

# Regulatory Compliance for DPWs and Utility Authorities

Presented by:

**PMK Group**

on Behalf of the

New Jersey Environmental  
Risk Management Fund (E-JIF)

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## EJIF Services

- Gather Data/Documentation regarding Environmental Issues
- Environmental Loss Prevention/Loss Control Inspection Services
  - DPWs
  - Utility Authorities
  - Recycling Centers
  - Foreclosed Property (request only)
  - Air Emissions
  - Chemical and Petroleum Storage Tanks
  - Salt Storage

## EJIF Services

- Continuing Education
  - Seminars
  - Environmental Alerts
- Newsletters
- Loss Control/Loss Prevention Consulting Services
- 24-Hour Emergency Environmental Consultation

## Municipal Environmental Concerns

- Air Pollution
- Water Pollution
- Fuel Storage Tanks (ASTs/USTs)
- EPA Spill Prevention Controls & Countermeasures
- Many More!

# Municipal Environmental Concerns

- Air Pollution –
  - Permitting ✓
  - Pollution Reduction – Diesel Retrofit Requirements ✓
  - Energy Efficiency/Alternative Energy Sources
  - Regional Greenhouse Gas Initiative

## New Jersey Department of Environmental Protection Air Pollution Control Regulations

N.J.A.C. 7:27 - 8

Air

## AIR PERMITTING ISSUES

- Equipment that may need a permit includes:
  - Boilers and emergency generators of 1 MMBTU/hr and greater
  - Gasoline tanks (UST or AST) 2,000 gallons or greater
  - Sludge dewatering systems including centrifuges
  - Sludge composting facilities
  - Tub Grinders
  - Incinerators
  - Flares
  - Anything that combusts a fuel should be evaluated

Air

## AIR PERMITTING ISSUES

*Did you know?*

- Facility ID's - Each Non-Contiguous facility has to have a unique ID NUMBER. This includes separate pump stations that may have a generator (or other piece of equipment) requiring a permit.

Air

## AIR PERMITTING ISSUES

### *Wastewater Treatment*

If you already have to complete an annual Emission Statement....

- Emission Statements (N.J.A.C 7:27-21)

- Wastewater Treatment – CO<sub>2</sub> and VOC emissions from aeration tanks need to be included in emission statements
- Remember! – Significant & Insignificant Sources need to be counted

Air

## AIR PERMITTING ISSUES

### *Recent Changes...*

- Emergency Generators - New regulations require monitoring of emergency generators
- Diesel Retrofit – New law voted in on Election Day for retrofit of all publicly owned, managed or used fleets that use diesel engines

Air

## New Legislation!

- September 7, 2005 - Acting Governor Richard J. Codey signs legislation to cut exposure to harmful diesel emissions from school buses, garbage trucks, transit buses, and publicly-owned diesel vehicles.
- Intent is to retrofit diesel fleets that are publicly owned or managed with new technology to reduce diesel particulate emissions.
- Paid for by transfer of 14% of the Environmental portion of the NJ Corporate Business Tax into a new fund. (Except idling, ultra low sulfur & school bus study = Immediately in effect)

