

Agricultural Personnel Management Program



University of California

Labor Management Decisions

Volume 5, Number 1, Fall 1996

Back in Circulation

After nearly two years' absence, *Labor Management Decisions* is resuming publication, with plans for a regular schedule of three issues annually -- Fall, Winter, and Spring. Our apologies for the long break and thanks to those who phoned or wrote to inquire about *LMD*.

Since last appearing in this form, the Agricultural Personnel Management Program (APMP) has hopped onto the digital wave and established a presence on the World Wide Web. While only beginning to fathom the possibilities and tap the power of the Internet, we are sure that electronic communications technology will be profoundly enriching extension education and research work in all fields. Please visit our home page at <http://are.berkeley.edu/APMP/>.

Although the site is under perpetual construction, it already contains a wealth of material and structured links to educational articles, legal and government references, research findings, practical advice, and other resources pertinent to management of human resources in production agriculture. If you are able to spend some time exploring the website and have comments or suggestions, we would be very pleased to hear them from you. Click on the link to "[Electronic Farm Call](#)" or the one for comments at the bottom of the home page and send a message, or contact [Betsey Tabraham](#) via more traditional means.

Among other developments that you have not read about in *LMD* have been production of the Second Edition of *Labor Management Laws in California Agriculture*, Publication 21404, by Howard Rosenberg, Valerie Horwitz, and Daniel Egan; the *Agricultural Personnel Management Program 1991-94 Report*; and a project report, *An Analysis of Contract Relationships between Farm Labor Contractors and Farmers in California Agriculture*, Publication APMP004, by Dawn Thilmany (see "Resources" for more information).

At the back of this issue, and in our website, is an index of all articles that have appeared in *Labor Management Decisions* since the first issue, Spring 1991. Future indexes will be published annually.

In This Issue:

[What Rules for California Pesticide Users?](#)

[Workers' Comp Costs Are Down](#)

[TEAM Act](#)

[Workplace Violence Drawing Concern](#)

[Drug Testing Commonly Used](#)

[Minimum Wage Increase Is in Effect](#)

[DOL Offers Nationwide Job Listings on the Web](#)
[No Loss of Detail on IWC Posters, Yet](#)
[Resources](#)
[Events](#)
[Index, 1991-96](#)



What Rules for California Ag Pesticide Users?

Howard R. Rosenberg

Director, Agricultural Personnel Management Program

Cooperative Extension Specialist

Department of Agricultural and Resource Economics

University of California, Berkeley

The spray is still drying and the dust not completely settled, but revisions of California's pesticide safety regulations have definitely taken shape. Given the long period of uncertainty since the U.S. Environmental Protection Agency (EPA) touched off the revision process in 1992 by publishing a new federal Worker Protection Standard for Agricultural Pesticides (WPS), it would be understandable if growers and other labor managers were unsure of their obligations. Now, however, we can pretty much know what the rules will be in California agriculture.

The best general advice for agricultural employers wondering about their legal responsibilities for safe use of pesticides remains, as always, to consult the county Agricultural Commissioner's staff and to follow the product label. This article, while by no means a substitute for those two primary sources of guidance, attempts to explain and put into perspective how the WPS has affected California state rules. It describes: (1) developments in refining the WPS, (2) the process of revising California regulations in accord with the federal rule, (3) important changes in California that are now virtually in place; and (4) practical steps for managing under the new rules and the remaining uncertainties.

The Federal Regulatory Revision

The Worker Protection Standard has followed a remarkable course since movement toward its adoption began in the early 1980s, amidst concern that upwards of four million people working in fields, forests, nurseries, and greenhouses were not adequately protected by existing rules. Despite broad based support for the goals of the WPS, debate about the means for achieving them has persisted.

The Federal Environmental Pesticide Control Act of 1972, which amended the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) of 1947, authorized the U.S. EPA to promulgate regulations to protect worker health and safety, and the agency issued one in 1974. Subsequently, after extensive consultation with affected groups, EPA published a "final" version of the WPS in August 1992. In doing so, it not only superseded its own 1974 rule but also overlaid a diverse array of state regulations, mandating that more than one-half million employers in the nation take measures to reduce exposures, mitigate risks, and educate workers.

