

**Flexibility and Alternative
Monitoring:
Dugway Proving Ground's Success Story
with Fuel Burning Equipment**

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Dugway Proving Ground

- Located in western desert regions of Utah
- More than 790,000 acres in size
- Laboratory and test facilities
- Test and training ranges
- Air emissions subject to Title V operating permit
- Permit covers FBE, facilities, and activities

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FBE Types and Requirements

- Significant Boilers and Heaters
- Boilers subject to 40 CFR 60 Subpart Dc
- Insignificant Boilers and Heaters
- Housing and Civilian FBE
- Emergency Generators
- Portable Generators



FBE Types and Requirements

- Boilers and Heaters
 - “Significant”
 - 1 MMBTU Oil-fired
 - 5 MMBTU Gas-fired
 - LSTF & LNCTF FBE
 - 40 CFR 60 Subpart Dc
 - “Insignificant”
 - Housing and Civilian
 - Requirements: opacity, records, fuel monitoring



FBE Types and Requirements

- Emergency Generators
 - “Permanent”
 - Associated with buildings
 - Used during outages
- Portable Generators
 - Trailer-mounted
 - Power for remote locations
- Requirements



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Evolution of DPG's Title V Permit

- History
 - Notices of Intent (NOI) submitted as needed
 - NOI declared associated FBE & operational limitations
 - Regulators issue Approval Order
 - All Approval Orders combined in Title V
- Problems
 - FBE Mobility
 - Differing requirements for similar FBE
 - New monitoring and record-keeping requirements which were at odds with current practices



Flexible Approaches to FBE

- Three goals in correcting the Title V permit:
 - Revise monitoring and record-keeping requirements to incorporate DPG's current practices
 - Standardize the monitoring and record-keeping for all of the FBE
 - Allow for FBE mobility within the installation

Revise Monitoring and Record-keeping

- Alternative Monitoring for Subpart Dc Boilers
- EPA's Applicability Determination Index
 - <http://www.epa.gov/Compliance/planning/data/air/adi.html>
 - NSPS, NESHAP, MACT
 - Guidance letter dated February 20, 1992
 - Gas-fired boilers have no emission standards
 - Distillate oil-fired boilers meet emission standards
 - Monthly vs. daily monitoring
 - Common vs. individual monitors
 - Acceptable monitors: fuel bills, meters, tanks

Standardize Monitoring and Record-keeping

- 3 Goals
 - Protect environment
 - Allow flexibility
 - Monitor & report FBE consistently

Standardize Monitoring and Record-keeping

- Monthly fuel monitoring
 - Existing practice at Dugway
 - Dc Boilers monitored like other FBE
- New fuel use limitations for oil-fired boilers and portable generators
- Existing use of fuel bills now acceptable form of monitoring for all FBE

Standardize Monitoring and Record-keeping

- Monthly fuel monitoring
 - Existing practice
 - Dc Boilers vs. others
- Fuel-use limitations
 - Boilers
 - Portable generators
 - Controls emissions
- LSTF & LNCTF
 - Incorporated with all other FBE
 - Removed hour limitations
- PSD Considerations
 - 1,000,000 gallons limit
 - SO_x emissions

Allow f

- Portable generators
- Emergency generators
 - Original permit gave specific locations
 - Any move = permit modification
- Permitting process requires boundary concentrations
- “One-point” modeling
 - Near DPG border
 - Highly unlikely
 - Very conservative
- Regulator approval
 - DPG explained needs and proposed model
 - Regulators agreed model was appropriate



Summary

- FBE Types
 - Boilers
 - 40 CFR 60 Dc
 - Emergency generators
 - Portable generators
- Problems
 - FBE mobility
 - Monitoring & record-keeping
 - Unique requirements
- Solutions:
 - EPA guidance
 - Negotiations
 - Including current practices
- Results:
 - Revised monitoring
 - Standardized record-keeping & monitoring
 - FBE mobility



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