, South Central, L.A. District	Los Angeles	Postal Service Employees	5
1/22/04	2003 Legislative & Regulatory Updates at Industrial Environmental Coalition of Orange County	Costa Mesa	Businesses	21
1/27/04	2003 Legislative & Regulatory Updates and Universal Waste Rules to DTSC staff	Glendale	State Hazardous Waste Agency Staff	20
1/28/04	2003 Legislative & Regulatory Updates and Universal Waste Rules to DTSC staff	Cypress	State Hazardous Waste Agency Staff	22
1/29/04	Universal Waste Rules to City of Los Angeles Environmental Affairs Dept.	Los Angeles	City Staff	23
2/04/04	Unified Program Conference	Santa Clara	Local Hazardous Waste Enforcement Agencies	75
2/24/04	"The Lighting Crossroads" - Philips Lighting Company Seminar on California's Mercury Lamp Recycling Requirement	Sacramento	Businesses	70
2/26/04	"The Lighting Crossroads" - Philips Lighting Company Seminar	Emeryville	Businesses	70
	Total Attendance			398

Tasks and Schedules

Below are the major phases of the California Mercury Lamp Recycling Outreach Program and descriptions of the tasks that DTSC and its project partners will undertake during each phase.

1. Preliminary administrative tasks. During this first phase, the project's scope and schedule will be finalized, deliverables will be identified, and contracts with project partners will be implemented. The program is currently in this phase.
2. Content development. During this phase, DTSC will develop content to be incorporated into the program's three components (direct outreach, online training, and California Compliance School), incorporating materials developed by ALMR.
3. Development of outreach materials. During this phase, DTSC and its partners will develop the online training course, presentation materials, and compliance school module. Potential trainees (business groups, industry associations, etc.) will be identified and contacted.
4. Rollout/implementation. During this phase, the outreach will get underway. Compliance School instructors will begin presenting the new materials on lamp recycling; students will begin enrolling in and receiving online lamp recycling training; and DTSC staff will begin making presentations on lamp recycling to business groups. Any needed changes to the outreach materials or content will be identified and made.
5. Maintenance. During this phase, all three program components will be fully implemented. Periodically, DTSC and its partners will assess the success of the program and will make any necessary adjustments.

Key tasks in implementing each of the three elements of the California Mercury Lamp Recycling Outreach Program, and their estimated dates of completion, are listed in Tables 2, 3, and 4, below. Because of the delay in the availability of the outreach materials developed during Phase I (which DTSC had expected to receive on or around February 1, 2004), the estimated schedules presented below have been revised. The new schedules assume that the Phase I materials will be available on July 1, 2004.

Table 2: Estimated Schedule for the Online Training Course Element²

Dates	Task
7/01/2004	Phase I Materials developed by ALMR (printed collaterals, CD-ROM, BLRPI Implementation Guide, etc.) delivered to DTSC.
7/01 – 8/01/2004	DTSC reviews ALMR materials and tailors them to reflect CA requirements; delivers tailored materials to CSUS on 7/01.
8/02 – 9/15/2004	CSUS converts course content to “WebCT” format;
	DTSC/CSUS develop “assessment tools” (i.e., quiz);
	DTSC/CSUS develop course evaluation questions;
	DTSC compiles a list of 30 “subject matter experts” (SMEs) to test the course;
	CSUS provides usernames and passwords for these SMEs; SMEs register for the course.
9/16 – 10/31/2004	SMEs take the course, complete quizzes and course evaluation questions.
	CSUS sends grade reports to SME students who complete the course within the 21-day time limit and notices to those who do not.
	DTSC/CSUS discuss data from course evaluations and determine whether modifications to the course are needed.
	CSUS makes needed changes to the course.
11/01 – 11/30/2004	DTSC identifies 60 more students to test the revised course;
	CSUS provides usernames and passwords for these students;
	Students register and complete course, quiz, and evaluation; CSUS delivers summary of course evaluations to DTSC.
12/01/2004 –	Course maintenance by CSUS; updates as needed.

² This estimated schedule assumes that DTSC will receive the Phase I deliverables on July 1, 2004. If these deliverables are available earlier or later than expected, the schedules for the subsequent tasks will need to be adjusted accordingly.

Table 3: Estimated Schedule for the California Compliance School Element²

Dates	Task
7/01/2004	Phase I Materials developed by ALMR (printed collaterals, CD-ROM, Business Lamp Recycling Program Implementation Guide, etc.) delivered to DTSC.
7/01 – 8/01/2004	DTSC reviews ALMR materials and tailors them to reflect CA requirements; delivers tailored materials and course objectives to CCS.
10/31/2004	CCS completes curriculum for lamp recycling module.
11/30/2004	CCS completes dry run of new module.
12/31/2004	CCS delivers finalized lamp recycling module; module incorporated into the regular compliance school curriculum.

Table 4: Estimated Schedule for the Direct Outreach Element²

Dates	Task
7/01/2004	Phase I Materials developed by ALMR (printed collaterals, CD-ROM, Business Lamp Recycling Program Implementation Guide, etc.) delivered to DTSC.
7/01 – 8/01/2004	DTSC reviews ALMR materials and tailors them to reflect CA requirements
8/01 – 9/30/2004	DTSC develops/tailors MS PowerPoint presentation
	DTSC develops/tailors printed handouts
	DTSC identifies groups, Listservs, publications, etc., through which to publicize the availability of direct outreach
	DTSC distributes (via mail, e-mail, publications, Web site, etc.) announcements of the availability of speakers on lamp recycling to potential audiences
10/01 – 10/31/2004	DTSC and individual groups schedule presentations (either stand-alone or on the agenda of a regular meeting)
11/01/2004 – ongoing	DTSC delivers presentations

Next Report

The current reporting period runs from February 28, 2003 through May 27, 2004. The quarterly progress report for this reporting period is due by June 28, 2004.