The WPS expands on the scope of the 1974 rule to protect not only pesticide handlers who mix, load, apply, or otherwise handle pesticides, but also workers performing hand labor operations in fields treated with pesticides and all other people exposed to agricultural pesticide residues. In brief, it requires pesticide safety training, notification about pesticide applications, provision of decontamination (washing) supplies, emergency medical assistance, use of personal protective equipment, and restrictions for entry

into treated areas during restricted entry intervals following pesticide application.

In the four years since its publication, the WPS has intimidated and baffled a large share of those whom it is supposed to guide. Only weeks before it was to take effect in April 1994, Congress enacted legislation delaying full implementation for several months. Many aspects of the rule were still in need of interpretation, people to be affected by the WPS were uncertain about its specifics -- if aware at all of its very existence -- both employers and administrative agencies were unprepared to implement it, and the EPA itself was reconsidering certain provisions.

Most of the WPS became effective nominally on January 1, 1995. That month, however, acting on points raised in a July 1994 petition from the National Association of State Departments of Agriculture (NASDA), the EPA proposed a set of revisions. In May 1995, after considering public comments on these proposals, the Agency issued five significant changes in the rule (see "[Key Changes to the WPS Final Rule](#)"). More amendments and exceptions have been requested and announced in 1995 and 1996, and additional modifications may come down at any time.

Beginning with a session in Florida during February this year, the EPA has conducted a series of public hearings throughout the United States to help assess initial operation and effects of the WPS. Together with counterpart state agencies, it invited agricultural workers, handlers, growers, and interested others to present oral and written comments that would be used to improve upon their pesticide safety programs. In conjunction with the hearings, federal and state officials also visited with local groups of workers and employers in less formal settings.

The two meetings held in California -- July 23 in the Fresno area and July 25 in Salinas -- were attended by 58 and 85 people, respectively. Most of the discussion in Fresno focused on worker training. Comments in Salinas reflected a broader set of concerns, about practical impacts of entry restrictions on nursery harvest, the requirement to notify all workers within one-quarter mile of a treated field, and means to display application-specific information, in addition to worker training.

Developments in California

California's already-existing agricultural pesticide safety program, administered by the Department of Pesticide Regulation (DPR, within Cal/EPA) and county Agricultural Commissioners, had been a model for the federal rule. While the WPS sets standards equal to or lower than California's in most respects, it requires more in a few others. Because state rules may substitute for the federal standard if they provide at least equivalent protection in all main aspects, the DPR has been revising the California regulations to meet this condition, so that employers here will be spared the need to deal with two similar sets of requirements.

Flux in the WPS has naturally complicated the task of revising the state rules. Legal challenges and administrative interpretations, exceptions, and revisions all may affect what the California regulations have to be made equivalent to. The national regulation firmed considerably with issuance of EPA's decisions on five controversial matters in May 1995 (see sidebar), and the California DPR then produced a comprehensive draft of state revisions. As federal issues were being resolved, DPR staff had been redrafting sections of its state regulations and negotiating terms of equivalence, in consultation with EPA administrators and related state agencies.

Over the next few months, moves at the national level to rescind or dramatically alter the WPS were introduced and defeated. The DPR carried on with its interdepartmental consultation and on January 5,

1996, published a comprehensive regulatory revision package. The proposed state regulations were accompanied by a call for public input either in written form or at one of six hearings held around the state in late February and early March. Largely responding to the comments it received by March 15, DPR modified portions of the proposal and published a notice of these further changes in July.

On October 2, 1996, DPR Director James W. Wells signed the final regulatory revision and sent it into concluding procedural steps, which are not expected to result in any more changes. The revised rules will be distributed to county Agricultural Commissioners and explained to county staff before taking effect, most likely on January 1, 1997.



The Lay of the Treated Land

The basic structure of the California regulatory system has not changed. It still defines and specifies protections for two broad types of workers -- "pesticide handlers," who work directly with chemical pesticides, and "fieldworkers," who may come into contact with pesticides or pesticide residues while working in an area that has been treated. There continue to be requirements for safety training, pesticide application notices, protective clothing and equipment, restriction of entry to treated areas, washing facilities, and emergency medical care.

While most of the state rules already in place are to be retained, some have been modified and others added to conform to the WPS. In the process of thoroughly reviewing the California regulations, DPR has also clarified some language and eliminated obsolete passages. Important elements of the state regulatory system affected by the revision are summarized in the following subsections.

