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SUBMITTAL TO THE BOARD OF SUPERVISORS
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

FROM: Executive Office

SUBMITTAL DATE: September 13, 2011

SUBJECT: Response to the Grand Jury Report: 2010/11 Grand Jury Report: Cooperative Extension Riverside County - Blythe

RECOMMENDED MOTION: That the Board of Supervisors:

1) Approve with or without modifications, the attached response to the Grand Jury's recommendations regarding Cooperative Extension Riverside County - Blythe.

2) Direct the Clerk of the Board to immediately forward the Board's finalized response to the Grand Jury, to the Presiding Judge, and the County Clerk-Recorder (for mandatory filing with the State).

BACKGROUND: On July 26, 2011, the Board directed staff to prepare a draft of the Board's response to the Grand Jury's report regarding Cooperative Extension Riverside County – Blythe.

Section 933 (c) of the Penal Code requires that the Board of Supervisors comment on the Grand Jury's recommendations pertaining to the matters under the control of the Board, and that a response be provided to the Presiding Judge of the Superior Court within 90 days.

90dayresponsef11coopext09.13.11

FINANCIAL DATA				
	Current F.Y. Total Cost:	$ N/A	In Current Year Budget:	
	Current F.Y. Net County Cost:	$	Budget Adjustment:	
	Annual Net County Cost:	$	For Fiscal Year:	

SOURCE OF FUNDS:

Positions To Be Deleted Per A-30

Requires 4/5 Vote

C.E.O. RECOMMENDATION: APPROVE

BY: Jay E. Orr

County Executive Office Signature

Departmental Concurrence

Dep't Recomm.:	Per Exec. Ofc.:
X Policy	X Policy
☐ Consent	☐ Consent

Prev. Agn. Ref.: 3.3 – 07/26/11 | **District:** 4 | **Agenda Number:** 3.13

ATTACHMENTS FILED

2010-11 Grand Jury Response
Cooperative Extension Riverside County - Blythe

Findings

1. *Improper Storage of Toxic Chemicals with Flammable Chemicals*

A variety of flammable and toxic chemicals used in the lab are stored in a flame resistant (color coded yellow) metal cabinet in the workroom located in Cooperative Extension Department, but not all chemicals are stored in this cabinet. Two examples of stored chemicals are Acetone and Potassium Cyanide.

The Material Safety Data Sheet (MSDS) classified Acetone as EXTREMELY FLAMMABLE and the vapors of Acetone may cause a flash fire and are harmful if inhaled. The MSDS states, "...the Flash Point of Acetone is -4° F and should be handled under a vent hood with a proper ventilation system". Potassium Cyanide is classified as EXTREME HEALTH HAZARD, POISON. MSDS states, "...Do not store near combustibles or flammables because subsequent fire fighting with water could lead to cyanide runoff. Do not store under sprinkler system".

Handling and storage for both chemicals should be in a cool, dry, well ventilated location. The workroom where the chemicals are stored is maintained as an office space and is part of the buildings air conditioning system.

Response:

-X--- UCCE Riverside County disagrees partially with the finding.

UCCE agrees that Potassium Cyanide (KCN) is a highly toxic material. KCN was stored at the Blythe facility in a flammable storage cabinet, along with pesticides and other materials, including acetone, which is flammable. However the Material Safety Data Sheet (MSDS) that UCCE is using (Attachment 1) does not contain the recommendations about storage near combustibles or flammables that are quoted in the Grand Jury report. We have reviewed several other common sources for MSDS and also did not find these storage instructions. Further, while there is a notation that KCN is incompatible with water and reacts with acids, there was no restriction on storage under a sprinkler system in the MSDS we reviewed. In order to improve the safety of material storage, the acetone, alcohol, and any other flammable materials have been moved to a separate storage location in the lab, away from the storage cabinet, located in the work room. The KCN is stored in a water-tight secondary container, within a locked storage cabinet.

2. *Improper Ventilation in the Cooperative Extension Area*

The County Administrative Center in Blythe is designed to be office space with gaps under the doors, and centralized air conditioning units that serve multiple areas. A drying oven is located in the lab. The heated air from the oven is ventilated into the lab area. The air conditioner for the lab area also controls the temperature in a nearby conference room and a small office. The thermostat for the air conditioner is located in this conference room. At the request of Cooperative Extension Riverside County, the

Maintenance Department adjusted the controls for the air conditioner to maintain a temperature of 68° F. Office employees in nearby offices stated this resulted in "the conference room and office areas being unbearably cold".

The County Administrative Center building was designed and built in 1997 to accommodate various departments in an open concept. Board of Supervisors Policy H4 states, the Facilities Management Department will: "Set air conditioning and heating controls to comply with settings so as not to cool below 76° F, and not to heat above 68° F. Where a single temperature set point is, or where a system cools and heats simultaneously, the equipment will be operated in a manner that minimizes the use of electrical energy."

The different sections of the building all join through open spaces therefore anything that enters the air system in the lab will be circulated throughout the entire building.

MSDS states a hood is required for the proper handling of most chemicals used by the lab personnel. However, there is no laboratory hood located within the lab area. The MSDS do not identify a quantity level of unsafe hazardous materials; therefore all volumes and quantities must be treated as hazardous.

Riverside County Economic Development Agency, Facility Maintenance conducted an investigation into the ventilation of the lab area and wrote a report a section which is identified as "Plan B" dated May 3, 2011, which recommended necessary changes so the lab could become a self-contained unit.

