

## NJUA Executive Safety Committee Meeting

### 2012 EJIF Update: Holiday Buffet Edition



Presented by:  
Christopher Gulics, Vice President  
Matthew Mee, Senior Staff Scientist

## Today

- EJIF 2012 Stats
- Combustion Adjustments
- Waste Oil Heaters
- Emergency Generators
- 2 New EJIF Policies
- EJIF Claims Overview
- Underground Storage Tanks
- Construction Dewatering
- Industrial Stormwater



## NJUA EJIF STATS

2012

- 74 Member UAs
- 847 Pump Stations & Wells
- 745 Emergency Generators
- 667 Petroleum ASTs
- 372 Non-Petroleum ASTs
- 69 Petroleum USTs

*NJDEP*

Air Quality Permitting Program

## **Combustion Adjustments**

## Combustion Adjustments

### Applicability

- All Boilers 5.0 Million Btu/hr and larger
- Natural Gas and Fuel Oil fired boilers both require adjustments

### By the end of 2012:

1. Conduct Adjustments (Including Before & After Readings)

[www.nj.gov/dep/aqpp/adjustment.htm](http://www.nj.gov/dep/aqpp/adjustment.htm)

1. 45 Days after Testing: Submit results to NJDEP of Annual Combustion Adjustment via

[www.state.nj.us/dep/online/](http://www.state.nj.us/dep/online/)



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## Combustion Adjustments

### 1. Obtain a MyNJ Account

- <http://www.nj.gov>

### 2. Obtain a NJDEP Online User ID

- <http://www.state.nj.us/dep/online/>

### 3. Complete NOx RACT Combustion Adjustment Report

- [www.nj.gov/dep/aqpp/downloads/NOx RACT How To.pdf](http://www.nj.gov/dep/aqpp/downloads/NOx%20RACT%20How%20To.pdf)



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#3  
Boiler

## COMBUSTION / EMISSION TEST REPORT

**JOB NAME & ADDRESS**

NIIT  
120 Summit St  
Newark, NJ  
ATTN: Bob Hanson

**TEST PERFORMED BY:**

COMPANY MILLER & CHITTY  
SERVICE REP. ILM SYPDEN  
DATE: 1-11-12  
START 2:00 FINISH 2:35  
TEST EQUIP USED: ECOM

**BOILER / BURNER INFORMATION**

BOILER MANUFACTURER: EASCO  
BURNER MANUFACTURER: GUESAW FIRE  
BTU INPUT: 8300  
MODEL # S146050 SERIAL # AP135289  
TYPE OF FUEL: NAT GAS  
STATE REGISTRATION #:

**TEST RESULTS**

FIRING RATE	NOX		CO		O2		CO2	
	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER	BEFORE	AFTER
0%	51	61	17	0	8.2	7.7	7.1	7.4
25%	47	59	1	0	10.3	6.9	6.0	7.9
50%	42	61	1	1	11.2	6.4	5.5	8.1
75%	40	54	1	0	11.3	6.3	5.4	8.2
100%	41	56	1	0	11.0	5.5	5.6	8.6

- 1) CHECK, CLEAN AND INSPECT BURNER
- 2) INSPECT / OBSERVE FLAME PATTERN
- 3) INSPECT FUEL / AIR RATIO CONTROLLING SYSTEM
- 4) VERIFY AND ADJUST FGR RATE
- 5) CHECK FGR FOR MIN. 10%
- 6) CORRECTED FOR 3% O2

COMMENTS Removed & cleaned pilot assembly. Adjusted air/fuel ratio

Downer Room #3

Before #3 Low

**ECOM-AC Plus**

Date Time  
01.11.12 01:59:19 PM

Gas analysis

Fuel type  
Natural gas

T. Air 77 °F  
T. Gas 261 °F  
O2 9.3 %  
CO 17 ppm  
NO 40 ppm  
NO2 3 ppm  
NOx 51 ppm  
CO2 7.1 %  
Eff. 84.6 %  
Losses 15.4 %  
Exc. air 1.64  
Sen. temp. 87 °F

Miller & Chitty Company  
135 Market Street  
Kenilworth, NJ 07033  
Tel: 1-908-241-4588

Before #3 50%

**ECOM-AC Plus**

Date Time  
01.11.12 02:06:10 PM

Gas analysis

Fuel type  
Natural gas

T. Air 77 °F  
T. Gas 315 °F  
O2 11.2 %  
CO 1 ppm  
NO 48 ppm  
NO2 2 ppm  
NOx 42 ppm  
CO2 5.3 %  
Eff. 88.9 %  
Losses 19.1 %  
Exc. air 2.14  
Sen. temp. 87 °F

