

Nuclear Waste: What Is It and Where Is It?

- A. In the blanks below, write the number of the statement that best describes the terms that are listed. Use each answer only once.

Terms	Answers
<u>D</u> 1. geologic repository	A. byproduct from using radioactive material
<u>F</u> 2. spent fuel	B. discarded protective clothing, equipment, tools, etc. from reprocessing nuclear fuel and making plutonium weapons
<u>G</u> 3. fuel rods	C. depends on its origin, level of radioactivity, and potential hazard
<u>A</u> 4. nuclear waste	D. deep underground facility
<u>H</u> 5. Nuclear Waste Policy Act of 1982	E. organization of states with purpose of providing for disposal of low-level waste from all members
<u>C</u> 6. classification of waste	F. has been used in a nuclear reactor and doesn't contribute efficiently to the nuclear chain reaction
<u>B</u> 7. transuranic waste	G. hollow metal tubes containing nuclear power plant fuel
	H. directs the Department of Energy to study suitable sites for an underground storage facility

B. List the four categories of nuclear waste and give the source or sources for each type.

1. High-level waste Source(s): nuclear power plants
nation's defense activities

2. Low-level waste Source(s): hospitals, nuclear power plants, research
labs, universities, other industries
defense activities

3. Transuranic waste Source(s): reprocessing of nuclear fuel
making plutonium weapons

4. Mill tailings Source(s): leftover rocks and soil from uranium mining

C. Arrange the following phrases in the correct order. Then draw a diagram of the process the sentence describes.

- causing the nucleus to split apart
- a neutron
- releasing energy, fission products, and more neutrons
- strikes the nucleus of a uranium-235 atom

A neutron strikes the nucleus of a uranium-235 atom, releasing energy,
fission products, and more neutrons, causing the nucleus to split apart.



