

# DTSC

# Emergency Response

**(916) 255-6504**

- **Allen Freihofer**





Department of Toxic  
Substances Control  
(DTSC)



State Seal



The Great Seal

The background of the slide is an aerial photograph of a city. A large, circular, textured area in the center, possibly a park or a large building complex, is highlighted with a lighter, more detailed view. The rest of the city is shown in a slightly blurred, blue-tinted aerial view.

# **Meth & Meth Lab Basics**

# What is “Meth” ?

- **Methamphetamine Hydrochloride**
  - **2 Isomers (d-Meth, and l-Meth)**
- **d-Meth is Powerful CNS Stimulant**
- **Also Called: Speed, Crank, Crystal, Ice, Yaba**
- **Schedule II Controlled Substance**
- **Prescription Drug (Desoxyn) Used For:**
  - **Attention Deficit Disorder with Hyperactivity**
  - **Narcolepsy**
  - **Obesity (Short Term Use Only)**
- **Physically Addictive**

# What is “Meth” ?

- **White Crystalline Powder or Chunks**
  - **May be yellowish or brownish due to**
  - **contaminants**
  - **May be clear crystals or chunks**
  - **(Ice – very pure)**
- **Yaba is a combination of Methamphetamine Hydrochloride and Caffeine in a tablet pill form and comes in various colors including white, yellow, green or red.**

# The effects of a methamphetamine dose can last 6 to 12 hours.

## • Short-Term Effects:

- euphoria, rush
- increased alertness
- increased activity
- increased respiration
- decreased fatigue
- decreased appetite

## • Possible Adverse Short-Term Effects:

- nausea
- diarrhea
- dizziness
- headache
- nervousness
- irritability
- increased blood pressure
- tremors/shaking
- insomnia
- cardiac arrhythmias

## **Long-Term Effects:**

- **weight loss**
- **dependence / addiction**

## **Possible Adverse Long-Term Effects:**

- **dependence / addiction**
- **excessive weight loss**
- **malnutrition**
- **anxiety**
- **insomnia/sleep deprivation**
- **hallucinations**
- **paranoia**
- **uncontrolled rage/violence**
- **cardiac arrhythmias**
- **stroke**

# Overdose Effects:

- tremors / shaking
- severe headache
- abdominal cramps
- nausea / vomiting
- high fever / hyperthermia
- convulsions
- rapid heart rate
- cardiac arrhythmias
- high blood pressure
- stroke
- coma
- death due to hyperthermia, shock, stroke, or heart failure

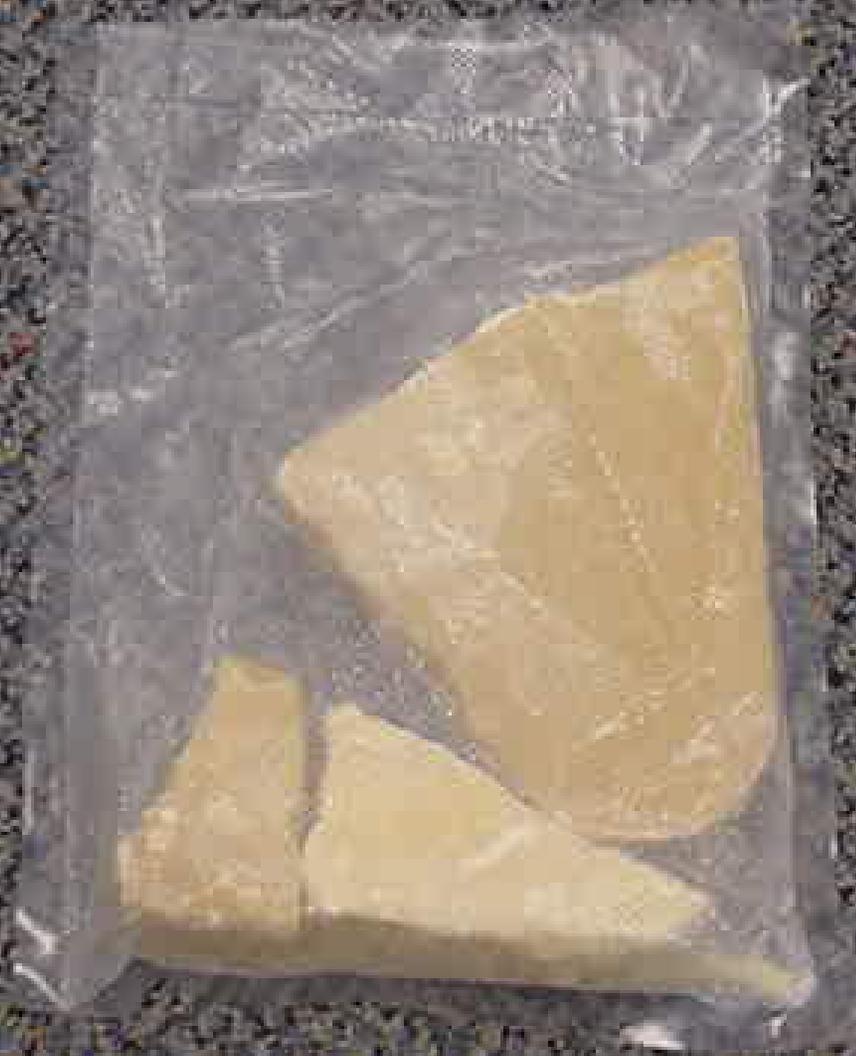
**Meth is made from  
Ephedrine or from  
Pseudoephedrine.**













