

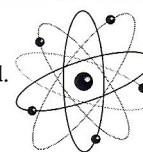
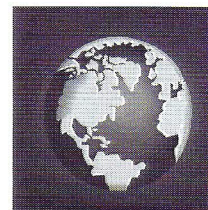
Job Name: _____ Job Site Location: _____

Date: _____ Start Time: _____ Finish Time: _____ Foreman/Supervisor: _____

Topic 548: Environmental Safety

Introduction: The Environmental Protection Agency is an agency of the United States government that sets and enforces national pollution-control standards. The bulk of environmental law is statutory, and is encompassed in the enactments of legislative and regulatory bodies, and generated by agencies charged by governments with protection of the environment. Following are guidelines to acknowledge and understand:

- **Most environmental law falls** into a general category of laws known as "command and control." Such laws typically involve three elements: (1) identification of a type of environmentally harmful activity, (2) imposition of specific conditions or standards on that activity, and (3) prohibition of forms of the activity that fail to comply with the imposed conditions or standards.
- **Many states make** any intentional violation of such standards a crime. The most obvious forms of regulated activity involve actual discharges of pollutants into the environment (e.g., air, water, and groundwater pollution). However, environmental laws also regulate activities that entail a significant risk of discharging harmful pollutants. For actual discharges, environmental laws generally prescribe specific thresholds of allowable pollution. For activities that create a risk of discharge, environmental laws generally establish management practices to reduce that risk.
- **The standards imposed** on actual discharges generally come in two forms: (1) environmental-quality, or ambient standards, which fix the maximum amount of the regulated pollutant, or pollutants tolerated in the receiving body of air or water, and (2) emission, or discharge standards, which regulate the amount of the pollutant, or pollutants, that any "source" may discharge into the environment. Most comprehensive environmental laws impose both environmental-quality and discharge standards, and endeavor to coordinate their use to achieve a stated environmental-quality goal. Environmental-quality goals can be either numerical or narrative.
- **Numerical targets set** a specific allowable quantity of a pollutant (e.g., 10 micrograms of carbon monoxide per cubic meter of air measured over an eight-hour period). Narrative standards require that the receiving body of air or water be suitable for a specific use. The management practices prescribed for activities that create a risk of discharge are diverse and context-specific.
- **Such assessments must** describe and evaluate the direct and indirect effects of the project on humans, fauna, flora, soil, water, air, climate, and the interaction between them.
- **The precautionary principle requires** that, if there is a strong suspicion that a certain activity may have environmentally harmful consequences, it is better to control that activity now, rather than to wait for incontrovertible scientific evidence. This principle is expressed where there are threats of serious or irreversible damage. Lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
- **Preventing** environmental harm is cheaper, easier, and less environmentally dangerous than reacting to environmental harm that already has taken place. The prevention principle is the fundamental notion behind laws regulating the generation, transportation, treatment, storage, and disposal of hazardous waste.
- **Use processes** that will produce fewer pollutants, and use new equipment and techniques that can reduce the pollution being generated.
- **Remove** completely all the waste material from the site and transport it to another location for treatment and proper disposal. An alternative is on-site remediation, which reduces the production of leachate and lessens the chance of groundwater contamination. On-site remediation may include temporary removal of the hazardous waste, construction of a secure landfill on the same site, and proper replacement of the waste. It may also include treatment of any contaminated soil or groundwater. Treated soil may be replaced on-site, and treated groundwater returned to the aquifer by deep-well injection.
- **A less costly alternative** is full containment of the waste. This is done by placing an impermeable cover over the hazardous-waste site and by blocking the lateral flow of groundwater with subsurface cutoff walls. It is possible to use cutoff walls for this purpose when there is a natural layer of impervious soil or rock below the site.
- **Protect** air quality by changing to fuels and processes that reduce pollutant emissions. Clean or change air filters as needed.
- **Make sure** the crankcase emission control provides positive crankcase ventilation by recirculating blowby to the intake manifold.
- **To control** exhaust emissions, make sure the air-injection system, or the improved combustion system is working properly.
- **Use** an evaporative control system that contains fuel tank vapors, and then sends the vapors back into the combustion chamber.



Conclusion: Identify all causes of pollutants at the jobsite. Fine particulates, carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, and lead, are the leading causes of hazardous environmental concerns. Study the state regulations, and use them to ensure a safer environment for everyone.

Work Site Review

Work-Site Hazards and Safety Suggestions: _____

Personnel Safety Violations: _____

Material Safety Data Sheets Reviewed: _____ (Name of Chemical)

Employee Signatures:

(My signature attests and verifies my understanding of and agreement to comply with, all company safety policies and regulations, and that I have not suffered, experienced, or sustained any recent job-related injury or illness.)

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

These guidelines do not supercede local, state, or federal regulations and must not be construed as a substitute for, or legal interpretation of, any OSHA regulations.