

Pollution Prevention

Cleaner Air Oregon Technical Workgroup

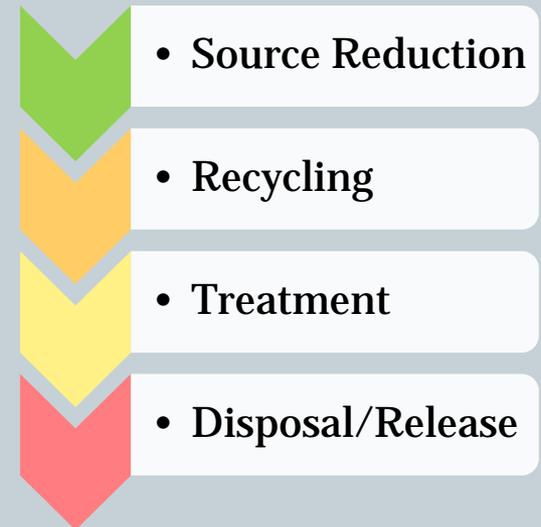
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Origin and Definitions

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- The Pollution Prevention Act of 1990 (42 USC §13101 *et seq*)
- Pollution prevention (P2) is any practice that reduces, eliminates, or prevents pollution at its source (also known as “source reduction”)
 - Prevent or reduce pollution at the source
 - Recycle in an environmentally safe manner whenever feasible
 - Treat in an environmentally safe manner whenever feasible
 - Dispose or release into the environment only as a last resort and in an environmentally safe manner



P2 Implementation

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- **By implementing P2:**

- ❑ Quantity of raw materials can be reduced
- ❑ Quantity or type of emissions and waste can be reduced
- ❑ Worker exposure to emissions and waste at the workplace can be reduced
- ❑ Impacts to the public air can be reduced
- ❑ Regulatory burden may change (e.g., reclassification, fees)
- ❑ Short- and long-term cost savings may be realized

- **But...**

- ❑ Planning impacts across multiple media is necessary
- ❑ Media switching can be problematic (e.g., soil-to-air, water-to-air)
- ❑ Up-front expenditures may be necessary for long-term reduction in costs

P2 Integration

- The P2 Act does *not* impose direct requirements on facilities
- In WA State, certain facilities creating “waste” above specific thresholds are required to submit a P2 plan under the “Dangerous Waste” regulations
- Since P2 is not directly required, the concepts are integrated in practice through other processes:
 - ❑ Facilities obtaining an air permit are generally required to implement Best Available Control Technology (BACT), which includes:
 - ❖ An emission limitation based on “maximum degree of reduction of each pollutant”
 - ❖ Application of “production processes, available methods, systems, and techniques” to reduce pollutants
 - ❖ Case-by-case selection of “best” method for reductions in pollutants, considering energy, environmental, economic, impacts and other costs

P2 Integration

- **P2 integration in practice (cont.)**
 - Facilities may use P2 to come into compliance after an enforcement action, such as an exceedance of a permit limit
 - Some actions taken by facilities may include:
 - ❖ Reduce volume of raw materials being used or amount allowed to enter the environment (e.g., implementing more efficient production process, recycling spent solvents, recovering material for reuse)
 - ❖ Swapping materials to more compliant ones (e.g., using acetone as a solvent instead of toluene)
 - ❖ Changing processes to a more compliant one (e.g., converting from high solvent coatings to water-based coatings)
 - ❖ Installing new controls (may have other media implications by triggering permitting/BACT)

P2 Integration

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- **P2 integration in practice (cont.)**

- Facilities may implement P2 as a voluntary action

- ❖ The facility is approaching a limit established in a permit
- ❖ The facility has an option to be regulated under a different type of permit (e.g., changing from Title V to Standard)
- ❖ The facility wants to reduce fees or regulatory burden (e.g., large waste producers may have more reporting requirements)
- ❖ The facility wants to reduce beyond that required by regulation as a “Good Neighbor”





DISCUSSION