

Activity 1—Identifying Environmental Statutes

| Questions | Answers |
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| 1. This statute provides “cradle-to-grave” regulation of hazardous waste. It imposes strict waste management requirements and regulations, and includes proof of financial responsibility requirements for permit holders. | |
| 2. This statute improves the quality of surface waters by prohibiting or regulating the discharge of pollutants into navigable waters and restoring them to fishable or swimmable quality. | |
| 3. This act reduces the risk of spills of petroleum or hazardous materials into U.S. coastal or navigable waters by mandating technical standards and requiring proof of financial responsibility for facilities and vessels operating in or near such waters. | |
| 4. This statute protects the environment from releases of harmful materials during transportation of such materials by motor carriers in interstate or intrastate commerce. | |
| 5. This act facilitates the cleanup of any abandoned or uncontrolled sites containing hazardous substances. Imposes strict liability for cleanup costs on potentially responsible parties. | |
| 6. This act improves the quality of ambient air by regulating emissions from both mobile and stationary sources of air pollution. | |
| 7. This statute regulates the chemical manufacturing industry and prevents the importation or manufacture of dangerous chemical substances without adequate safeguards. | |

Answers for Activity 1—Identifying Environmental Statutes

| Questions | Answers |
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| 1. This statute provides “cradle-to-grave” regulation of hazardous waste. It imposes strict waste management requirements and regulations, and includes proof of financial responsibility requirements for permit holders. | What is the Resource Conservation and Recovery Act (RCRA)? |
| 2. This statute improves the quality of surface waters by prohibiting or regulating the discharge of pollutants into navigable waters and restoring them to fishable or swimmable quality. | What is the Clean Water Act? |
| 3. This act reduces the risk of spills of petroleum or hazardous materials into U.S. coastal or navigable waters by mandating technical standards and requiring proof of financial responsibility for facilities and vessels operating in or near such waters. | What is the Oil Pollution Act of 1990? |
| 4. This statute protects the environment from releases of harmful materials during transportation of such materials by motor carriers in interstate or intrastate commerce. | What is the Motor Carrier Act of 1980? |
| 5. This act facilitates the cleanup of any abandoned or uncontrolled sites containing hazardous substances. Imposes strict liability for cleanup costs on potentially responsible parties. | What is Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)? |
| 6. This act improves the quality of ambient air by regulating emissions from both mobile and stationary sources of air pollution. | What is the Clean Air Act? |
| 7. This statute regulates the chemical manufacturing industry and prevents the importation or manufacture of dangerous chemical substances without adequate safeguards. | What is the Toxic Substance Control Act? |

Activity 1—Environmental Risk Controls

Indicate whether each statement is True or False

| Questions | Answers |
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| 1. Replacing a hazardous material with a safer one would be considered a source treatment risk control measure. | |
| 2. One example of a source reduction risk control measure is to redesign a process so that it produces less pollution. | |
| 3. Procedures that modify the pollutants that have already been produced are referred to as source treatment risk control measures. | |
| 4. Distillation, which is a process that is often used to recover solvents from waste streams, is an example of a thermal process. | |
| 5. From a risk control perspective, source reduction is preferred over source treatment. | |
| 6. Activated carbon absorption is an example of a type of biological process used to recover metals from waste streams. | |
| 7. Waste disposal is a good example of a source reduction type of loss control technique. | |
| 8. Physical and chemical processes are not significantly different from recovery processes, but are mainly used to treat hazardous waste rather than recovering material. | |
| 9. An advantage of using recovery processes instead of using chemical treatment processes is that recovery processes eliminate the potential for creating additional environmental | |

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| damage. | |
| 10. Thermal processes dissolve waste either through combustion or through pyrolysis, which is the chemical decomposition caused by heating in the absence of oxygen. | |
| 11. One of the advantages of using thermal processes is their simplicity, which allows most organizations to conduct thermal processes on site. | |
| 12. Although typically very effective in destroying wastes, thermal processes have a cost disadvantage because they are very expensive. | |
| 13. Many chemicals are degradable through biological processes using formaldehyde, acetone, and isopropyl alcohol. | |
| 14. In the risk control hierarchy, thermal processes are preferred over chemical treatment processes. | |
| 15. Physical and chemical treatment processes are the most common source reduction loss control measures being used today. | |
| 16. The first consideration when selecting from among the various risk control measures is the control's economic feasibility. | |
| 17. The most important consideration when selecting from among the various risk control measures is the feasibility of the measure to meet the environmental regulatory requirements. | |

Answers for Activity 1—Environmental Risk Controls

| Questions | Answers |
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| 1. Replacing a hazardous material with a safer one would be considered a source treatment risk control measure. | False. Substituting materials is a source reduction risk control measure. |
| 2. One example of a source reduction risk control measure is to redesign a process so that it produces less pollution. | True. |
| 3. Procedures that modify the pollutants that have already been produced are referred to as source treatment risk control measures. | True. |
| 4. Distillation, which is a process that is often used to recover solvents from waste streams, is an example of a thermal process. | False. It is an example of a recovery process. |
| 5. From a risk control perspective, source reduction is preferred over source treatment. | True. |
| 6. Activated carbon absorption is an example of a type of biological process used to recover metals from waste streams. | False. It is an example of a recovery process. |
| 7. Waste disposal is a good example of a source reduction type of loss control technique. | False. Waste disposal is a source treatment. |
| 8. Physical and chemical processes are not significantly different from recovery processes, but are mainly used to treat hazardous waste rather than recovering material. | True. |
| 9. An advantage of using recovery processes instead of using chemical treatment processes is that recovery processes eliminate the potential for creating additional environmental damage. | False. Both types of loss control measures can create new environmental damages. |

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| <p>10. Thermal processes dissolve waste either through combustion or through pyrolysis, which is the chemical decomposition caused by heating in the absence of oxygen.</p> | <p>True.</p> |
| <p>11. One of the advantages of using thermal processes is their simplicity, which allows most organizations to conduct thermal processes on site.</p> | <p>False. Most thermal processes are managed by organizations that specialize in waste management.</p> |
| <p>12. Although typically very effective in destroying wastes, thermal processes have a cost disadvantage because they are very expensive.</p> | <p>True.</p> |
| <p>13. Many chemicals are degradable through biological processes using formaldehyde, acetone, and isopropyl alcohol.</p> | <p>True.</p> |
| <p>14. In the risk control hierarchy, thermal processes are preferred over chemical treatment processes.</p> | <p>False. Physical and chemical treatment processes, which decrease the potential environmental impact, are preferred over thermal processes, which are one of the disposal processes.</p> |
| <p>15. Physical and chemical treatment processes are the most common source reduction loss control measures being used today.</p> | <p>True.</p> |
| <p>16. The first consideration when selecting from among the various risk control measures is the control's economic feasibility.</p> | <p>False. The first consideration should be whether the process is its technical feasibility.</p> |
| <p>17. The most important consideration when selecting from among the various risk control measures is the feasibility of the measure to meet the environmental regulatory requirements.</p> | <p>True.</p> |