

**ENVIRONMENTAL, SAFETY, AND HEALTH  
WORK PRACTICES**

**620: POLLUTION PREVENTION**

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## ABSTRACT

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### Overview of Practice 620

Environmental, Safety, and Health Work Practice 620: **Pollution Prevention** describes the elements necessary for a comprehensive pollution prevention program that complies with Federal and state regulations and Chevron's Policy 530.

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### Contents

This Practice defines relevant terms, provides regulatory references, and discusses the following:

- Waste stream and/or emissions identification, inventory, and characterization
  - Prioritization of wastes and waste reduction goals
  - Investigation of generation and management methods
  - Evaluation of methods to reduce or eliminate pollution
  - Implementation of feasible methods for pollution prevention
  - Measurement of program accomplishments against program goals
  - Communication of pollution prevention programs and accomplishments
  - Maintenance and revision of pollution prevention plans
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## SECTION 1 – PURPOSE

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### Purpose of Practice 620

Environmental, Safety, and Health Work Practice 620: **Pollution Prevention** provides guidance for the development and implementation of pollution prevention programs at Marketing Terminals to assure that:

- The terminal is in compliance with Federal and state laws and regulations.
- Chevron’s operational excellence Pollution Prevention expectations are incorporated into Terminal Operations.

An effective pollution prevention program consists of several important elements:

- A thorough knowledge of the facility and an inventory of where and how pollutants can leave the site – this includes hazardous and non-hazardous wastes, air emissions, water emissions (including stormwater) and releases to soil or groundwater.
- Management commitment to minimize the release of pollutants to the environment through any media, and employee awareness and training of the impacts of such releases on the environment.
- Rigorous, ongoing preventive maintenance and release reduction programs.
- A commitment to good housekeeping practices.
- Incentives and recognition programs to reinforce good pollution prevention behaviors.
- Evaluating the generation and management of pollutants as a part of the Management of Change process.

Environmental releases are losses. In most cases, spills and releases represent product we can no longer sell without rework. This drives our operating costs upward. Effective pollution prevention programs help keep costs down, both from the direct losses of lost product and the indirect losses of higher waste management taxes, fines, and loss of community good will.

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## SECTION 2 – REFERENCES

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### References

For more information on pollution prevention, refer to the following documents:

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**SECTION 2 – REFERENCES, Continued**

<b>Document Number</b>	<b>Title</b>
42 USC § 6922	Standards applicable to generators of hazardous waste
40 CFR 262.41(a)(6) and (7)	Biennial report requirements
Arizona Title 49, Chapter 5, Article 4: ARS 49-963	Pollution prevention plans, progress reports
California Health and Safety Code, Division 20, Chapter 6.5, Article 11.9	California SB-14 requirements
Hawaii Title 19, Chapter 342J, Part I: HRS § 342J-1	Legislative policy
Louisiana Title 33, Part V, Subpart 1, Chapter 22, Subchapter A § 2245	Generator requirements
Mississippi Title 49, Chapter 031: MCA 49-31-21	Generators to provide waste minimization plans
Oregon Title 36, Chapter 466: § 466.075	Generator rules
Texas Title 30, Part I, Chapter 335, Subchapter Q: § 335.474	Source Reduction and Waste Minimization Plans
ESH-600 Series	Terminal Wastes and Recyclables

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## SECTION 3 – DEFINITIONS

**Relevant Terms** The following table contains relevant terms and their definitions:

<b>Term</b>	<b>Definition</b>
<i>CFR</i>	Code of Federal Regulations
<i>Hazardous waste</i>	Any waste material that exhibits a hazardous characteristic or is specifically listed in the regulations. Hazardous characteristics include: <ul style="list-style-type: none"> <li>• Ignitability</li> <li>• Corrosivity</li> <li>• Reactivity</li> <li>• Toxicity</li> </ul> 40 CFR 2613 contains a complete definition of hazardous waste.
<i>Large quantity generator</i>	A hazardous waste generator that produces more than 2,200 pounds per month (approximately five 55-gallon drums) of hazardous waste.
<i>Resource Conservation and Recovery Act (RCRA)</i>	The Federal regulations governing the generation, transportation, treatment, storage, and disposal of hazardous waste. The regulations are found in 40 CFR 260-268.

