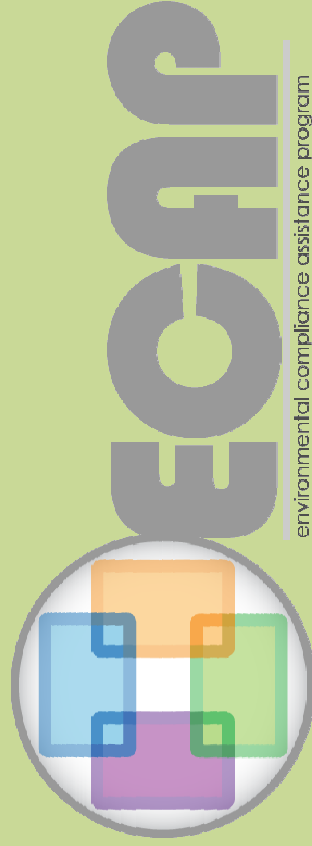


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## NESHAP 6C: Gasoline Dispensing Facilities

Kenya Stump,  
Manager DCA



# Overview

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- Important Definitions
- What is the Division of Compliance Assistance (DCA)
- Background
- Gasoline Dispensing Facility (GDF) Area Source Rule
  - HAPs
  - Applicability
  - Affected sources
  - Compliance dates
  - Requirements
  - Testing/Monitoring
  - Notification
  - Recordkeeping/Reporting
- Contact Information

# Definitions

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- Clean Air Act (CAA)
- Hazardous Air Pollutant (HAP)
  - Area Sources
    - <10 tons of a HAP
    - <25 tons of combined HAPs
  - National Emission Standard for Hazardous Air Pollutant (NESHAP)
  - Environmental Protection Agency (EPA)
    - Region IV
    - Atlanta, GA
  - Department for Environmental (DEP)
    - Frankfort, KY
- Gasoline
  - Gasoline and gasoline-alcohol blends (E10 and E85)
  - NOT: fuel oil, jet fuel, nor diesel
- Submerged Fill: Drop Tube

# DEP Organization

**COMMISSIONER'S OFFICE**  
**R. Bruce Scott – Commissioner**  
**Valerie Hudson – Deputy Commissioner**  
 502-564-2150

**DIVISION FOR AIR QUALITY**  
**John Lyons - Director**  
 502-573-3382

**PROGRAM PLANNING & ADMIN. Branch**  
**PERMIT REVIEW Branch**  
**TECHNICAL SERVICES Branch**  
**FIELD OPERATIONS Branch**

**DIVISION OF WASTE MANAGEMENT**  
**Tony Hutton - Director**  
 502-564-6716

**PROGRAM PLANNING & ADMIN. Branch**  
**SOLID WASTE Branch**  
**HAZARDOUS WASTE Branch**  
**SUPERFUND Branch**  
**RECYCLING & LOCAL ASSISTANCE Branch**  
**FIELD OPERATIONS Branch**  
**UNDERGROUND STORAGE TANK Branch**

**DIVISION OF COMPLIANCE ASSISTANCE**  
**Aaron Keatley - Director**  
 800-926-8111

**ENVIRONMENTAL ASSISTANCE Branch**  
**CERTIFICATION & LICENSING Branch**

**DIVISION OF ENFORCEMENT**  
**Jeff Cummins, Acting Director**  
 502-564-2150

**CIVIL ENFORCEMENT Branch**  
**COMPLIANCE & OPERATIONS Branch**

**DIVISION OF WATER**  
**Sandy Gruzsky - Director**  
 502-564-3410

**SURFACE WATER PERMITS Branch**  
**WATER QUALITY Branch**  
**WATER INFRASTRUCTURE Branch**  
**RESOURCE PLANNING & PROGRAM SUPPORT Branch**  
**COMPLIANCE & TECHNICAL ASSISTANCE Branch**  
**WATERSHED MANAGEMENT Branch**

**DIVISION OF ENVIRONMENTAL PROGRAM SUPPORT**  
**Valerie Hudson – Acting Director**  
 502-564-2150

**ADMINISTRATIVE SUPPORT Branch**  
**ENVIRONMENTAL RESPONSE Branch**  
**ENVIRONMENTAL SERVICES Branch**

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# Division of Compliance Assistance (DCA)

