

ATTACHMENT I
WNP-2 SCA
Revision No. 2
(5/26/81)

VI. TERRESTRIAL LIFE PROGRAM

The terrestrial ecology monitoring program for WNP-1 and WNP-4 is part of an integrated monitoring program for the preoperational, construction and operation phases of all three nuclear power plants presently planned for the Hanford area. The terrestrial monitoring program includes a preliminary preoperational survey now being conducted and a monitoring program, outlined below, which is descriptive of both the preoperational and operational phases.

A. Vegetation Studies

The purpose of these studies will be to identify the impact of cooling tower operation upon plant communities through pre- and post-operational field studies. Parameters to be measured are changes in species composition, changes in primary productivity and changes in mineral content of plant tissues and soil.

1. Identification of Major Plant Communities

Study plots will be established in each major plant community, expected to be affected by cooling tower salt drift, to provide a record of the plant species that comprise each community. A measure of the relative abundance of each species will be made using conventional field ecology methods of determining density and/or canopy cover for each species encountered in the study plots at appropriate seasons of the year.

2. Soil Analysis

During the preoperational period, chemical and physical properties of a representative soil profile will be analyzed to provide a baseline for comparison with operational analyses.

During the preoperational survey, vegetational analyses will be conducted with the aim of making objective assessments of the environmental impacts of nuclear power station operation. The major

impact upon vegetation may be the accumulation of salts in the soil and on vegetative surfaces derived from cooling tower drift.

Soil and vegetation analyses will be performed annually.

3. Ground Cover Analysis

The amount of ground cover provided by herbaceous species will be estimated each year at peak yield.

B. Animal Studies

The purpose of animal studies is to identify the impact of construction and operation upon representative animal communities through pre- and post-operational field studies. Parameters to be measured are changes in species composition, density and seasonal patterns of activity.

1. Deer and Rabbit

A land census of deer and rabbits will be made twice each year to obtain an estimate of the use of the local areas by these kinds of animals. The pellet group count technique will be used as an index to calculate deer and rabbit population size.

2. Birds

Species composition and density of birds will be determined on four sample plots. A spring and fall census will be performed with special attention given to quantifying the number of game birds utilizing these areas.