- "Remove all existing ductwork (supply and return air) from AC 301 to this area.
- Install a new rooftop package unit and ductwork solely dedicated for the lab. Estimated cost $10,000.00.
- Install an appropriately sized exhaust fan to adequately ensure a negative pressure room. Estimated cost $1,300.00."

Response:

--X-- **UCCE Riverside County disagrees partially with the finding.**

UCCE agrees that if the lab drying oven and other equipment are creating a "heat load" that causes an imbalance of cooling in other parts of the building, a separate ventilation system could improve the comfort and energy efficiency of the building. UCCE does not agree that a laboratory hood is "required for the proper handling of most chemicals used by the lab personnel" or that "MSDS do not identify a quantity level of unsafe hazardous materials." The MSDS for some chemicals do recommend "general or local exhaust ventilation," which could be accomplished by the recommended changes to the laboratory ventilation. Also, many of the MSDS do list permissible exposure levels for the various chemical ingredients. However, UCCE agrees that a separate ventilation system would isolate the lab atmosphere, removing the chance for any potential vapors to migrate from the lab to other parts of the building.

3. *No Hazardous Materials Handler Permit*

California Health and Safety Code Chapter 6.95 and Riverside County Ordinance 651 states, "...any regulated substance or Federal Extremely Hazardous Substance or California Acutely Hazardous Substance below five gallons requires a Hazard Materials Business Emergency Plan and a permit with the County of Riverside Community Health Agency, Department of Environmental Health." At the time of this report, the Cooperative Extension has not submitted a Hazard Materials Business Emergency Plan to the proper authorities.

Response:

--X-- UCCE Riverside County disagrees partially with the finding.

The Grand Jury Report states that a Hazardous Materials Business Plan (HMBP) had not been submitted, however, UCCE submitted a HMBP, including appropriate inventory forms and spill procedures, to the Riverside County Department of Environmental Health (DEH), Hazardous Materials Management program on May 23, 2011. Subsequent to the Grand Jury report, on July 14, 2011, UCCE received the Hazardous Materials Management Permit from the DEH (Attachment 2). No further action is required at this time.

4. *No Hazardous Materials Identification on Building*

In accordance with National Fire Protection Association (NFPA) 704, (Exhibit #1) requirements for handling hazardous materials and California Health & Safety Code, Chapter 6.95, Section 25000-25520, requires that there should be identification on any building that stores or uses hazardous materials. This advises all persons and especially firefighters of the types of chemicals that are maintained within the building.

Response:

--X-- UCCE Riverside County disagrees partially with the finding.

UCCE has reviewed NFPA 704 and CA Health & Safety Code (HSC) Section 25500-25520. We can find no requirement in the HSC relating to the NFPA 704 standard. It is our understanding that the NFPA 704 standard cited by the Grand Jury is only applicable if adopted by the local jurisdiction. The UCCE facility in Blythe was inspected on June 7, 2011 by the City of Blythe Fire Marshal for a "Fire & Life Safety Inspection." The inspection report by the Fire Marshal does not make any reference to a need for hazardous materials postings in compliance with NFPA 704. UCCE has been in contact with the Fire Marshal for the City of Blythe for clarification of this requirement. If the NFPA 704 postings are required, then we will work with the Riverside County Economic Development Agency/Facilities Management (EDA/FM) to procure and post the appropriate signs for the building.

5. *No Hazardous Waste Generator Permit*

County of Riverside Hazardous Waste Generator form (HWG form dated 12/2005) identifies one type of waste as "Pesticide: Unusable portions of active pesticides, unrinsed empty containers, rinse water". For example the MSDS for Potassium

Cyanide states: "Dispose of container and unused contents in accordance with federal, state and local requirements". The lab personnel stated the chemical containers were washed in water and rinsed 3 times. At the time of this investigation, there was no Hazardous Waste Generator Permit.

Response:

--X-- UCCE Riverside County disagrees wholly with the finding.

UCCE does not generate any hazardous waste through its operations at the Blythe facility (or off-site operations by Blythe-based staff). The Grand Jury report asserts that empty pesticide containers must be disposed as hazardous waste. This is inaccurate, according to the attached guidance from the California Department of Toxic Substances Control (Attachment 3). Empty pesticide containers (and other chemical containers) may be rinsed and recycled or disposed of as regular trash. The rinsate must be managed properly (i.e. used in a manner consistent with the pesticide label), and the container shall be punctured and the label defaced prior to disposal or recycling. The UCCE Farm Advisor handles empty pesticide containers in this manner. Empty containers that held an Extremely Hazardous Substance (such as potassium cyanide) are an exception to these disposal methods. Empty containers of Extremely Hazardous Substances must be managed as a hazardous waste, including labeling, storage times, and disposal. To date, no empty containers of Extremely Hazardous Substances have been generated. If UCCE anticipates that its operations will generate a hazardous waste (either as an empty container of Extremely Hazardous Substance or another process that generates a hazardous waste), UCCE will contact Riverside County DEH and make the appropriate notifications and apply for permits as necessary.

6. Improper Form Used for Hazardous Materials Inventory

The inventory list of chemicals (Exhibit #2) is not recorded on the correct form required by the County of Riverside. The correct form is Office of Emergency Services (OES) Form 2731 (Exhibit #3). A separate form is required for each chemical and updated when a chemical is changed or moved.

Response:

--X-- UCCE Riverside County disagrees wholly with the finding.

