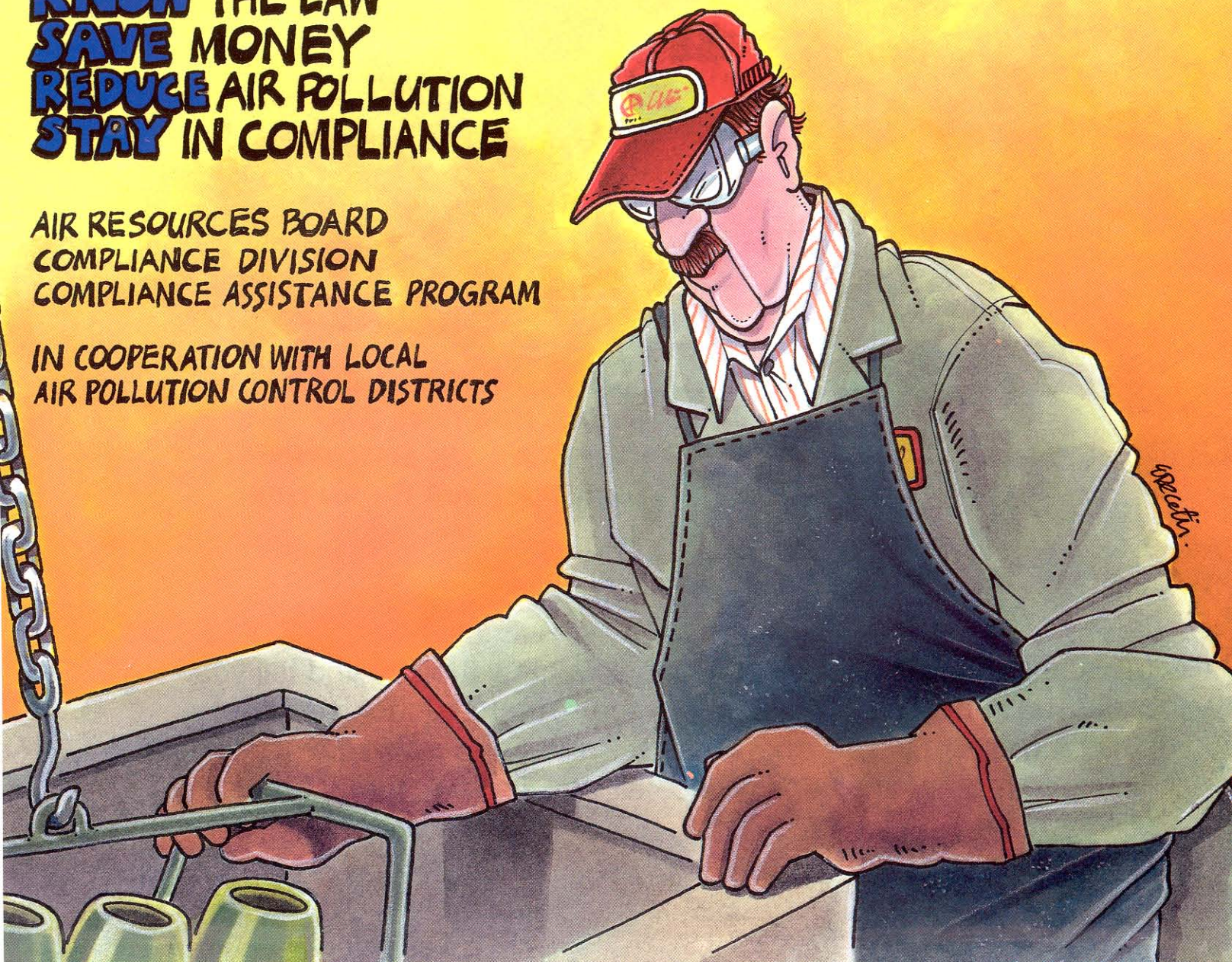
SELF-INSPECTION HANDBOOK

Solvent Cleaners

KNOW THE LAW
SAVE MONEY
REDUCE AIR POLLUTION
STAY IN COMPLIANCE

AIR RESOURCES BOARD
COMPLIANCE DIVISION
COMPLIANCE ASSISTANCE PROGRAM

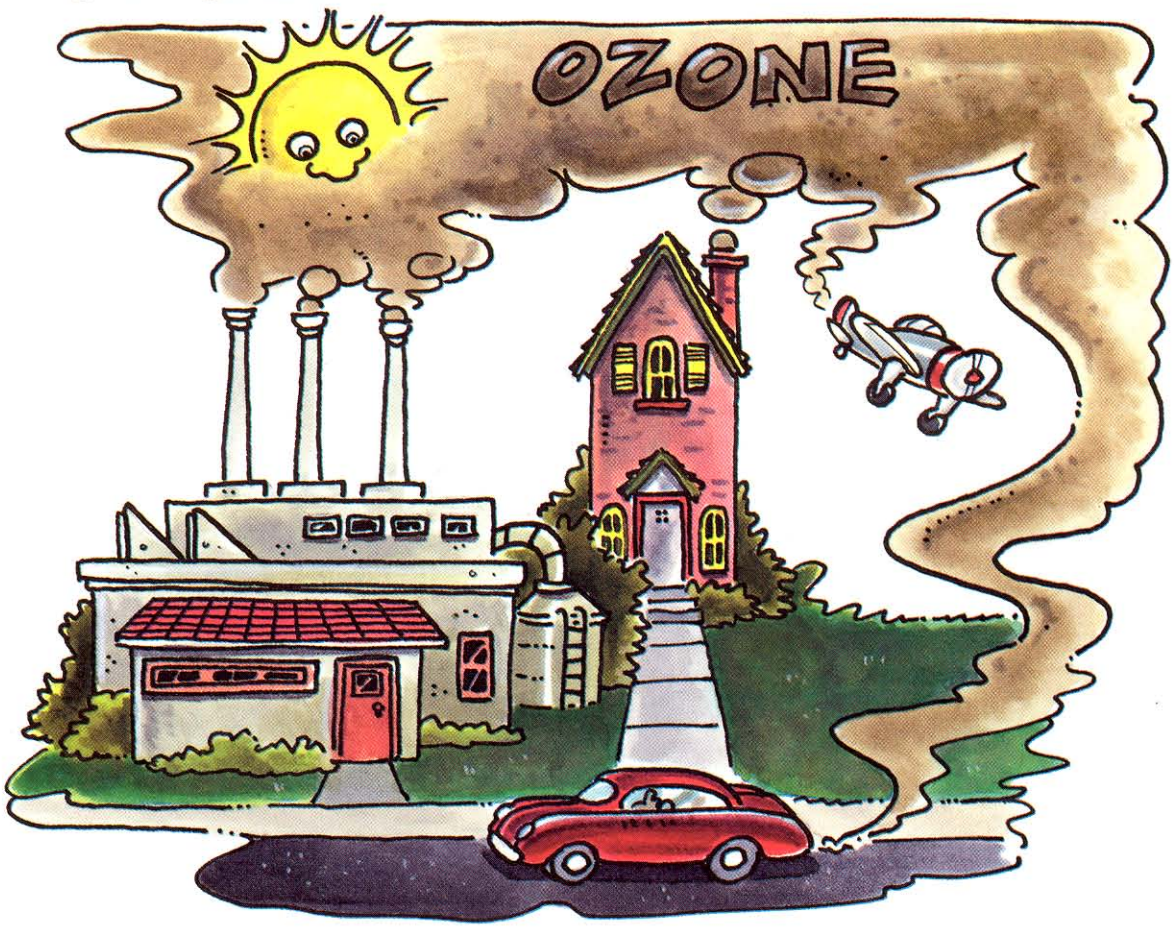
IN COOPERATION WITH LOCAL
AIR POLLUTION CONTROL DISTRICTS



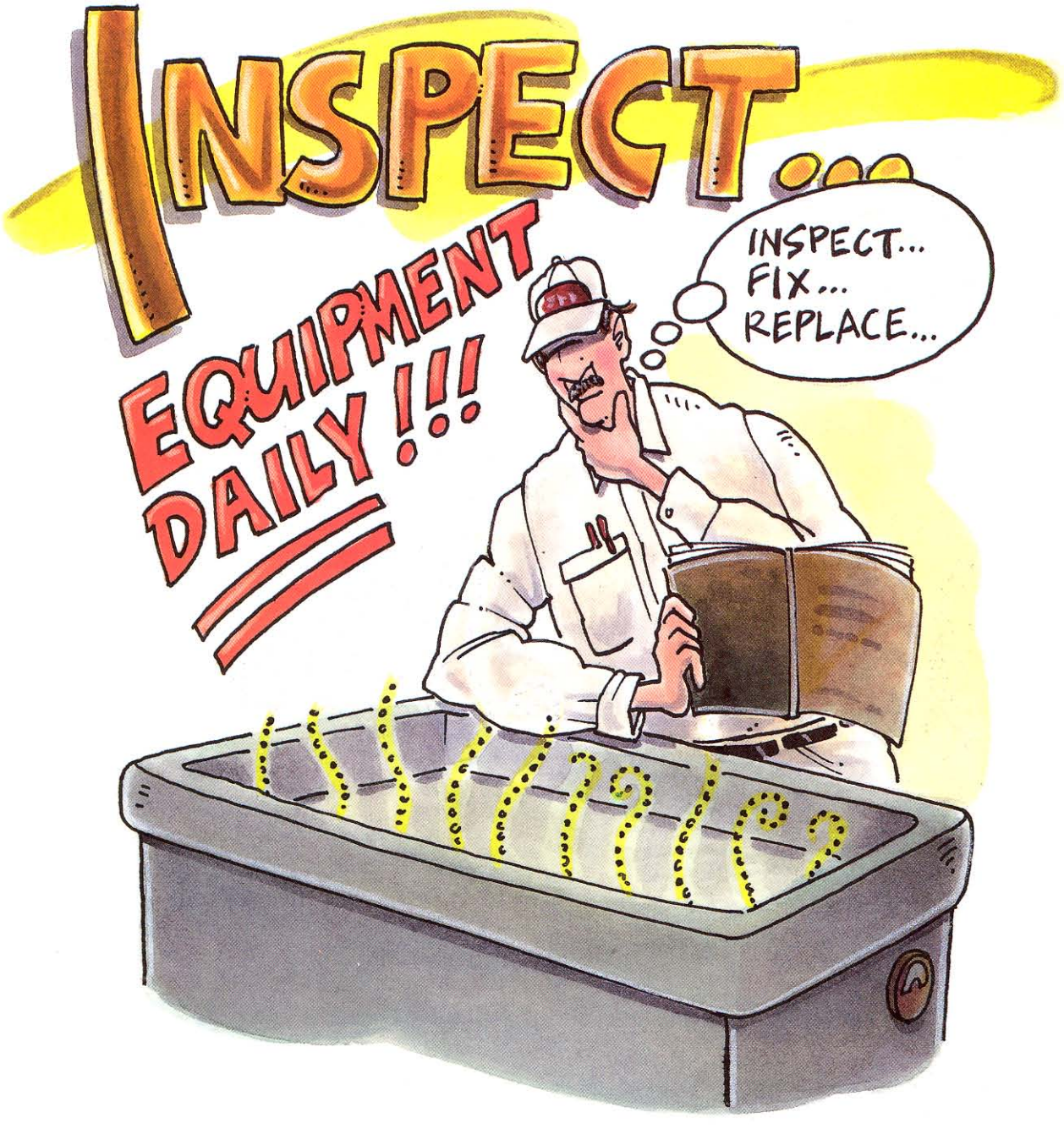
This handbook is designed to help you know the law and tell you how you can benefit from compliance. The handbook addresses **both cold and vapor degreasers.** Read on and see how easy it is to stay in compliance and reduce air pollution. **You can** make a difference!

WHY REDUCE AIR POLLUTION?

Air pollution affects millions of Californians every day. You can see it and you can feel it with every breath. Air pollution comes from **many** sources. In most areas, vehicles and industrial sources contribute equally to the pollution problem. The **major** air pollution problem in California is **smog**. **Ozone**, the major ingredient in smog, irritates your lungs and eyes, makes breathing difficult, and damages vegetation.