Miller & Chitty Company  
135 Market Street  
Kenilworth, NJ 07033  
Tel: 1-908-241-4588

Before #3 25%

**ECOM-AC Plus**

Date Time  
01.11.12 02:05:13 PM

Gas analysis

Fuel type  
Natural gas

T. Air 77 °F  
T. Gas 293 °F  
O2 10.3 %  
CO 1 ppm  
NO 45 ppm  
NO2 2 ppm  
NOx 47 ppm  
CO2 6.8 %  
Eff. 82.5 %  
Losses 17.5 %  
Exc. air 1.96  
Sen. temp. 87 °F

Miller & Chitty Company  
135 Market Street  
Kenilworth, NJ 07033  
Tel: 1-908-241-4588

Before #3 75%

**ECOM-AC Plus**

Date Time  
01.11.12 02:10:14 PM

Gas analysis

Fuel type  
Natural gas

T. Air 77 °F  
T. Gas 338 °F  
O2 11.3 %  
CO 1 ppm  
NO 38 ppm  
NO2 2 ppm  
NOx 40 ppm  
CO2 5.4 %  
Eff. 79.9 %  
Losses 20.1 %  
Exc. air 2.16  
Sen. temp. 87 °F

Miller & Chitty Company  
135 Market Street  
Kenilworth, NJ 07033  
Tel: 1-908-241-4588

Before #3 16.6%

**ECOM-AC Plus**

Date Time  
01.11.12 02:09:10 PM

Gas analysis


Fuel type  
Natural gas

T. Air 77 °F  
T. Gas 343 °F  
O2 11.8 %  
CO 1 ppm  
NO 39 ppm  
NO2 2 ppm  
NOx 41 ppm  
CO2 5.6 %  
Eff. 80.8 %  
Losses 20.8 %  
Exc. air 2.18  
Sen. temp. 87 °F

Miller & Chitty Company  
135 Market Street  
Kenilworth, NJ 07033  
Tel: 1-908-241-4588

PHYSICAL PLANT UNIT PAGE 04 0854-142-886-973568299 15:24 01/12/2012 8

**NJDEP**  
*Air Quality Permitting Program*  
**Waste Oil Heaters**  
**&**  
**Emergency Generators**

 BIRDSALL SERVICES GROUP  
ENGINEERS & CONSULTANTS


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**Waste Oil Heaters**

**ALL used oil heaters are regulated by NJDEP**

Requirements:

- Heater(s) under 500,000 BTU/hr
  - Must Register with NJDEP
  - Multiple heaters allowed if combined heat input <500,000 BTU/hr
  - Penalty for not registering: \$200 (first offense)
- Heater(s)  $\geq$  500,000 BTU/hr
  - Requires a Pre-Construction Permit from NJDEP



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## Waste Oil Heaters

### Installation Requirements

- May be used only for space heating or heating water
- Must use standard/certified equipment
- Must use oil generated on-site or from household do-it-yourselfers
- Stack height - At least 20 ft above grade & above roof peak

### Tune up & combustion adjustments

- At startup & annually thereafter
- CO & oxygen measurements
- Recordkeeping



## Waste Oil Heaters

### Fuels Allowed

- crankcase oil
- transmission fluid
- power steering fluid
- brake fluid
- commercial fuel oil #1 & #2
- used oil from vehicles

### Fuels Not Allowed

- antifreeze
- carburetor cleaner
- paint thinner
- paint
- part degreaser solvents
- gasoline
- oil additives
- chlorinated solvents
- battery acid
- other hazardous wastes

## EGs: Operating Scenarios

NJDEP Allows Operating Emergency Generators:

- During the performance of normal testing and maintenance procedures
- When there is a power outage or the primary source of mechanical or thermal energy fails because of an emergency; or
- When there is a voltage reduction issued by PJM and posted on the PJM internet website ([www.pjm.com](http://www.pjm.com)) under the “emergency procedures” menu.
- **Peak Shaving and Curtailment are Prohibited by the NJDEP EG General Permit**



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## EGs: Load Reduction

Use of engines to generate electrical power is permitted provided the equipment meets:

- NOx provisions of N.J.A.C. 7:27-19.8 & SOTA requirements of 7:27-8 and 7:27-22.
- These provisions usually require that a diesel engine be retrofit with selective catalytic reduction (SCR) and a particulate filter before being used as a non-emergency electrical generating engine