The inventory submitted to the Grand Jury was intended for informational purposes and was not intended to meet any regulatory requirement. As such, in the interest of open disclosure, a full listing of the chemicals stored or used at the Blythe facility was provided to the Grand Jury. For purposes of a Hazardous Materials Business Plan (HMBP), Riverside County DEH only requires reporting of chemicals that exceed certain quantity thresholds (55 gallons of liquid, 500 pounds of a solid, or 200 cubic feet of a compressed gas), or chemicals that are classified as Extremely Hazardous Substances. None of the chemicals stored or used at the UCCE Blythe facility exceed these quantity thresholds. However, two chemicals are classified as Extremely Hazardous Substances and are therefore subject to a HMBP. UCCE used Form 2731 for reporting these two chemicals when submitting the HMBP and applying for its permit with Riverside County DEH.

Recommendations

1. ***The Cooperative Extension Riverside County, Blythe store all chemicals in compliance with the appropriate MSDS.***

Response:

--X-- The recommendation has been implemented.

All chemicals stored in the UCCE areas of the Blythe facility are stored in compliance with their MSDS.

2. ***The Cooperative Extension Riverside County, Blythe remodel the lab as a self-contained unit by implementing "Plan B" of the Riverside County Economic Development Agency, Facility Maintenance Report dated May 3, 2011.***

Response:

--X-- The recommendation has not yet been implemented, but will be implemented in the future.

UCCE Riverside County is working with the County to secure funds for renovations that would provide a fume hood and separate exhaust system to the UCCE lab areas. Working with the County EDA/FM department, the modifications will be made as soon as is practical, once the funding is identified.

3. ***The Cooperative Extension Riverside County, Blythe create a Hazardous Materials Business Plan and obtain a Hazardous Materials Handlers Permit, as required by Safety Code Chapter 6.95 and Riverside County Ordinance 651.***

Response:

--X-- The recommendation has been implemented. Provide a summary regarding the implemented action:

UCCE has submitted a Hazardous Materials Business Plan, including all required forms and fees to the Riverside County DEH, Hazardous Materials Management Branch. The Hazardous Materials Management Permit (Attachment 2) was received on July 14, 2011, and is posted as required. No further action is required at this time.

4. The Cooperative Extension Riverside County, Blythe place hazardous materials identification plaques on all entrances into the County Administration Center Building, Blythe in accordance with NFPA 704.

Response:

--X-- a. The recommendation requires further analysis.

As noted in the response to Finding 3 above, the UCCE Blythe facility has been inspected by the Blythe Fire Marshal, which is authorized to enforce compliance with state and local fire codes. The Fire Marshal inspection report does not reference a need for hazardous materials postings in compliance with NFPA 704. UCCE has contacted the Fire Marshal for the City of Blythe for clarification of this recommendation.

Provide a time frame for analysis or study to be completed by the department/agency.

UCCE is awaiting clarification of local code compliance from the City of Blythe Fire Marshal and anticipates that this issue should be resolved by September 15, 2011. If the NFPA 704 postings are required by the Fire Marshal, then UCCE will work with the Riverside County Economic Development Agency/Facilities Management to procure and post the appropriate signs for the building.

5. The Cooperative Extension Riverside County, Blythe obtain a Hazardous Waste Generator Permit, (HWG Form 12/2005).

Response:

--X-- The recommendation will not be implemented because it is not warranted.

As noted in the response to Finding 5 above, UCCE does not generate any hazardous waste. Therefore, after discussion with the Supervising Hazardous Materials Specialist at Riverside County DEH, Hazardous Materials Management Branch, a Hazardous Waste Permit is not required.

6. The Cooperative Extension Riverside County, Blythe conform to Office of Emergency Services (OES) Form 2731 used for inventory of hazardous materials.

Response:

--X-- The recommendation has been implemented.

UCCE submitted a Hazardous Materials Business Plan (HMBP) to the Riverside County DEH, Hazardous Materials Management Branch, on May 23, 2011. The HMBP included inventory forms (Form 2731) for two chemicals that were required to be reported to DEH. A Hazardous Materials Management Permit was received on July 14, 2011. Future updates to the chemical inventory will be reported to the DEH as required.

UCCE continually strives to conduct its operations in a manner that is safe and compliant with a myriad of complex environmental and safety laws and regulations. If you require any additional information in support of these responses, please let us know.

Attachment 1

ScienceLab.com
Chemicals & Laboratory Equipment

Material Safety Data Sheet
Potassium cyanide MSDS

Section 1: Chemical Product and Company Identification

Product Name: Potassium cyanide

Catalog Codes: SLP3853, SLP1036

CAS#: 151-50-8

RTECS: TS8750000

TSCA: TSCA 8(b) inventory: Potassium cyanide

CI#: Not available.

Synonym:

Chemical Name: Potassium Cyanide

Chemical Formula: KCN

Contact Information:

Sciencelab.com, Inc.
14025 Smith Rd.
Houston, Texas 77396

US Sales: **1-800-901-7247**
International Sales: **1-281-441-4400**

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call: 1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Potassium cyanide	151-50-8	100

Toxicological Data on Ingredients: Potassium cyanide: ORAL (LD50): Acute: 5 mg/kg [Rabbit]. 8.5 mg/kg [Mouse]. 5 mg/kg [Rat].