Labeling. New labeling that refers to WPS provisions has been required on products shipped by manufacturers of registered pesticides since April 1994. As of October 1995, all products with old labeling were to have been removed from the channels of trade or to have been re-labeled. Labels on any previously purchased pesticide supplies that growers, custom applicators, or others may still possess, however, do not have to be replaced. The old-labeled products may be used until they are gone.

Handler training. The revised state rules for training pesticide handlers incorporate new federal criteria, while maintaining some of the standards that are more stringent than their counterparts in the WPS. As they were before the WPS, California employers are responsible for ensuring that employees who handle pesticides have received training on specified topics related to the pesticides used, including label information, safety precautions, and medical care. Training for handlers now will also cover heat-related illness, environmental concerns, and cautions against taking pesticides or containers home.

Another new provision added to meet the federal standard limits eligibility to conduct this handler training. Only persons in one of the following categories will qualify: California certified commercial applicators, private applicators, agricultural pest control advisors, and professional foresters; licensed county biologists; UC Farm Advisors; and persons who have completed a UC Integrated Pest Management Project "instructor training" course or have other qualifications approved by the DPR.

California requires annual retraining of pesticide handlers, exceeding the federal standard that allows a 5-year retraining interval. Cards authorized by the U.S. EPA to verify handler training therefore will not

be recognized here.

Fieldworker training. Perhaps the most significant change for California employers is the new requirement to ensure that every employee (not only handlers) has been instructed on pesticide safety within the past five years before beginning work in a treated field. Previous California regulations required general pesticide safety training for field work supervisors but not for the workers under their direction.

The training is to cover routine decontamination and washing; restricted entry intervals (REIs) and field posting; places where pesticides are encountered; routes of exposure; hazards of pesticides; symptoms of overexposure; first aid and obtaining medical care; dangers of taking home pesticides or containers; requirements of the state hazard communication program; employee rights regarding pesticide safety; and responses to questions.

As with handler training, eligibility to conduct the required fieldworker training is limited. Holders of a license or certificate issued by the DPR, certified applicators, registered professional foresters, county agricultural biologists, UC Farm Advisors, and persons who have completed a UC Integrated Pest Management Project "instructor training" course or other course approved by the DPR are qualified to conduct it.

Unlike the federal rule, California's more demanding standard allows no grace period during which workers may be in treated fields before this training. It requires the employer to ensure that each employee has been trained within the last 5 years, in a manner the employee understands, before beginning work in any treated field where an REI has been in effect during the past 30 days. So far, with the regulatory revisions not formally in place, agricultural commissioners have taken a "compliance assistance" or educational approach to enforcement of this provision.

Notice of pesticide applications. Operators of agricultural property are responsible for ensuring that specific notice of pesticide applications is given to persons who may be in or near the treated field. Those to be notified include workers on the operator's payroll as well as employees of any contractor or service firm engaged by the operator. The revised regulations more clearly distinguish links in the chain of responsibility for getting application information to workers. As required by the WPS, a commercial pest control business is obligated to provide information to the operator of a property that it treats, and the operator of the property to inform workers and other persons who may be on the property.

Property operators will be expected to display the following data in a central workplace location for 30 days, starting no later than 24 hours after application, for each treatment of a field within one-quarter mile of where employees will be working: (1) identification of the treated area; (2) time and date of the application; (3) the restricted entry interval; and (4) the product name, EPA registration number, and active ingredients. Information on the existing California pesticide use report meets only part of this requirement.

In addition, California will require that, before any pesticide application, notice be given to employees not only if known to be on or likely to enter the treated field (as previously), but also, in accord with the WPS, if they may walk within one-quarter mile of the field. The property operator may provide this notice either orally or by posting the treated field, unless the pesticide label explicitly states that "double notification"--both oral communication to fieldworkers and posting -- is necessary.

These WPS notification requirements and the "quarter-mile rule" are likely to pose problems for some

employers, particularly in California's Central Coast, much of which is farmed intensively in numerous small ranches or lots, often near residential properties. At both the DPR hearing in Salinas last February and the EPA meeting there in July, attendees spoke of logistical difficulties in notifying the many employees, labor contractors, custom harvesters, advisors, and others working in and nearby the different properties, especially to meet the oral part of the double-notice requirement. Others speakers, citing increasingly edgy relations at the agricultural-residential interface, expressed concern that the quarter-mile rule might be a stimulus to litigation by neighboring residents.