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## SECTION 4 – GENERAL REQUIREMENTS

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**Introduction** General requirements for pollution prevention come from both Chevron Products Company and Federal and state regulatory agencies. Pollution prevention continually reduces the environmental and health effects of the terminal, its processes, and products.

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**Company requirements** Chevron's Policy 530, Protecting People and the Environment, recognizes that pollution prevention and waste minimization activities can result in reduced operating costs and future environmental liability. Policy 530 specifies the following hierarchy for pollution prevention:

1. Source reduction (the most desirable option)
2. Recycling
3. Treatment
4. Disposal (the least desirable option)

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**Regulatory requirements** Federal and state regulations require that large-quantity generators undertake efforts to reduce the volume and toxicity of the hazardous waste they generate. Some states also require one or both of the following:

- Generators prepare written reports and plans.
- Generators submit progress reports on waste minimization efforts.

These states are listed in the preceding References.

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## SECTION 5 – ELEMENTS OF A POLLUTION PREVENTION PROGRAM

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**Introduction** A Pollution Prevention Program has five elements:

- Identification and inventory of the waste stream and/or emissions
- Prioritization of wastes for reduction and determination of numerical goals
- Investigation of waste generation and management methods
- Evaluation of methods to reduce or eliminate pollution
- Implementation of feasible methods for pollution prevention

This section discusses each.

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### 5.1 – Identifying and Inventorying the Waste Stream and/or Emissions

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**The first element**

The pollution prevention program begins with an investigation of the wastes generated at the terminal and the emissions to all environmental media.

Environmental media are:

- Water
  - Air
  - Soil
  - Groundwater
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**Classifying wastes**

Wastes that the terminal generates fall into the following categories:

- Waste with no management requirements except recycling when possible (includes office trash, food containers, scraps, domestic waste)
  - Industrial wastes
  - Hazardous wastes (including recyclable materials)
  - Universal wastes (fluorescent light tubes, fluorescent light ballasts, lead-acid batteries, cathode ray tubes)
  - Vapor wastes and air emissions
  - Wastewater, including waters discharged directly to water or to a treatment works (such as a municipal waste treatment plant)
  - Noise
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**Resources**

There are many resources for information on pollution prevention. They include but are not limited to the following:

- Toxic Release Inventory (TRI) reports
  - Hazardous and non-hazardous waste/recyclable logs and manifests and/or shipping documents
  - Air pollution control device emissions reports
  - Fugitive emissions monitoring reports
  - National Pollutant Discharge Monitoring System (NPDES) discharge monitoring reports
  - Wastewater treatment plant discharge records
  - Soil and groundwater investigations
  - Noise surveys
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## 5.1 – Identifying and Inventorying the Waste Stream and/or Emissions, Continued

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**Form and scope** The inventory should be in written form and quantified. It should consider not only normal operating conditions, but also abnormal conditions, such as start-up or shutdown, and accidental situations.

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## 5.2 – Prioritization and Goals

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**The second element** The second element of a pollution prevention program involved the prioritization of waste streams for source reduction and the establishment of numerical goals for waste reduction.

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**Progress reports may be required** Your state may require your terminal to submit progress reports on your pollution prevention program.

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**Share your goals** You should clearly communicate your pollution prevention goals with all terminal personnel, contractors, suppliers, and others whose relationship with the terminal may lead (either directly or indirectly) to hazardous waste generation (see Section 6, below). Solicit feedback about pollution prevention goals and efforts from employees, contractors, and suppliers. Pollution prevention goals and progress should also be communicated as a part of the terminal's community outreach program.

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## 5.3 – Investigating Generation and Management Methods

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**The third element** The third element of a pollution prevention program includes an assessment of the terminal procedures that lead to the generation of the wastes and emissions identified in Topic 5.1.

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### 5.3 – Investigating Generation and Management Methods, Continued

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**Role of  
management  
methods**

Waste management methods play an important role in determining which wastes are included in the pollution prevention program. For instance, wastes that are recycled can be excluded from the definition of hazardous waste. This means that the amount of waste recycled can be a determining factor in whether or not waste minimization/reduction plans are required by law for the terminal.

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**Diagrams**

Process or block flow diagrams can be helpful in this type of investigation. Some states may also require them in their pollution prevention/waste minimization reports.