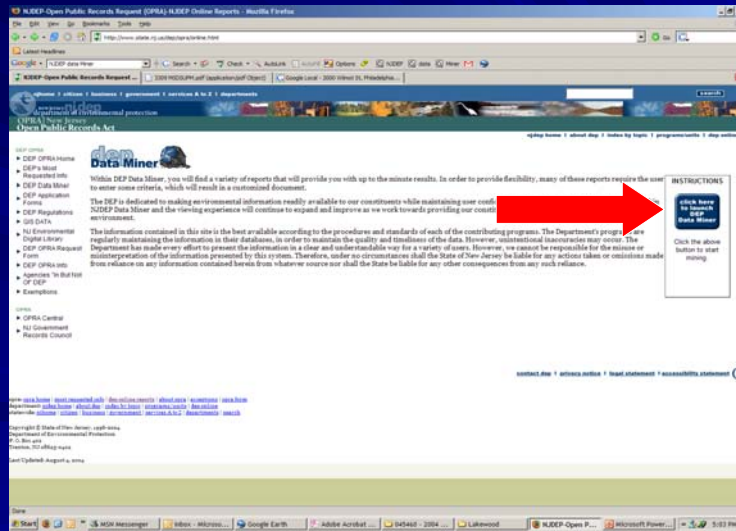
## Emissions Reductions - Schedule

- School Buses (publicly & privately owned)
- Garbage Trucks Publicly Owned & Private IF used in a public contract.
- NJ Transit Buses
- Privately Owned Transit Buses
- Publicly Owned on-road & non-road vehicles
- (Currently does NOT include non-mobile generators or pumps)

# Need more info?

<http://www.state.nj.us/dep/agm/rules.html> - Current Air Regs  
<http://www.state.nj.us/dep/opra/online.html> - Search for existing permits & ID's

Search by your  
site name,  
municipality,  
county, etc., for  
existing permits,  
Equipment  
Inventories &  
facility ID's



## Municipal Environmental Concerns

- Water Pollution –
  - Stormwater Pollution Prevention Planning (SP3) ✓
  - Stormwater Management Program (SP3) ✓
  - Wastewater Utilities ?

# New Jersey Pollutant Discharge Elimination System N.J.A.C. 7:14A

## Regulatory History – Stormwater Permitting

- Phase I Rules –1990; regulated certain industrial facilities.
- 1991 - Intermodal Surface Transportation Efficiency Act (ISTEA) – exempted certain industrial activities operated by municipalities w/ pop.<100,000 from Phase I Rules.
- Dec. 1999 - Phase II Rules - extended ISTEA Exemption until March 10, 2003.
- February 2, 2004 – NJDEP published NJPDES amendments in response to EPA's Phase II Rules



NJPDES



# Stormwater Permitting

- Municipal Stormwater Regulation Program
- Basic Industrial Stormwater General Permit



## Municipal Stormwater Regulation Program

- Tier A General Stormwater Permit
- Tier B General Stormwater Permit
- Both required adoption of a Municipal Stormwater Management Plan and Stormwater Control Ordinance by April 2006
- Tier A required the completion of a Stormwater Pollution Prevention Plan by April 2005

NJPDES

## Where should you be today?

### ■ Implementing Post Construction Management

- Ensuring Compliance with RSIS
- Ensuring long term operation and maintenance of BMPs on municipal and private properties
- Meeting new design standards for storm drain inlets
- Ensuring compliance with the stormwater control ordinance



NJPDES

## Where should you be today?

### ■ Implementing Local Public Education

- Distribution of NJDEP Brochure to all residents and businesses
- Conducting an annual educational event
- Distributing pet waste brochure with pet licensing
- 50% complete with storm drain inlet labeling program by April 2007 (100% by 2009)

WHEN YOU'RE WASHING YOUR CAR IN THE DRIVEWAY, REMEMBER YOU'RE NOT JUST WASHING YOUR CAR IN THE DRIVEWAY.



Non-point pollution runs down and directly into our lakes, rivers and the ocean. So what can you do? Take your car to a car wash where the water gets treated and recycled.

[www.clearwaterNJ.org](http://www.clearwaterNJ.org)



Division of Environmental Protection  
NJ Department of Environmental Protection

## Where should you be today?

### ■ Implementing Improper Disposal of Waste

- Enforcing Pet Waste, Litter, Improper Waste Disposal, Wildlife Feeding, Yard Waste Collection and Illicit Connection Ordinances
- Implementing Illicit Connection Elimination Program and complete initial inspection by April 2009
- 50% complete with storm drain outfall mapping program by April 2007 (100% by 2009)



NJPDES

## Where should you be today?

### ■ Implementing Solids and Floatable Controls

- Performing monthly street sweeping
- Retrofitting storm drain inlets during road projects
- Annual inspection and cleaning of all stormwater facilities
- Implementing roadside erosion control and outfall stream scouring remediation programs



## Where should you be today?

- Implementing Maintenance Yard Operations BMPs
  - Providing a permanent storage structure for deicing material storage by April 2007 and complying with uncovered clean sand set back requirements
  - Implementing SOPs (and regular inspections) for Fueling Operations, Vehicle Maintenance and Good Housekeeping
  - Planning the cessation of the discharge of vehicle wash waters by February 2009.