**Methamphetamine crystals**

Photo by Payin2Much, © 2002 Erowid.org



**Methamphetamine crystals**

Photo by Payin2Much, © 2002 Erowid.org



**Methamphetamine Crystals**

Photo by Slut, © 2001 Erowid.org

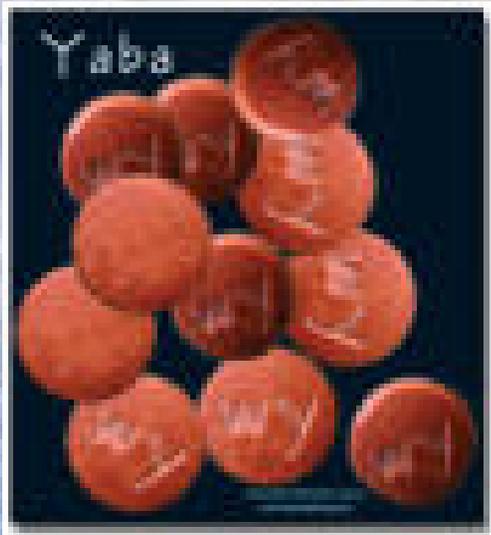




**Desoxyn (Methamphetamine) Tablets**

Anonymous Photographer, © 2002 Erowid.org





# Clandestine Drug Labs





**Clandestine Means Hidden**



**Illegal Drug Labs**

# Two Types of Drug Incidents:

- 1) **Illegal Drug Labs**
- 2) **Abandoned Drug Lab Wastes**



# By “Drug Lab” We Mean:

- Place where people make a drug or drugs
  - Precursors
  - Reagents / various chemicals
  - Lab equipment
  - Lab related waste / waste products
- Storage area for those items



# Types of Drug Labs

- **Methamphetamine (Meth)**
- **Ephedrine Extraction**
- **Ecstasy (MDMA)**
- **GHB**
- **PCP**



# Types of Meth Labs

- **Phenyl-2-Propanone (P2P)**
- **Red Phosphorus - HI**
- **Nazi (Lithium – Ammonia)**



# Meth Labs Can Be Anywhere

- Houses in poor & wealthy neighborhoods
- Rooms in cheap motels & high class hotels
- Farm houses, barns
- Trailers, mobile homes, motor homes
- Commercial buildings
- Industrial parks
- Remote locations (desert, forest, etc)
- Orchards
- Caves or Underground





**In Rural Areas**



2 Liter Vessels From a Mexican National Drug Lab Discovered in a Hay Barn on a Horse



**In the Barn or Shed**





**Underground !**



**In a Light Industrial Area**



**In the Garage**



**In the Trunk**



**In the Yard**



3 7 '96



**In the Closet**



**In the Kitchen !**



**In the Bathroom !**



**In Remote Areas**



# ...Everywhere



**Methamphetamine is made (cooked) from common, easily-available materials.**

**Methamphetamine recipes are easy to obtain from other cooks or from the internet.**

**Various recipes use easily obtained substances including acids, bases, reactive metals, solvents, and oxidizers. Most of these substances are hazardous.**

**Making methamphetamine with these chemicals can result in explosions, fires, and the release of toxic and/or corrosive gases.**

# Types of chemicals commonly seen at meth labs:

- **Flammable Liquids**
- **Flammable Solids**
- **Acids**
- **Bases**
- **Oxidizers**
- **Reactive Metals**
- **High Pressure Acid Gas**
- **Other**

# Flammable Liquids

- **Acetone**
- **Alcohol**
  - **Denatured Alcohol (Ethanol)**
  - **Methanol (Wood Alcohol)**
  - **Isopropyl Alcohol (Rubbing Alcohol)**
- **Coleman Fuel**
- **Ether (Starter Fluid)**
- **Toluene**
- **Xylene**

# Flammable Solids

- **Red Phosphorus**

## Acids

- **Hydrochloric Acid / HCl (Muriatic Acid)**
- **Hydriodic Acid / HI**
- **Hypophosphorous Acid / H<sub>3</sub>PO<sub>2</sub>**
- **Sulfuric Acid / H<sub>2</sub>SO<sub>4</sub> (Battery Acid)**

# Bases

- **Anhydrous Ammonia /  $\text{NH}_3$**
- **Sodium Hydroxide /  $\text{NaOH}$  (Lye, Caustic Soda)**

# Oxidizers

- **Iodine / I (Iodine Crystals or Tincture)**
- **Hydrogen Peroxide /  $\text{H}_2\text{O}_2$**

# Reactive Metals

- **Lithium Metal / Li**
- **Sodium Metal / Na**

# High Pressure Acid Gas

- **Hydrogen Chloride Gas / HCl**

# Other

- **Freon (Non-Flammable Liquid Solvent)**
- **Methyl Sulfonyl Methane / MSM  
(Cutting Agent)**
- **Sodium Chloride / NaCl (Salt, Rock Salt)**

**Most of these substances, except for the MSM and the salt, are hazardous.**

**Making meth with these chemicals can result in explosions, fires, and the release of toxic and / or corrosive gases, which can hurt or kill you.**



