

TRADITIONAL GUARD OFFICER VACANCY ANNOUNCEMENT

(New Commission or Commissioned)

NEW YORK AIR NATIONAL GUARD

107th Attack Wing
9910 Blewett Avenue
Niagara Falls, NY 14304-6001

UNIT: 107th Medical Group

POSITION TITLE: Bioenvironmental Engineer

MAX AVAILABLE GRADE: LTC

ANNOUNCEMENT #: NF 21-01

DATE: 01 October 2020

CLOSING DATE: 31 January 2021

AFSC 43EX

AREA OF CONSIDERATION: **NATIONWIDE**

All candidates may apply who meet the basic qualifications for this position and who are eligible for membership in the NYANG.

SPECIALTY SUMMARY

(As outlined in AFOCD Dated 30 September 2020)

Applies engineering and scientific principles in anticipating, recognizing, and evaluating occupational and environmental health (OEH) hazards, also called OEH threats. Designs and recommends risk control measures and other courses of action that enable Risk Management decisions, and in some cases Patient Care strategies, to ensure Force Health Protection. Constituent OPM Occupational Series: 0690 (Industrial Hygiene), 0801 (General Engineering), 0819 (Environmental Engineering), 1306 (Health Physics), and 1310 (Physics).

DUTIES AND RESPONSIBILITIES:

- Executes and supervises bioenvironmental engineering (BE) programs. Applies knowledge of engineering and the sciences to assist commanders in meeting mission objectives at home station and deployed settings. Performs and documents health risk assessments for chemical, biological, radiological, nuclear (CBRN), and physical hazards, which may compromise Force Health Protection. Advises commanders on impact of unacceptable risk to mission and provides viable courses of action to reduce and eliminate risk. Identifies and assesses effectiveness of OEH controls. Participates in installation contingency response activities, including exercises. Determines the appropriateness of personnel protective equipment and individual protective equipment. May participate in development of policy. Directs and supervises technicians conducting base BE activities. Maintains liaison with local, state, and federal agencies on matters involving OEH standards.
- Advises command and staff agencies on effective operational risk management (ORM) decisions.
- Develops measures to control radiological hazards, including those encountered in unrestricted areas to ensure permissible limits of radiation exposure are not exceeded. Augments medical health physics activities. Enables radiological monitoring, measurement, and control for the Nuclear Enterprise. Serves as Radiation Safety Officer where required.

- AFSC 43EXG: Provides consultation regarding planning, designing, and constructing facilities for storage, use, and disposal of radioactive material or radiation producing devices. Guides the health risk assessment of exposure to ionizing and non-ionizing radiation; and ensures adherence to prescribed safety standards by evaluating activities involving the possession, handling, transportation, storage, use, and disposition of radioactive materials, as well as activities involving use of lasers and other non-ionizing radiation sources. Enables enhanced CBRN response capability for nuclear and radiological incidents.
- AFSC 43EXM: Develops, institutes, and sustains medical physics programs for radiotherapy, nuclear medicine, and diagnostic imaging physics services that enable safe and effective patient care. Augments radiology resident training programs. Conducts medical physics activities, research and development on medical physics related topics.

SPECIALTY QUALIFICATIONS:

- Knowledge: The following knowledge is mandatory for the following AFSCs:
- For AFSCs 43EXA/B/D/G/M, knowledge of all bioenvironmental engineering principles for force health protection spanning all operational environments.
- For AFSCs 43EXM, intentional development of this shred ended on 1 Oct 19 with Defense Health Agency (DHA) assuming medical physics requirements at Air Force medical facilities.
- Education. See specialty shredouts, and:
- For award of AFSC 43E1B/D/G, meet requirements of and possession of AFSC 43E3A and complete the education and/or certification requirements in respective specialty shredouts.
- For award of AFSC 43E1M, possession of both AFSC 43E3A and a Master of Science (MS) degree in medical physics granted from a d e g r e e program accredited by the Commission on Accreditation of Medical Physics Education Programs (CAMPEP).
- 3.3. Training. The following training is mandatory for award of the AFSC indicated:
- For award of AFSC 43E2A, completion of the BE Officer Course, B3OBY43E1000.
- For award of AFSC 43E3A, completion of upgrade training IAW current BE Career Field Education Training Plan (CFETP), completion of the BE Officer Advanced Course, B3OBY43EXXXX, and possession of AFSC 43E2A.
- Experience. The following experience is required for award of the AFSC indicated:
- For award of AFSC 43E3A, completion of 12 months in the 43E2A duty AFSC while performing the work typical of a base BE flight or element, and after earning AFSC 43E2A. The mandatory timeline for award of AFSC 43E3A is 48 months time in service (TIS). Failure to accomplish award of 43E3A by 48 months TIS requires waiver approval by the 43E Associate Chief.
- For award of AFSC 43E3B/D, possession of the respective 43E1B/D shredout AFSC for 24 months.
- For award of AFSC 43E3G, possession of the respective 43E1G shredout AFSC and completion of 24 months in the respective 43E3G duty AFSC.
- Other. The following qualifications are mandatory for entry into these AFSCs:
- No record of acrophobia or claustrophobia.
- Ability to clearly speak and communicate in the English language.
- A valid state driver's license and ability to operate government motor vehicles in accordance with AFI 24-301, Vehicle Operations.
- Normal color vision and depth perception as defined in AFI 48-123, Medical Examinations and Standards.
- Must maintain local network access IAW AFI 17-130, Cybersecurity Program Management and AFMAN 17-1301, Computer Security.(COMPUSEC) and 33-152, User responsibilities and Guidance for Information Systems
- Ability to wear a 40-pound air pack while carrying 40 pounds of equipment in a totally encapsulating chemical protective suit.
- Successful medical clearance for enrollment and active participation in the Respiratory Protection Program, IAW AFI 48- 137, Respiratory Protection Program.