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- Environmental Assistance Branch
  - Environmental Compliance Assistance Program
  - Brownfields Program
  - KY EXCEL



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# Area Source Rules Background

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- EPA required to identify at least 30 HAPs from area sources that threaten public health in urban areas (“Urban Dirty Thirty”)
- December 14, 1994 – EPA promulgated NESHAP for major sources w/in the gasoline distribution source category
- EPA required to regulate area sources representing 90% of emissions of these 30 HAPs

# NESHAP (CCCCC) 6C

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- Promulgated January 10, 2008 (<http://www.epa.gov/ttn/atw/area/fr10ja08.pdf>)
  - Issued concurrently with Subpart BBBB (6B) Gasoline Distribution (Bulk Terminals, Bulk Plants, and Pipeline Facilities)
  - HAPs of concern - benzene and ethylene dichloride
    - GDFs contribute approximately 36 percent of the national emissions of benzene and 2 percent of EDC
- Correction: March 7, 2008
- Amendments Proposed:
  - June 25, 2008 and Dec 15, 2009
- Finalized: January 11, 2011

# Applicability

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- Each Gasoline Distribution Facility (GDF) at an area source (affected source)
- Includes –
  - Each gasoline cargo tank during the delivery of product to a GDF and
  - Each storage tank
- **Does NOT** cover the loading of aviation gasoline storage tanks at airports and aviation gasoline is not included in the gasoline throughput criteria



# Monthly Throughput

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- How to calculate monthly throughput
  - Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

# Summary Requirements

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- Requirements
  - “Small” GDF (<10,000 gpm): Best management practices for gasoline vapor and spills
  - “Medium” GDF ( $\geq 10,000$  gpm and  $< 100,000$  gpm): BMP and submerged fill on tanks
  - “Large” GDF ( $\geq 100,000$  gpm): BMP, submerged fill, &
    - **Stage 1 vapor balance system**
    - Initial & periodic pressure and vapor tightness testing

# Affected sources

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- Gasoline storage tanks
- Associated equipment components in vapor or liquid gasoline service in new, reconstructed or existing GDF
- Pressure/vacuum vents on gasoline storage tanks and equipment necessary to unload product from cargo tanks into storage tanks

**Note: Equipment used for refueling motor vehicles is NOT covered. No Stage II Requirements!**

# Once Over Always Over

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- If facility is not  $\geq 100,000$  gallons per month prior to January 10, 2011, is not large GDF, and Stage 1 is not required.
- If exceed after 1/10/2011, considered large GDF from then on, but will have 3 years to comply.
- Once over any threshold then must comply, even if later going below threshold.

# Affected Source (63.11112)

- New affected source
  - Commenced construction on affected source after November 9, 2006, and
  - Meet applicability requirements in 63.11111 (GDF located at area source)
- Reconstructed affected source (63.2)
  - the replacement of components of an affected or a previously non-affected source to such an extent that:
    - The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and
    - It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act.
- Existing affected source if not new or reconstructed

# Compliance Dates (63.11113)

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- New or reconstructed affected source
  - Startup before January 10, 2008, compliance date is no later than January 10, 2008
  - Startup after January 10, 2008, compliance date is upon startup of your affected source
- Existing affected source, compliance date is January 10, 2011
- Existing affected source that becomes subject to control requirements due to an increase in monthly throughput, compliance date is three years after the affected source becomes subject to control requirements

# Requirements: <10,000 gpm (63.11116)

- Must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time
  - Minimize gasoline spills
  - Clean up spills as expeditiously as practicable
  - Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use
  - Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators
- **No notifications or reports**
- Must have records of monthly throughput available within 24 hours of a request
- Must comply with compliance dates (63.11113)

# Monthly Throughput $\geq 10,000$ gpm (63.11117)

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- Comply with basic requirements (63.11116(a))
  - BMPs for small GDFs
- Only load gasoline into storage tanks by using submerged filling
  - Submerged fill pipes installed on or before November 9, 2006, must be no more than 12" from the bottom of the storage tank
  - Submerged fill pipes installed after November 9, 2006, must be no more than 6" from the bottom
- Storage tanks <250 gallon do not need to meet submerged fill requirements, but must meet basic requirements on previous slide
- Records of monthly throughput available within 24 hours
- Notification requirements (63.11124(b))
- Must comply with compliance dates (63.11113)