IF THE THUNDER  
BOMBS GET TOO LOUD  
THE CPUSA WILL

KEEP CALM  
AND USE YOUR  
REFRIGERATOR



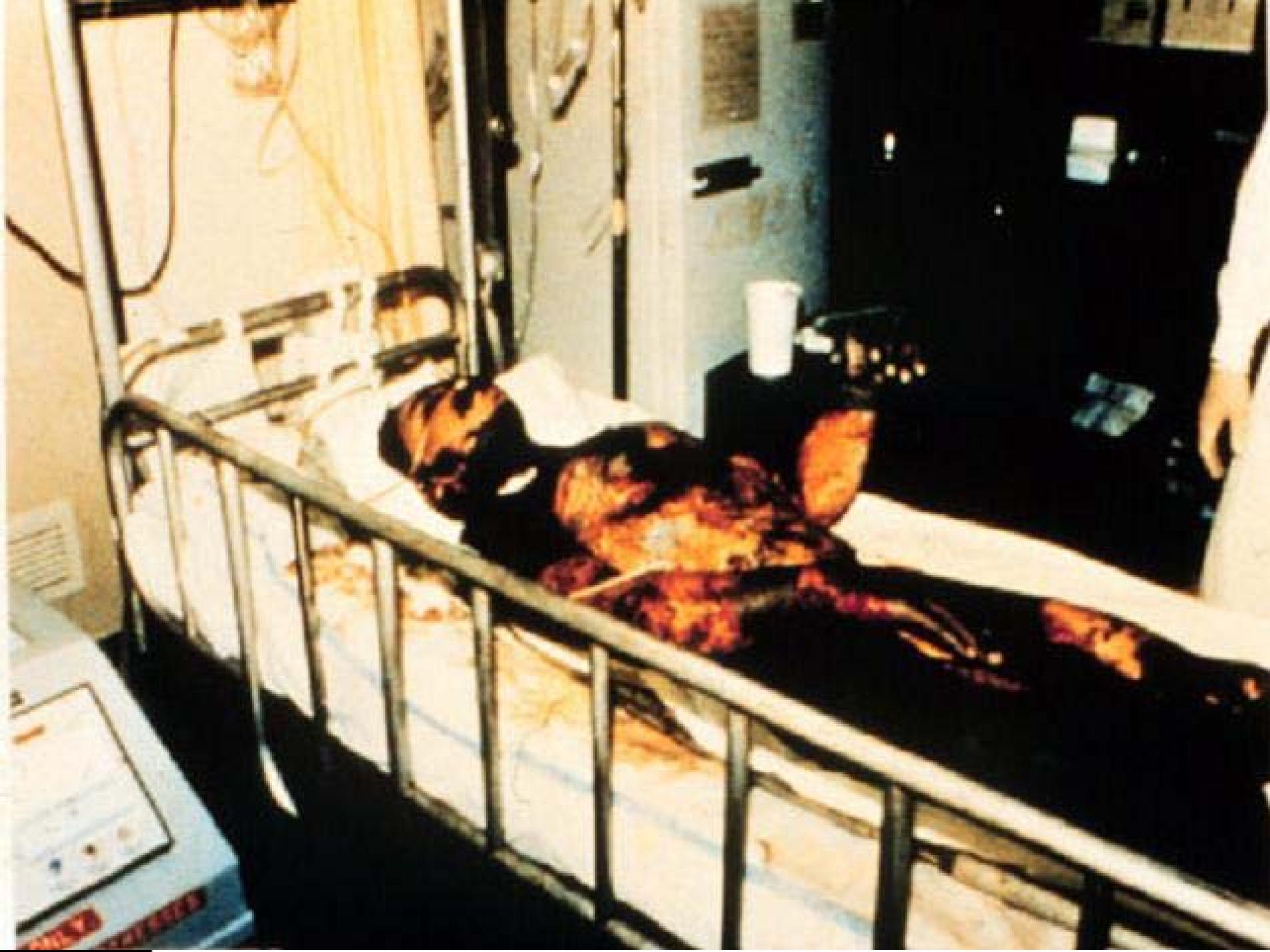














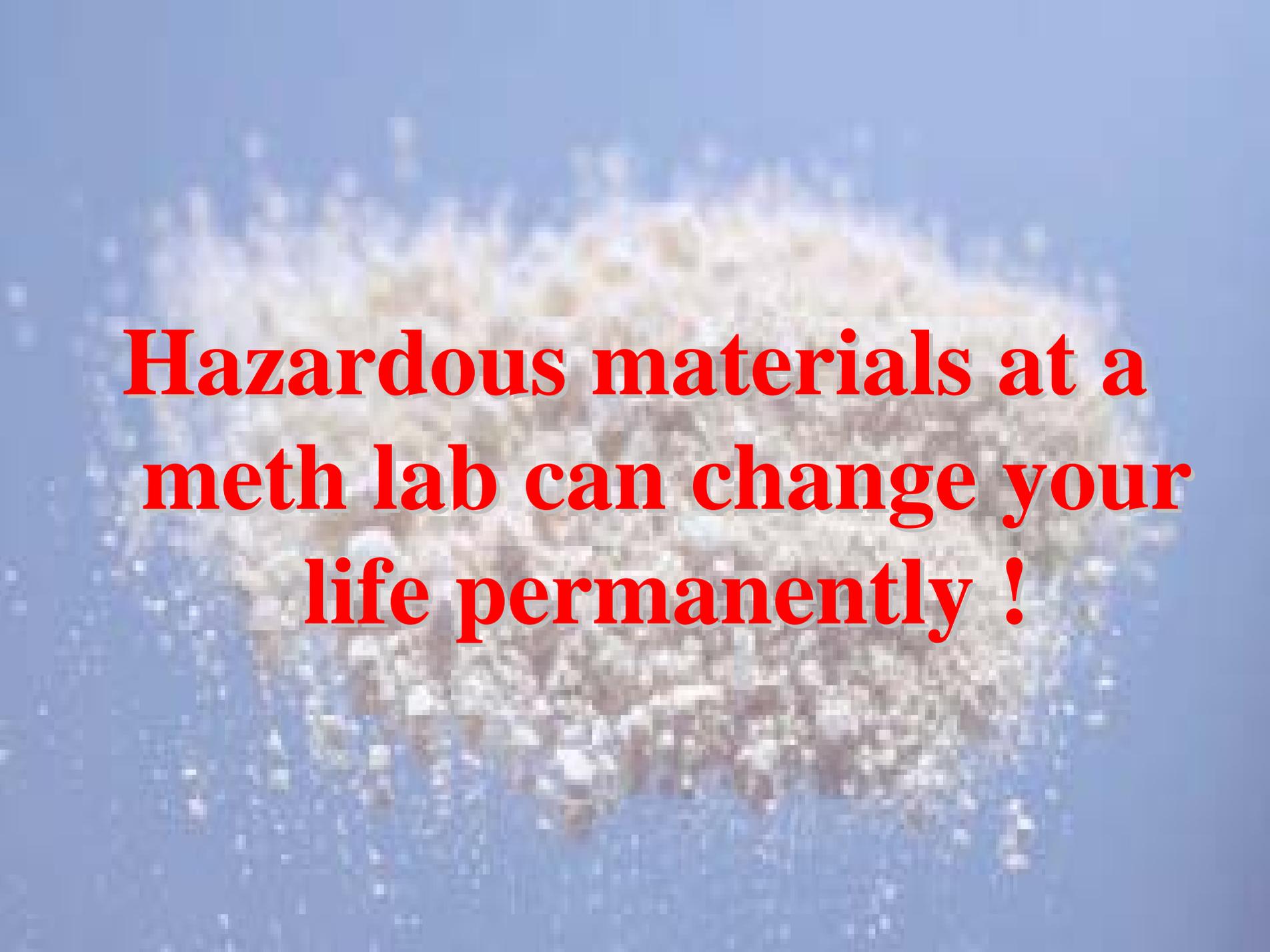
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An aerial photograph of a city, likely New Orleans after Hurricane Katrina, showing a large, bright, circular area of destruction in the center. The surrounding city is visible in shades of blue and grey, with the destroyed area appearing as a bright, almost white, circular zone. The text is overlaid on this image.