## Where should you be today?

- Performing Annual Employee Training
- Submitting Annual Report and Certification by May 2 of each year

NJPDES

## Recent NJDEP Interpretation



### ■ De-Icing Material Storage – Fabric Structures

- In order to be considered a permanent structure, the structure must meet the following:
  - Designed to withstand at least 110mph winds.
  - Covered by a PVC or other similar fire rated material with a minimum twenty (20) year warranty.
  - Concrete blocks, jersey barriers or other similar material must be placed around the interior of the structure to protect the sidewalls during loading and unloading de-icing materials.
  - Must prevent stormwater run-on and run through.
  - Must be erected on an impermeable slab.
  - Cannot be open-sided.
  - Must have a roll-up door or other means of sealing the access way from wind driven rainfall.

NJPDES

## Stormwater Permit Applicability for MUAs

### ■ WASTEWATER TREATMENT FACILITIES with...

- Design Flow of 1 Million Gallons per Day (MGD)

OR

- Approved pretreatment program under 40CFR Part 403 (i.e. Delegated Agency)



NJPDES

## Basic Industrial Stormwater General Permit – (5G2)

- Authorizes new and existing industrial stormwater discharges to surface waters and/or groundwaters of the State.
- Goal is to **eliminate** exposure of source materials
- If facility cannot eliminate exposure, must apply for Individual Permit

NJPDES

## Non Applicability Form (NAF)

- Complete and submit to the NJDEP for approval if your facility meets one or more of the following:
  - All stormwater is directed to a CSO
  - Stormwater discharge is authorized under existing NJPDES DSW or DGW Permit
  - Permanent No Exposure – Source material and/or activities are performed within permanent structures

IF NOT.....

NJPDES



# Permitting Process

- Request for Authorization (RFA) – Was due by March 3, 2004 for existing facilities.
- Complete Stormwater Pollution Prevention Plan – Due 6 mos. from EDPA.
- Implement SPPP within 18 mos. from EDPA
- Review and Recertify Annually

NJPDES

## Typical Illicit Connections Associated with Public Works and MUA Facilities

- Discharges from floor drains
- Compressor and boiler blow down
- Cooling tower bleed off
- Filter backwash water
- Hydrostatic testing water
- Water main disinfection water
- Vehicle/equipment wash waters (Tier A allows until 2/2009)
- Construction dewatering
- Plant effluent (requires Beneficial Re-use Permit)

