

SOIL SCIENTIST 2

KIND OF WORK

Advanced professional soil science work in the field of environmental protection.

NATURE AND PURPOSE

An employee in this class assists in the development and implementation of a comprehensive soil, vegetation and ground water protection program which includes the review of proposals for land application of wastes. Employees in this class conduct evaluations, field investigations and data analyses on complex proposals and facilities. Assignments are broad in nature. Although working within established guidelines and criteria, the employee has considerable latitude in carrying out assignments and uses independent judgment in developing recommendations within a framework based on technical experience and knowledge in the field. The employee may provide lead work direction to other soil scientists on large or complex projects and/or have special expertise in a specific category of waste management such as land application of both industrial and municipal sludges and effluents. Supervision is received from a higher level soil scientist or similar classification. Work is reviewed by the supervisor in terms of results achieved through periodic examination of reports and periodic conferences.

EXAMPLES OF WORK (A position may not include all the work examples given, nor does the list include all that may be assigned.)

Reviews complex facility plans and specifications for land treatment, utilization or disposal of effluents, sludges, solid waste and hazardous waste to ensure compliance with federal and state regulations and guidelines and acceptable engineering, geologic and soil science principles.

Conducts complex field investigations of proposed and existing land application sites in order to evaluate projects and collect data.

Prepares and/or presents technical information, testimony, or materials for consideration by the Pollution Control Agency Board, Hearing Officer, or the public so that a scientific basis is provided for decisions.

Assists in preparing drafts of rules, guidelines and administrative procedures so that environmentally sound and consistent waste disposal practices are promulgated throughout the state.

Develops materials for inclusion into training programs for facility operators and inspectors so that waste management practices, rules and regulations are better understood.

Prepares general and technical responses, comments and reports for staff and the general public so that the goals and objectives of the ground water program are understood.

Consults with industry and government representatives in order to disseminate accurate technical information and recommend modifications in proposals.

Develops recommendations and proposes modifications on complex land application projects to ensure the proper application of technical and administrative criteria.

Conducts special studies using expertise so that technically sound decisions will be made.

KNOWLEDGE, SKILLS AND ABILITIES REQUIRED

Knowledge of:

The soil characteristics of Minnesota and the inter-related principles of soil chemistry, soil microbiology and soil physics.

The properties of waste materials and their resultant interactions in soils.

The principles and techniques used in conducting physical and chemical analyses of soils.

Geology and hydrogeology.

Ability to:

Deal effectively with representatives of industry, government and the public.

Analyze complex technical proposals and recommend modifications.

Design and conduct soils investigations and studies.

Communicate effectively verbally and in writing.

Est.: 11/80
Rev.:

T.C.:
Former Title(s):