



**Division of Environmental and Occupational Disease Control
Occupational Health Branch**

HAZARD EVALUATION SYSTEM AND INFORMATION SERVICE

Annual Report

November 1, 2012 – October 31, 2013

A report to the Legislature submitted to the Department of Industrial Relations for the
Hazard Evaluation System and Information Service

HAZARD EVALUATION SYSTEM AND INFORMATION SERVICE (HESIS)

Executive Summary

This report is mandated in Labor Code Section 147.2. Herein is detailed the implementation and operation of a “repository of current data on toxic materials and harmful physical agents in use or potentially in use in places of employment in the state,” as mandated by the above code section. The report includes:

- ✓ The toxic materials, harmful physical agents, and other workplace hazards investigated during the past year, and recommendations made concerning them;
- ✓ Actions taken to inform interested persons of possible hazards of exposure to toxic materials and harmful physical agents;
- ✓ Any recommendations for legislative changes relating to the functions of the repository; and
- ✓ The amounts of and source of funds allocated and spent on repository activities.

The mandates of the Labor Code have been implemented through the provision of:

- ✓ Technical support and consultation regarding occupational health to the Department of Industrial Relations (DIR), other programs within the California Department of Public Health (CDPH), and other agencies and organizations;
- ✓ A telephone information service for individuals seeking information about workplace hazards;
- ✓ Educational materials and an education/outreach function;
- ✓ Technical input and recommendations on standards-setting;
- ✓ A hazard assessment function; and
- ✓ Rapid access to electronic databases and full-text articles through CDPH's contract with the University of California, Berkeley's Public Health Library.

In 2012-2013, HESIS continued to implement its mandates to protect California workers from occupational illness and disease. HESIS identified, evaluated, and provided practical information on toxic chemicals and other workplace hazards; assisted the DIR Division of Occupational Safety and Health (Cal/OSHA) in determining whether illnesses and diseases were work-related and in promulgating protective occupational health standards; and initiated and worked collaboratively with others on targeted public health projects and activities. HESIS' accomplishments during this period included:

- Provided technical support to Cal/OSHA's Research and Standards Unit on revision of the Director's List of Hazardous Substances.

- Reviewed the scientific literature and provided the Cal/OSHA Research and Standards Unit with a toxicological review and a first-draft recommendation for a revised Permissible Exposure Limit (PEL) for dibutyl phthalate.
- Provided 23 medical consultations to Cal/OSHA enforcement staff concerning a total of 27 employees in incidents of serious or fatal injury/illness at various work sites.

Medical consultations, which often address the issue of work-relatedness of an injury, illness, or fatality, typically begin with a request from Cal/OSHA staff, followed by information gathering, data synthesis, medical literature and records review, and report writing.

- Responded to 100 calls to the Workplace Hazard Helpline (also referred to as the “Telephone Response System” or “TRS”). Seventy-two percent of these calls were initiated by workers, relatives of workers, employers, health care providers treating workers, or industrial hygiene / safety personnel serving workers.

TRS responses generally involve 1-3 telephone interactions with the caller, as well as online technical data retrieval, determination of appropriate referral avenues, and provision of supporting documentation, either as online links or in hard copy.

- Published the following new **HESIS Fact Sheet**:
 - ✓ *Preventing Work-Related Coccidiomycosis (Valley Fever)*
<http://www.cdph.ca.gov/programs/hesis/Documents/CocciFact.pdf>
- Continued revisions on the following **HESIS Fact Sheets**:
 - ✓ *Isocyanates*
 - ✓ *Epoxy Resin Systems*
- Began revisions on the following HESIS Fact Sheet:
 - ✓ *Mercury*
- Collaboratively produced a multi-part **Health Alert** for hardware and paint stores:
 - ✓ *Paint Stripping Products: Safer, Less Toxic Choices (poster)*
<http://www.cdph.ca.gov/programs/ohb/Documents/PaintRemovalPoster.pdf>
 - ✓ *Guide to Choosing Paint Stripping Products: Safety Considerations*
<http://www.cdph.ca.gov/programs/hesis/Documents/Paint-Removal-Methods.pdf>
 - ✓ *Minimum Personal Protective Equipment Required for Paint Stripping*
<http://www.cdph.ca.gov/programs/ohb/Documents/PPEChart.pdf>