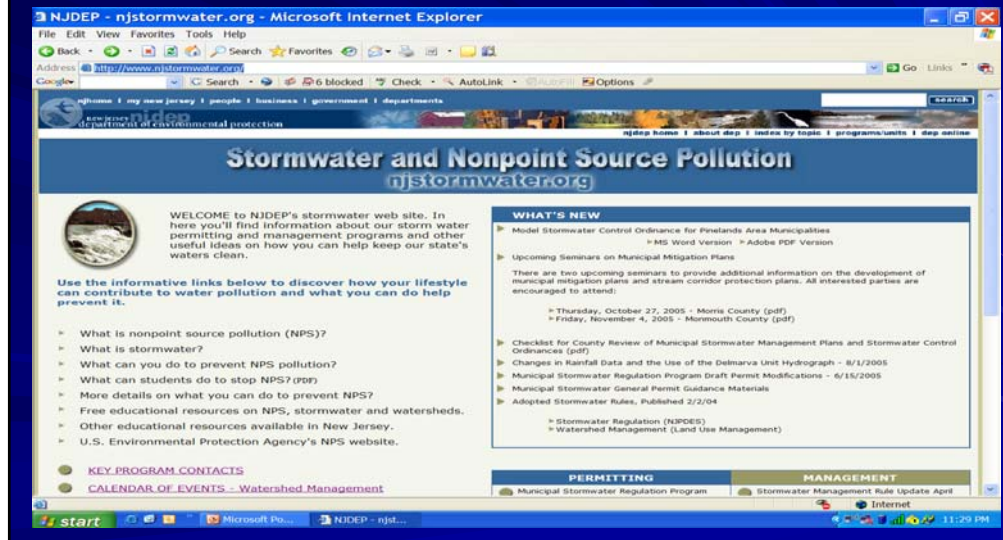


NJPDES

# Need more info?

<http://www.state.nj.us/dep/dwg/nonpoint.htm>

<http://www.njstormwater.org/>



## Underground Storage Tank Regulations N.J.A.C. 7:14B



## Underground Storage Tank Regulations

- Rule was readopted April 20, 2003
- Regulates:
  - Heating oil UST in excess of 2,000 gallons, or aggregate volumes in excess of 2,000 gallons
  - USTs containing motor fuels, waste oil or chemical substances in any volume

USTs

## Underground Storage Tank Regulations

- Oil/Water separators are considered a flow through process and not regulated, **UNLESS**
- There is a separate stand-alone underground storage tank for the oil fraction.

## Administrative Requirements

- Must be registered with NJDEP – UST Facility Questionnaire (USTFQ) and \$100
- USTFQ must be renewed every 3 years w/\$100 fee
- Must demonstrate proof of financial responsibility – EJIF Coverage

USTs

## Construction Requirements

Regulated USTs must contain:

- Corrosion protection (tank and piping)
- Release Detection Monitoring (tank and piping) (excludes emergency generator tanks and European Safe Suction Piping)
- Spill Prevention
- Overfill Prevention



## Secondary Containment?

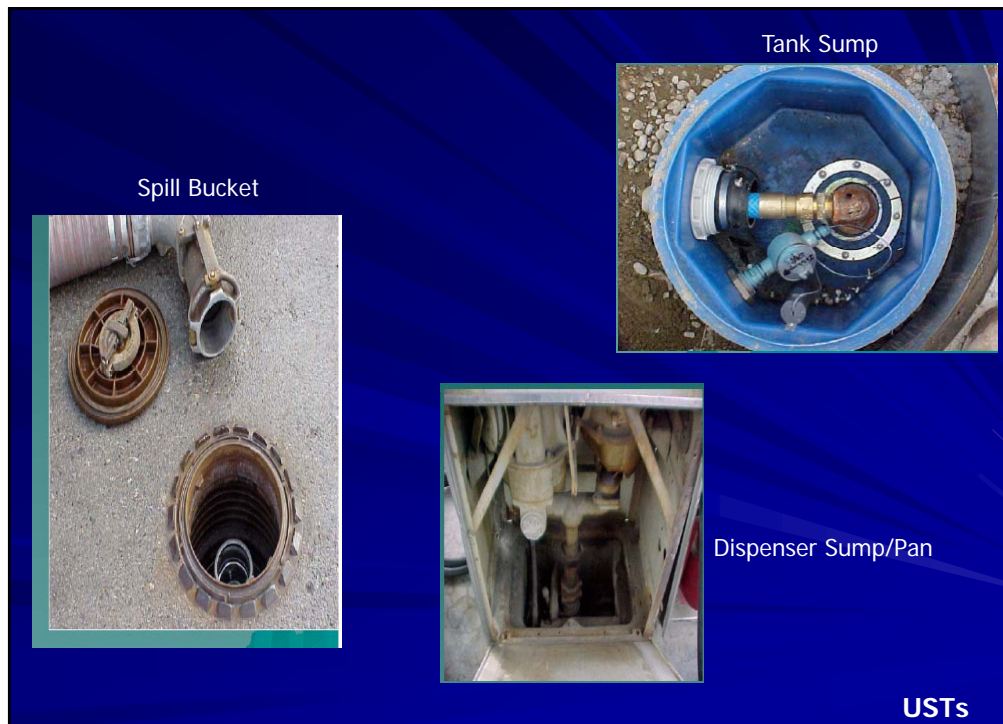
- All USTs storing hazardous substances other than petroleum products
- All new USTs installed in wellhead protection areas determined as follows:
  - Within 2,000 ft radius of public community or public non-community well system (gas and haz. subs.)
  - Within 750 ft radius for petroleum products other than gas
  - No UST allowed within 50 feet of public or non-public community well