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### 5.4 – Evaluating Methods to Reduce or Eliminate Pollution

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**The fourth  
element**

Once the terminal's waste generation and management methods are understood, the fourth element of the pollution prevention program is to look at available methods for reducing or eliminating the waste or emission.

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**Waste  
reduction  
options**

Methods for reducing or eliminating waste or emission include but are not limited to the following:

- Input changes
  - Operational improvements
  - Production process changes
  - Product reformulation
  - Administrative measures, such as inventory control (buying only the amount of a chemical that you need)
  - Employee awards programs
  - Employee training
  - Company policies
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## **5.4 – Evaluating Methods to Reduce or Eliminate Pollution,** Continued

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**Evaluating  
potential  
methods**

Once identified, potential methods must be evaluated to determine whether they are feasible. Factors to consider in this evaluation include:

- Expected change in the amount of emissions, waste generation, etc.
  - Technical feasibility
  - Cost (capital cost, operating cost, waste management cost, etc.)
  - Effects on product quality
  - Health and safety implications for employees, contractors, and the community
  - Permits, variances, compliance schedules, or applicable state, local, and Federal agencies
  - Releases and discharges
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## **5.5 – Implementing Feasible Pollution Protection Methods**

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**Feasible  
methods**

As a final step of the pollution prevention program, any technically and financially feasible pollution prevention methods should be implemented.

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**Written  
implementation  
schedule**

Your state regulations may require you to submit a written implementation schedule with your pollution prevention plan.

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**Evaluating  
changes**

Use the Management of Change process to evaluate any procedural or equipment changes.

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## **SECTION 6 – EMPLOYEE AWARENESS AND COMMUNICATION**

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**Internal communication**

There should be a process in place at the terminal to communicate with employees and contractors about pollution prevention issues.

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**Internal communication topics**

Topics for internal communication should include the following:

- Impact and risk of releases, including how releases could occur
- Plans for pollution reduction
- Progress in achieving pollution prevention goals.

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**Evaluating internal communication**

Evaluate employees and contractors periodically to determine if they clearly understand the terminal’s pollution prevention program and goals.

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**External communication: Terminals**

You should regularly communicate the terminal’s pollution prevention program and goals with other terminals and with MESH. Share your success stories with other terminals.

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**Communication outside the Company**

Terminals should communicate their pollution prevention policy, program, and effectiveness with persons outside the Company, including:

- Customers
- Suppliers
- Contractors
- Exchange partners
- The public

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**Community publications**

Describe your terminal’s pollution prevention program in any community outreach publications.

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**SECTION 6 – EMPLOYEE AWARENESS AND COMMUNICATION, Continued**

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**Ascertaining others' performance**

The terminal should also ascertain the pollution prevention performance of customers, suppliers, contractors, and exchange partners. Determine:

- If they have pollution prevention programs in place
- How they are progressing toward their pollution prevention goals

They should supply the terminal with periodic updates on their programs and progress.

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**Public review**

Some states require you to submit a copy of your pollution prevention plan for public review. Check your state and local regulations to determine if your plan must be submitted.

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## SECTION 7 – REVISIONS

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<b>Responsibility for revisions</b>	<p>Assign one person at the terminal responsibility for maintaining and revising the pollution prevention program as needed. This person should be thoroughly familiar with the terminal’s processes and procedures, as well as with pollution prevention requirements. He or she could be any one of the following:</p> <ul style="list-style-type: none"><li>• Terminal Manager</li><li>• Operator</li><li>• Terminal TESH Specialist</li><li>• Other member of the Terminal Power Team</li></ul>
<b>Communication leader</b>	<p>The person responsible for maintaining and revising the pollution prevention program should also lead the pollution prevention communications program.</p>
<b>Frequency of revision</b>	<p>Review, evaluate, and revise the pollution prevention assessment as needed. Revisions may be needed if:</p> <ul style="list-style-type: none"><li>• Regulations or legislation change</li><li>• New processes or major process changes occur</li><li>• The local environment changes</li></ul>
<b>State frequency requirements</b>	<p>Some states specify the frequency of revisions. Check your state and local regulations to determine if they specify a frequency.</p>
<b>Communicating changes</b>	<p>Communicate any changes to the terminal’s pollution prevention policy and program to the following:</p> <ul style="list-style-type: none"><li>• Customers</li><li>• Suppliers</li><li>• Contractors</li><li>• Exchange partners</li><li>• The public</li></ul>

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