HESIS continued to work with collaborators to expand the public health impact of the program. This year, HESIS participated in meetings and other activities of:

- Collaborative for Healthy Nail Salons
- Interagency Indoor Air Quality Working Group
- Western Occupational and Environmental Medicine Association (WOEMA)
- WorkSafe
- California Association of Communicable Disease Controllers
- California Wildland Fire Safety Officers

HESIS continued to provide technical assistance to Cal/OSHA to help prevent workers from becoming ill or injured. HESIS served on and provided technical assistance to Cal/OSHA Advisory Committees to help develop policies and procedures to amend Permissible Exposure Limits (PELs) for workplace chemicals and other agents. HESIS continued to serve as a referral source for inquiries received by Cal/OSHA on the health hazards of chemicals and other workplace hazards, and to inform employers and workers about Cal/OSHA regulations and services through the HESIS Workplace Hazard Helpline and HESIS publications.

Other collaborative public health activities this year included:

- Participated in a joint investigation of coccidioidomycosis (“Valley Fever”) cases among solar farm construction workers in San Luis Obispo (SLO) County. Collaborators included Cal/OSHA Compliance, SLO Health Department, and CDPH’s Infectious Diseases Branch (IDB).
- Participated in a project along with the University of California, Berkeley and San Francisco, to evaluate the feasibility of characterizing occupational exposures for a cohort of pregnant patients and identifying toxicants that pose risks of developmental toxicity using occupational codes on patient information forms.

HESIS staff continued to assess the health hazards of specific work-related exposures and to provide technical assistance to agencies and groups. Surveillance of the occupational health literature, identification of new and unappreciated hazards, and expansion of the information repository are ongoing. The Occupational Health Branch (OHB) Web site:

www.cdph.ca.gov/programs/ohb/Pages/default.aspx

continues to showcase the publications developed by HESIS. HESIS also continued to provide support for OHB through active participation on the management team and serving on Branch-wide and Division-wide committees.

Specific Accomplishments:

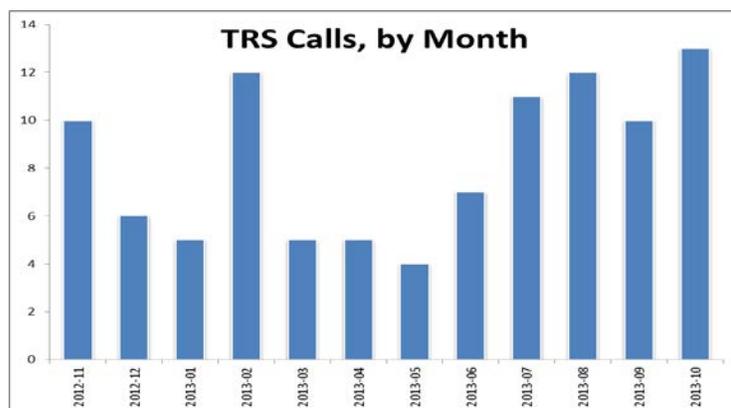
Labor Code Section 147.2 – Mandate 1

Provide reliable information of practical use to employers, employees and representatives of employees, and other governmental agencies on the possible hazards to employees of exposure to toxic materials or harmful physical agents.

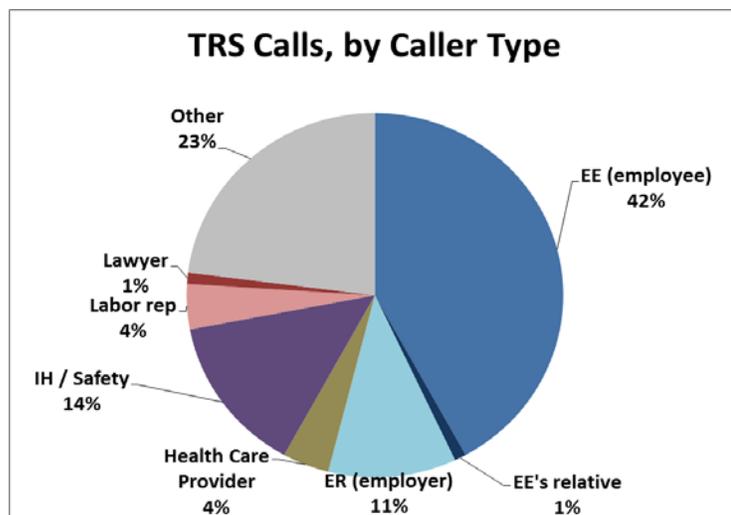
1. Workplace Hazard Helpline / Telephone Response System (TRS)

