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Civil Engineering

NUCLEAR, BIOLOGICAL, CHEMICAL MASK
QUANTITATIVE FIT-TEST PROGRAM

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction implements AFD 32-40, *Disaster Preparedness*; AFMAN 32-4006, *Nuclear, Biological, and Chemical (NBC) Mask Fit and Liquid Hazard Simulant Training*; and AFI 32-4001, *Disaster Preparedness Planning and Operations*. It provides the protocols and procedural guidance to implement the NBC Mask Quantitative Fit-Test (QNFT) Program. It applies to 18th Wing and associate units at Kadena AB. This publication does not apply to the Air National Guard or US Air Force Reserve. Records Disposition: Ensure all records created by this instruction are maintained and disposed of in accordance with AFMAN 37-139, *Records Disposition Schedule*.

1. References: AFMAN 32-4006, *Nuclear, Biological, and Chemical (NBC) Mask Fit and Liquid Hazard Simulant Training*. TOs 14P4-9-31, *Mask Protective Field M17A2 and Accessories*; 14P4-15-1, *MCU-2A/P*; and 14P4-15-11, *Operator and Unit Maintenance Manual for Protective Assessment Test System, M41*.

2. Purpose: The NBC protective mask is a critical force protection asset as long as it properly fits the wearer. An improperly fitted NBC mask could result in death upon minute exposure to chemical or biological agents. The QNFT enhances NBC defense survivability by quantitatively testing for mask leakage and training personnel on how to properly don, adjust and select the best mask-fit possible and instill mask confidence. Bioenvironmental (BEF) and Civil Engineering Readiness (CEX) Flights jointly administers the QNFT Program.

3. Introduction: The Air Force Protection Mask Fit Validation Program Working Group determined that AF personnel needed training on how to don, fit, and adjust their masks in order to achieve a Fit Factor (FF) of 2000 or higher. The FF is the quantitative degree to which the mask will protect the wearer; therefore, the program does not rely on a wearer's sensitivity to smell or other human abilities to detect a test agent. The objective of the QNFT Program is to insure 100 percent of deploying forces deploy to medium or high threat areas with properly fitted NBC masks.

4. Responsibilities.

4.1. Commanders:

- 4.1.1. Are responsible for enforcing the provisions of this instruction.
- 4.1.2. Utilize the most stringent and manpower intensive Operations Plan (OPlan) or Contingency Plan (ConPlan) to ensure sufficient supplies of NBC masks are available for all personnel on mobility and/or deployable to high or medium threat areas.
- 4.1.3. Require all personnel on mobility and deployable to high or medium threat areas participate in the QNFT and meet required testing schedules.
- 4.1.4. Make every effort to ensure no one under his or her command deploys to a high or medium threat area without first being successfully fit tested under the QNFT Program with the deploying mask.

4.2. Bioenvironmental Flight (BEF):

- 4.2.1. Provide QNFT Program oversight.
- 4.2.2. Assure BEF system operators are fully trained on the M41 PATS and Porta-Count to administer QNFT to the supported population.
- 4.2.3. May train and use unit personnel to augment the BEF QNFT team to administer the fit test.
- 4.2.4. Following a successful test, furnish two copies of AF Form 483, **Certificate of Competency** or similar product to the individual. The individual should maintain a copy with his or her gas mask and the other in his or her mobility folder for verification purposes.
- 4.2.5. Notify the unit commander of individuals unable to achieve a 2000 FF.
- 4.2.6. Screen the list of deployable people as part of the medical readiness screening process to ascertain the status of the individuals identified to deploy and provide units with appropriate feedback as to who is or is not fit tested.
- 4.2.7. Establish a testing schedule and take advantage of opportunities to administer the test to as many people as possible. Certain opportunities that may include but are not limited to:
 - 4.2.7.1. Setting aside certain days of the week to administer the test.
 - 4.2.7.2. On a case-by-case basis, make individual arrangements to visit units with large populations to administer the test.
 - 4.2.7.3. In the holding area where individuals are held to simulate deployment flight time during local operational exercises.
 - 4.2.7.4. When requested by 18 CES/CEX, provide available manning to conduct tests in conjunction with initial chemical warfare defense training.
- 4.2.8. Monitor program success, perform data tracking of tested individuals, and report results to PACAF/SGPB/CEX on a quarterly basis: no later than the 15th day of Jan, Apr, Jul, and Oct.
- 4.2.9. Formulate and submit an annual budget to CEX to maintain replacement parts/supplies to make minor repairs to the NBC masks.
- 4.2.10. Maintain and calibrate the M41 PortaCount Plus, PATI.

