



Closed Mixing System Regulations Proposal

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Background:

- Current regulations (CCR 6746) requires employers provide closed systems for employees who mix or load liquid pesticides in Toxicity Category One
- Closed Systems engineering controls first considered in 1970' s
 - Data showed a need to protect handlers from dermally-absorbed systemically-toxic pesticides.
 - Organophosphates and N-Methyl carbamates

Problem:

- Use of systemically-toxic pesticides is far less today.
- Many pesticides classified as toxicity category one based on hazards not mitigated with the use of a closed system, e.g., oral, inhalation and to some extent eye hazards.
- For a time in 2009, 2010 and 2011 no closed systems (or replacement parts) were commercially available.
- Current reference in regulation (CCR 6746) - “Directors Design Criteria” imposes a requirement on the regulated industry that could be considered an “underground regulation”.

DPR Experience!

Complicated Systems



Systems Concerns



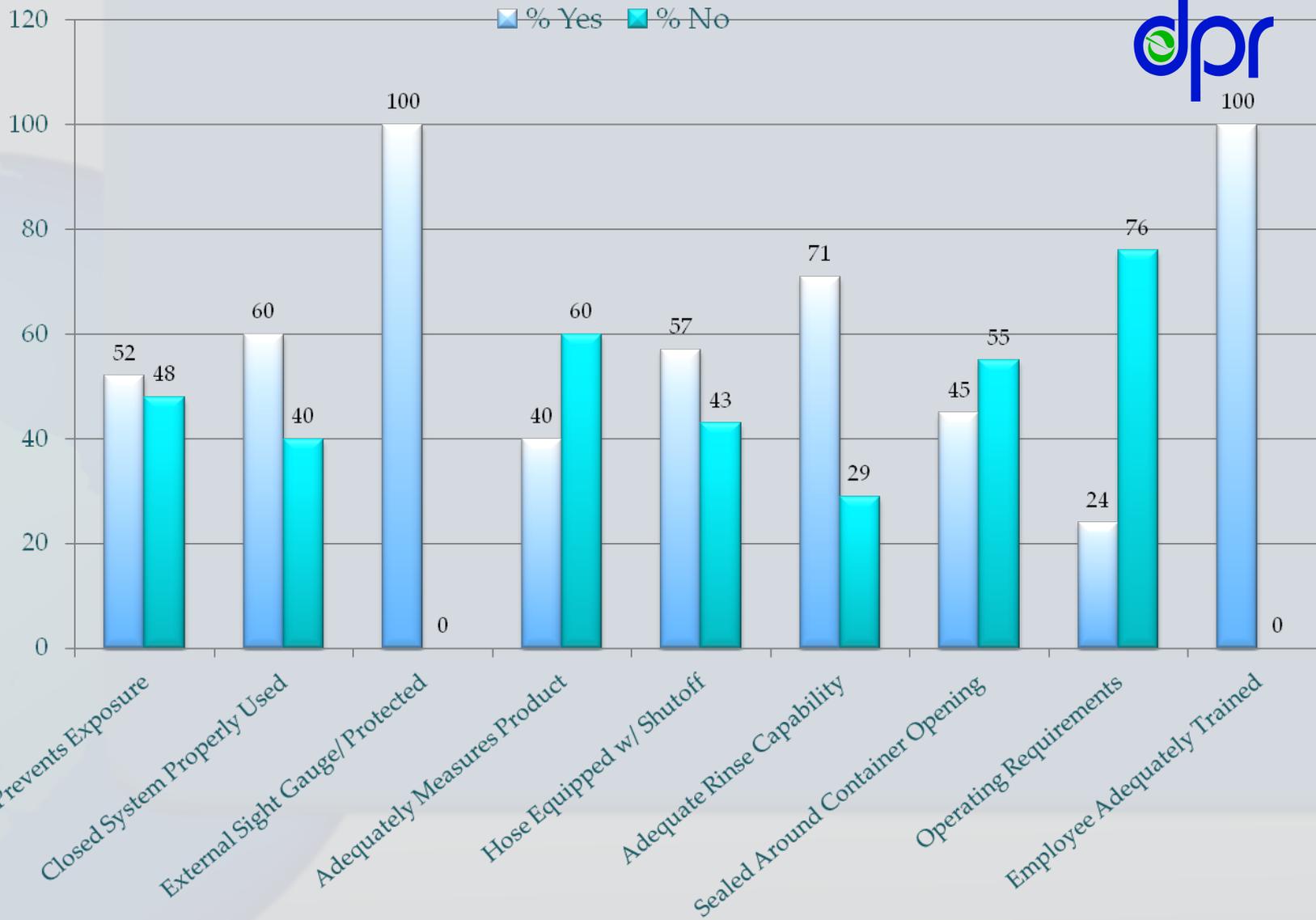
Systems no longer available



Systems not being used because replacement parts are not available



Container Rinsing has been a complicating factor.



PROPOSED CHANGES...



Closed Mixing System



Concepts:

Concept 1

Change what dictates the requirement for closed systems. Rather than look at the signal word (Danger) refer to the pesticide label's **Human Hazard and Precautionary Statements**.

Concept 2

A two tiered approach:

- **Tier 1 - Fatal if absorbed through skin,**
- **Tier 2 - May be fatal if absorbed through skin or Corrosive, causes skin damage**

Tier 1 Verses Tier 2:

- “California-approved” closed systems must have integrated container rinsing capabilities
 - This additional standard complicates equipment designs particularly those used by smaller operators who often use only partial containers
 - Illness data implies the more complicated the device, the higher the potential for equipment malfunction

Simplify & Align with Federal Requirements



Concept 3

Incorporate specific items from the definition (CCR 6000) and the existing director's design criteria.