**This includes peak shaving, power curtailment & Interruptible Load Response (ILR)**



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# New EJIF Policies

## ASTs with Buried Piping

### &

## UHOTs

## New Policy for Buried Piping, Why?

### Seaside Park (1997)

- Leak from the DPW UGP
- Conditional NFA issued by NJDEP 2011

### Bayshore Regional Sewerage Authority (2004)

- Diesel leak from Treatment Plant UGP
- Conditional NFA issued by NJDEP 2012

### Haddonfield (2010)

- Diesel leak from DPW UGP
- Compliant with SPCC corrosion protection
- Ongoing





## Buried Piping – New Policy

### Applicability:

- All ASTs which are equipped with buried product piping and which convey the following:
- Motor fuel, Petroleum products, hazardous substances, Used oil

### Exemptions:

- Members who maintain continuous compliance with N.J.A.C 7:14B-4 and 7:14B-6 (UST Rules)

### Requirements:

- Conduct a biennial industry standard integrity test of all underground piping (inner and outer piping);
- Maintain compliance with N.J.A.C 7:14B-4 and 7:14B-6



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## Buried Piping – New Policy

### Deadline:

- Effective: March 17, 2012
- Compliance deadline: July 1, 2013

### Reimbursement:

- Submit the testing results & copy of paid invoice to BSG.
- Upon review, the results will be forwarded to EJIF (PERMA) for reimbursement of up to \$400.00 per tank.



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## EJIF Policies - UHOTs

### UnRegulated Heating Oil Tanks (UHOTs)

- EJIF currently provides coverage for USTs containing 2000 gallons or less of heating oil for on-site consumption that are not regulated by USEPA or NJDEP.
- The EPA expected lifespan of a single wall steel underground storage tank is approximately 15 years.
- **The EJIF Executive Committee has approved the recommendation to discontinue coverage for unregulated tanks that exceed the 20 year age limit by January 1, 2014.**

## EJIF Claims & Investigations

### What is an environmental discharge?

- Any chemical, petroleum or industrial discharge into the soil, groundwater and/or surface waters of the State are regulated by the NJDEP under the New Jersey Spill Compensation and Control Act (N.J.S.A. 58:10-23.11 et. seq.)
- There is no de minimis volume for a Spill Act notification

### What is a claim investigation?

- A claim investigation is triggered when an EJIF member experiences and reports a real or anticipated financial loss as a result of an environmental discharge and/or remediation efforts.
- A claim investigation is not required when there is no impact to the environment or when there will be no request to the FUND for reimbursement for the subsequent clean-up.
- Results of the claim investigation are reported to the Claims Administrator who makes coverage determinations.

**24/7 Claim Hotline**

**800-289-6681**

# NJDEP

## Site Remediation Program

# Underground Storage Tanks




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## Underground Storage Tanks

### Release Response Plan

- Contingency plan in case of a release
- Must be posted/accessible
- Required for ALL regulated USTs
- A Licensed Site Remediation Professional (LSRP) or licensed firm must be "Identified" on the Plan but need not be "Retained"

Release Response Plan		
Contacts	Phone #	Contact Name
NJDEP Hotline:	...	...
Fire Department:	911	...
Facility Owner / Operator:	908-659-7470 908-400-5495	Christopher Meehan, Motor Vehicles
County Health Department:	908-654-9880	Les Jones, Health Official
Corrective Action/Repair Contractor:	610-278-7203	Crompo, LLC
Local Emergency Management	908-654-9881	Christopher Scario, OEM
Environmental Consultant	908-497-8990	Birdsall Services Group
<b>Procedures</b>		
1. Immediately notify the Facility Owner of any suspected release including all monitoring system alarms and observations of product within the piping sumps.		
2. Conduct a visual inspection of all readily accessible physical facilities (e.g. piping sumps) for evidence of leakage or discharge.		
3. Run diagnostic check on all monitoring systems. Check for a malfunction of the monitoring system. If alarm condition confirmed, take tank system out of service until repair contractor can evaluate cause of alarm.		
4. Contact tank system repair contractor, Crompo, LLC, to visit site and investigate suspected release.		
5. Facility Owner or designee must complete the investigation of a suspected release within 7 days of initial discovery. N.J.A.C. 7:14B-7.1 <i>Suspected releases</i>		
6. Facility Owner or designee shall immediately contact the New Jersey Department of Environmental Protection (1-877-927-6337) within 15 minutes of confirmation of the release.		
7. Refer to N.J.A.C. 7:14B-8 <i>Remediation Activities</i> or N.J.A.C. 7:14B-9 <i>Closure Requirements</i> for additional guidance following confirmation of a release.		
8. Facility Owner makes determination on what remediation activities are needed, consider contacting environmental consultant for additional guidance.		
<b>UST Size and Contents</b>	<b>Tank ID #</b>	<b>Location Description</b>
1,000 Gallon Gasoline	1	Chilipping Hills Golf Course
1,000 Gallon Heating Oil	2	Chilipping Hills Golf Course
	3	
	4	



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## Underground Storage Tanks

### Annually

- **Recertification of the Release Detection Monitoring (RDM) systems**

### Monthly

- Sump, fill port, and dispenser inspection logs
- Keep evidence of leak detection tests (e.g. sensor status print-outs)
- Note: if your system does not have a print option, document tests in a log book.