Section 3: Hazards Identification

Potential Acute Health Effects:
Very hazardous in case of skin contact (permeator), of ingestion, of inhalation. Hazardous in case of skin contact (irritant), of eye contact (irritant). Corrosive to eyes and skin. The amount of tissue damage depends on length of contact. Eye contact can result in corneal damage or blindness. Skin contact can produce inflammation and blistering. Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to blood, liver. The substance may be toxic to cardiovascular system, upper respiratory tract, Urinary system, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure of the eyes to a low level of dust can produce eye irritation. Repeated skin exposure can produce local skin destruction, or dermatitis. Repeated inhalation of dust can produce varying degree of respiratory irritation or lung damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion:
If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion:
Notes to Physcian: Exposure should be treated as cyanide poisoning. Antidote: Always have a cyanide antidote kit on hand when working with cyanide compounds. Get medical advice to use.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available. Explosive in presence of oxidizing materials.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Contact with acids or acid salts causes immediate formation of toxic and flammable hydrogen cyanide gas.

Special Remarks on Explosion Hazards:
Chlorates + potassium cyanide explode when heated. Potassium cyanide + nitrites may cause explosion. Nitrogen trichloride explodes on contact with potassium cyanide. Potassium cyanide + hydrogen cyanide is a frictioin and impact-sensitive explosive and may initiate detonation of liquid hydrogen cyanide. Mercuric nitrate + potassium cyanide explodes when heated and contained in narrow iignition tubes. Perchloryl fluoride + potassium cyanide causes an explosive reaction at 100-300 C. Potassium cyanide + ammoniacal silver, following heating, shock or standing can cause an explosion. Heating of potassium cyanide & chromium tetraoxide can cause an explosion. Mixtures of metal cyanides with metal chlorates, perchlorates, or nitrates causes a violent explosion.

Section 6: Accidental Release Measures

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.

Large Spill:
Corrosive solid. Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:
Keep locked up.. Keep container dry. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.

Storage:
Moisture Sensitive. Light Sensitive. Protect from light. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

Section 8: Exposure Controls/Personal Protection

Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection:
Splash goggles. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor and dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
STEL: 5 (mg/m3) from ACGIH (TLV) [United States] CEIL: 0.7 from NIOSH [United States] CEIL: 5 (mg/m3) from NIOSH [United States] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance:
Solid. (Crystalline or Granular solid. Deliquescent solid.)

Odor:
Almond-like. Like bitter almonds. Odor of hydrogen cyanide (Slight.)

Taste: Not available.

Molecular Weight: 65.11 g/mole

Color: White.

pH (1% soln/water): 11 [Basic.]

Boiling Point: 1625°C (2957°F)

Melting Point: 634.5°C (1174.1°F)

Critical Temperature: Not available.

Specific Gravity: 1.553 (Water = 1)

Vapor Pressure: Not applicable.

Vapor Density: Not available.

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water, methanol.

Solubility:
Easily soluble in hot water. Soluble in cold water. Partially soluble in methanol. Very slightly soluble in ethanol (0.57 g/100 g @ 19.5 deg. C)) Solubility in hydroxylamine 41 g/100 g @ 7.5 deg. C. Solublility in formamide: 146 g/l @ 25 deg. C Solubility in Water: Soluble in 2 parts of cold, 1 part boiling water. Soluble in 2 parts of glycerol. Soluble in 25 parts of methanol (4.91 g/100 g methanol @ 19.5 deg. C) Solubility in liquid sulflur dioxide: 0.017 g/100 g @ 0 deg. C. Solubility in dimethylformamide: 0.22 g/100 g @ 25 deg. C. Solubility in anhydrous liquid ammonia: 4.55 g/100 g @ -33.9 deg. C.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, water, moisture, light,air

Incompatibility with various substances:
Highly reactive with oxidizing agents. Reactive with acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity:
Moisture sensitive. Air Sensitive. Deliquescent. Protect from light. Reacts with water or any acid releasing hydrogen cyanide. Toxic gases and vapors (such as hydrogen cyanide and carbon monoxide) may be released when potassium cyanide decomposes. Incompatible with acids, acid syrups, alkaloids, chloral hydrate, iodine, metallic salts, permanganates, chlorates, peroxides. Potassium cyanide may react with carbon dioxide in ordinary air to form toxic hydrogen cyanide gas. Potasssium cyanide is readily oxidized by heating to potassium cyanate in presence of oxygen or easily reduced oxides.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Inhalation. Ingestion.

Toxicity to Animals: Acute oral toxicity (LD50): 5 mg/kg [Rat].

Chronic Effects on Humans:
MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Causes damage to the following organs: blood, liver. May cause damage to the following organs: cardiovascular system, upper respiratory tract, Urinary system, central nervous system (CNS).

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans:
May cause adverse reproductive effects (female fertility and fetotoxicity). May affect genetic material.

Special Remarks on other Toxic Effects on Humans:
Acute Potential Health Effects: Skin: May be fatal if absorbed through skin. Causes skin irritation and possible burns especially if the skin is wet or moist. May be absorbed through skin and cause symptoms similar to those described for ingestion. Eyes: Causes eye irritation and possible eye burns. Inhalation: May be fatal if inhaled. Causes respiratory tract and mucous membrane irritation. Inhalation of high concentrations may cause central nervous system effects similar to those described for ingestion. Ingestion: May be fatal if swallowed. Causes severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause tissue anoxia. May affect behavior/Central Nervous system, Metabolism, cardiovascular system, respiratory system, blood, respiration. Symptoms of cyanide poisoning may include flushing, nausea, vomiting, palpitations, tachycardia, hypotension, hypertension, increased pulse rate, arrhythmias, heart conduction defects, hypernea, headache, dizziness, confusion, anxiety, agitation, tremors, weakness, hyperventilation, dyspnea, apnea, severe hypoxic signs in absence of cyanosis (cyanosis is generally late finding), convulsions, seizures, memory loss, insomnia, metabolic acidosis, poor appetite. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contract may cause dermatitis. Ingestion: Prolonged or repeated exposure from ingestion may affect the urinary system, brain, liver and thyroid (goiter) as well have the same effects as acute overexposure.