## Monthly Throughput $\geq$ 100,000 gpm (63.11118)

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- Comply with requirements (63.11116(a) and 63.11117(b))
    - BMPs
    - Submerged Fill
  - Comply with either –
    - Each applicable management practice in Table 1 **OR**
    - Meet compliance requirements if, prior to January 10, 2008,
      - You operate a vapor balance system that
        - Achieves emissions reduction of at least 90%, **OR**
        - Operates using management practices at least as stringent as those in Table 1
- AND**
- Your GDF is in compliance with an enforceable State, local, or tribal rule, or permit that meets either of the above

# Monthly Throughput $\geq$ 100,000 gpm (cont)

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- Previous control requirements (Vapor Balance) not required for –
  - Gasoline storage tanks <250 gallons, constructed after January 10, 2008
  - Gasoline storage tanks <2,000 gallons, constructed before January 10, 2008
  - Gasoline storage tanks equipped with floating roofs, or equivalent
- Must still comply with other requirements: BMPs in (63.11116)
- Cargo tanks unloading at GDF must comply with management practices in Table 2
- Comply with applicable testing requirements (63.11120)
- Notification requirements (63.11124)
- Keep records and submit reports (63.11125 and 63.11126)
- Must comply with compliance dates (63.11113)

# Testing and Monitoring

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- At the time of installation of a vapor balance system and every three years
  - Leak rate and cracking pressure requirements (Item 1(g) of Table 1) for pressure-vacuum vent valves on gasoline storage tanks
    - [CARB Vapor Recovery Test Procedure TP-201.1E](#)
    - Alternate test methods and procedures (63.7(f))
  - Static pressure performance requirements (Item 1(h) of Table 1) for vapor balance system
    - [CARB Vapor Recovery Test Procedure TP-201.3](#)
    - Alternate test methods and procedures (63.7(f))

# Testing Exception

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- All vapor balance systems must be tested as specified in this rule.

Except: if installed prior to 1/10/08,

- **1. the installed VBS meets specific requirements (Table 1), and**
- **2. it complies with a required SLT permit or rule (the SLT permit or rule may have its own testing requirements)**

# Vapor Recovery System Other than Table 1

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- Option under 63.6(g)
- Must demonstrate to Administrator or delegated authority equivalency by
  - Conducting an initial performance test to demonstrate it achieves 95% reduction using CARB Vapor Recovery Test Procedure TP-201.1
  - During initial performance test, determine and document alternative acceptable values for leak rate and cracking pressure requirements (Item 1(g), Table 1) and static pressure requirements (Item 1(h), Table 1
  - Comply with testing requirements (63.11120(a))

# What about existing sources?

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- For vapor balance systems installed on or before December 15, 2009, you must test no later than 180 days after the applicable compliance date specified in paragraphs (b) or (c) of § 63.11113.
- For vapor balance systems installed after December 15, 2009, you must test upon installation of the complete vapor balance system.

# DAQ: Source Sampling Section

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- Andrea Keatley
- E-mail: [andrea.keatley@ky.gov](mailto:andrea.keatley@ky.gov)
- Submit Compliance Test Protocol (DEP 6028)
  - 60 day notification before the test
  - <http://dep.ky.gov/formslibrary/Pages/default.aspx>

# Notification ( $\geq 10,000$ gallons)

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- Initial notification to EPA **AND** DAQ by May 9, 2008, or at time you become subject to the control requirements
- Notification of Compliance Status to EPA **AND** DAQ by compliance date (January 10, 2011, for existing sources)
  - If in compliance at time Initial Notification is due, Notification of Compliance Status can be submitted in lieu of Initial Notification
- No Initial Notification or Notification of Compliance Status required if, prior to January 10, 2008, the GDF is operating in compliance with an enforceable State, local or Tribal rule or permit that requires submerged filling as specified in 63.11117(b)



# Notification ( $\geq 100,000$ gallons)

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- Initial notification – same as above
- Notification of Compliance Status – same as above
- No Initial Notification or Notification of Compliance Status required if, prior to January 10, 2008, the GDF
  - Operates a vapor balance system that
    - Achieves emissions reduction of at least 90% or
    - Operates using management practices at least as stringent as those in Table 1 AND
  - Is in compliance with an enforceable State, local or Tribal rule or permit that meets either of the above
- Notification of Performance Test 60 calendar days prior to initiating testing (63.9(e))
- Additional notifications as applicable (63.9)