A total of 100 calls were logged between November 2012 and October 2013:

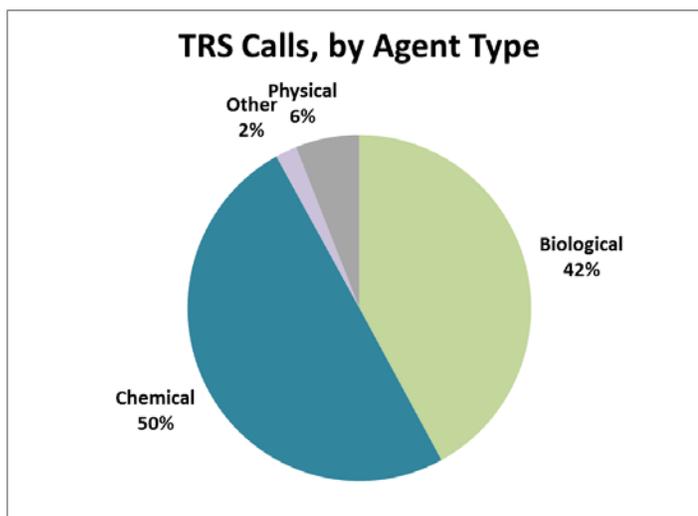
- Monthly calls ranged from 4 to 13, led by October 2013.



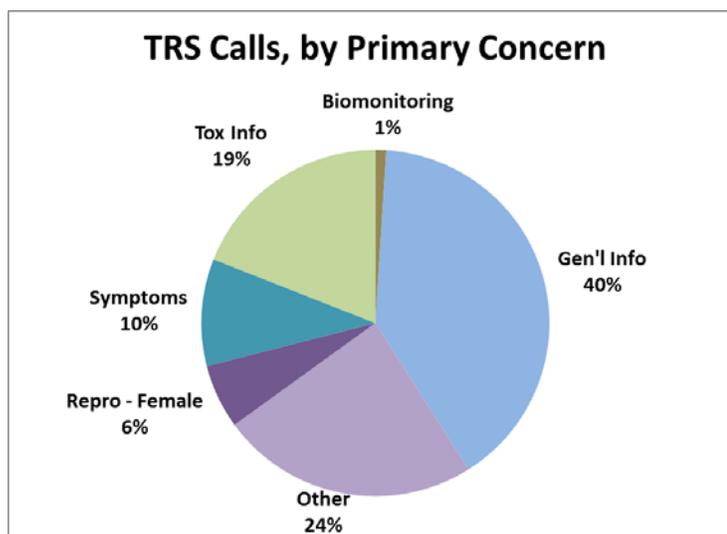
- Callers. Inquiries came from employees and their relatives, industrial hygiene / safety personnel, employers, health care providers, attorneys, and others.



- Agents of concern were principally chemical in nature, followed by biological agents, physical agents, and other work-related issues:



- Major Concern. The greatest numbers of calls related to general workplace information, followed in frequency by “other” (e.g., mold), questions regarding the toxicity of specific chemicals, questions about the relationship of symptoms to work exposures, and work exposures and pregnancy risks. Examples of “general information” include: inquiries regarding workplace policies or discrimination issues, workplace sanitation, guidance on IPPs and hazard communication, and respirator fit testing requirements.



