

Air Quality Permitting
for
Research and Development

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NJDEP Air Quality Permitting

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Discussion Topics

- Background
- Air Regulation History
- Overview of Air Quality Permitting
- Alternate procedures
 - Use of Technical Manual for Pilot Plants
 - Use of General Permit for Research & Development
- Questions

Background

- What is R&D?
 - To conduct research and development into new processes and products, including academic and technological research and development, provided that such a facility is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale, except in a de minimis manner.

Background

- How important is R&D?
 - \$11.4 billion spent in 1999 in New Jersey
 - Critical Sector on NJ economy
- How many facilities in NJ currently have Air Quality Permits?
 - about 200; 15 of which are major facilities

Background

- Where is R&D being done in NJ?
 - Academic
 - Agricultural
 - Biological / Life Sciences
 - Chemical
 - Metallurgical
 - Food
 - Pharmaceutical

History

- Air Quality Permits for Sources using more than 50 pounds of Raw material in any one hour first required in June 1967
- Air Quality Permits for Sources emitting greater than 0.1 pounds per hour of any Toxic Substance (TXS defined in Air Permitting Rule) first required in March 1992

Air Quality Permitting

- Operating Permit
 - Major Facility Pursuant to Clean Air Act and Federal Part 70 Regulations
 - Both exempt R&D
- Preconstruction
 - Minor Facilities not regulated as Major
 - No exemption for R&D

Air Quality Permitting

- AQ Permit review normally spans from 90 to 180 days (can be as long as 18 months)
- Each new air contaminant needs to be in AQ permit
- Each Configuration must be included in Permit
- New equipment and control apparatus must be reviewed **prior** to installation
- Can result in delays to Research Projects

Alternate Procedures

- DEP Recognizes the unique nature of R&D
 - fluid
 - time sensitive
 - competitive
- DEP developed alternate procedures to streamline AQ Permitting
 - Pilot Plant / Dual Plant Technical Manual
 - R&D General Permit
 - Lab Operations

Pilot Plant Technical Manual 1302

- First Drafted in Late 80s
- Allowed facilities more flexibility in structuring equipment and configurations
- Still limited source operations to those that were predetermined
- Limited flexibility in review times
- Inconsistent with Revised permitting rules

Pilot Plant Technical Manual 1302

- Recently revised (January 2006)
- Increases flexibility
- Reduces record keeping
- Reduces reporting
- Simplifies application procedure
- Simplifies risk assessment procedure

General Permit (R&D)

- Proposed for comment in December 2005
- Revisions being made based on comments received and should be available in Early June 2006
- Registration Like Process
 - No review (already completed by DEP)
 - Reduced Fee
 - No Changes or exemptions to conditions in General Permit

General Permit

- Requirements
 - Register and Identify Source Operation(s) to be included
 - Maintain and update an Inventory of Equipment, Control Devices and Emission Points (on-site only)
 - Annual Report to Department

General Permit

- Requirements
 - Emission limits for Criteria Pollutants (hourly and annual)
 - HAP Emission Limits (Determined by DEP as part of GP Development)
 - No more than 90 Product Days

GP Benefits

- Compliance assurance
- Emission information gained through annual reporting
- Emission limitations set
- Onsite inventories of equipment, control devices, etc.
- Easier permit processing

Questions?

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