Hazard communication. California regulations have provided for communicating the hazards of pesticides through Pesticide Safety Information Series leaflets A-8 (for handlers) and A-9 (for fieldworkers), which employers display either at the worksite or at a central location where workers begin the day. Under the revised rules, DPR is altering these leaflets to incorporate WPS safety information and state more clearly that employees are to have unimpeded access to them.

Entry restrictions and exceptions. During an application, no one other than the persons (handlers) applying the pesticides and wearing the required personal protective equipment may be in the area being treated. Pest control advisors or crop advisors, categorized as handlers by the WPS, are also allowed into the field to perform crop advising tasks during and after the application, if they have appropriate protection and equivalent training. Fieldworkers may not enter during treatment.

After an application, fieldworkers are also generally prohibited from entering a treated area for a specified period (REI). The 1992 WPS made existing entry restrictions more definite, replacing the waiting period of "until sprays have dried, and dusts have settled" with a specific minimum time, based mainly on the dermal toxicity of the active ingredient of the pesticide. Most federal REIs now range from 4 to 72 hours, and they are stated on product labeling. Longer intervals that California is maintaining for some chemicals are noted in the state regulations. If REIs are specified on the pesticide product labeling, they apply to owners and their families as well as to hired workers.

The WPS provided for some exceptions to REIs, allowing early entry for necessary, short-term tasks. Workers may enter a treated field during an REI for "no-contact" activities--if there is to be no contact with anything that has been treated, including soil, water, air, equipment, or plant surfaces. They may also enter, no earlier than 4 hours after treatment, for limited periods to perform low-contact activities, including low-contact irrigation. Adopting the WPS amendments of May 1995 (see sidebar), the California rules allow for up to 8 hours per employee per day in tasks involving exposure that is minimal and limited to the feet, hands, legs below the knee, and forearms below the elbow. Early entry for irrigation activities that involve significant contact with treated surfaces during an REI is permitted for up to 1 hour per day.

Administrative exceptions to entry restrictions. The WPS established a process for interested parties to petition for additional exceptions to the federal re-entry standards, and the California rules now authorize the DPR Director to administratively integrate any exceptions that the U.S. EPA grants under that process. In June 1994, the EPA granted rose growers a limited, 2-year exception allowing workers wearing appropriate protection to enter a treated area to harvest greenhouse-grown cut roses, no sooner than 4 hours after pesticide application, for up to 3 hours in any 24-hour period. Although that exception expired in June 1996, the California revision explicitly incorporated it, adding the proviso that it could be used only if the supporting exception granted by the U. S. Environmental Protection Agency is still in effect.

Field posting. The California sign that has been used to post treated fields for over 20 years contains a

skull-and-crossbones symbol near the center with words in English and Spanish warning of the pesticide danger and to keep out. The EPA has approved this familiar format as equivalent to the field warning sign now required under federal law. The state regulations will adopt, however, with some differences in wording, the EPA versions of signs for posting fields treated by chemigation (a stop sign) or fumigation (skull and crossbones, with warnings in English and Spanish).

Special greenhouse ventilation criteria for re-entry. Entry restrictions protecting against respiratory injury pertain to greenhouses where a pesticide has been used as a space treatment, or where the labeling of the pesticide product requires respiratory protection for applicators. The EPA has approved California's request for equivalency of its standard for determining how soon workers may enter a greenhouse after a pesticide application.

California regulations require ventilation of the space before workers enter, until the air is measured and meets a numerical standard stated in the product labeling. If no standard is stated, ventilation is to continue until either 10 calculated air exchanges have occurred or timed procedures have been followed: 2 hours of mechanical ventilation, such as with fans; 4 hours of passive ventilation, such as by opening vents, windows, or doors; or 24 hours with no ventilation; or *any combination* of these calculated and timed procedures, the percentage portions of which add up to 100 percent.

Decontamination facilities. The WPS as published in 1992 requires provision of a decontamination site (equipped with water, soap, disposable towels) for washing off pesticide residues whenever workers perform any task in an area where a pesticide has been applied or an REI has been in effect within the last 30 days. In June 1996, EPA announced a rule amendment reducing from 30 to 7 days the length of time during which such washing facilities are required following the expiration of restricted-entry intervals for "low-toxicity" pesticides, those with REIs of 4 hours or less.