**Hazardous materials at a  
meth lab can change your  
life permanently !**

A large, irregular pile of white powder, likely methamphetamine, is shown on a blue surface. The powder is piled in the center of the frame, with some darker, brownish material visible at the base of the pile. The background is a solid, light blue color.

# **Clandestine Meth Labs Cause Problems**

# **1) Meth Labs Are Directly Hazardous to People, Animals, Property and the Environment**

- Kill and injure people and animals**
- Contaminate, damage, ruin, or destroy homes, other property, and the environment**

## **How?**

- Explosions and fires**
- Releases of toxic and / or corrosive solids, liquids, and gases to air, soil, and water**

## 2) Meth Labs Are A Huge Economic Problem (War on Drugs is Costly)

### Cost in **Public** Money (Tax Dollars)

- Cost for law enforcement and judicial system in dollars, staff, time & equipment for investigation, surveillance, seizure & processing of labs, arresting & prosecuting of suspects.
- Costs for building prisons to house those convicted and take care of them while they are incarcerated.

## **2) Meth Labs Are A Huge Economic Problem (War on Drugs is Costly)**

### **Cost in **Public** Money (Tax Dollars)**

- **Costs for state and local agencies staff time and resources for support functions**
  - **Fire Departments / Hazmat Teams**
  - **Animal Control**
  - **Social Services / Child Protective Services**
  - **Health / Environmental Health Departments**
  - **Fish & Game, Water Resources Departments**
  - **Costs for removal and disposal of meth lab chemicals, lab equipment, gross contamination.**

## 2) Meth Labs Are A Huge Economic Problem (War on Drugs is Costly)

### Cost in **Private** Money

- Cost to property owners for removal / cleanup of contamination of structures and / or soils so that property can be lived in, rented, or sold.
  - These costs can vary from small (a few hundred to a few thousand dollars) to large (in excess of their life savings and the value of all their assets).



# **Why do we have meth labs and all their associated problems ?**

- 1) Very High Demand**  
**(Lots of people want it)**
- 2) No Legal Supply**  
**(They can't go to the store and buy it)**

**Those facts are not likely to change soon. So until those facts do change, we will continue to see lots of clandestine meth labs and meth lab waste dump sites, and all the problems associated with them.**

# What Can DTSC Do To Help At Drug Incidents ?



# DTSC Can Provide:

- 1) Contractor Services
  - a) Removal
  - b) Disposal
- 2) Technical Assistance

# Two Types of Drug Incidents:

- 1) **Illegal Drug Labs**
- 2) **Abandoned Drug Lab Wastes**



# **DTSC**

## **Emergency Response Unit**

### **Illegal Drug Lab Removal Program**

#### **Funding Source:**

- Illegal Drug Lab Cleanup Account (H&S Code 25354.5)**



# Illegal Drug Labs

- **DTSC's Role**
- **Preparing For Removal**
- **Requesting DTSC Assistance**
- **DTSC ER Duty Officer**
- **DTSC Contractors**
- **Documentation**
- **Statistics**



**Drug Lab Response is a Team Effort**

**Where are We in the Food Chain ?**





**Start Your Day With A Healthy Breakfast !**

# Drug Lab Response is a Team Effort Our Position in the Food Chain

- Investigation & Seizure (Law Enforcement)
- Chemical Emergency Response (Hazmat)
- Fire Suppression (Fire)
- Assessment/Inventory (Law, Health, Fire)
- **Removal & Disposal (DTSC, Contractor)**
- Remediation (Health, Property Owner)
- Other Support (CPS, Animal Control, Ag Inspector, Fish & Game, Water Resources...)