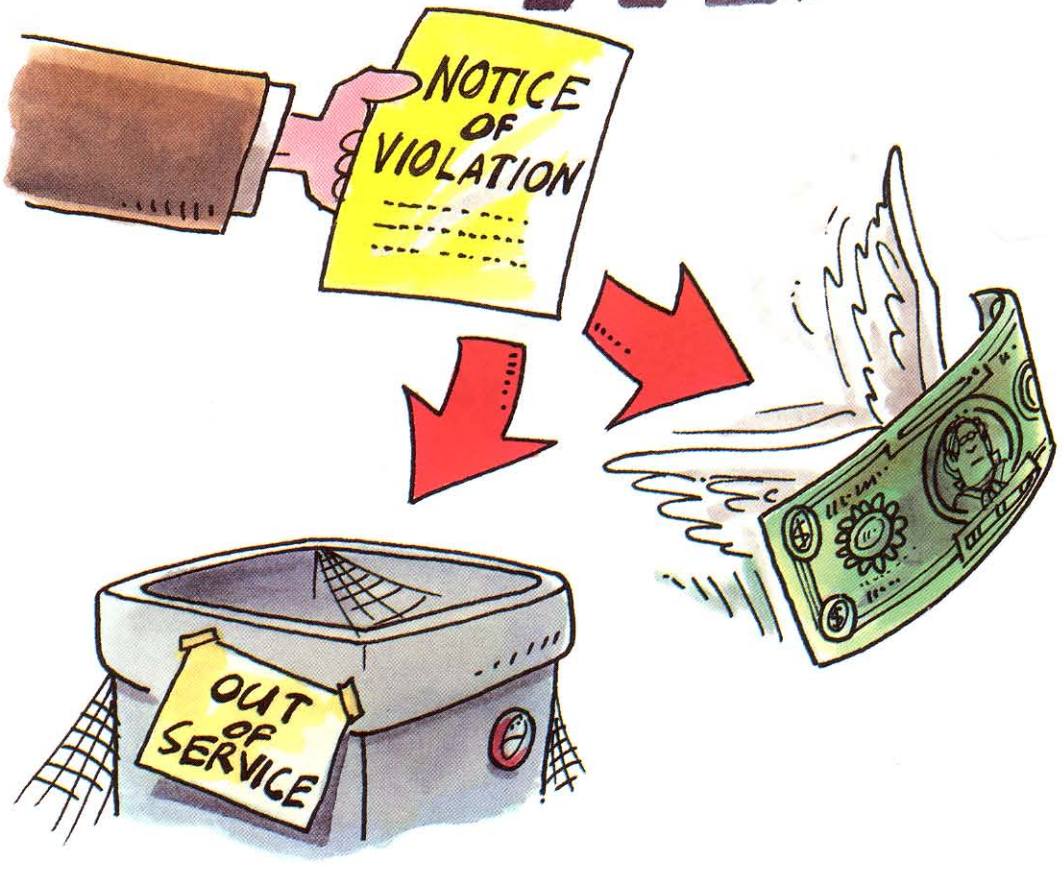


The **solvents** used in your degreaser are a major player in the formation of ozone. These organic solvents, known as Volatile Organic Compounds (**VOCs**), participate in a complex reaction with oxides of nitrogen in the air to produce **ozone**.The VOCs evaporating from your degreaser mix **every day** with other emissions in your area and contribute to the overall air pollution problem. **You** can do **your** part to reduce air pollution by reducing the **amount** of VOCs that evaporate from your degreaser.



The California Air Resources Board and your local air pollution control district are asking for **your help** to **reduce** air pollution. If you inspect your degreasers every day and keep them in good working condition, **you** can improve working conditions, save money and jobs, and improve the environment. If you find a problem, remove the equipment from service until you can fix it or have it replaced.

VIOLATING CALIFORNIA LAW IS VERY CO$TLY!



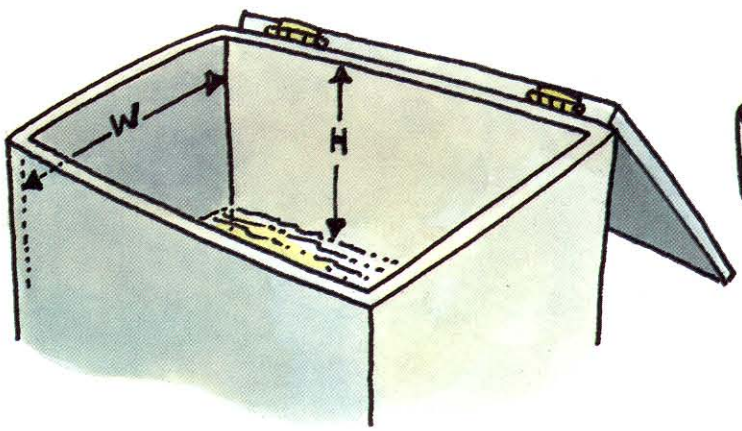
The penalties for violating air pollution regulations can be up to $25,000 per day. Plus, your degreaser may be considered in violation **every day it's used** until it is repaired. Use this handbook to help you inspect your equipment **daily** to be sure you are in compliance with **air pollution** regulations. Regulations of other agencies may apply to your operation as well. Remember, the benefit of keeping your equipment in **good** condition is not simply avoiding penalties...but also providing a safer workplace, a healthier environment and greater profits.

Keeping your equipment in good working condition reduces your solvent use and **saves money**. When you save solvent, you reduce air pollution, reduce exposure to toxic substances, and help prevent fire and other hazards. **All** of your degreasers need to be maintained in good working order. Keep them leak free, make sure the freeboard ratio is correct, and check to see that the cover is closed.

CHECK YOUR FREEBOARD RATIO

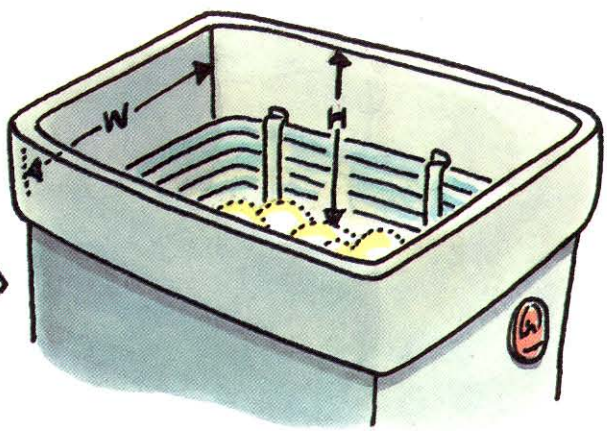
$$FR = \frac{H}{W}$$

Solvent loss can be minimized by making sure that the top of the degreaser is **well above** the solvent level. This distance between the two is called **freeboard**. Regulations require that a **freeboard ratio of 0.75 or more** must be maintained. Check the freeboard ratio daily, and **any** time you add solvent.