## Recordkeeping

- Keep records of all tests
- Keep for five years
- Available for inspection during a site visit

## Reporting

- Report results of all volumetric efficiency (alternate vapor balance) tests
- Reports submitted within 180 days of completion of performance testing

Reporting requirements are only for GDFs with >100,000 gallon monthly throughput

# Table 1: Applicability Criteria and Management Practices for GDF

If you own or operate	Then you must
1. A new, reconstructed, or existing GDF subject to 63.11118	Install and operate a vapor balance system on gasoline storage tanks that meet the following requirements:
	a) equip all vapor connections and lines with closures that seal upon disconnect
	b) vapor-tight lines from gasoline storage tank to gasoline cargo tank
	c) tank truck pressure does not exceed 18" water pressure or 5.9" water vacuum during product transfer
	d) designed to prevent over-tightening or loosening of fittings during normal delivery operations
	e) gauge well provided with submerged drop tube extending the same distance from bottom of storage tank as specified in 63.11117(b)
	f) vapor-tight caps on liquid fill connections

# Table 1: Applicability Criteria and Management Practices for GDF

If you own or operate	Then you must
	g) install pressure/vacuum vent valves on tank vent pipes at specified setting
	h) vapor balance system must meet the static pressure performance of the following equation: $P_f = 2e^{-500.887/v}$ , where
	$P_f$ = minimum allowable final pressure, inches of water
	$v$ = total ullage affected by the test, gallons
	$e$ = dimensionless constant equal to approximately 2.718
	$2$ = the initial pressure, inches water
2. For new or reconstructed GDF, or new storage tank(s) at an existing affected facility subject to 63.11118	Equip gasoline storage tanks with a dual-point vapor balance system (63.11132), and comply with requirements of Item 1 in this Table.



# Table 2: Applicability Criteria and Management Practices for Gasoline Cargo Tanks

If you own or operate	Then you must
A gasoline cargo tank	Not unload gasoline into a storage tank at a GDF unless:
	i) all hoses in vapor balance system are properly connected
	ii) the adapters or couplers that attach to the vapor line has closures that seal upon disconnect
	iii) all vapor return hoses, couplers, and adapters are vapor-tight
	iv) tank truck vapor return equipment is compatible in size and forms a vapor-tight connection with vapor balance equipment on the GDF storage tank
	v) tank truck hatches are closed and securely fastened
	vi) filling of GDF storage tanks limited to unloading by vapor-tight gasoline cargo tanks. Documentation that cargo tank meets EPA Method 27 shall be carried on the cargo tank.



# Summary: Steps to Compliance

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- Be in compliance with the rule by **January 10, 2011**
- Employ BMP – all facilities
- Keep records on gasoline actual throughput
  - Either gasoline received or dispensed
- Submit notifications (as applicable)
  - Initial notification was due on May 9, 2008
  - Notification of Compliance Status by Jan. 10, 2011
  - Previous vapor balance tests
- Retrofit for vapor balance and conduct initial test of vapor balance system (large only)

# Enforcement of Rule

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- Initially, DAQ inspects sources covered under area source rules on a complaint basis
- Permitted sources that are subject to 6C
- Sources are also subject to federal EPA inspections

# DCA Contact

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Kenya Stump

[envhelp@ky.gov](mailto:envhelp@ky.gov)

8000-926-8111



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# DAQ Contact – Initial Notifications

33

James Eubanks

502-564-3999

[James.eubanks@ky.gov](mailto:James.eubanks@ky.gov)



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# EPA Air Contacts

34

Stephen Shedd,  
US EPA OAR, OAQPS, SPPD  
[shedd.steve@epa.gov](mailto:shedd.steve@epa.gov)

EPA Region IV: FL, NC, SC, KY, TN, GA, AL, MS

- Ray Gregory, 404-562-9116,  
gregory.ray@epa.gov (gasoline distribution)

# Resources

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- Initial Notification Forms at [www.air.ky.gov](http://www.air.ky.gov)
  - under Forms Library
  - Division for Air Quality
  - Compliance
- Area Source Rules
  - <http://epa.gov/ttn/atw/area/arearules.html>