**DTSC's Role  
is  
Removal & Disposal**



# Preparing For Removal



# Preparing For Removal

- 1) Notification
- 2) Site Assessment
- 3) Inventory of Chemicals / Wastes



# **Notification By Law Enforcement**

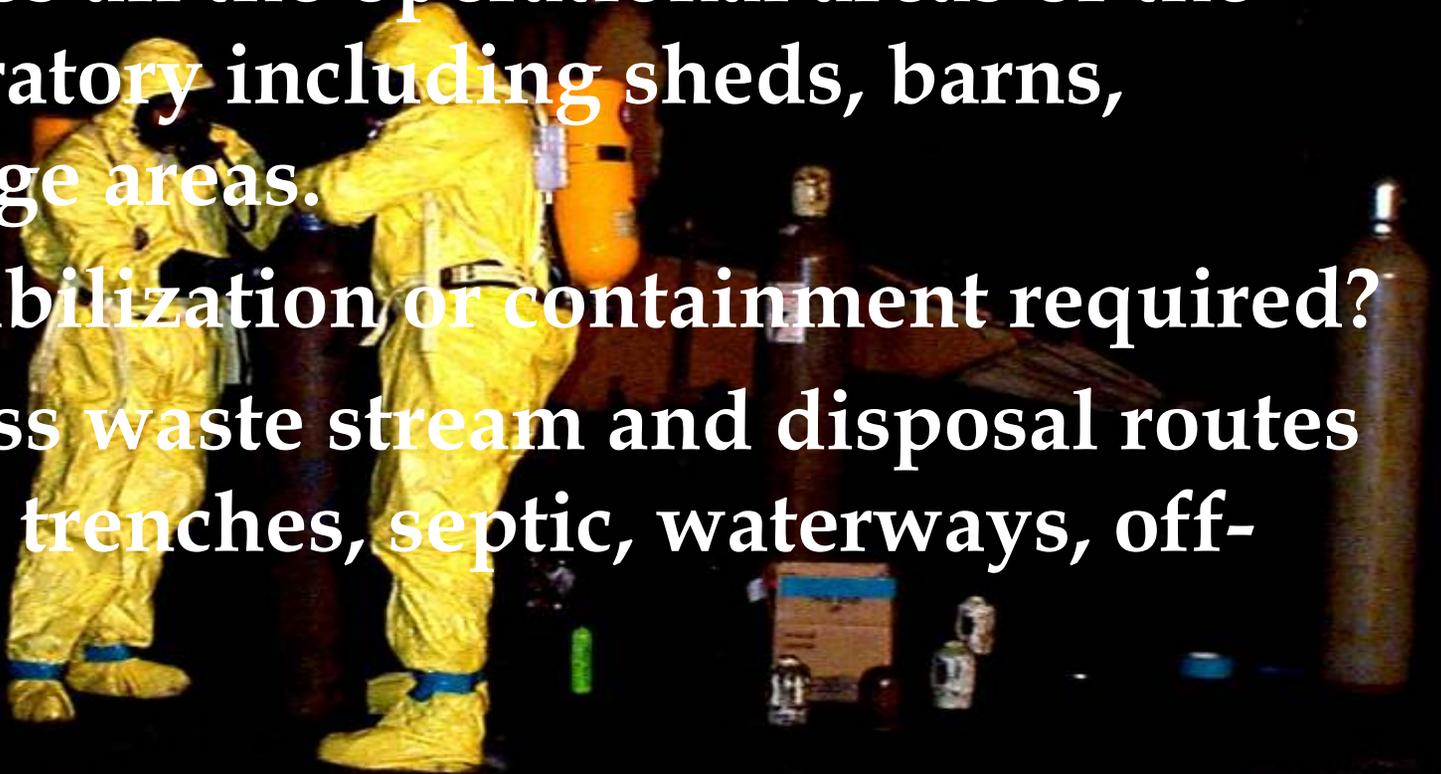
- **HSC SECTION 11642(c)(2) The local law enforcement agency or Department of Justice shall notify the local health officer within 24 hours of the seizure of a laboratory used for the unlawful manufacture of a controlled substance. The local health officer shall either:**
  - **(A) Make a determination as to whether the site poses an immediate threat to public health and safety, and if so, shall undertake immediate corrective action.**
  - **(B) Notify the State Dept. of Health Services.**

# Notification By DTSC

- **HSC SECTION 25354.5(b)(2) The department shall, as soon as the information is available, report the location of any removal action that will be carried out pursuant to paragraph (1), and the time that the removal action will be carried out, to the local environmental health officer within whose jurisdiction the removal action will take place, if the local environmental health officer does both of the following:**
  - **(A) Requests, in writing, that the department report...**
  - **(B) Provides the department with a single 24-hour phone number.**
- **Current list includes several jurisdictions, mainly county environmental health.**

# Site Assessment

- Perform a complete site assessment prior to requesting a removal action.
- Assess all the operational areas of the laboratory including sheds, barns, storage areas.
- Is stabilization or containment required?
- Assess waste stream and disposal routes (pits, trenches, septic, waterways, off-site).



# Special Considerations

- Segregate incompatible hazardous chemicals or wastes.
- Assess for spills or leaking containers.
- Assess for pits or disposal to soil.
- Assess for pressurized gas cylinders or acid gas generators.
- **Use extreme caution when dealing with compressed gas cylinders.**





Toxic Chemicals Poured Into a Pit at a Mexican National Drug Lab



# Compressed Gas Cylinders

- Specification Cylinders
- Non-Specification Cylinders
- Compromised Cylinders
- Acid-Gas Generators









LSS-15



# Compressed Gas Cylinder Mitigation

- Law enforcement typically lacks the necessary resources and technical expertise for handling cylinders.

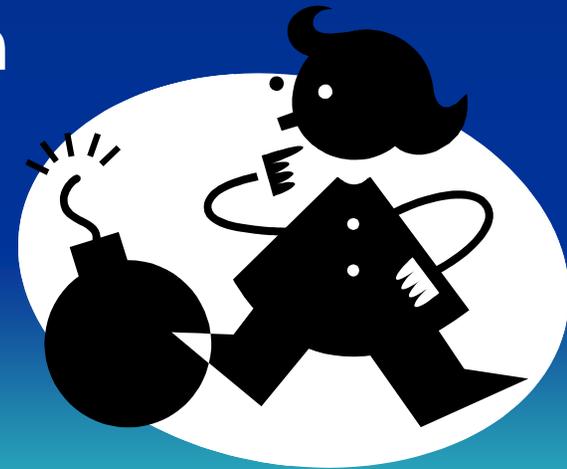


HYDROGEN CHLORIDE  
ANHYDROUS  
2.3-UN 1050  
INHALATION HAZARD

- Let the DTSC Contractors or the Local Bomb Squad handle / mitigate any cylinders.

# BOMB SQUADS

- Talk to them before you need them.
- Different squads have different capabilities and levels of experience.
- Make sure they are familiar with compressed gas cylinders.
- Shape charges are essential.



