

# INTRODUCTION

## ***Environmental Issues***

High on the list of concerns shared by many Americans are environmental issues, protecting the parts of the environment that are unspoiled, and preventing unnecessary disturbances in the future. More and more, decisions that affect the long-term well-being of society and the environment involve the use of science and technology. The wise use of technology is one of the best tools Americans have to safeguard the environment. The safe disposal of nuclear waste is a good example. Making informed decisions about how to manage and dispose of nuclear waste requires us to have some understanding of the science involved, and also to consider how decisions about waste management will affect people and the environment.

## ***Technical Questions***

In Units 1 and 2, you learned about what nuclear waste is and why it needs special disposal. You learned about radiation — what it is, where it comes from, and some of its properties. You have also begun to look at some of the technical aspects of nuclear waste management — the nature of the waste, radiation, and radioactivity. In this unit, you will examine key elements of our Nation's nuclear waste dilemma, the Nuclear Waste Policy Act, and the role of the public in the development of a high-level waste management program. You will also look at how probability is used as one tool to determine acceptable levels of risk when using technology. Society also weighs consequences and values in making decisions

about risk.

## ***Decisions in a Democracy***

One big concern for most people is how decisions about nuclear waste management will be made in a democracy like ours. This question is important because nuclear waste creates potential risk and requires safe and environmentally acceptable methods of disposal.

The U.S. Congress passed the Nuclear Waste Policy Act of 1982 and amendments which established U.S. law for the permanent disposal of high-level nuclear waste. The law made the U.S. Department of Energy responsible for developing and operating a system that will provide safe storage, transportation, and permanent disposal of these wastes. The law also requires participation of States, Indian Tribes, and the public in the waste management program.

## ***National Energy Strategy***

In February 1991, the National Energy Strategy was published by the U.S. Department of Energy. It presents a comprehensive strategy for producing and using energy in the future and contains more than a hundred initiatives whose implementation is a shared responsibility with the American public, the private sector, academia, and all levels of government. Among other things, it establishes a national commitment and strategies to ensure

implementation of the Nuclear Waste Policy Act of 1982 and its amendments to establish an effective U.S. nuclear waste management program.

This unit includes a discussion of the initiatives contained in the Strategy and progress made during the first year of implementation.

In this unit, you will examine key elements of our Nation's nuclear waste management program and gain an understanding of how complex the challenge of waste disposal is. You will be introduced to provisions of the laws and examine questions of equity, burdens, and benefits related to nuclear waste disposal. You will examine the language of risk and probability. You will examine the roles of the Federal Government, States, and Indian Tribes. Finally, you will examine the role that people like you, your family, and friends can play in the development of a high-level waste management program.