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: CLASS 6.1: Poisonous material.

Identification: : Potassium cyanide UNNA: 1680 PG: I

Special Provisions for Transport: Marine Pollutant

Section 15: Other Regulatory Information

Federal and State Regulations:
Connecticut hazardous material survey.: Potassium cyanide Illinois chemical safety act: Potassium cyanide New York acutely hazardous substances: Potassium cyanide Rhode Island RTK hazardous substances: Potassium cyanide Pennsylvania RTK: Potassium cyanide Minnesota: Potassium cyanide Massachusetts RTK: Potassium cyanide Massachusetts spill list: Potassium cyanide New Jersey: Potassium cyanide

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada):
CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC). CLASS E: Corrosive solid. WHMIS Class B-6: Reactive and very flammable material.

DSCL (EEC):
R16- Explosive when mixed with oxidizing substances. R28- Very toxic if swallowed. R38- Irritating to skin. R40- Possible risks of irreversible effects. R41- Risk of serious damage to eyes. S1/2- Keep locked up and out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of [***] S36/37- Wear suitable protective clothing and gloves. S39- Wear eye/face protection. S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 0

Personal Protection: j

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 0

Specific hazard:

Protective Equipment:
Gloves. Synthetic apron. Vapor and dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Splash goggles.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/11/2005 01:51 PM

Last Updated: 11/01/2010 12:00 PM

DEPARTMENT OF ENVIRONMENTAL HEALTH

Attachment 2

Certified Unified Program Agency

HAZARDOUS MATERIALS MANAGEMENT PERMIT

NON-TRANSFERABLE

This permit is granted for the business indicated on the condition that the business will comply with the laws, ordinances and regulations that are now or may hereafter be in force by the United States Government, the State of California, and the County of Riverside pertaining to the above mentioned business. This permit serves as a receipt for payment of fees for the above listed programs. **This permit must be renewed on or before the expiration date shown above.** This permit may be suspended or revoked by the enforcement officer for cause. **Inspection of this business may be conducted by a duly authorized representative of the Director of Environmental Health. THIS PERMIT IS NOT TRANSFERABLE OR REFUNDABLE.**

Western County Office	Corona Office	Desert County Office	South County Office
4065 County Circle Dr.	2275 S. Main Street #204	47950 Arabia Street, Suite A	800 S. Sanderson
Riverside, CA 92503	Corona, CA 92882	Indio, CA 92201	Hemet, CA 92545
(951) 358-5055	(951) 273-9143	(760) 863-8976	(951) 766-6524

POST IN A CONSPICUOUS PLACE

PERMIT CONDITIONS

a. **Hazardous Materials Business Plan Program:** California Health and Safety Code (CHSC) Division 20, Chapter 6.95, Article 1 and Title 19 California Code of Regulations (CCR).

b. **Risk Management and Prevention Planning:** CHSC Division 20, Chapter 6.95, Article 2 and Title 19, CCR.

c. **Underground Storage Tank Program:** CHSC Division 20, Chapter 6.7, Chapter 6.75 and Title 23 CCR Chapter 16 and 18.

1. In the event of a spill, leak, or other unauthorized release, the permittee must comply with the requirements of CCR, Chapter 16, Article 5. Additionally, the permittee must comply with a release response plan approved by this office.
2. The permittee must comply with the approved routine monitoring procedures referenced in this permit.
3. The permittee must notify the Department within thirty (30) days after any changes in the usage of any UST including: a) The storage of new hazardous substances; b) Changes in monitoring procedure; or c) Change of owner/operator. The Department may review, modify, or terminate the Permit to Operate upon receiving notification of the above changes.
4. The permittee must perform yearly maintenance testing of all leak detection equipment, and provide documentation of such testing to this office.
5. The permittee must obtain approval from this Department and local Fire and Building authorities prior to modifying any UST system.
6. Written records of all monitoring performed, response plans and approved plot plans will be submitted to the Department and maintained on-site by the operator and be available for inspection for a period of at least three (3) years from the date the monitoring was performed.
7. The permittee must submit annual permit fees.
8. The permittee must submit an annual report documenting compliance with the above conditions within thirty (30) days of the anniversary of the permit issuance date. Facilities will be inspected periodically for compliance with the above conditions. Please be advised that any violation of the above conditions may be cause for revocation of the permit to operate.

d. **Aboveground Petroleum Storage Act Spill Prevention Control and Counter Measure (SPCC) Plans:** Division 20, Chapter 6.67 and 40 CFR 112.

e. **Hazardous Waste Generator Program:** CHSC Division 20, Chapter 6.5 Articles 1-13, Articles 1-13, Section 25100 et. seq., and Title 22 CCR Division 4.5, Chapters 10, 11, 12 and 31.

f. **Tiered Permit On-Site Hazardous Waste Treatment:** CHSC Division 20, Chapter 6.5, Article 9, and Title 22 CCR Chapter 20.

g. **California Fire Code:** CHSC Division 13, Chapter 4, Part 2.5, commencing with Section 18935 and Part 9, Title 24 CCR Section 80.103.

This permit should not be construed to allow violations of any laws, regulations or ordinances.