4.3. Civil Engineering Readiness Flight (CEX).

4.3.1. Provide personnel and manpower resources to support and sustain the QNFT Program. Forecast and submit QNFT Program resource requirements through the installation comptroller.

4.3.2. Ensure CEX system operators are fully trained on the M41 PortaCount Plus, PATI to administer QNFT to the supported population.

4.3.3. Administer the QNFT to personnel assigned to the 18 CEG and provide assistance to BEF during initial chemical warfare defense training. When requested by BEF or WG/IG, conduct tests during local exercises.

4.3.4. Supply required information on tested individuals to BEF, including notification of individuals unable to achieve 2000 FF after three attempts.

4.3.5. Maintain and calibrate the M41 PortaCount Plus, PATI.

4.3.6. Maintain replacement parts and supplies to make minor repairs to the NBC masks.

4.4. Unit Deployment Managers (UDM):

4.4.1. Per the Installation Deployment Plan, on a monthly basis, provide the Logistics Plans Flight (LGLX) and Personnel Readiness Unit (PRU) a list of personnel identified to fill mobility positions and who will actually or simulate deploying to a high or medium area. BEF will screen personnel on the list to ensure they were fit tested to their gas masks prior to deploying.

4.4.2. Issue serviceable NBC masks based on caliper measurement according to T.O. 14P4-15-1, MCU-2A/P to personnel identified to deploy. These personnel will use that mask for QNFT and will deploy with it.

4.4.3. Schedule and have personnel fit tested to their issued gas masks within 60 days of assignment to a mobility position. Coordinate with the BEF to arrange for personnel to be fit tested with the mask they will deploy with.

4.4.4. Provide augmentation to the QNFT team when requested to help administer the test to units with large populations of individuals requiring fit test. BEF technicians will train and monitor personnel augmenting the QNFT team.

4.4.5. Maintain a copy of each individuals' QNFT results in their mobility folders and ensure personnel deploy with the same mask worn during QNFT by reviewing their documentation as part of pre-deployment/deployment processing.

4.4.6. Maintain an inventory of available gas masks (stored and issued), to equip the number of people tasked to mobilize and deploy to medium or high threat areas. Report shortfalls to LGLX, BEF, and CEX.

4.5. LGLX and PRU:

4.5.1. Ensure unit deployment policies include processes to comply with the requirements of the NBC mask QNFT Program.

4.5.2. At a minimum, provide a monthly listing, or as soon as a tasking is known of personnel assigned to mobility positions and tasked to deploy to medium or high threat areas to Medical Readiness.

4.6. Individual:

- 4.6.1. Report for QNFT as scheduled.
- 4.6.2. Ensure mask is properly stored and maintained according to T.O. 14P4-9-31, *Mask Protective Field M17A2 and Accessories* and T.O. 14P4-15-1, MCU-2A/P.
- 4.6.3. Deploy with the same mask used during QNFT.
- 4.6.4. Advises BEF of mask wear problems, personal health conditions, or other factors that may warrant a new QNFT (see para 5.).
- 4.6.5. Maintain a copy of the QNFT results in the gas mask carrying case and mobility folder.

5. QNFT Frequency.

- 5.1. Within 60 days of assignment to a mobility position or prior to deploying to a medium or high threat area, whichever occurs first.
- 5.2. When a new mask is issued.
- 5.3. Prior to deploying to a medium or high threat area, unless the individual has been previously fit tested.
- 5.4. If the wearer gains or loses 10 percent or more body weight based on data collected during initial QNFT.
- 5.5. When the wearer experiences extensive dental work, facial surgery, scarring, disfigurement, or other conditions which may alter the fit of the assigned mask.
- 5.6. Individual can request testing at anytime, especially if he or she has difficulty with negative pressure self-checks.

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