APPLICATION PROCEDURES: Applicants will prepare and forward a Cover letter, Resume, an AF Form 24, APPLICATION OF APPOINTMENT AS RESERVE OF THE AIR FORCE OR USAF WITHOUT COMPONENT AF 24, AFQOT Scores, Current Official College transcripts (forward directly from the college to the address below), DD Form 214, RECORD OF SEPARATION/DISCHARGE FROM US ARMED FORCES, vMPF Record Review Rip, current Physical Fitness Evaluation Report

Complete application package must be received no later than close of business on the closing date of the vacancy announcement, 31 January 2021. Incomplete packages will not be considered. For more information or questions contact TSgt Seth Higley at 716-236-3068 or MSgt Heather Miller at 716-236-3627. All applications must be submitted by e-mail to MSgt Heather Miller at heather.miller.33@us.af.mil.

MAIL APPLICATION TO: 107th ATKW FSS/FSM
9910 Blewett Avenue
Niagara Falls, NY 14304-6001
ATTN: MSgt Heather Miller

SPECIALTY SHREDOUTS:

A: GENERAL

Possess a baccalaureate degree, or higher, in engineering from an engineering degree program accredited by the Accreditation Board for Engineering and Technology (ABET) or an engineering program approved by the 43E Associate Chief; or,

For graduates of the United States Service Academy, Reserve Officer Training Corps (ROTC) program or commissioned officers applying for cross-service transfer, possess a Bachelor of Science (BS) degree in engineering; or industrial hygiene, biology, chemistry, or physics along with additional coursework: 1 year of calculus for scientist or engineers, 1 year of chemistry with labs and 1 year of physics; or a MS degree or higher in health physics or industrial hygiene.

For all enlisted AFSCs, possess an ABET accredited MS degree from the Air Force Institute of Technology (AFIT) under the Enlisted-to-AFIT (E2A) program as approved by the 43E Associate Chief; or

For AFSC 4B071 (Bioenvironmental Engineering Craftsmen), possess a (BS), or higher, in engineering from an ABET-accredited engineering degree program; or, possess an Associate in Applied Science degree in Bioenvironmental Engineering Technology from the Community College of the Air Force, along with 7 years active duty experience in a 4B0X1 duty AFSCs, along with either a BS degree in biology, chemistry, industrial hygiene, or physics, or an MS or higher in health physics, industrial hygiene, or a closely related MS degree and coursework approved by the 43E Associate Chief.

Coursework must include at least 40 semester hours of math and science to include the equivalent of at least two semesters each of college level Chemistry with labs and Biology; two semesters of Physics for Scientists/Engineers with labs; two semesters of Calculus for Scientists/Engineers; and at least one semester of Statistics. Recommended coursework includes, but is not limited to, Analytic Geometry, Elementary Linear Algebra, Differential Equations, Classical/Engineering Mechanics, Statics, Dynamics, Thermodynamics, Mechanics of Materials, Ceramics, Material Science, Circuits, Electromagnetics, Modern Physics, Nuclear Physics, Optics, Human Anatomy and Physiology, Ergonomics, Molecular Biology, Biochemistry, Genetics, Genomics, Organic Chemistry, Hydrology, and Geology and other advanced engineering, physics, biology, and chemistry courses all at 200 level or higher.

B: INDUSTRIAL HYGIENE

Possess an MS or higher in industrial hygiene (occupational health) from an ABET accredited industrial hygiene degree program, or a non-ABET industrial hygiene degree program acceptable to the 43E Associate Chief; or, possess certification by the ABIH as an industrial hygienist.

C: ARCHITECTURE/MEDICAL CONSTRUCTION

No new accessions as of 1 October 2017.

D: ENVIROMENTAL ENGINEERING AND SCIENCE

Possess an MS or higher in environmental engineering from an ABET accredited environmental engineering degree program, or an MS in environmental engineering and science from AFIT; or, possess a license as a Professional Engineer qualified in environmental engineering, or certification as a Board Certified Environmental Engineer by the American Academy of Environmental Engineers and Scientists (AAEES) in any specialty (other than industrial hygiene engineering or radiation protection engineering)

G: HEALTH PHYSICS

Possess an MS or higher in radiation health physics, radiation protection engineering, or another field of radiation science acceptable to the 43E Associate Chief, from an ABET accredited degree program, or a graduate degree program recognized by the Health Physics Society (HPS); or, possess certification as a Diplomate of the American Board of Health Physics (ABHP); or, possess a BS in physics from a service academy along with 200 hours of classroom and laboratory training in radiation safety and one year of full-time radiation safety experience; or, obtain written approval from the 43E Associate Chief after providing official college transcripts from a regionally accredited college or university in graduate level physic, engineering, or health sciences courses documenting a grade of "B" or higher in the following four graduate courses: nuclear physics or radiation physics, nuclear instrumentation with laboratory or radiation detection and measurements with laboratory, radiation biology, and applied health physics or applied radiation safety.

M: MEDICAL PHYSICS

Effective 1 Oct 19, there will be no new Medical Physics shreds. This AFSC will be phased out due to DHA management of all Air Force medical facilities

NOTE: The 2-skill level is only authorized with the A suffix