Examples of 2012-2013 TRS calls include:

- In response to a landfill worker's health concerns relating to the heating of biosolids, HESIS staff reviewed industrial hygiene reports from the facility and identified a number of problems with the sampling methods and laboratory analyses. The facility has since made improvements to the process, resulting in a reduction of potential exposures to workers.
- HESIS staff provided information to a representative of a farm worker on their employer's need to cover Valley Fever in their injury and illness prevention program and the possibility of workers' compensation coverage for an infection.
- A hospital infection preventionist called for information on whether use of manual AmbuTM resuscitation bags generate infectious aerosols and recommended use of the filters with which they are supplied. HESIS provided relevant guidelines that supported use of the exhalation filters and reviewed the application of the Cal/OSHA aerosol transmissible diseases regulation.
- HESIS responded to calls from employees at a psychiatric hospital who were concerned that cement dust from construction in the hospital was making staff and patients sick. HESIS staff referred the callers to Cal/OSHA for an on-site review of the contractor's work practices. HESIS also sent information regarding the health effects from cement dust.
- A caller inquired about the long-term health effects of epoxy resin from re-finishing countertops. HESIS staff provided information about the potential health effects and on measures to minimize exposures. They also provided the HESIS fact sheet "Epoxy Resin Systems".
- A janitor called to request information on the protective equipment that should be used for mixing and applying cleaning chemicals in a gymnasium and sauna. HESIS staff suggested the janitor obtain safety data sheets, and also discussed the need for an emergency eye wash.
- Two separate callers requested help in interpreting laboratory results from testing building systems for legionella. HESIS referred the callers to standard methods of testing, to the OSHA technical manual on interpreting results, and to Title 17 requirements for disease reporting.
- A dental surgeon called to request information on the extent of her exposure to waste anesthetic gases and on the significance of the exposure to her pregnancy. HESIS staff provided literature on potential exposures and on the reproductive health effects. Staff also provided advice on limiting her exposure.

- Electronic database of TRS calls. HESIS' searchable database of TRS calls utilizes EpilInfo software, and is routinely employed when responding to information requests.
- TRS Intranet Site. HESIS utilizes a CDPH Information Technology Services' Sharepoint utility to maintain an intranet site for use by TRS responders within OHB. The site includes commonly consulted documents, Web site URLs, agency contacts, and other information resources.

2. Educational Materials Development

- **Methylene Chloride.** In collaboration with staff of OHB's Fatality Assessment and Control Evaluation (FACE) program, HESIS staff co-authored a journal article documenting California fatalities due to use of methylene chloride containing paint strippers in poorly ventilated settings. HESIS also collaboratively developed a set of three inter-related documents to promote the use of safer paint-stripping products. These include:
 - ✓ A color-coded poster highlighting alternative stripper formulations
 - ✓ A guide to paint stripping products, and
 - ✓ A guide to recommended personal protective equipment.

The above materials can be accessed at OHB's Methylene Chloride Topic Page:
<http://www.cdph.ca.gov/programs/ohb/Pages/methylenechloride.aspx>.

- **Preventing Work-Related Coccidioidomycosis (Valley Fever).** At the request of Health Officers in counties where the fungus that causes Valley Fever is endemic, HESIS developed the fact sheet "Preventing Work-Related Coccidioidomycosis (Valley Fever)" published it on-line, and printed hard-copies for dissemination. Distributed the fact sheet at the Cal/OSHA Advisory cCommittee and at Congressman Kevin McCarthy's Symposium on Valley Fever in Bakersfield. Received input during the development of the fact sheet from Health Officers, safety representatives from employers doing pipeline construction and construction management, DIR, CDPH-Infectious Diseases Branch, and other State and Federal Agencies.

The above fact sheet can be accessed at OHB's Coccidioidomycosis Topic Page:
<http://www.cdph.ca.gov/programs/ohb/Pages/Cocci.aspx>

- **Isocyanates: Working Safely.** HESIS staff, with the assistance of health education staff within OHB, produced a draft revision of its 20-year-old isocyanate fact sheet. The fact sheet emphasizes the hierarchy of industrial hygiene controls, with specific application to auto body painting and spray polyurethane foam insulation and roofing. In drafting this revision, HESIS staff visited an auto body shop and the training facility of a major automotive paint

manufacturer. Outreach is also planned to a training facility for insulators and roofers in an effort to hone the document's messages. Revision of this document coincides with a special emphasis program on isocyanate exposure by the Occupational Safety and Health Administration (Fed/OSHA).

