Specialty Summary

Performs and manages bioenvironmental engineering activities in the fields of industrial hygiene, occupational health, radiological health, and environmental protection to ensure healthful working conditions are maintained and that the environment is not adversely affected by Air Force operations. Supervises and performs bioenvironmental engineering medical readiness activities. Related DoD Occupational Subgroup: 322.

Duties and Responsibilities:
- Evaluates and conducts bioenvironmental engineering programs. Prepares and reviews reports. Consults with supervisors for corrective steps to be taken where health violations or deficiencies exist. Ensures that programs are being carried out and that control measures are adequate. Conducts internal inspections to ensure coverage of activities assigned to bioenvironmental engineering. Provides guidance and supervision in selecting protective equipment, and monitors its use in the industrial environment.

- Supervises and performs bioenvironmental engineering functions. Reviews plans, work orders, contracts, and specifications for compliance with environmental and occupational health directives. Serves as a member on committees for occupational health, environmental protection, and medical readiness matters. Reviews environmental assessments and statements. Evaluates drinking water quality, swimming pools, and public bathing areas. Evaluates domestic waste treatment and solid waste disposal systems and procedures. Identifies and evaluates potential pollution sources. Develops, implements, and conducts water pollution surveillance programs. Investigates chemical spills and other environmental releases, collects samples and coordinates necessary corrective actions with state, federal, and local officials. Reviews supply issue documents for hazardous and toxic substances, assigns issue exception codes, and monitors issue, use, and disposal of such materials. Performs source and ambient monitoring. Coordinates with civilian regulatory agencies on environmental monitoring matters. Conducts evaluations and reviews procedures for compliance with pollutant discharge limits. Supervises and performs surveys of industrial shops. Surveys workplace, collects employee data, determines workplace monitoring requirements based on the nature and condition of the work environment and agents present, and performs needed sampling. Collects industrial hygiene data on noise, ionizing and non-ionizing radiation, illumination, ventilation, air quality, ergonomics, and thermal stress to assess degree of hazard and worker exposure. Maintains and quality controls case files. Maintains and calibrates survey equipment.

- Performs, plans and directs duties in bioenvironmental engineering medical readiness. Performs and directs surveys to detect and identify chemical, biological, and radiological contaminants. Provides technical assistance and guidance to base disaster preparedness personnel in detecting warfare agents. Advises on health hazards and protective measures for exposed populations and emergency response personnel. Advises on decontamination procedures for medical personnel, patients, equipment, and medical facilities. Provides training for medical personnel, advice and guidance for training non-medical personnel in the medical aspects of defense against nuclear,
-Performs and directs radiological health functions. Develops and maintains an inventory of all radiation sources, both ionizing and non-ionizing, on the installation. Surveys facilities, equipment, materials, and operations for ionizing and non-ionizing radiation hazards and monitors radioactive waste disposal and shipment to ensure compliance with current environmental, safety, and health standards, and licensing or permit requirements. Investigates suspected overexposures. In the absence of the bioenvironmental engineer, may be appointed as radiation safety officer. Supervises and conducts the personnel dosimetry program. Assists base activities in implementing radiation protection programs and in correcting deficiencies.

**Specialty Qualifications:**

**Knowledge.** Knowledge is mandatory of basic and applied mathematics, basic chemistry, physics and computer usage, industrial hygiene, community environmental surveillance, occupational health, radiological health, environmental protection, medical administration, and bioenvironmental engineering aspects of medical readiness.

**Education.** For entry into this specialty, completion of an Algebra I course in high school is mandatory. Completion of high school courses in Algebra II, physics, chemistry, biology, and English composition is desirable.

**Training.** For award of AFSC 4B031, completion of the basic bioenvironmental engineering specialist course is mandatory.

**Experience.** The following experience is mandatory for award of the AFSC indicated:

AFSC 4B051. Qualification in and possession of AFSC 4B031. Also, experience in conducting bioenvironmental engineering evaluations and surveys.

AFSC 4B071. Qualification in and possession of AFSC 4B051. Also, experience performing and supervising industrial hygiene, occupational health, environmental protection, medical readiness and radiological health surveys to include the preparation of all related correspondence, reports, and charts.

AFSC 4B091. Qualification in and possession of AFSC 4B071. Also, experience managing industrial hygiene, community environmental surveillance, and radiological health programs.

**Other.** The following are mandatory for entry into this specialty:

Normal color vision as defined in AFI 48-123, Medical Examination and Standards.

Qualification to operate government vehicles according to AFI 24-301, Vehicle Operations.

A minimum age of 18 years.
**Strength Req:** J

**Physical Profile** 333323

**Citizenship** No

**Required Aptitude Score:** G-48

**Technical Training:**

Course #: B3ABY4B031 002

Length (Days): 72

**Location:** Brk