USTs

## Inspection and Testing Requirements

- Petroleum – Monthly leak detection documentation (weekly for manual tank gauging (550 gals. or less))
- Chemical – Monthly leak detection
- Piping –
  - Pressurized – annual testing
  - Suction – testing every 3 years
- Cathodic Protection – Tested 1/3 years
- Impressed Current – Tested 1/3 years and inspected every 60 days
- Spill buckets, sumps and dispenser pans – Inspected monthly and (spill buckets) prior to deliveries
- ALL INSPECTIONS MUST BE LOGGED AND KEPT ON-SITE

USTs



## Release Response Plans

- Must be posted in a prominent location on-site
- Must detail procedures to address alarms, malfunction, spills, or other emergencies
- Must include a site plan depicting locations of all USTs

Release Response Plan		
	Phone #	Contact Name
NJDEP Hot Line:	877/927-6337	
Fire Department:		
Local Health Department:		
County Health Department:		
Facility Owner/Operator:		
Corrective Action Contractor:		
Repair Contractor:		
Other Contacts:		
Procedures		

## EJIF UST Insurance Coverage

- UST coverage is not automatic, but conditional
- All recommendations for insurance coverage are issued by PMK Group
- Regulated tanks must comply with NJDEP requirements for construction to be approved for coverage
- Non regulated (i.e. heating oil tanks) less than 15 years old are provided coverage, but must be approved by PMK
- Non regulated USTs greater than 15 years old must provide a positive integrity test to PMK and complete annual testing thereafter