3. Educational Materials Dissemination

- Mass mailings and widely disseminated articles.

Distributed hardcopies of the fact sheet "**E-waste Recycling, Working Safely**" to 174 e-waste recycling companies employing approximately 800 to 1000 workers in California. Sent electronic copies to 1800 e-waste collectors (facility contacts) and other interested parties.

In collaboration with the Occupational Health Surveillance and Evaluation Program within OHB, HESIS staff mailed 2,500 packets promoting safer paint stripping products to independently owned hardware, building supply, and paint stores. Outreach to corporate-owned stores is anticipated in the near future. The objective is to reach wholesale (and retail) establishments frequented by contractors and other employers.

HESIS contributed to the Fall 2013 **California Contractors State License Board Newsletter** article on Valley Fever. This electronic newsletter goes to many of the 124,000 licensed contractors in the state. The article provided a link to the OHB topic page where contractors can get guidance on minimizing exposure to the fungal spores that cause Valley Fever. The article can be viewed at: www.cslb.ca.gov/Newsletter/2013-Fall/valleyfever.asp

HESIS distributed articles on "Construction/outdoor Workers at risk for Valley Fever" and "Preventing Worker Deaths from Methylene Chloride" through OHB's electronic newsletter, "**Occupational Health Watch**" (circulation > 4,000).

- HESIS Outreach Activities / Publications Request Line.

Distributed hardcopies of HESIS publications through outreach activities and in response to direct requests during the report period.

Continued to mail HESIS publications to the Cal/OSHA District and Area Offices for further dissemination by Enforcement and Consultation staff, and to serve as resource information for their telephone consultations.

Organizations and groups that requested and disseminated HESIS publications included:

- UCLA / Labor Occupational Safety and Health Program
- Port of Oakland
- Cal/OSHA

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- Cosmetology Colleges
- CAL FIRE
- Contractors State License Board
- Conferences, Meetings, Presentations. Distributed HESIS publications at formal conferences and meetings, including:
 - Pacific Building Safety Expo
 - California Conference of Local Health Officers (CCLHO) annual meeting
 - Collaborative meeting of local health officers
 - American Public Health Association annual conference
 - California Interagency Wildland Fire Safety Officers' Conference
 - Cal/OSHA Advisory Committee
 - California Association of Communicable Disease Controllers
 - Workers' Memorial Day, Los Angeles
 - Workers' Memorial Day, Oakland
 - Coalition for Occupational Safety and Health, Worker's Health and Safety
 - E-Scrap Conference
- TRS Consultations. Disseminated appropriate HESIS publications to supplement and reinforce the information provided to callers.
- OHB Web Site. Continued to disseminate HESIS educational materials via the program's Web site:

www.cdph.ca.gov/programs/hesis/Pages/Publications.aspx.

Developed New Web Topic Pages:

- ✓ Preventing work-related Valley Fever (Coccidioidomycosis)
<http://www.cdph.ca.gov/programs/ohb/Pages/Cocci.aspx>
- ✓ Preventing worker deaths from paint strippers containing methylene chloride
<http://www.cdph.ca.gov/programs/ohb/Pages/methylenechloride.aspx>

The top ten HESIS publications downloaded or viewed were:

- If I'm Pregnant, Can the Chemicals I Work With Harm My Baby?
- Understanding Toxic Substances
- Formaldehyde
- Epoxy Resin Systems
- Xylene
- Isocyanates
- Rabies
- Methyl Methacrylate (MMA)
- Methylene Chloride
- N-Methylpyrrolidone (NMP)

4. Education / Outreach

HESIS staff spoke regarding workplace hazards to a variety of audiences:

Dennis Shusterman, MD, MPH, HESIS Chief, spoke on the following topics:

- 2/27/13 – “Green chemistry / safer alternatives: An emerging paradigm for worker protection?” (Western Occupational and Environmental Medicine Association, Webinar)
- 5/18/13 – “Methylene chloride in paint strippers: Worth the risk?” (UC Davis 31st Annual Occupational and Environmental Medicine Symposium). Sacramento.
- 7/29-30/13 – Course Coordinator - Occupational and Environmental Toxicology. (Center for Occupational and Environmental Health Summer Institute). University of California, Berkeley.
- 7/29/13 – “Respiratory Toxicology” (Center for Occupational and Environmental Health Summer Institute). University of California, Berkeley.
- 7/11/12 – “Introduction to industrial toxicology” (UCSF Occupational and Environmental Medicine Residents – Summer Didactics). Richmond.
- 7/11/12 – “Differential diagnosis of episodic dyspnea in the workplace” (UCSF Occupational and Environmental Medicine Residents – Summer Didactics). Richmond.

