



Rethinking Regulated Medical Waste Management

*How to Avoid Wasting Money
and Better Protect Public Health*

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Bay Area Dioxins Project

- Bay Area municipalities adopted resolutions calling for the elimination of dioxins
- Set up joint project through the Association of Bay Area Governments
- Focus on P2 for current dioxins releases



Resources Available from the Bay Area Dioxins Project

- Screening Evaluation of Dioxins P2 Options for Municipalities
- Dioxins P2 resources for municipalities
 - Medical Waste
 - Chlorine-free Paper
 - PVC Alternatives for Buildings
 - \$\$ for Diesel Replacement or Retrofit

Resources are on the Internet at <http://dioxin.abag.ca.gov/>

Dioxins—

a Public Health Concern

- Dioxins may be altering the *biochemical processes* in our bodies.
 - U.S. EPA doesn't know whether these changes are adverse
- Dioxins *cancer risks* could exceed 1 in 1000 for the general population
 - Actual risks are likely to be lower
- Many *other adverse health effects* (such as impacts on immune system function and diabetes) may occur at concentrations that are less than 10 times the average exposure of the U.S. population.



Incineration Emits Pollutants that Threaten Public Health

- Medical Waste Incinerator emissions
 - One of nation's largest dioxins sources
 - Mercury & other pollutants also emitted
- Diesel hauling truck emissions
 - Important Bay Area dioxins source
 - Diesel engines are a major air pollution source
- Emissions in and upwind of regions where our food supply is produced



Incineration is Expensive and Prices are Going Up

- Limited Availability
 - No off-site medical waste incinerators in California
 - Waste hauled to Utah or Texas
 - Few on-site hospital incinerators
 - Don't expect new incinerators
- Vendor consolidation—prices skyrocketing



Alternatives Save \$\$

- Treating regulated medical waste is expensive
 - A 250-bed hospital spends more than \$100,000 per year to manage regulated medical waste
- Switching to an alternative off-site treatment could immediately save a hospital 10-20%
- Switching to an on-site autoclave saves 50%

Only path, chemo & pharmaceutical waste require incineration.

Autoclaving—the Easiest Alternative

- Off-site autoclaving is available from your current vendor
- Installing an on-site autoclave is easier than installing any other on-site waste treatment method





Who's Autoclaving Now?

- Many hospitals and labs autoclave on site
 - Kaiser—Almost all hospitals
 - Stanford

Cheapest option—but requires management

- Vendors can autoclave your waste off-site
 - Stericycle
 - PWN Environmental

Immediate cost savings

Poor Waste Segregation = Wasted Money

- Safely reducing regulated medical waste volumes can save 40 to 70%
- Keep trash out of the medical waste stream
 - Employee training
 - Place red bags where they don't become trash bags
- Eliminate waste sources
 - Re-usable products
 - Recycle blue wrap



Keep Hazardous Waste Out of Red Bags

- Proper segregation of hazardous and radioactive materials is *essential* for worker and environmental safety
 - Mercury
 - Solvents





Medical Waste Management Resources for Hospitals

- 5 Fact Sheets and 1 Excel Worksheet
 - Background: Why are Hospitals Rethinking Regulated Medical Waste Management?
 - Frequently Asked Questions
 - Permit Requirements for Installing Autoclaves at Acute Care Hospitals
 - Autoclaving Cost Estimate Worksheet
 - Vendor List
 - Resources for Health Care Pollution Prevention