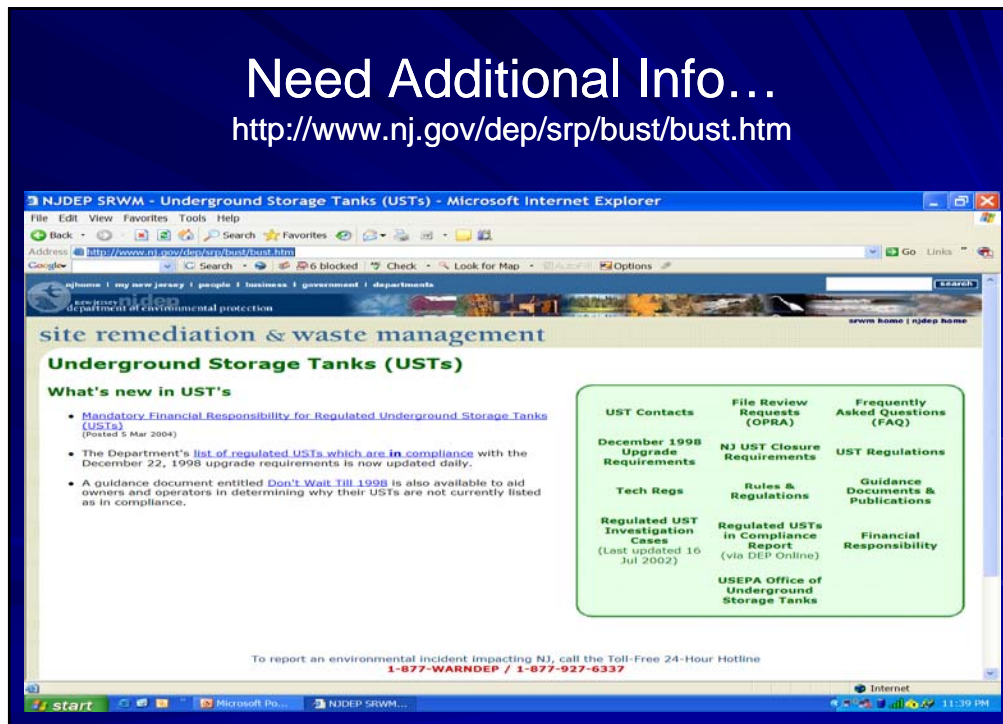
USTs

## Winter 2004 Overfill Protection Alert 6 Month Grace Period Is Over

- Ball floats should not be used for USTs with co-axial drop tubes for Stage I vapor recovery
- USTs filled by pressurized delivery system should not use ball floats as a means of overfill protection
- USTs that dispense through a suction system should not use a ball float for overfill protection.
- USTs that are filled by remote fill ports should not use ball float devices for overfill protection.
- USTs with a dry break (Stage I vapor recovery check valve) and a ball float device for overfill protection must verify that the tank vent line is connected to the extractor by means of a "tie-tank test" (or similar nitrogen/helium pressure test) as specified in California Air resources Board (CARB) TP-201.3C.

USTs

Need Additional Info...  
<http://www.nj.gov/dep/srp/bust/bust.htm>



## Oil Pollution Prevention Regulation

Spill Prevention Control and Countermeasure  
40 CFR Part 112



# Spill Prevention Control and Countermeasure

- USEPA Amended August 16, 2002
- Applies to owners or operators of facilities that drill, produce, gather, **store**, **use**, process, refine, transfer, distribute, or **consume** oil and oil products.
- Regulates the aboveground storage of oils, petroleum and non petroleum, in excess of 1,320 gallons stored in containers 55 gallons and greater
- Must have route to navigable water or ability to migrate off-site

SPCC

## Includes...

- Aboveground Storage Tanks
- Mobile fueling tanks
- Wet Transformers
- Drums
- Generator Sub-base Tanks
- Equipment with Oil Reservoirs (i.e. hydraulic fluid)
- Etc.



SPCC

## Worth Mentioning

- “Secondarily containing tanks and installation of fuel transfer containment devices does not results in non-applicability to the rule but is part of compliance with the requirements of the rule”
- Only way to get out is to reduce aboveground storage to 1,320 gallons or less

SPCC

## *Section 112.1(d)(6)—Wastewater Treatment Facility Exemption*

... if a wastewater facility or part thereof is used for the purpose of storing oil, then there is no exemption, and its capacity must be counted as part of the storage capacity of the facility... At permitted wastewater treatment facilities, storage capacity includes bulk storage containers, hydraulic equipment associated with the treatment process, containers used to store oil which feed an emergency generator associated with wastewater treatment...

SPCC



## SPCC Plan

- The SPCC Plan should clearly address the following three areas:
  - Operating procedures that prevent oil spills;
  - Control measures installed to prevent a spill from reaching navigable waters or leaving the site; and
  - Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches navigable waters
- The SPCC Plan must be certified by a licensed professional engineer
- Review and re-certify every 5 years

SPCC

## Required Improvements

- Secondary containment for bulk storage containers
- Bulk product transfer area spill containment
  - Must be designed to contain a “likely spill” and take into account “spill history”
  - Must prevent a spill from leaving the site or impacting a water body
  - Must be pre-deployed
- Overfill and leak detection for ASTs

SPCC

# Key Dates for SPCC Rule

- Facilities operating:
  - Before 8/16/02 - Amend existing Plan by 2/17/06 and implement Plan by 8/18/06.
  - Between 8/16/02 - 8/18/06 - Prepare and implement Plan by 8/18/06.
  - After 8/18/06 - Prepare and implement Plan before starting operations.

