

# Joseph T. Menke

## Present Affiliation

U.S. Army ARDEC  
Armament Research, Development & Engineering Center  
Rock Island, Illinois 61299

## Title

Chemical Engineer/Chemist

## Responsibilities

Materials/finishes necessary to prevent corrosion of defense materiel

## Previous Affiliations

U.S. Army Weapons Command Laboratory - Chemist  
U.S. Army Industrial Base Engineering Activity - Chemical Engineer

## Academic Background

B.A., St. Ambrose College, Davenport, Iowa, Major - Chemistry  
Graduate work at University of Iowa, Iowa City, Iowa

## Society Activities

National Association of Corrosion Engineers (NACE)  
Chemical Coaters Association International (CCAI)

## Papers

### \* Publications



Alkaline Derust Processing  
Ion Plating of Weapon Materiel (IVD)  
\* Ten Commandments of Material Deterioration  
\* Anatomy of an Electronic Black Box  
\* Editorial - The 51st State: The State of Corrosion  
Corrosion of DIPs Packaged in Cellular Cushioning Materials  
\* Role of Chloride in Electronics Processing  
\* Military Electronics - A History and Projection  
\* Whisker Growth on Electronics  
Evaluation of CARC Paint from Mainz Army Depot  
Factors Affecting Brittle Failure of Grenades During Press Loading  
\* Factors Affecting Hydrogen Embrittlement During Metal Processing  
\* Engineering Aspects of Cadmium Plating  
\* Phosphate Coating Specifications - A Comparison  
\* Coverage - A Phosphate Pretreatment Problem  
\* Zinc Phosphate Coatings on Non-Ferrous Substrates  
\* Corrosion Assessment of M119 Howitzer  
\* Corrosion of VCI Protected Components  
\* Failure Analysis of Fuze Power Supply  
\* Corrosion of Steel Surfaces on Machining Equipment  
\* Over-spraying Paint on Rubber  
\* Phosphate Coating of Machine Gun Belt Links  
\* Corrosion Design Criteria for Electronics/Simulators  
\* Optional Pretreatment for CARC Paint  
\* Corrosion: A People Problem/Solution  
\* Phosphate Pretreatment vs. Performance of Coatings on Steel  
\* Corrosion of Power Supply Unit in a Chemical Agent Detector  
\* Failure Analysis of the Ring Gear Bearing in the M198 Howitzer  
\* In-Process Corrosion Control  
\* Torque-Tension and Corrosion Resistance of Plated Fasteners  
\* Non-chromium Final Rinses for Phosphate Coatings-2004&2009  
\* Hydrogen Embrittlement in Army Fastener Applications  
Performance of Zinc Rich Primer and CARC Topcoat Paint System  
\* The Eight Forms of Non-Metallic Corrosion  
\* The Corrosion Resistance of Weapon Lubricants  
\* Corrosion Failure of Red Smoke Containers

## Patents

Phosphate Coating Stainless Steel  
Magnesium Anodize Bath Control  
Black Oxide Coating of 400 Series Stainless Steel