Cold Degreaser

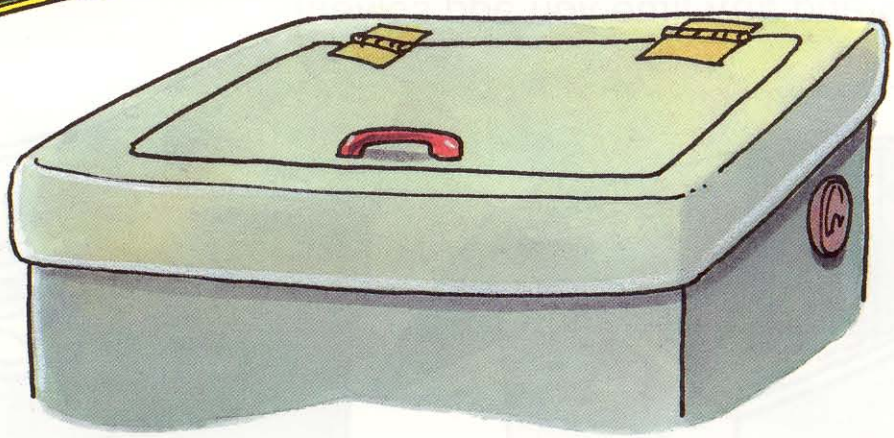
Find your freeboard ratio by dividing: the distance from the top of the degreaser to the **solvent level** (height) by the width of the degreaser.



Vapor Degreaser

Find your freeboard ratio by dividing: the distance from the top of the **vapor zone** to the top of the degreaser (height) by the width of the degreaser.

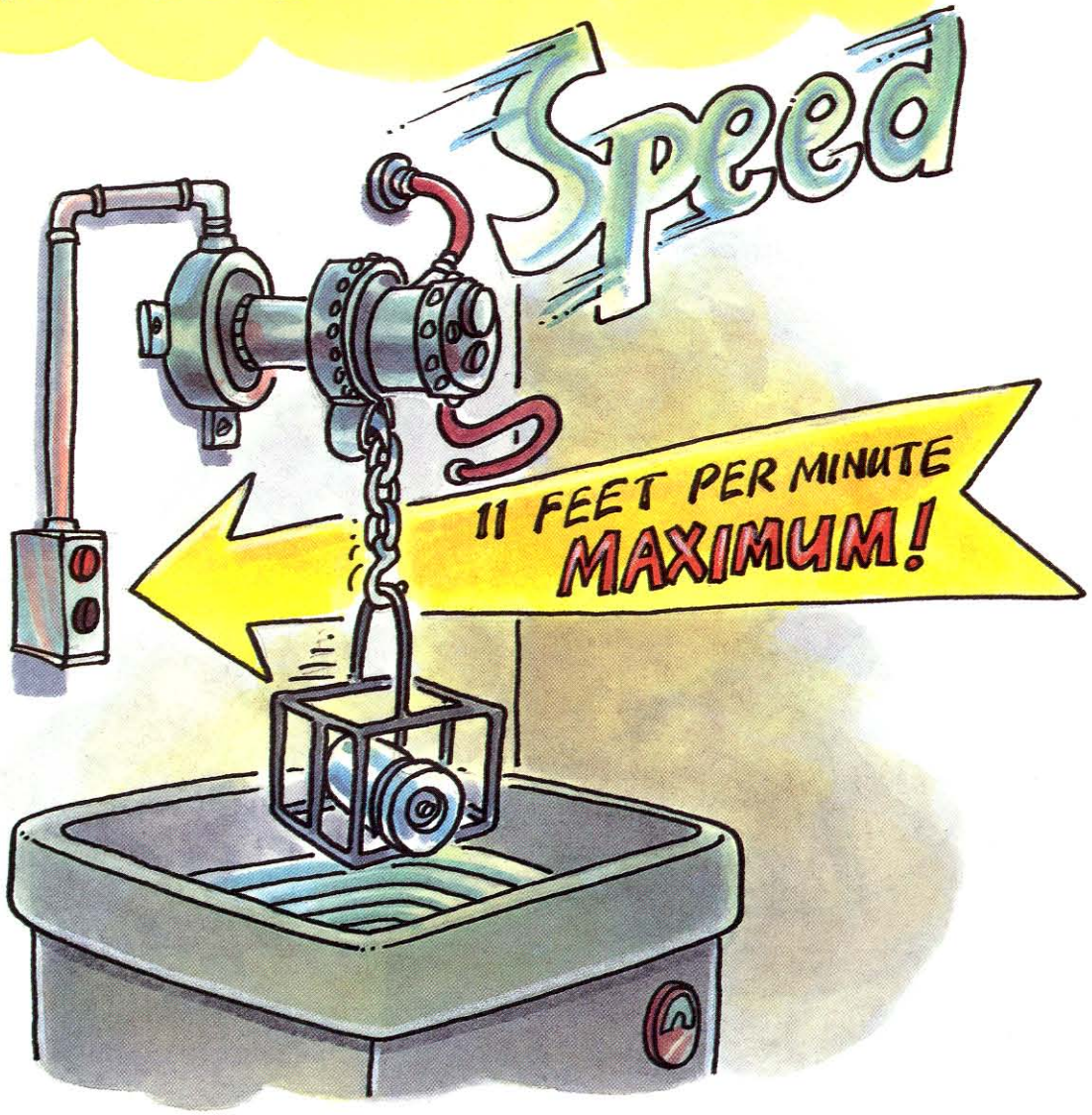
CLOSED COVERS... $AVE MONEY!