Though the California regulations incorporate that change, it is of little practical consequence. The washing facilities that are required at all times by state and federal field sanitation standards can meet the pesticide decontamination requirement for field workers. The state rule calls attention to this: "It is not the intent of these regulations to require separate or duplicate equipment or facilities. Equipment and facilities provided for compliance with the requirements of other agencies may also be used for complying with these regulations"

Civil penalty actions. A rewritten section of the state regulations guides county Agricultural Commissioners in levying fines for pesticide safety violations as civil offenses. Breaches of the California standards are to be designated as Class A, B, or C (no longer minor, moderate, and serious). Violations that have caused actual harm to human or animal health, property, or the environment are of Class A and punishable by civil penalties of \$600 to \$1,000. Class B violations are those that did not cause harm but posed a reasonable possibility of causing harm to human or animal health, property, or the environment. The fine range for Class B offenses is \$150 to \$599. Rule violations that did not pose a reasonable possibility of causing harm to human or animal health, property, or the environment are Class C, subject to fines of \$50 to \$149. Penalties in all classes may be doubled by the Agricultural Commissioner for repeat occurrences within two years. Criminal prosecution of safety rule violators may result in substantially larger fines and imprisonment.

Exposure to civil penalties is not limited to employers. The revised California rules also expressly authorize Commissioners to penalize employees who are licensed to apply pesticides and, of their own decision, fail to use personal protective equipment in accord with the standards of their profession.



Information to Manage Ahead

Finally, with only a couple of months until the revised California regulations go into effect, there is less uncertainty about what the rules are to be than how willing and able employers are to abide by them. A slowdown in the flow of changes and clarifications will probably be accompanied by an expansion of services and advice to help fully implement the adjustments in our pesticide safety standards.

The most important sources of guidance about pesticide use and safety in California continue to be the product label and the county Agricultural Commissioner's office. Cooperative Extension staff, employer associations, and industry publications also offer assistance in staying abreast of developments. At the national level, the EPA has an Interpretative Guidance Workgroup (IGW) which issues periodic clarifications in question-and-answer form. Decisions made by the IGW are conveyed to Regional EPA offices and state pesticide regulators, who in turn are responsible for getting the word out to Agricultural Commissioners, educators, and employers. The IGW renderings are significant even to states with their own equivalent rules. California is committed to following federal guidance on matters not otherwise dealt with by its state regulations.

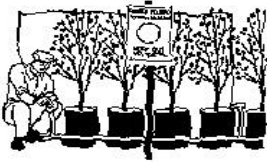
Updates and discussion are also available on the Internet. Timely announcements and lively discussion can often be found on the WPS-Forum, an electronic meeting ground and reference archive maintained at the College of Natural Resources, University of California at Berkeley. Opened in 1994, the Forum currently has about 350 subscribers across the United States from Cooperative Extension and other university educators, agricultural production and service firms, pesticide companies, worker and environmental advocacy organizations, and government agencies. Participants post messages to clarify the regulation, identify and solve problems in living with it, and share resources that aid in compliance.

Among topics of continuing conversation on the Forum are rule revision proposals, safety training for fieldworkers, costs and benefits of the regulation, control of access to treated fields, and personal protective equipment for handlers. The Forum archive contains many reference and resource documents, such as the original WPS notice and amendments published in the *Federal Register*, the California DPR proposed regulations and Initial Statement of Reasons, EPA questions and answers, a directory of training materials, and petitions from affected groups. Also in the archive are all messages posted on the Forum since discussion began in May 1994. To subscribe to the WPS-Forum, send to Listproc@are.berkeley.edu the message:

SUBSCRIBE WPS-FORUM <yourfirstname>

<yoursurname>

Or visit the [APMP World Wide Web site](#) to connect to the archive, to find a form for easily subscribing to the Forum, or to link to more references on pesticide safety and other personnel management topics.