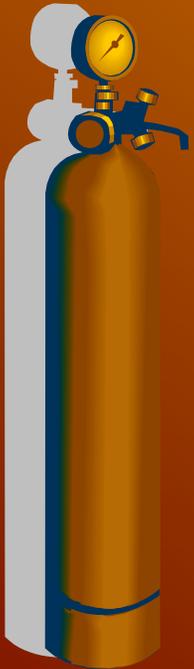


# Inventory of Chemicals / Wastes

**Prepare a complete inventory indicating hazard class and approximate quantity for all chemicals and wastes to be removed.**



# Requesting DTSC Assistance





# The Illegal Drug Lab Cleanup Account



# Who Can Access?



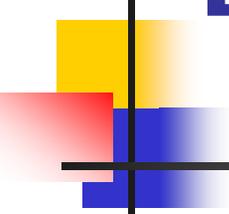
- Any state or local law enforcement agency representative involved in an enforcement action at an illegal drug laboratory (includes boxed labs).
- Any public agency representative responding to an abandonment of hazardous wastes generated by an illegal drug laboratory.



# How To Access

- **Business hours, 8 - 5  
Monday - Friday, call  
(800) 260-3972 or  
(916) 255-6504**
- **After hours, holidays or  
weekends, call the State  
OES Warning Center at:  
(800)852-7550**
- **Ask for the DTSC  
Emergency Response  
Duty Officer**

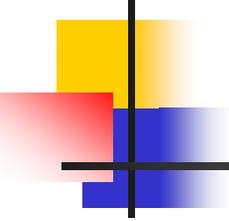




# DTSC ER Duty Officer

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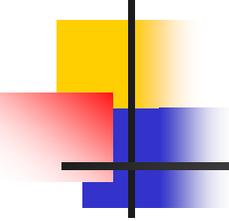
- **Receives requests for assistance.**
- **Establishes contractor scope-of-work.**
- **Obtains estimate from DTSC contractor.**
- **Authorizes contractor to respond.**
- **Issues US-EPA ID# for hazardous waste manifest.**
- **Only person authorized to direct DTSC contractors.**
- **Can provide staff for on-site technical assistance.**



# **DTSC Will Not Fund**

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- **Solid Waste**
- **Waste oil**
- **Fuel (Diesel, Gasoline)**
- **Infectious waste, with the exception of sharps**
- **Small quantities of common household commodities**
- **Septic tanks**
- **Cylinders containing non-drug lab related gases**
- **Marijuana growing operations**
- **Cleanups of sites that are otherwise subject to federal jurisdiction (DEA)**
- **Remedial action costs (extensive soil cleanup, removal of solid waste & structural appurtenances)**



# Other Important Facts

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- This is not a reimbursement program.
- This does not provide for evidentiary collection, storage, or disposal.
- The requesting law enforcement agency is responsible for maintaining site security until the removal is completed.
- Law Enforcement is Incident Commander and is responsible for site safety.



**What's wrong with this picture ?**

# **Common Logistical Problems**

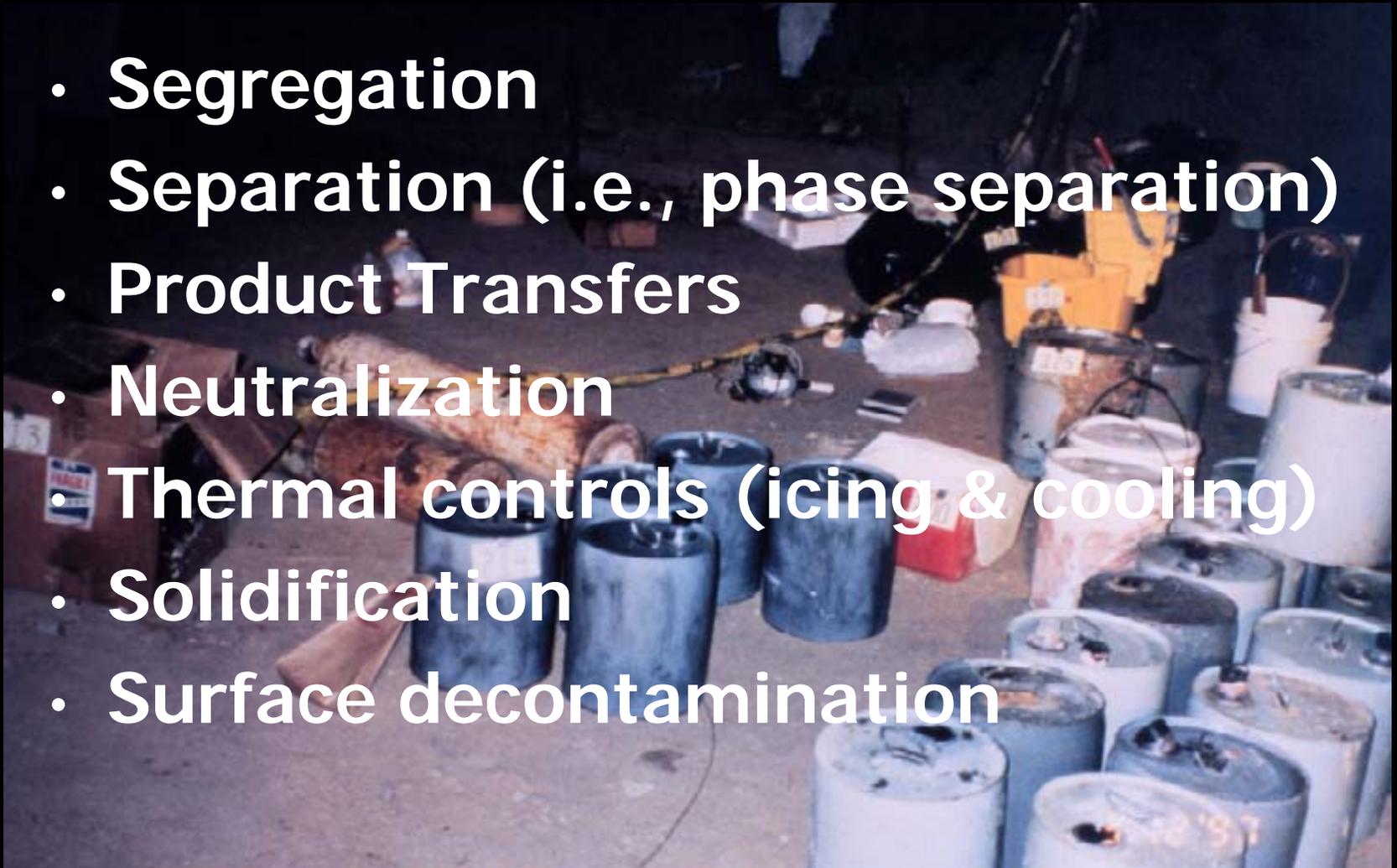
- **Calling the DTSC Duty Officer prematurely before the inventory is complete.**
- **Overlooking or not reporting disposal pits or contaminated soil.**
- **Removal contractor sometimes has to wait on site for criminalist to complete evidentiary sampling.**
- **Not calling DTSC until days/weeks after the incident.**