A tight fitting cover on your degreaser prevents evaporation and saves solvent. Common sense says that the cover should be closed **whenever** the degreaser is **not being used**. A good rule of thumb is to **close the cover** when you remove a load of parts from the degreaser.

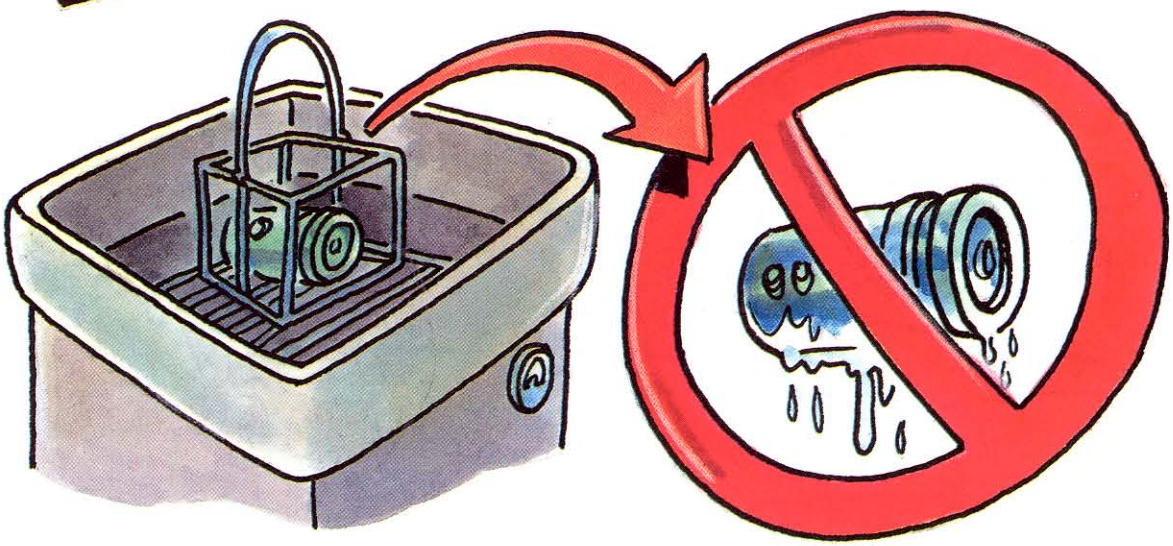
Regulations prohibit: 1) spraying or agitating solvents using air; 2) causing a shower type spray; or 3) splashing. Use only a steady liquid stream or brush to gently agitate the parts being cleaned. In a vapor degreaser, be sure that you work only **in or below** the vapor zone. Always make sure that the solvent flow is low enough to prevent splashing and **never** use forced air to dry the parts.

CHECK YOUR HOIST



If the hoist used to raise and lower parts into and out of the degreaser moves **too fast**, solvent vapors may be pushed and pulled out of the degreaser. Regulations require that the hoist speed be no greater than **11.2 feet per minute**. Make sure your hoists are **slow** enough to stay in compliance.

LET · THE · PARTS DRY!