Jennifer McNary, MPH, CIH, spoke on:

- 4/17/13 – “Valley Fever.” (2013 California Interagency Wildland Fire Safety Officers’ Conference). San Diego.

Jason Wilken, PhD, Epidemic Intelligence Service Officer assigned to OHB by the Centers for Disease Control and Prevention, spoke on:

- 11/14/13 – “Coccidioidomycosis among solar farm workers.” (Occupational and Environmental Health Interdisciplinary Grand Rounds). University of California, San Francisco.

Article in the published literature:

- Maclsaac J, Harrison R, Krishnaswami J, McNary J, Jeffery Suchard MD, Boysen-Osborn M, Cierpich H, Styles L, Shusterman D. Fatalities due to dichloromethane in paint strippers: A continuing problem. *Am J Indust Med* 2013; 56:907-910.

Labor Code Section 147.2 – Mandate 2

Collect and evaluate toxicologic and epidemiologic data and any other information that may be pertinent to establishing harmful effects on health of exposure to toxic materials or harmful physical agents.

1. Technical Assistance – Cal/OSHA Medical Unit Consultations

- HESIS performed a total of 23 medical consultations, involving a total of 27 employees, between November 1, 2012 and October 31, 2013. The workplace hazards, by class, included:
 - ✓ Physical (heat) in 18 investigations involving 22 workers.
 - ✓ Physical (a fall from height) in 1 investigation involving 1 worker.
 - ✓ Physical (exercise) in 1 investigation involving 1 worker.
 - ✓ Chemical in 2 investigation involving 2 workers.
 - ✓ Unknown in 1 investigation involving 1 worker
- *Physical (heat):*

Of 22 suspected heat illness cases, 14 were medically confirmed as primarily heat-related, 1 as partially heat-related, 1 as possibly heat-related, 2 were indeterminate, and for 4 cases heat was judged to have not played a significant role. Six heat-related investigations involved fatalities.
- *Physical (fall from height and exercise):*

Both cases were non-fatalities and were found to be work-related.
- *Biological:*

None evaluated in 2012-2013
- *Chemical:*

Two cases – one fatality and one non-fatality – concerned possible exposure to nitrogen oxides. The relationship between exposure and outcome was ruled-out in one case and indeterminate in the other.
- *Indoor air:*

A single case of potential indoor air-related symptoms (agent unknown) was indeterminate in causation.

2. Support for Cal/OSHA Appeals Hearings

- No sworn testimony was required in 2012-2013.

3. Selected Hazard Assessments

Cal/OSHA Collaborative Investigation

- Cal/OSHA Compliance

- ✓ HESIS (and CDPH Infectious Diseases Branch) personnel identified an outbreak of coccidiomycosis (Valley Fever or “cocci”) infections among workers at two solar energy construction projects (“solar farms”) in San Luis Obispo (SLO) County. HESIS identified “serious” illnesses (including hospitalizations), facilitated reporting of this outbreak to Cal/OSHA by the local (SLO) health department, and participated in the subsequent interagency investigation. Along with DOSH compliance officers and the SLO Public Health Department, HESIS personnel observed working conditions in the field, interviewing employers and employees. In addition, HESIS / OHB staff collected and analyzed records related to ill workers, analyzed data from interviews conducted with 42 of 43 ill workers, and provided recommendations for improved dust control, protective equipment, and safer work practices to prevent additional illness and improve early disease recognition. HESIS and IDB are currently conducting a follow-up survey of all known individuals employed at the two sites since the inception of construction activities (i.e., late 2011). The objective of this survey is to identify additional confirmed cases (particularly among workers residing out-of-state), to identify individuals who experienced symptoms consistent with self-limited coccidiomycosis infection, and to identify potential risk factors for infection.

