Chapter 11: Dry Cleaning

What is Dry Cleaning?
A process for cleaning fabrics in which the articles are washed in a non-aqueous solvent and then dried in a heated air stream.

Dry Cleaning Steps
- Washing
- Extraction
- Drying
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Dry Cleaning Solvents

• Perchloroethylene
• Petroleum solvents

Industry Classes

• Commercial
• Industrial
• Coin operated

Equipment Types

• Transfer
• Dry-to-Dry
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Washing Process

Drying Process

Solvent Filtering

- Powder filters
- Cartridge filters
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Solvent Distillation

- Perchloroethylene: 250°F at 1 atm
- Petroleum: 225-235°F at -22 to -27 in. Hg
- Still boil down

Emission Control Techniques

- Fugitive emission control
- Carbon adsorption
- Condensation
- Azeotropic vapor recovery

Azeotropic Drying Process
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Emission Regulation

Process Inspection
- Review records maintained by source
  - Solvent purchases
  - Internal inspection audits
  - Monitoring checks
  - Maintenance records
- Check for vapor leaks
- Check for liquid leaks