Key Changes to the WPS Final Rule

Early in 1995 the EPA proposed and requested comments on five significant changes in the Worker Protection Standard as issued in 1992. "Recognizing the unique circumstances and diversity in agricultural settings affected by the WPS," it published a set of notices addressing concerns that had been expressed by many individuals and organizations, including the National Association of State Departments of Agriculture. After a period of public comment, WPS revisions were finalized and announced in the *Federal Register* on May 3, 1995. One rule amendment exempted crop advisors and their employees from some restrictions; another shortened the allowable grace period for worker training; and three administrative actions altered WPS restrictions on worker entry into treated fields. A subsequent amendment, published in June 1996, reduced the requirement for decontamination supplies in fields treated with low-toxicity pesticides.

o Exemption of certified crop advisors and persons they supervise. By removing crop advisors and employees under their direct supervision from coverage by most WPS provisions, this amendment allows knowledgeable professionals greater flexibility to choose appropriate measures to protect themselves, safely conduct tasks, and convey pertinent information to those working for them. The exemption applies only after the pesticide application has ended and only during performance of crop advising tasks in the treated area. According to the WPS, crop advisors include persons who assess pest numbers or damage, pesticide distribution, or the status or requirements of agricultural plants, but not those who perform hand labor tasks. The amendment allows crop advisors to substitute pesticide safety training received during certification or licensing if it is equivalent to WPS pesticide handler training. This rule also established a grace period exempting *all* persons in crop advising tasks until May 1, 1996, to allow them time to acquire certification or licensing.

o Training grace period and retraining interval for field workers. The 1992 WPS gave employers a grace period of 15 days in which to ensure that a newly hired worker received the obligatory pesticide safety training. After a transition period of 5 years, the grace period was to drop from 15 to 5 days. This May 1995 amendment accelerated that schedule so that, as of January 1, 1996, the federal rule requires employers to ensure that untrained workers receive basic pesticide safety information before they enter a treated area on the establishment and that they receive the complete WPS safety training no more than 5 days after initial employment. California's revised regulation, however, is more stringent, allowing field workers no entry to work in a treated field before completing the prescribed WPS safety training (thus providing a zero-day grace period). Under both the WPS and California rules, training of fieldworkers is to be repeated no less frequently than every 5 years. The federal rule also specifies a 5-year retraining interval for handlers, but California requires yearly retraining for them.

o Irrigation activities during the restricted entry interval (REI). The 1992 WPS limited worker early-entry activity in treated areas under an REI to 1 hour in a 24-hour period. This May 1995 administrative exception allows early entry to perform certain necessary and unforeseen, "limited contact" irrigation activities for a maximum of 8 hours in a 24-hour period during the REI provided that: entry is no sooner than 4 hours after the pesticide application; inhalation exposure does not exceed any applicable labeling standard or ventilation criteria; labeling of the pesticide used does not require "double

notification" of workers (through both spoken word and posted sign); contact with treated surfaces is minimal and limited to feet, lower legs, hands, and forearms; the required personal protective equipment for early entry is provided; no hand labor (e.g., hoeing, picking, pruning) is performed; and workers are informed of the specifics of the exception. California rules incorporate this exception.

o Limited-contact activities during the REI. EPA similarly increased from 1 to 8 hours in any 24-hour period the maximum duration of early entry for other limited-contact tasks that could not have been foreseen, cannot be delayed, and do not require hand labor. This May 1995 exception has the same restrictions as listed above for early-entry irrigation activities, including the stipulation that in no case can entry be sooner than 4 hours after the pesticide application. California rules incorporate this exception.

o Restricted entry intervals for low-risk pesticides. Through a May 1995 policy statement EPA established a process for product manufacturers (registrants) to reduce the minimum REI from 12 to 4 hours for certain low-risk pesticides and included a candidate list of 114 active ingredients that might be eligible. Registrants were able to propose additions to the candidate list and to make REI label changes by notification until December 1995. Any label changes after that date will be made through the regular label amendment process.

o Required provision of decontamination supplies. The 1992 final rule required that workers be provided a "decontamination site" for washing off pesticide residues when in an area where, within the last 30 days, a pesticide has been applied or a restricted-entry interval has been in effect, regardless of the product used or duration of its REI. After its May 1995 policy statement recognized the considerably lower risks of certain pesticides, EPA proposed in September 1995 to shorten the length of time for which decontamination supplies must be available to workers in fields treated with those pesticides. In June 1996 it published a rule amendment reducing this requirement from 30 to 7 days following the expiration of REIs for substances that meet EPA's risk screening criteria for low-toxicity.

Many thanks to Roy E. Rutz, Program Supervisor, Worker Health and Safety Branch, California DPR, for technical advice on this article, and to Betsey Tabraham for important editorial contributions.

[Next Article](#) | [LMD Contents Page](#) | [LMD Main Page](#) | [APMP Home](#)