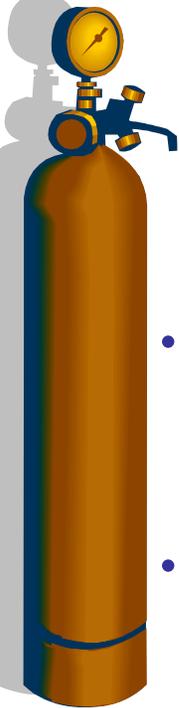
# DTSC Contractors

- **Are not first responders.**
- **Are Level A capable and are required to have confined space entry and rescue training.**

# On-Site Stabilization

- Segregation
- Separation (i.e., phase separation)
- Product Transfers
- Neutralization
- Thermal controls (icing & cooling)
- Solidification
- Surface decontamination





# Cylinder Mitigation Options

- On-site controlled release, sparging or neutralization.
- Emergency relocation for off-site release, sparging or neutralization.
- For cylinders that may be catastrophically compromised, the services of a qualified bomb squad will likely be needed.
- Use of cylinder coffins is generally not an option.











# DTSC Area Drug Lab Contractors

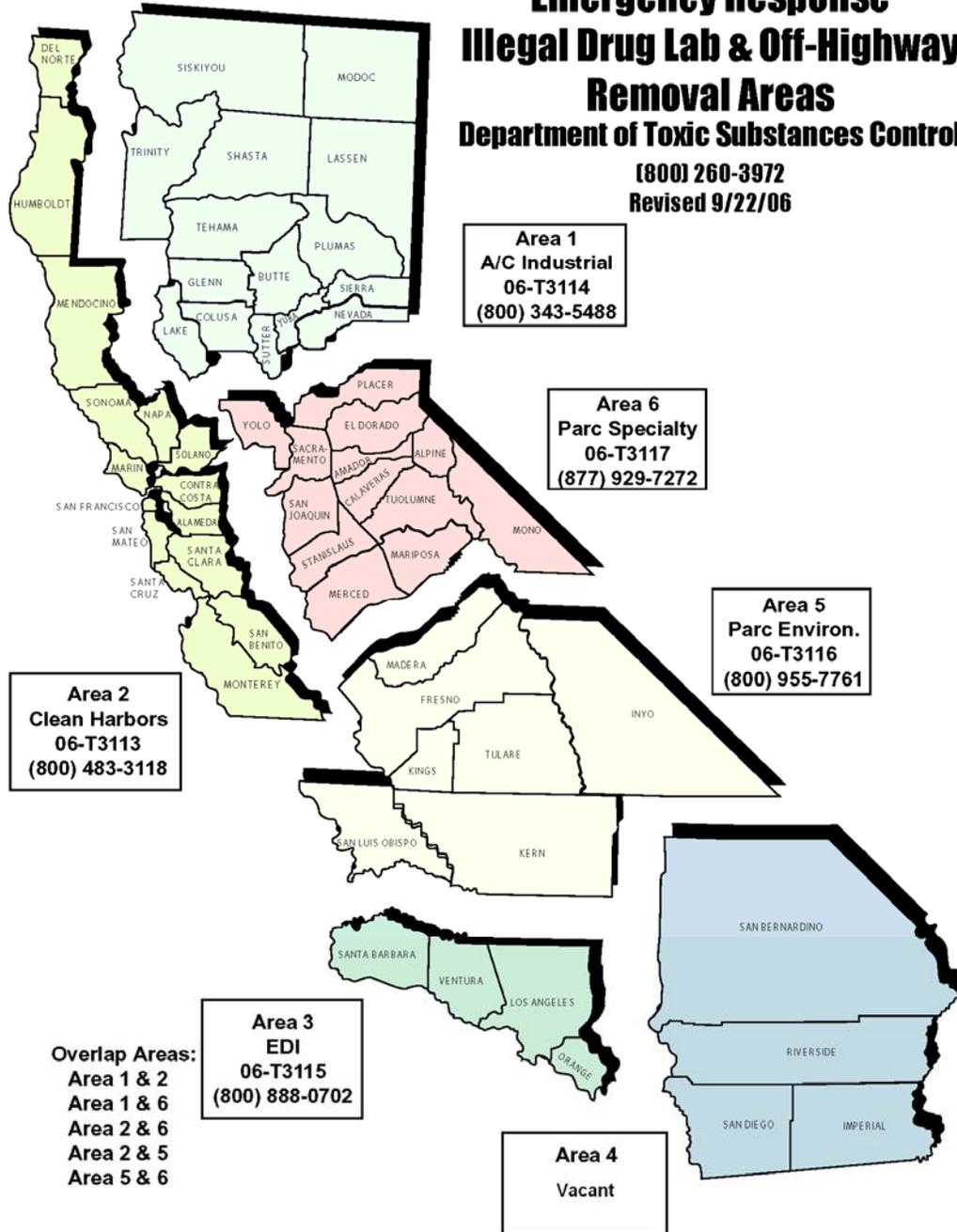
- Area 1 - A/C Industrial (N. California)
- Area 2 - Clean Harbors (North Coast)
- Area 3 - Environmental Dynamics  
(LA Basin)
- Area 4 - Vacant (Desert)
- Area 5 - PARC Env. (San Joaquin Valley)
- Area 6 - PARC Specialty (Sacramento)