Concept 4

Delete subsection 6793(d) (the requirement to provide a closed system for minimal exposure pesticides);

Concept 5

Specify the requirements apply only to the mixing of liquid concentrates (and rinsing when required) - not loading diluted mixtures, and

Concept 6

Delete the existing exemption for hand-pouring from a one gallon container for a Tier 1 product.

Closed Systems Design and Operating Instructions

Building Demonstration Systems

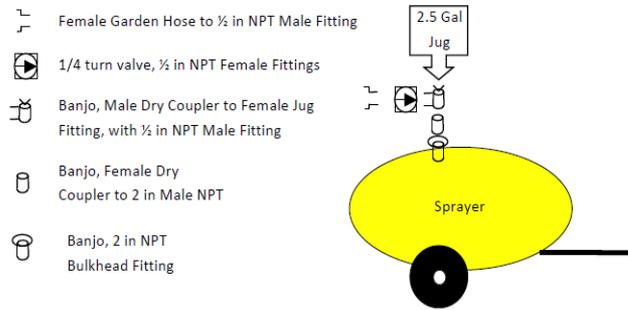


Figure 2. Basic closed system for loading and rinsing an entire container.

Parts list:

Part Number	Description	Quantity	Price (\$)	Total (\$)
70815T45	McMaster-Carr, Brass garden hose-to-pipe swivel adapter 3/4" NPTF Garden Hose to 1/2" NPTM	1	7.63	7.63
47865K23	MC Master, Brass Ball Valve 1/2" NPTF	1	9.84	9.84
CST200AR	Banjo, Closed Mix Adapter	1	110.32	110.32
CST5200D	Banjo, Adapter W/2" Male NPT	1	183.86	183.86
TF200	Banjo, 2" Poly Bulkhead Tank Fitting	1	21.97	21.97

Total 333.62



Any Questions?



Soil fumigants in California: Past, present, and future

George Farnsworth, Chief
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CA Dept. of Pesticide Regulation



TPSA Pesticide Stewardship Conference
February 2014

My talk today:



Where we
came from

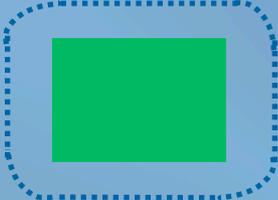
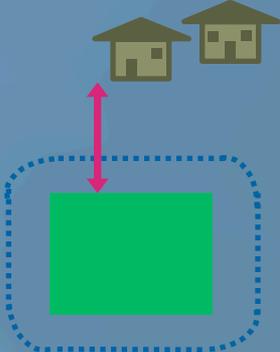
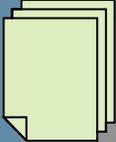
Where we are
today

Where we're
going

Recent changes to labels nationwide (U.S. EPA)



“Phase 2” labels (Dec. 2012):

- Buffer zones  with posting
- Applicator training 
- Emergency Preparedness & Response 
- Fumigation Management Plan (before application) and Post-Application Summary (after)  



California regulations came earlier, and are still in place

2001 methyl bromide regs

(including buffer zones, notification, and worksite plans)

2002 1,3-D management plan

(including township caps)

Where we
came from

2008 VOC regs

(all soil fumigants)

Phase 1

Phase 2

Where we are today

Complexity!



In CA, overlapping requirements from:

- Federal labels,
- California regulations, and
- County-specific conditions for CA restricted materials permits

Where we are today (continued)



Good news:

Fewer large episodes are being reported

(multiple workers or bystanders) compared to 10-15 years ago.

Bad news:

Episodes are still occurring, causing public concern.



Successes – What is working well



- Outreach and compliance assistance

- Statewide trainings for county enforcement staff, 2010 and 2012
- Many presentations to industry



- Compliance

In 2011 (most recent statistics available):

- 853 field-fumigation inspections statewide
- **94%** of inspections had **complete compliance** with Federal, state, and county requirements



Successes (cont.)



- **Collaboration with industry and public**

- DPR listens, and tries to solve problems.
- Our shared goal: protect human health and the environment.



- **Collaboration with U.S. EPA**

- CA licenses satisfy training requirement.
- Ongoing discussions of label issues.
- DPR preparing input for Registration Review underway at EPA (dockets opened Sept 2013).

Areas for improvement



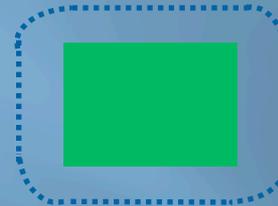
- Compliance with Phase 2 labels

Though overall compliance is high, some recurring problems:

- **Improper buffer zone posting**
(not visible, not maintained, improper location)



- **Application-block owners allowing employees to work inside buffer zone**



- **Buffers extending into rights-of-way**
(lack of permission, communication problems)



Areas for improvement (cont.)



Compliance with Phase 2 labels (cont.)

Post-application, including emergency response

- Inadequate communication about which individual will carry out which action, and when



- Difficult for some commercial applicators to supervise post-application activities and to sign the PAS



Areas for improvement (cont.)



- Tarp blow-outs or leaks



- **Require tarp monitoring?**
- **Require sand snakes, sand bags, or irrigation to weigh down tarps?**
- **Keep press wheel clean - - glue and grit can cause small perforations.**
- **Consider different buffer-zone sizes for different seasons?**

The future: Where are we going?



Further reduce worker and bystander exposure

Proposed pic mitigation in California:

- Statewide stakeholder meetings 2013.
Now processing 6,000 public comments.
- Minimum buffer 60 ft unless TIF tarps?
- Max application block size 40 acres?
- Improved Emergency Preparedness measures?
- Stay tuned . . .



Any questions?



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