

# EPA Update

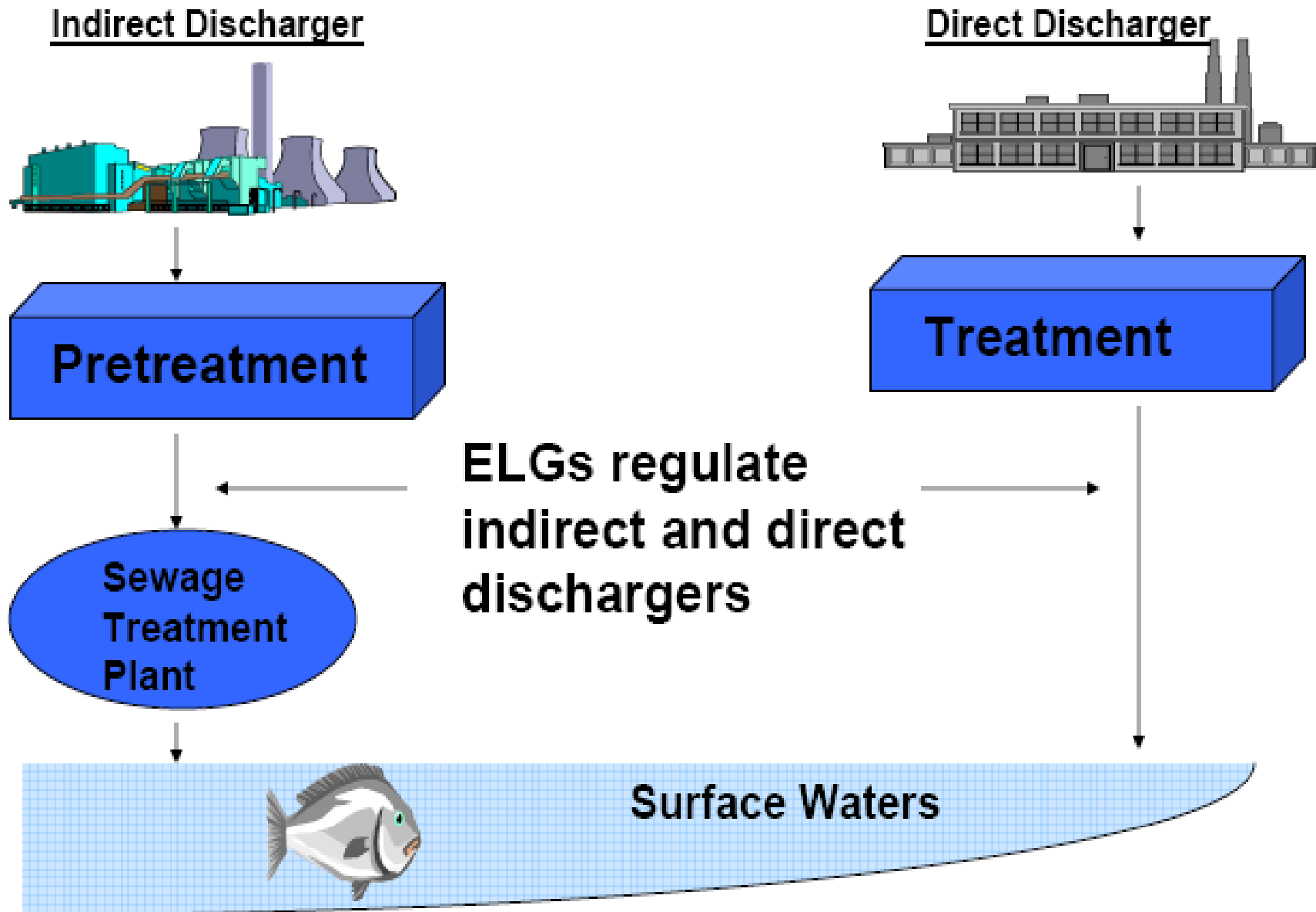
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Al Garcia  
USEPA Region 8  
303.312.6382  
garcia.al@epa.gov

Cody, WY  
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# What are Effluent Guidelines?

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# Effluent Guidelines Program Update

EPA Office of Science and Technology

- Clean Water Act, 304(m) and 304(b)
- 2 year process
  - Identify industrial sectors for potential rulemaking
  - Engineering Analyses
  - Preliminary plan for ELGs
  - Issue proposed ELGs for public comment
  - Issue final ELG rulemaking
    - Direct
    - Indirect (PSNS and PSES)
- Most recent – published Sept 15, 2008





# 2004 Effluent Guidelines Plan

- Combine existing regulations in Chlorine and Chlorinated Hydrocarbons Guidelines
  - Vinyl Chloride Manufacturing
  - Chlor-Alkali manufacturing
- Two unregulated industrial categories were also identified:
  - Airport Deicing Operations- Rulemaking soon
  - Drinking Water Supply and Treatment-rulemaking soon

# 2006 Effluent Guidelines Plan

- Organic Chemicals, Plastics and Synthetic Fibers (OCPSF, Part 414)
  - Chlorine and Chlorinated Hydrocarbons – subcategory
  - Biodiesel and ethanol production facilities – EPA memo dated August 11, 2008
- Construction and Development – stormwater issues
- Steam Electric Power Generating (Part 423) – EPA is continuing its detailed studies
- Oil and Gas Extraction(Part 435)
  - Coal Bed Methane as a subcategory– Information Collection Request (ICR)
- HealthCare Industry