SPCC

## Need Additional Info...

<http://www.epa.gov/oilspill/spcc.htm>

The screenshot shows the EPA Oil Program website in a Microsoft Internet Explorer browser window. The page title is "Spill Prevention, Control and Countermeasure, Oil Program, US EPA - Microsoft Internet Explorer". The address bar shows "http://www.epa.gov/oilspill/spcc.htm". The page content includes the EPA logo, a navigation menu on the left, and a main section titled "Oil Program". Under "Oil Program", there is a sub-section "Spill Prevention, Control and Countermeasure". This section contains a table titled "Key Dates for SPCC Rule Compliance" with two columns: "Facilities operating:" and "Must:". The table lists three scenarios: "Before 8/16/02", "Between 8/16/02 - 8/18/06", and "After 8/18/06", with corresponding actions: "Amend existing Plan by 2/17/06 and implement Plan by 8/18/06", "Prepare and implement Plan by 8/18/06", and "Prepare and implement Plan before starting operations". Below the table, there is a section titled "Full Text of SPCC Rule" with links to "Text: (about 150K)", "Final Rule to Extend Deadlines under the SPCC Rule (9 pp., 106 KB)", "Final Revised SPCC Rule (112 pp., 987 KB)", and "Original SPCC Rule (9 pp., 1.6 MB)". The page also includes a "Notice Date:" section with dates from August 11, 2004, to December 11, 1973. At the bottom, there is a paragraph explaining the SPCC Rule and a note about the requirement for a spill prevention, control, and countermeasure plan.

# New Jersey Department of Environmental Protection Discharge Prevention Program Spill Act N.J.A.C. 7:1E

## Who is Regulated?

- Major Facilities having a combined storage capacity of at least:
  - 20,000 gallons of more of hazardous substances other than petroleum
  - 200,000 gallons or more of all hazardous substances including petroleum products

DPCC

## What is Regulated

- Liquid petroleum or petroleum products
- All chemical substances listed in Appendix A
  - Liquids, powders and gases
- Solid metals > 100 micrometers excluded
- Equivalent measure for solids and gases is defined as volume of container in which the material is stored
- Most chemicals do not have a de minimus quantity

DPCC

## Typical Chemicals to Consider

- Polymers – Acrylamide and Adipic Acid
- Acids
- Sodium Hypochlorite
- Sodium Hydroxide
- Potassium Permanganate
- And many more....



DPCC

## Major Requirements

- Discharge Prevention Containment and Countermeasure (DPCC) Plan
- Discharge Cleanup and Removal (DCR) Plan
- Integrity Testing Programs for ASTs > 2,000 gallons and product piping
- Secondary containment for ASTs, loading and unloading, and process areas
- Visual Inspection and Recordkeeping
- Discharge Response Planning and Training

DPCC

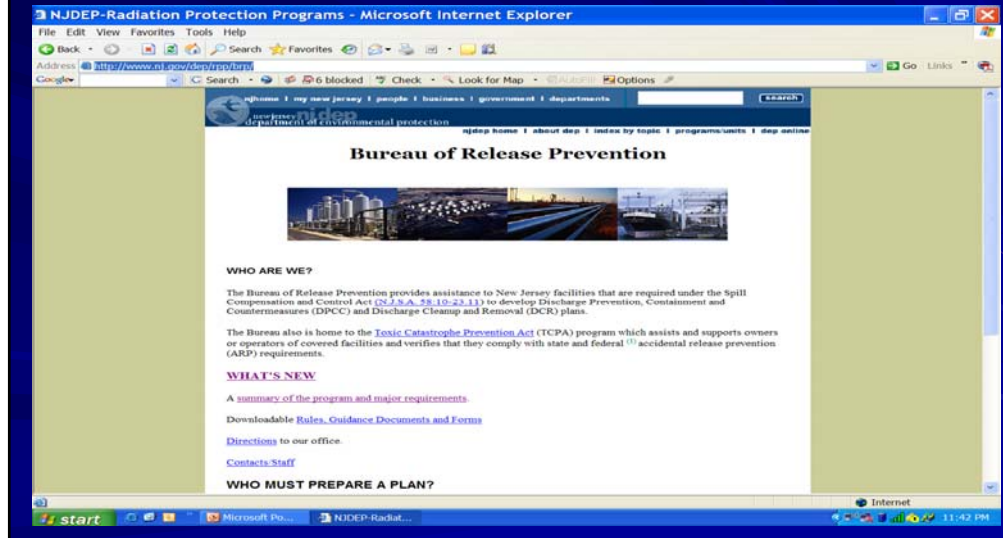
## Major Requirements

- Digital Site Plan, Drainage and Land Use Plan, and Environmentally Sensitive Areas Plan
- Employee Training Program
- Annual Hazardous Substance Inventory
- Annual NJDEP Inspection