Attachment 3

Fact Sheet, February, 2009

Managing Empty Containers

Regulatory Assistance Officer's Introduction

The Department of Toxic Substances Control (DTSC) has prepared this fact sheet to provide an overview of general information about the management of empty containers. Throughout this fact sheet, citations from the California Code of Regulations and the California Health and Safety Code are linked to databases containing those citations. If you generate hazardous waste, you should consult with your Certified Unified Program Agency (CUPA). Finally, DTSC strongly encourages all businesses generating hazardous waste to consider waste minimization, source reduction and pollution prevention.

Background:

Properties throughout California have been contaminated because containers holding residual hazardous materials at the sites were not managed properly. Ironically, operators at many of these sites were recycling and reconditioning drums and containers, activities that we would like to encourage. Since much of the contamination at drum reconditioning sites resulted from mismanaging hazardous material residues that were removed from "empty" containers, DTSC developed regulations that set forth a definition of "empty container." These regulations establish management practices, which, if met, exempt "empty" containers from further regulation under the hazardous waste regulations. Only containers that once held hazardous materials or hazardous wastes are subject to these regulations. The regulations are found in Title 22, California Code of Regulations, section 66261.7.

Definition of a Container:

A container is any portable device in which material can be stored, handled, treated, transported, recycled, or disposed of. The definition of container is found in California Code of Regulations, Title 22, section 66260.10. Containers range in size from small lab bottles to trucks and rail cars, but the most common containers used for hazardous waste and hazardous materials management are 55 gallon steel or plastic drums and inner liners from these drums. The empty container management requirements discussed in this fact sheet pertain to containers and their liners that are 119 gallons or less in volume. Those who manage containers with a capacity of greater than 119 gallons ("bulk containers") must follow the requirements given in California Code of Regulations, title 22, section 66261.7(p).

Definition of an "Empty" Container:

The strategy adopted by DTSC to define an "empty" container or container liner was to establish standards that require the generator (the person who uses the contents of the container) to empty the container of material as much as is reasonably possible. This standard is more stringent than the federal empty standard (found in Title 40 Code of Federal Regulations, section 261.7), which allows up to one inch or 3% of the total weight of the container's contents to remain in the container. The California regulation sets three standards to define an empty container, each based on the type of material held by the container:

Containers That Held Pourable Materials:

For containers that held a material that can be readily poured, all material must be removed by any practicable means (including draining, pouring, pumping or aspirating) before the container can be considered empty. In regards to draining, a container is empty when there is no longer a continuous stream of material coming from the opening when the container is held in any orientation (see the first question in the list of commonly asked questions at the end of this document).

Containers Holding Non-Pourable Materials:

For containers that previously held materials that are non-pourable, no hazardous material shall remain in the container that can feasibly be removed by physical methods, including scraping and chipping, but not rinsing. This standard applies to materials that pour slowly or don't pour at all from the container, including, but not limited to, viscous materials, solids which have "caked up" inside the container, and non-pourable sludges.

Containers Holding Acute or Extremely Hazardous Waste:

Containers which previously held acute or extremely hazardous waste are considered empty only if the container has been triple-rinsed using a solvent capable of removing the material, or cleaning by another method which is proven to achieve equivalent removal to triple-rinsing. These activities may require formal authorization (permitting) by DTSC or the CUPA. This standard is similar to the federal standard.

MANAGEMENT PRACTICES

In order to retain the exemption from regulation, "empty" containers must be managed according to the following management practices:

- By reclaiming the container's scrap value onsite;
- By sending the container to a person who reclaims the container's scrap value;
- By reconditioning or remanufacturing the container onsite; or
- By shipping the container to a person who reconditions or remanufactures the container.

Note that it is not mandatory for generators to manage empty containers under the provisions of this section. The section allows the generator to use management standards that are less stringent than hazardous waste standards. A generator may instead decide to recycle containers onsite per the subsequent onsite accumulation of waste oil or other compatible waste or product.

Containers Being Sent Back to the Manufacturer for Refilling:

Containers that are sent back to the supplier for the purpose of being refilled are exempt from DTSC regulations if all of the following requirements are met:

- The container was last used to hold a hazardous material acquired from a supplier of hazardous materials;
- The container is empty per the federal standards in Section 261.7 of Title 40 of the Code of Federal Regulations;
- The container is returned to a supplier of hazardous materials for the purpose of being refilled, as long as the supplier's reuse of the container is in compliance with the Department of Transportation (DOT) requirements for shipping containers found in Section 173.28, Title 49, Code of Federal Regulations;
- The container is not treated prior to being returned to the supplier of hazardous materials, except as authorized by section 66261.7.
- The container is not treated (except as authorized section 66261.7) by the supplier of hazardous materials without obtaining specific authorization from the Department; and
- The container is refilled by the supplier with hazardous material which is compatible with the hazardous material which the container previously held unless the container has been adequately decontaminated.

Containers of Five Gallons or Less In Capacity:

"Empty" containers of five gallons or less in capacity can be managed by one of the following methods:

- By reclaiming the container's scrap value onsite;
- By sending the container to a person who reclaims the container's scrap value;

- By reconditioning or remanufacturing the container onsite; or
- By shipping the container to a person who reconditions or remanufactures the container.
- By disposing of the container at an appropriate solid waste facility;

An "appropriate solid waste facility" is one that can accept the empty, unrinsed containers. Some solid waste facilities and municipal waste haulers will not accept empty, unrinsed hazardous materials containers, so generators should check with their local solid waste management agencies before disposing of these containers as solid wastes.