# 2008 Effluent Guidelines Plan

- Current Status of Studies from 2006
  - Steam Electric Power Generating
  - Coal Mining – Coal Bed Methane
  - Health Care industries
- Textile Mills – not pursue further action
- Ore Mining and Dressing – EPA will continue its review
- Centralized Waste Treatment - review of existing reg
- Waste Combustors – review of existing reg

# Health Care Industrial Sector

- Pharmaceuticals
- Dental Amalgam
  - EPA-NACWA-ADA MOU – dental amalgam





# Pharmaceuticals

- Large quantities can enter the sanitary sewer
- POTWs are not equipped to remove pharmaceuticals
- Pharmaceuticals “pass through” POTWs to waterbodies
- Risks unknown/uncertain to humans and aquatic organisms
  - Continual exposure over multi-generations

# Pharmaceuticals

- Entry into sanitary sewer systems:
  - Excretion of partially metabolized pharmaceuticals from the human body
  - Disposal of unwanted medications
- Sources:
  - Residents, including illicit uses
  - Pharmaceutical MFG (well defined and controlled, Part 439) – informal survey?
  - Medical Community
    - Hospitals, long-term care facilities, clinics, medical office buildings



# Pharmaceuticals

- ELG Process
  - Hospitals disposal unused and spent pharmaceuticals—Aug 12, 2008
- Technical Report and questionnaire
  - <http://www.epa.gov/waterscience/guide/304m/2008/hsi-PRELIM-study-200808.pdf>
  - <http://www.epa.gov/waterscience/guide/304m/2008/hsi-ltcfquestionnaire-200807.pdf>
- Pharmaceuticals as Hazardous Waste
- Disposal of hazardous waste without appropriate notification

# Pharmaceuticals

- Universal Waste Rule amendment – Dec 2, 2008
- DEA – Controlled Substance disposal
- Registered Users
  - Manufacturers
  - Pharmacies
- Unregistered User
  - User of Prescription Drug
- New DEA proposed rule – Jan 21, 2009
  - determine rules for unregistered users
  - Take Back Programs



# Disposal of Pharmaceuticals



## Proper Disposal of Prescription Drugs

Office of National Drug Control Policy 2009

### *Federal Guidelines:*

- Do not flush prescription drugs down the toilet or drain unless the label or accompanying patient information specifically instructs you to do so. For information on drugs that should be flushed visit [the FDA's website](#).
- To dispose of prescription drugs not labeled to be flushed, you may be able to take advantage of community drug take-back programs or other programs, such as household hazardous waste collection events, that collect drugs at a central location for proper disposal. Call your city or county government's household trash and recycling service and ask if a drug take-back program is available in your community.
- If a drug take-back or collection program is not available:
  1. Take your prescription drugs out of their original containers.
  2. Mix drugs with an undesirable substance, such as cat litter or used coffee grounds.
  3. Put this mixture into a disposable container with a lid, such as an empty margarine tub, or into a sealable bag.
  4. Conceal or remove any personal information, including Rx number, on the empty containers by covering it with black permanent marker or duct tape, or by scratching it off.
  5. Place the sealed container with the mixture, and the empty drug containers, in the trash.

Office of National Drug Control Policy  
1001 17th St. NW, Washington, D.C. 20036  
p (202) 393-6310 f (202) 393-6700



[www.WhiteHouseDrugPolicy.gov](http://www.WhiteHouseDrugPolicy.gov)



# Biosolids

Targeted National Sewage Sludge Survey (TNSSS)

January 2009

- The information from the survey provides important input for EPA and others to use in evaluating biosolids generated by the nation's publicly owned treatment works.
- Provides the 1<sup>st</sup> national estimates of which pharmaceuticals, steroids and hormones (PCPPs) may be present in sewage sludge and at what concentrations.

# Mercury

- Hospital Industrial Sector
  - EPA decision to not include dental amalgam as a ELG
- EPA-ADA-NACWA MOU
  - Non-binding to POTWs (does not supersede mandatory programs)
  - Voluntary – ADA promote use of amalgam separators
  - Data gathering effort by the ADA
- Michigan Amalgam Separator Bill
  - Written by State ADA
  - This supersedes local mandatory programs in Michigan
  - Hypothetical POTW – Hg violations



# Methyl Mercury Water Quality Stds

- January 2001 – EPA published Water Quality Standards for methylmercury – 0.3 mg/kg
- Guidance Manual published January 15, 2009
- Criterion based on human health
- EPA is pushing implementation of this standard at the state level as a fish tissue value
- States may choose to translate to water values
- Impacts to water quality standards?
- Impacts to NPDES permits?
- Impacts to local limits?



# Pretreatment Streamlining

- CO, MT, WY
- Utah
- SD and ND
- Tools:
  - EPA model ordinance
  - Website links on handout
  - Legal Authority Checklist

# EPA Office Inspector General - 2004

## “EPA Needs to Reinforce Its Program”

- Oversight of SIUs Discharging to POTWs with Approved Pretreatment Programs
- Performance Measures
  - ???
  - Not to be used as an evaluation tool
  - Handbook for self-evaluation of your program
  - 9 programmatic elements for evaluation
    - Explosions, pH issues, sewer overflows, prevention of interference and pass through, permits, compliance, biosolids, zero discharge SIUs, emerging pollutant control



# EPA Region 8 Emerging Issues

- Industrial User Inventory and Characterization procedures
- POTW Removal Rates based on specific data
- Reasonable Potential



# Audit Findings

- Industrial User Inventory and Characterization
- Pretreatment Streamlining
- Multi-jurisdictions and adequate Inter-jurisdictional or governmental agreements
- Legal Authorities
  - EPA approval
  - Establishing authorities and limits outside of legal authority