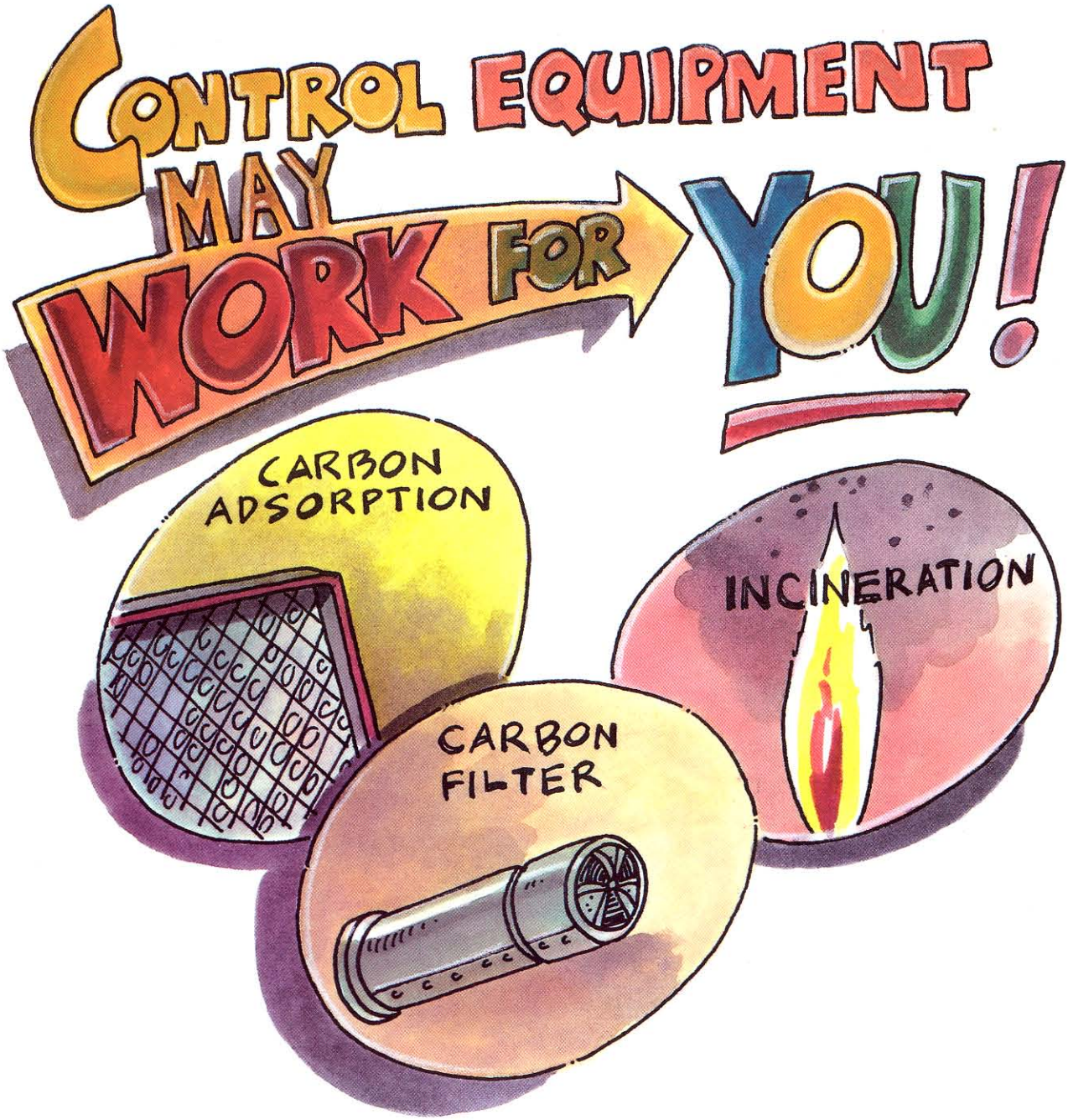


DRAIN PARTS IN DEGREASER
NO VISIBLE DRIPS!

Before parts are removed from the cold degreaser they must appear **visually** dry. And parts must be **completely** dry before removal from the vapor degreaser. In both cases, **no visible drips** are allowed. The easiest way to be sure that the parts come out dry:

