

Identify Your Facility's Environmental Aspects

What

Environmental aspects are the elements of your facility's activities that either impact the environment or could potentially impact the environment. For example, a spill from a parts washer is an environmental aspect because of its potential impact on water or land.

Who

Assign people with process knowledge to determine your facility's environmental aspects. Or, assign the EMS Team to this task, with help from process-specific employees. Assign someone, such as the EMS Coordinator, to ensure that your environmental aspects are reviewed regularly to reflect facility changes, like new processes or materials.

Why

Knowing your facility's environmental aspects allows you to manage your facility's impacts and potential impacts on the environment.

How

There are several ways to identify your environmental aspects, such as:

- List the operations that fall within the scope of your EMS.
- Diagram your facility's inputs and outputs or processes to identify their environmental aspects.
- For each of your facility's operations, list the environmental aspects (environmental inputs such as water, energy, and raw materials) and environmental outputs (such as those that are discharged to water, air, or land).

Use Sample Form 2: Environmental Aspects and Impacts, below, to list the environmental aspects by operation, along with their actual or potential impacts (quantified to the extent possible).

Sample Form 2: Environmental Aspects and Impacts

| Operation | Input/Out | Environmental Aspect (quantify if possible) | Environmental Impact |
|--------------------------------|--|--|---|
| Material receiving/ storage | Cardboard boxes | Cardboard waste (500 lb./mo.) | Depletion of landfill space, air pollution from transport |
| | Wood pallets | Wood waste (500 lb./mo.) | Depletion of landfill space, air pollution from transport |
| | Plastic film | Plastic waste (70 lb./mo.) | Depletion of landfill space, air pollution from transport |
| | Energy (gasoline-powered fork lifts) | Air emissions (6 gal gasoline/mo.) | Depletion of oil, air quality degradation |
| Surface preparation | Abrasive blasting (cabinet) | Spent blasting media (average 50 lbs/mo.), particulate air emissions | Air quality degradation, depletion of landfill space |
| | Stripping solutions, acids, caustic cleaning solutions | Spent acids and solutions | Depletion of landfill space, air pollution from transport, air quality degradation, water quality degradation |

| Operation | Input/Out | Environmental Aspect (quantify if possible) | Environmental Impact |
|---------------------------------|--|--|--|
| | Trichloroethylene degreaser | VOC air emissions, spent degreasing solutions | Depletion of landfill space, air pollution from transport, water quality degradation, air quality degradation |
| | Energy (2.500 kWh/mo. For all operations and administration) | Air emissions | Depletion of energy-producing resources, air quality degradation |
| | Rinse water | Wastewater sent to pretreatment unit, then to POTW (gal/mo.) | Depletion of water supply, water quality degradation |
| Metal finishing processes | Zinc and nickel plating | Spent plating solution, air emissions, sludge | Depletion of landfill space, air pollution from transport, air quality degradation, depletion of zinc and nickel |
| | Hard chrome plating | Spent plating solution, air emissions, sludge | Depletion of landfill space, air pollution from transport, air quality degradation, depletion of chromium, worker health |
| | Rinse water | Rinse water sent to pretreatment unit, then POTW | Depletion of water supply, water quality degradation |
| | Energy | Air emissions | Depletion of energy-producing resources, air quality degradation |
| Wastewater pretreatment | Rinse water | Treated effluent, sludge | Depletion of water supply, water quality degradation, depletion of landfill space, air pollution from transport |
| | Spent acids | Treated effluent, sludge | Water quality degradation, depletion of landfill space, air pollution from transport |
| | Spent caustic cleaners | Treated effluent, sludge | Depletion of natural resources, water quality degradation, |
| | Treatment chemicals | Treated effluent, sludge | Depletion of landfill space, air pollution from transport |
| | Sulfides and other air contaminants | Air emissions | Air quality degradation, worker health |
| | Energy | (See above) | (See above) |
| Laboratory operations | Lab wastes | Paper waste (40 lb/year or 6.67 lb/1000 units) | Depletion of landfill space, air pollution from transport |
| | Testing | Air emissions | Air quality degradation |
| | Energy | (See above) | (See above) |
| Building and ground maintenance | Landscaping | Water use | Depletion of water supply |
| | Lawn maintenance | Herbicide and insecticide runoff and/or leaching | Water quality degradation |

| Operation | Input/Output | Environmental Aspect <i>(quantify if possible)</i> | Environmental Impact |
|------------------------|------------------------|---|--|
| | Energy from gasoline | Air emissions | Air quality degradation, depletion of oil |
| General administration | Paper/office trash | Paper waste (40 .b/year or 6.67 lb/1000 units) | Depletion of trees, depletion of landfill space |
| | Product transportation | Air emissions | Air quality degradation, depletion of natural resources, depletion of landfill space (tires, etc.) |
| | Energy | (See above) | (See above) |