4. Technical Assistance – Selected Other Constituencies

Federal government

- National Institute for Occupational Safety and Health (NIOSH)

- ✓ HESIS staff provided feedback to NIOSH staff on the draft document, “Working Safely with 1-Bromopropane.”

- U.S. Environmental Protection Agency (EPA)

- ✓ HESIS staff provided feedback to EPA staff on the draft document, “TSCA [Toxic Substances Control Act] Workplan Chemical Risk Assessment for Methylene Chloride: Paint Stripping Use.”

- U.S. Forest Service

- ✓ CDPH Veterinary Public Health and HESIS staff provided advice regarding testing of bat guano for histoplasmosis and provided recommendations for protecting workers.

State government

- California Department of Public Health

- ✓ HESIS staff provided comments on a revised *Coccidioidomycosis* (Valley Fever) Case Report form to prompt physicians to record occupational data elements for improved occupational disease surveillance.
- ✓ HESIS staff met with NIOSH and CDPH emergency preparedness planners and reviewed manufacturers' guidance to advise CDPH on the shelf life of filtering facepiece respirators in the state stockpile.

- California Department of Corrections and Rehabilitation

HESIS staff participated in a CDC/NIOSH health hazard evaluation visit at a prison and consulted with members of the California Department of Corrections (CDCR) Public Health Unit within Correctional Health Care Services regarding environmental testing for *Coccidioides* spores. HESIS staff also responded to a request for estimates of coccidioidomycosis incidence among CDCR staff using compiled Doctor's First Reports of Occupational Injury or Illness.

Local government

- California Conference of Local Health Officers

In response to requests from local Health Officers, HESIS staff completed a fact sheet entitled: "Preventing Work-Related *Coccidioidomycosis* (Valley Fever)".

- San Luis Obispo County and Air Pollution Control District

HESIS facilitated an inter-agency phone conference, also attended by Cal/OSHA staff, to promote additional exposure controls for Valley Fever at two solar energy facility construction sites. Following the meeting, additional dust control measures were implemented.

Academia

- Pregnancy and Work: Identifying occupational exposures to pregnant women in a prenatal clinical setting

This project began through an interagency agreement with the University of California, Berkeley (UCB). The goal of the project is to assess the feasibility of integrating a self-administered occupation and hobby questionnaire into standard prenatal and OB/GYN care. This information would help HESIS conduct industry and job-related education and outreach to workers, employers, and health care providers on reproductive and developmental toxicants, and on ways to protect against exposure. The project continues under a no-cost extension, with UCSF's

Project on Reproductive Health and the Environment (PRHE). PRHE is currently in the process of preparing a manuscript for peer-reviewed publication that will summarize the project, which included nearly 70 women from San Francisco General Hospital's prenatal clinic. The manuscript will provide recommendations for health care providers interested in using questionnaires to identify occupational exposures during routine care.

Labor Representatives

- HESIS discussed exposure control recommendations and provided educational materials, including the HESIS fact sheet on Preventing Work-Related Valley Fever, to electricians (IBEW), Pile Drivers, Laborers, and Operating Engineers' representatives to promote better control of Valley Fever spores during construction activities.

5. Information Repository

HESIS Electronic Repository of Occupational Health Information (e-ROHI): HESIS staff, in collaboration with the UC Berkeley Public Health Library, continued electronic document delivery to Cal/OSHA Research and Standards Unit staff, with expanded services to the Medical Unit staff. HESIS staff continues to review table-of-contents alerts in toxicology, industrial hygiene, and occupational medicine journals and to compile selected key articles in electronic format.

Labor Code Section 147.2 – Mandate 3

Recommend to the Chief of the Division of Occupational Safety and Health that an occupational safety and health standard be developed whenever it has been determined that a substance in use or potentially in use in places of employment is potentially toxic at the concentrations or under the conditions used.

Standards Recommendations / Assistance

Cal/OSHA Development of Permissible Exposure Limits (PELs) in California Code of Regulations Title 8 Section 5155

- Standards Recommendations / Health Effects Advisory Committee (HEAC)

Dibutyl phthalate (submitted to Cal/OSHA for its final review) -

Completed draft toxicology review and derivation of a potential occupational exposure limit based upon animal experimental data.

