



News Release

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ECBC Engineers Make Significant Improvements to M53 Mask for NIOSH and OSHA Compliance

Full certification expected in the next year

ABERDEEN PROVING GROUND, Md. – A multi-functional team in the Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) Joint Project Manager Protection (JPM-P)—with help from engineers from the U.S. Army Edgewood Chemical Biological Center—is securing crucial certifications that will ensure maximum usability of the M53 chemical-biological protective mask across the U.S. Army.

The goal is to modify the M53 to become the first military mask to achieve National Institute for Occupational Safety and Health (NIOSH) certification and be recognized as fully compliant with both NIOSH and Occupational Safety and Health Administration (OSHA) regulations.

Engineers from ECBC's Engineering Directorate have changed several elements on the original M53 mask at the request of the JMP-P to prepare the equipment for NIOSH approval. The new mask will provide protection against traditional chemical, biological, radiological and nuclear (CBRN) warfare agents; select toxic industrial materials; toxic industrial chemicals; and particulate matter including radioactive dust.

To achieve the NIOSH CBRN certification, the mask will be fitted with the NIOSH-approved CBRN filter in place of the standard military M53 series respirator filter. The proposed M53A1 NIOSH CBRN respirator will have enhanced operational flexibility and include features such as improved chemical protection; better field of view; and superior weapon sighting, with a reduced sustainment and lower life-cycle costs to the Army.

The JPEO-CBD, JPM-P, and ECBC are leveraging their various competencies to pursue final certification, which is expected in the next year.

For more information about ECBC, visit <http://www.ecbc.army.mil>.

ECBC is the Army's principal research and development center for chemical and biological defense technology, engineering and field operations. ECBC has achieved major technological advances for the warfighter and for our national defense, with a long and distinguished history of providing the Armed Forces with quality systems and outstanding customer service. ECBC is a U.S. Army Research, Development and Engineering Command laboratory located at the Edgewood Area of Aberdeen Proving Ground, Maryland. For more information about the Edgewood Chemical Biological Center, please visit our website at <http://www.ecbc.army.mil> or call (410) 436-7118.

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