Special Provisions for Specific Containers

Household Containers

Emptied household hazardous material and pesticide containers with a capacity of five gallons or less are exempt from regulation if the container was emptied by removing all of the contents that can be removed using practices commonly employed to remove materials from that type of container.

Compressed Gas Cylinders

Compressed gas cylinders are exempt from regulation when the pressure in the cylinder approaches atmospheric pressure.

Aerosol Containers

Aerosol containers are exempt from regulation when the container is emptied to the maximum extent practical under normal use provide that:

- The empty can is not regulated by the federal law under the Resource Conservation and Recovery Act (RCRA); and
- The aerosol container did not previously hold an acute or extremely hazardous waste.

Aerosol containers with hazardous material remaining in the container, including those due to a clogged nozzle, damaged valve, or loss of propellant, are not exempt from regulation and must be managed as hazardous wastes or managed as universal wastes pursuant to California Health and Safety Code section 25201.16.

Containers Made of Absorptive Materials:

Containers made of absorptive materials such as wood, cardboard, cloth or paper cannot be exempt from regulation if the container was in direct contact with and has absorbed the hazardous material.

Pesticide Containers from Commercial Farms

Pesticide containers or the inner liners from pesticide containers that have been generated by commercial farming operation do not have to be regulated as hazardous waste if they are managed according to California Code of Regulations, title 22, section 66262.70. The containers must be emptied by removing all of the contents that can be removed by draining, pouring, pumping, or aspirating. The containers then must be triple-rinsed with a liquid capable of dissolving the pesticide that the containers held. The rinsate must be managed properly, such as placing it back into the pesticide sprayer for application. After triple-rinsing, the containers must be punctured, shredded, crushed, or otherwise changed so as to prevent subsequent use or reuse. They then can be disposed of, recycled by reclaiming their scrap value or reused in accordance with the provisions of Health and Safety Code section 25143.2(d)(6).

Bulk Containers

Bulk containers are those with a capacity of greater than 119 gallons, including tanker trucks, roll-off bins and railroad cars (see the definition in California Code of Regulations, title 22, section 66260.10). They are included in the contaminated-container regulations, but the requirements are different from smaller containers because they are not normally discarded. If you manage bulk containers, be sure to carefully read the regulations relating to them found in the California Code of Regulations, title 22, section 66261.7(p).

Items Not Considered Containers by this Regulation:

Some containers are regulated by other sections of the federal regulations, the California Code of Regulations or the California Health and Safety Code, so the standards outlined in the contaminated container regulations cannot be used to exempt them from regulation. The contaminated container regulations do not apply to the following items:

- Used oil filters are managed per California Code of Regulations, title 22, section 66266.130)
- PCB (polychlorinated biphenyl)-contaminated electrical equipment (transformers, circuit-breakers, etc.) managed under:
- 40 Code of Federal Regulations section 761.60: Federal Toxic Substance Control Act requirements for PCBs,
- California Code of Regulations, title 22 sections 66261.24(a)(2): Soluble Threshold Limit Concentration and Total Threshold Limit Concentration values, 66268.29(b)
- California PCB Land Disposal Requirements, and 67426.1 through 67429.1 (management of PCB light ballasts).
- Chemotherapy drug intravenous bags and delivery tubing are managed as medical waste per Chapter 6.1 of division 20 of the Health and Safety Code. The California Department of Health Services Medical Waste Management Program regulates medical waste.

COMMONLY ASKED QUESTIONS

Definition of "Empty"

Q. Regarding the definition of "empty," no matter how long the container is allowed to drain, some material might still drip when the container is inverted. How would an inspector verify that the container is truly empty?

A. As some residual material will always remain in the "empty" container, an inspector inverting the "empty" container may see some drops drip from the containers. This should not be considered a violation; however, a continuous stream of liquid from the container could be considered a violation. Therefore, generators should allow sufficient time for the container to drain in order to satisfy the "empty" standard.

Q. If I manage to "empty" the container pursuant to California code of Regulations, title 22, section 66261.7, can I assume that the container is non-hazardous at that stage?

A. No. The contaminated container regulations do not classify the containers as non-hazardous at any stage; they only grant an exemption if both the "empty" standard and the management practices are met. The intent of the regulations were to ease the regulatory burden on those generators that are interested in recycling the containers, as well as those involved in the transporting, recycling, refurbishing, and metal recovering contaminated containers. Mismanaged containers lose their exemptions and are subject to full regulation under the hazardous waste control laws.

Management Practices

Q. If the container is considered empty, then why should generators bother with the management practices?

A. "Empty" containers can still contain some residual hazardous materials that could cause significant harm if mismanaged. Therefore, the management practices outlined in California Code of Regulations, title 22, section 66261.7 are necessary to protect public health and the environment.

Q. Do I need to fill out a manifest and use a registered hauler to transport my "empty" containers?

A. Not if they meet all requirements for exemption. You are not required to fill out a hazardous waste manifest or use a registered hauler to transport the exempt containers. However, all empty containers must be transported in accordance applicable US DOT regulations, which include certain packaging and labeling requirements.

Q. My local program has authorized me to rinse containers under the tiered permitting program. Must I continue to manage my containers under these regulations after they have been decontaminated?

A. If you decontaminate your containers so that they do not exhibit hazardous characteristics and no longer present a hazard to human health and the environment, then they are no longer subject to the contaminated container regulations.

Aerosol Containers:

Q. If I have an aerosol container with a clogged nozzle and I know that when I shake the container there is some liquid inside, is this can exempt from regulation?