# Emergency Response Illegal Drug Lab & Off-Highway Removal Areas

Department of Toxic Substances Control

(800) 260-3972

Revised 9/22/06



**Area 1**  
A/C Industrial  
06-T3114  
(800) 343-5488

**Area 6**  
Parc Specialty  
06-T3117  
(877) 929-7272

**Area 5**  
Parc Environ.  
06-T3116  
(800) 955-7761

**Area 2**  
Clean Harbors  
06-T3113  
(800) 483-3118

**Area 3**  
EDI  
06-T3115  
(800) 888-0702

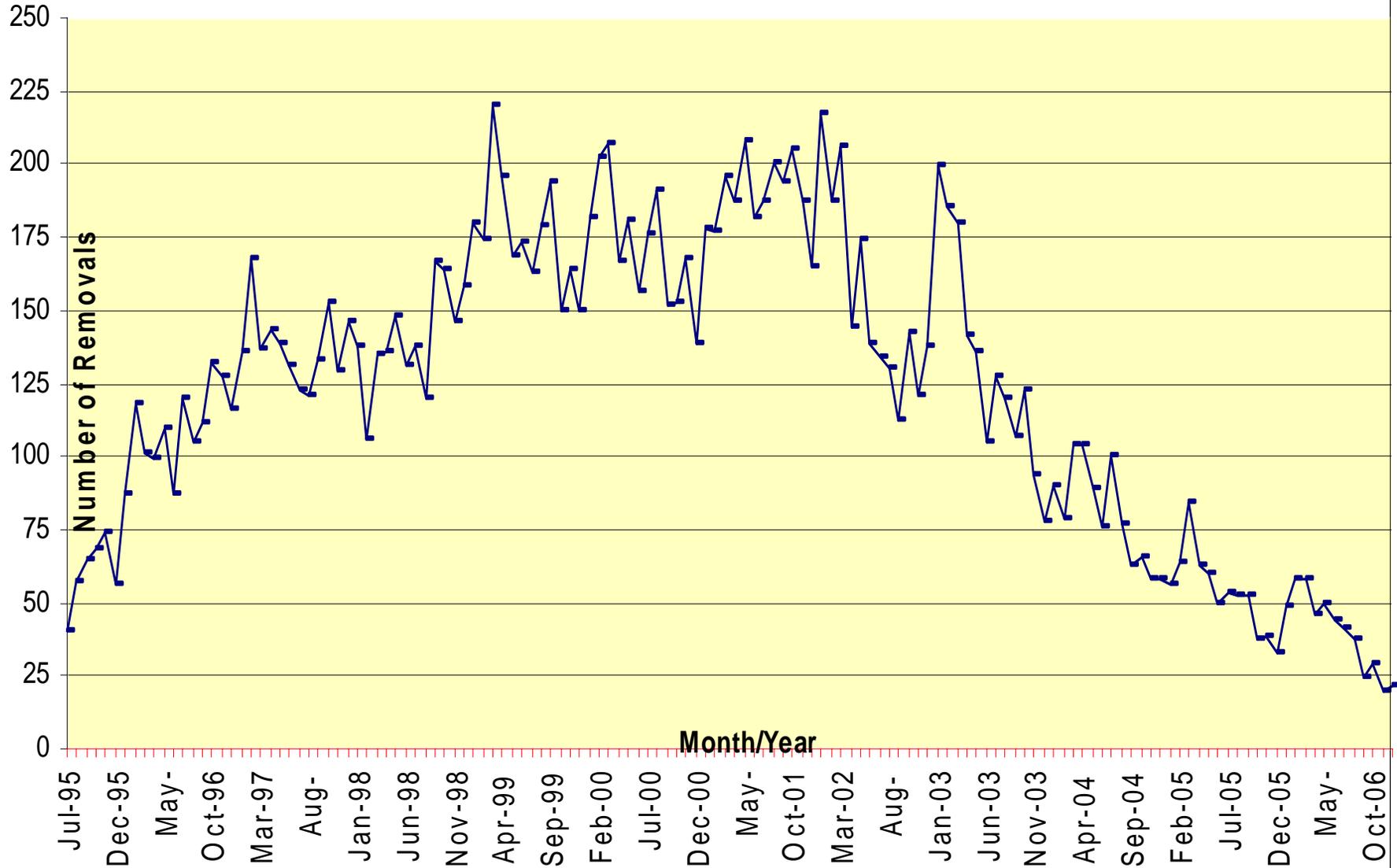
**Area 4**  
Vacant

**Overlap Areas:**  
Area 1 & 2  
Area 1 & 6  
Area 2 & 6  
Area 2 & 5  
Area 5 & 6

# **DTSC Drug Lab Documentation**

- **Clan Lab Removal Incident Report**
- **Clan Lab Removal Work Log**
- **Hazardous Waste Manifest**

# CLANDESTINE DRUG LABORATORY REMOVALS



# DRUG LAB REMOVALS BY CALENDAR YEAR



**YEAR**

**1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006**

**■ Removals**

**1313 1659 1687 2112 2074 2266 1844 1595 964 642 478**

*Any Questions?*

**... call ...**

**DTSC ER Duty Officer**

**at: (916) 255-6504**