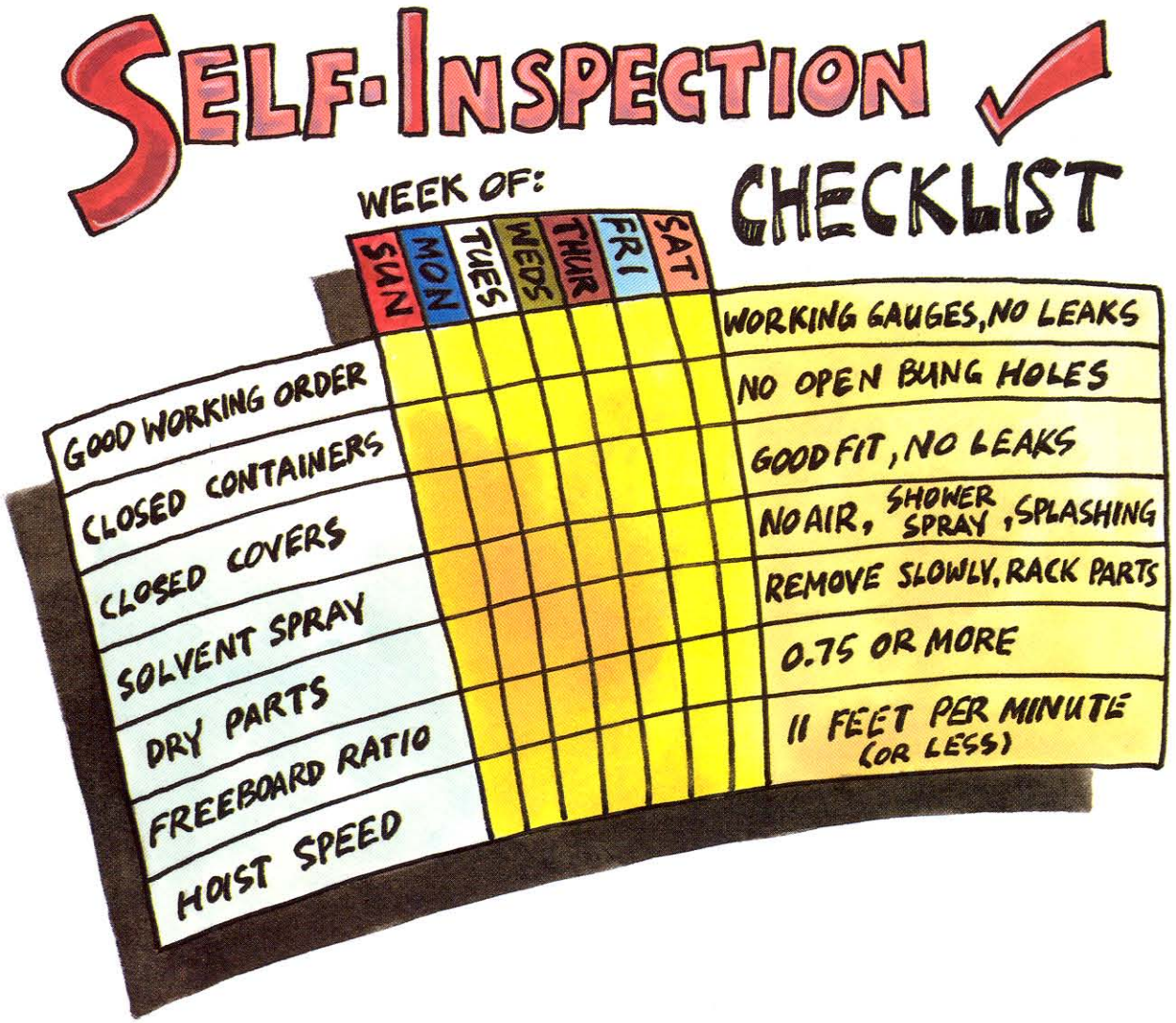
1) Wait for condensation to stop (vapor degreaser)
2) Remove the parts **slowly**
3) Do not overload the degreaser
4) Rack the parts for best drainage
5) Do not degrease **porous** materials

Always store fresh and used solvent in **closed** containers. When it is time to change the solvent in the degreaser, transfer the used solvent to a storage drum and dispose of the used solvent in accordance with local requirements. **Never** dispose of your used solvent down a sewer or put it in a drum with used oil.



For operations which consume **large** amounts of solvents, add-on control equipment can be an option to lower operating costs and help comply with air pollution control regulations. Although these systems are expensive to install, they **can** pay for themselves, considering the high cost of a gallon of solvent. Contact your equipment vendor for more information.

Every morning when you set up for work, give your degreasers the "once over". Check each degreaser for leaks, and be sure it is in good working order. Also, remember how to operate the degreaser to **stay** in compliance. Identify any problems and take action! Replace or repair defective parts immediately. Do **your** part to help yourself, your fellow workers, and the environment. And make sure **all** users of your degreasers understand the environmental and safety requirements.



The **self-inspection checklist** is a good way to protect yourself from large penalties and loss of business. A checklist similar to the one above, used with your solvent cleaning handbook, will help you prepare for your air pollution control inspection. The information contained in the handbook and checklist covers the basics you need to know.

Need More Information?

Air Resources Board (800) 952-5588 **District: _____**

Multi-County Districts

1 - Bay Area (415) 749-5000
2 - Feather River (530) 634-7659
3 - Great Basin (760) 872-8211
4 - Monterey Bay (831) 647-9411
5 - North Coast (707) 443-3093
6 - Northern Sierra (530) 274-9360
7 - South Coast (909) 396-2000
8 - Yolo-Solano (530) 757-3650
9 - San Joaquin Valley (559) 230-6000

County Districts

Amador (209) 257-0112
Antelope Valley (661) 723-8070
Butte (530) 891-2882
Calaveras (209) 754-6504
Colusa (530) 458-0590
El Dorado (530) 621-6662
Glenn (530) 934-6500
Imperial (760) 482-4606
Kern (661) 862-5250
Lake (707) 263-7000
Lassen (530) 251-8110
Mariposa (209) 966-2220
Mendocino (707) 463-4354
Modoc (530) 233-6419
Mojave Desert (760) 245-1661
No. Sonoma (707) 433-5911
Placer (530) 889-7130
Sacramento (916) 874-4800
San Diego (858) 650-4700
San Luis Obispo (805) 781-4247
Santa Barbara (805) 961-8800
Shasta (530) 225-5789
Siskiyou (530) 841-4029
Tehama (530) 527-3717
Tuolumne (209) 533-5693
Ventura (805) 645-1400

97-004
COPYRIGHT © California Air Resources Board
PO Box 2815, Sacramento, CA 95812
http://www.arb.ca.gov
http://www.arb.ca.gov/training/training.htm

printed on recycled paper