DPCC

# Need Additional Info...

<http://www.nj.gov/dep/rpp/brp/>



## Other Useful Guidance Documents

- **Guidance for the Sampling and Analysis of Concrete Designated for Recycling**
  - Regulates concrete and concrete-processing fines at all NJ demolition and construction sites under NJDEP Site Remediation and Waste Management Program's (SRWMP) oversight at a contaminated site when designated for recycling or beneficial use
- **Guidance for the Management of Road Waste**
  - This guidance document presents guidance for the handling, characterization and management of road wastes to provide options for the use of the wastes.
- **Asphalt Millings Guidance Document**
  - This guidance document outlines the New Jersey Department of Environmental Protection's (DEP or Department) guidance for use of asphalt millings (bituminous concrete).

# New Jersey's Universal Waste Rule N.J.A.C. 7:26A

## Universal Waste Rule

- Adopted by EPA in 1994 under RCRA
- Adopted by NJ in 1996 under Recycling Regulations (NJAC 7:26A)
- Provides alternative management options for specific hazardous waste streams
- Class D Recyclable Material
  - Used oil and universal waste



## EPA Criteria for Universal Waste

- Generated in similar quantities by businesses, industry, and consumers.
- Found in municipal solid waste stream
- Fails hazardous waste test
- Negatively impacts solid waste facility operations
- Presents low risk in collection, storage, and transportation

## Types of Universal Waste

- Batteries
- Recalled Pesticides
- Hazardous Waste Lamps
  - Examples of common universal waste lamps include fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps
- Mercury-containing Equipment
  - Examples: sphygmomanometers, mercury switches
- Consumer electronics
  - Examples include computers, printers, copiers, VCRs, televisions.
- Oil-based finishes
  - Examples include oil-based paints, lacquers, stains, and aerosol paint cans.



## Latex Paint

- Latex paint is usually a non-hazardous waste and therefore cannot be a universal waste.
- Latex paint may be managed as a Class D recyclable material provided the management requirements for oil-based finishes are followed.

## Management of Universal Waste

- Universal Wastes
  - **do not** have to be stored in a hazardous waste 90-day accumulation area
  - **do not** count toward hazardous waste generation amounts
  - **do not** have to be transported by a hazardous waste transporter using a hazardous waste manifest

## Universal Waste Handlers

### ■ Small Quantity Handlers

- Accumulate less than 5,000 kilograms of universal waste (combined) at any given time
- All universal waste must be labeled
- Cannot be accumulated for longer than one year
  - Must maintain records to prove material has been accumulated for less than one year
- UW must be sent to another handler or a destination facility

## Universal Waste Handlers

### ■ Small Quantity Handlers (cont)

- No notification required
- No reporting requirements
- Not required to keep records of shipments
- Limited processing allowed (refer to reg.)
- May not open containers of oil-based finishes
- Must inform employees of proper handling and emergency procedures
- Must contain all releases of universal wastes

## Universal Waste Destination Facilities

- Regulated as either a RCRA TSDF if treating or disposing of waste or a Class D recycling center if recycling the waste
- Recyclers must obtain a Class D recycling center approval to recycle universal waste
- Examples of recycling:
  - Demanufacturing consumer electronics
  - Crushing hazardous waste lamps or computer monitors
  - Mixing and screening of paint
  - Recovery of mercury from mercury switches

## Labeling Universal Wastes

- Universal Wastes must be labeled either by container or individually
- Handlers and Destination Facilities must label wastes
- Label must contain:
  - Minimum the wording in the regulations (eg. “Universal Waste - Consumer Electronics”)
  - Accumulation start date
  - Clear, legible, and easily visible writing
- Label may be as simple as a piece of paper taped to a pallet or may be a purchased pre-printed label
- Class D Facilities must also label as “Class D Recyclable Material”

# More Information