### Pre-Delivery

- Spill bucket inspection log

### Ongoing

- Release Response Plan Posted
- Current UST Registration Posted



NJDEP

*Bureau of Surface Water Permitting*

## Construction Dewatering General Permit



## Construction Dewatering

Two elements of all construction dewatering activities:

- The “**Diversion**”
  - Where did it come from?
  - NJDEP Water Allocation Rule (N.J.A.C. 7:19-1)
  
- The “**Discharge**”
  - Where is it going?
  - New Jersey Pollutant Discharge Elimination System “NJPDES” Regulations (N.J.A.C. 7:14A)



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## The “Diversion”

Diversions of groundwater or surface water of 100,000 gallons per day or more is regulated by the NJDEP

- Construction Dewatering projects may exceed this initially to lower the groundwater table
- In some cases, continuous exceedances of this volume may be required
- In either case, a permit is required for temporary or permanent diversions in excess of this volume



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## The "Diversion"

### Dewatering Permit By Rule

- Must be from a coffer dam or a confined area to contain impacts from the diversion
- Must submit a letter at least 30 days prior to the diversion describing the location and method to be used
- Must repair/replace any well or surface water supply that becomes unusable due to the impact to capacity, quality or other reasons.

## The "Discharge"

Any Discharge of groundwater to surface water from construction dewatering activities is regulated by the NJDEP

- Options typically include:
  - Transport and Dispose off-site at an approved facility
  - Discharge to the local POTW with permission (C1 and CSO Areas)
  - Obtain a NJPDES permit and discharge to surface water

## The “Discharge”

### Construction Dewatering General Permit

- No application, but letter request must be submitted to NJDEP at least 14 days prior to the discharge
- Not eligible for:
  - Known Contaminated Sites or those suspected to contain groundwater contamination
  - Stormwater discharges
  - Filter backwash
  - Sediment laden waters
- The GP contains BMPs, temporary treatment units, and self monitoring without effluent limitations

## The “Discharge”

For sites that cannot meet the Construction Dewatering GP Requirements, options include:

- Petroleum Product Cleanup Permit (B4B)
- General Remediation Cleanup Permit (BGR)
  - Both permits have application requirements, initial groundwater characterization, sampling and effluent limitations.
  - Application requires public notice and NJDEP approvals
  - The BGR Permit also requires a TWA

## Underground Storage Tanks

### Release Response Plan

- Contingency plan in case of a release
- Must be posted/accessible
- Required for ALL regulated USTs
- A Licensed Site Remediation Professional (LSRP) or licensed firm must be “Identified” on the Plan but need not be “Retained”

*NJDEP*

*Bureau of Nonpoint Pollution Control*

## Industrial Stormwater Permitting Program



## Stormwater Permit Applicability

### WASTEWATER TREATMENT FACILITIES

with...

- Design Flow of 1 Million Gallons per Day (MGD)
- OR
- Approved pretreatment program under 40CFR Part 403 (i.e. Delegated Facilities)



## Basic Industrial Stormwater General Permit

- Authorizes new and existing industrial stormwater discharges to surface waters and/or groundwaters of the State.
- Goal is to eliminate exposure of source materials

## 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.....

## 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

## Industrial Stormwater Permit Does Not Cover...

- Floor drains
- Vehicle/equipment wash waters
- Compressor and boiler blow down
- Cooling tower bleed off
- Filter backwash water
- Hydrostatic testing water
- Water main disinfection water

## Industrial Stormwater Wrap-Up

If your MUA has a designed treatment capacity 1.0 MGD and greater...

And you have source operations or material present...

- You are in!
- Source Material includes – gasoline & diesel ASTs, fueling areas, generator fueling operations
- Septage transfer areas that drain to Plant still qualify for Industrial Permit!

Permanent No Exposure only applies if all operations & materials are inside a building!

## Questions?

Birdsall Services Group (birdsall.com)

800-879-6681

Chris Gulics

[cgulics@birdsall.com](mailto:cgulics@birdsall.com)

Matt Mee

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