A. No. Aerosol containers that are not or cannot be emptied of contents and propellant will not qualify for the exemption and should be managed as either hazardous or universal waste.

Q. If an aerosol can is empty to the maximum extent practical under normal use (i.e., I push the nozzle and nothing comes out and invert the container and I don't feel any liquid flow), is this container exempt from regulation? Can I puncture the container and send it for recycling?

A. Yes, but with an important caveat. Empty aerosol containers that did not previously hold acute or extremely hazardous waste are exempt from regulation and can be managed as non-hazardous waste. Puncturing or crushing exempt cans is not treatment of hazardous waste. However, since modern aerosol products often utilize flammable or explosive propellants, puncturing activities should be conducted only with proper aerosol-puncturing equipment that meets air-quality, OSHA, and other mandates.

Permit Requirements

Do I need a formal grant of authorization (permit) from DTSC to conduct the following activities:

Q: Remove non-pourable materials from containers to meet the "empty" definition?

A: No. The DTSC authorized the use of physical methods (excluding rinsing) to remove non-pourable materials from containers. See California Code of Regulations, title 22 section 66261.7(b)(2). This authorization is not applicable to containers that previously held acute or extremely hazardous waste.

Q: Treat a container which previously held acute or extremely hazardous waste?

A: Triple-rinsing, or any other scientifically proven method to remove the acutely or extremely hazardous material, requires formal authorization from DTSC or the CUPA. The only exceptions are:

When the activity qualifies for exemption as specified in the recycling provisions of Heath and Safety Code Section 25143.2(c)(2)

The rinsing is conducted under the laboratory "benchtop treatment" exemption in California Health and Safety Code section 25200.3.1, or

The "treatment" is part of the manufacture's instruction for using the material. For example, some manufacturers instruct the user of a material to place a small amount of a neutralizing agent into a container after it has been emptied, in order to prevent reactive compounds from forming from the chemical residues.

Q. Treat (rinse or shred) contaminated containers that did not previously contain acute or extremely hazardous waste?

A: The regulations allow treatment of containers without a permit, provided that container is "empty" as defined by the California regulations that it did not previously contain acute or extremely hazardous waste, and that it is managed pursuant to the management practices outlined in California Code of Regulations, title 22, section 66261.7.

Containers of 119 gallons or less in capacity that are empty pursuant to the federal standard (40 CFR 261.7), but not empty to the California standards may be treated under the authorization of the Conditional Exemption tier for Specified Wastestreams (CESW). Generators operating under CESW must comply with all the requirements set forth in California Health and Safety Code section 25201.5. For further information on the tiered permitting requirements, contact your local Certified Unified Program Agency (CUPA).

GENERAL QUESTIONS

Q. Do the contaminated containers regulations apply to underground storage tanks?

A. No. Underground storage tanks are not portable devices and thus are not considered containers (refer to the definition of a container on page 1). Therefore, the contaminated container regulations do not apply to underground storage tanks. Decontamination of underground tanks is covered in California Code of Regulations, title 22, chapter 32, beginning with section 67383.1.

Q. If the container had an inner liner that prevented contact of the material with the inner surface of the container, is the container still regulated as hazardous waste once I remove the inner liner?

A. No. Once the liner is removed, the container is exempt from regulation. This applies to containers of all sizes. It also applies to containers that previously held acute or extremely hazardous waste and containers that are made of absorptive materials. This exemption will not apply if the inner liner leaked and thus resulted in contaminated the outer container.

Q. Can I "reclaim" contaminated containers by making them into barbeques or other items? Isn't that "reclaiming scrap value"?

A. The contaminated container regulations do not address the reuse of containers in this way. The term "reclaiming scrap value" in the regulations is considered to be the sale of containers to a scrap metal facility. If a person wanted to use contaminated containers as a "raw material" to produce another product, the generator or handler would have to manage it as hazardous waste and decontaminate it. Decontamination of hazardous waste is considered to be treatment subject to permitting requirements, in this case, under tiered permitting. The person conducting treatment would have to be able to demonstrate that the containers were completely decontaminated before managing them as non-hazardous containers. The commercial use of containers to produce food appliances may also come under regulation by the Department of Food, Drug and Agriculture and other State and federal public health agencies.

Q. Does laboratory glassware fit the definition of "empty containers"?

A. Yes. Contaminated laboratory glassware can be discarded or recycled if empty, or washed and reused. If it had contained extremely hazardous or acutely hazardous waste, the generator would need to triple rinse it before discarding it.

DTSC REGULATORY ASSISTANCE OFFICERS

If you cannot find the answer to your question in this fact sheet, contact the DTSC Regulatory Assistance Officers. You can call them at 800-728-6942, or contact them through the Department of Toxic Substances Control website — http://www.dtsc.ca.gov — follow the "Contact us" then "Regulatory Assistance Officers" links to the page listing each of the Regulatory Assistance Officers email addresses or at RAO@dtsc.ca.gov.

DTSC Regulatory Assistance Officers role is to provide informal guidance regarding management of hazardous waste for the convenience of the public. Such advice is not binding upon DTSC, nor does it have the force of law. If you would like a formal opinion on a matter by DTSC, please contact the responsible program office directly. You should also refer to the statutes and regulations, DTSC Policies and Procedures, and other formal documents.

We also encourage you to complete a Cal/EPA Customer Satisfaction survey http://www.calepa.ca.gov/ContactUs/ so that we may improve our Regulatory Assistance Office.