Di-ethyl-hexyl phthalate - (on hold)

Completed draft toxicology review and derivation of a potential occupational exposure limit based upon animal experimental data.

n-butyl glycidyl ether - (on hold)

Began draft toxicology review and derivation of a potential occupational exposure limit based upon animal experimental data.

- Cal/OSHA Standards Advisory Committees (Other than Section 5155)

HESIS staff participated in Cal/OSHA's advisory process on revision of the Hazard Communication Standard to accommodate Federal OSHA changes reflecting the Globally Harmonized System for Classification and Labeling of Chemicals (CCR Title 8, Section 5194). Consistent with California's unique regulatory history in this arena, HESIS staff reviewed authoritative sources for proposed additions to the Director's List of Hazardous Substances (Labor Code, Section 6380 *et seq.*).

OHB staff (specifically, the Occupational Lead Poisoning Prevention Program and OHB Chief) reviewed the recent scientific literature on lead and made health-

based recommendations to Cal/OSHA for revising the lead PEL and the General Industry and Construction Lead Standards for the protection of workers who are exposed to lead on the job.

Labor Code Section 147.2 – Mandate 4

Notify the Director of Food and Agriculture of any information developed by the Repository which is relevant to carrying out his or her responsibilities under Chapter 2 (commencing with Section 14001) of the Division of Food and Agriculture Code.

There were no activities under this mandate during the report period.

Labor Code Section 147.2 – Mandate 5

Assure the use of and non-duplication of resources of other governmental agencies.

Use of Other Governmental Agency Services / Resources

- Cal/OSHA. HESIS continued, on a routine basis, to meet with, consult with, and make referrals to Cal/OSHA, and to use and disseminate Cal/OSHA educational materials.
- CDPH. HESIS continued, routinely, to consult with, make referrals to, and use materials and Web site information developed by numerous other CDPH programs to evaluate and provide consultations regarding workplace hazards. In this report period, these programs included: the Environmental Health Laboratory Branch Indoor Air Quality Section, Environmental Management Branch, Vector-Borne Diseases Section, Infectious Diseases Branch, Radiological Health Branch, Environmental Health Investigations Branch, and Immunization Branch.
- Cal/EPA - Office of Environmental Health Hazard Assessment. HESIS continued to consult with OEHHA staff and use risk assessment resources to identify occupational carcinogens and reproductive toxicants and to assist Cal/OSHA in developing Permissible Exposure Limits for workplace chemicals. Continued to share the resources of the Occupational and Environmental Health Library.
- Cal/EPA – Department of Toxic Substances Control, Pollution Prevention and Technology Development. HESIS continued to consult with Cal/EPA staff and to

use technical information and other resources to recommend pollution prevention strategies to protect workers from the adverse health effects of organic solvents and other hazardous substances.

- National Institute for Occupational Safety and Health. HESIS continued to use and disseminate NIOSH educational materials and to use and refer callers to their Web site for information and publications. HESIS provided links to its documents for NIOSH's central document clearinghouse.

Labor Code Section 147.2 – Mandate 6

Recommend legislative changes related to the functions of HESIS.

There were no activities conducted under this mandate in the report period.

Authorized positions in HESIS for 2012-2013

Permanent positions

Public Health Medical Officer III	Dennis Shusterman, MD, MPH	100%
Staff Toxicologist (Specialist)	Kashyap Thakore, PhD	100%
Research Scientist III (Phys / Engr Sci)	Jennifer McNary, MPH, CIH	100%
Management Services Technician	Angela Williams-Bell	100%

Source of funding

HESIS is supported through an interagency agreement between the Department of Industrial Relations, Cal/OSHA; and the California Department of Public Health (formerly Department of Health Services), Occupational Health Branch.

Annual budget

HESIS' budget was re-aligned to reflect the State (rather than federal) fiscal year. This resulted in a 9-month budget for the period October 1, 2012 to June 30, 2013 of \$532,743 (2012-2013 fiscal year); plus \$179,727 (pro-rated July 1 – Sept 30, 2013 in 2013-2014 fiscal year); for a total annual budget of \$712,470.