



# HARNESSING THE POWER OF TECHNOLOGY for the **WARFIGHTER**

**CAPT JT Elder, USN**  
**Commanding Officer**  
**NSWC Crane**

## ***Solving Critical Military Battery Industrial Base Challenges*** ***With Title III: A User's Perspective***

**Keith DeVries**  
**25 Aug 2015**

**Dr. Adam Razavian, SES**  
**Technical Director**  
**NSWC Crane**

Distribution Statement A. Approved for Public Release; Distribution is unlimited.



# Defense Production Act

*(50 U.S.C. App. § 2061 et seq. )*

- **Enacted in 1950**
- **Provides the President Unique Authorities to Maintain & Enhance the Defense Industrial and Technological Base**
- **Title I – Defense Priorities & Allocations**
  - **Delegated via DoC to User Agencies: DoD, DoE, GSA, FEMA**
- **Title III – Expansion of Productive Capacity and Supply**
  - **Delegated via SECDEF to USD AT&L**
- **Title VII – General Provisions**
  - **Exon-Florio (Committee on Foreign Investment in the US – CFIUS)**



# Title III of the Defense Production Act

*(50 U.S.C. App. § 2061 et seq. )*

- **A Robust Set of Legal Authorities**
- **In Cases Essential to National Defense**
- **Domestic Industrial Base at Risk**
- **Establish Commercially Viable Industrial Capabilities**

Authorizes use of special economic incentives e.g., purchases, purchase commitments, the guarantee of purchase or lease of advanced manufacturing equipment for installation in government or privately owned facilities, loans or loan guarantees in order to “develop, maintain, modernize, and expand the productive capacities of domestic sources for critical components, critical technology items, and industrial resources essential for the execution of the national security strategy of the United States” -- EO 13603



# **Title III Authorities**

*(50 U.S.C. App. § 2061 et seq. )*

- **Purchases (Sec. 303a)**
  - **Engineering Support to Improve Quality and Yield Test Quantities for Process Validation and Qualification Testing**
  - **Costs to Develop Business and Marketing Plans**
- **Installation of Equipment in Industrial Facilities (Sec. 303e)**
  - **Purchases, Installation and Title Transfer of Production Equipment**
- **Development of Substitutes (Sc. 303g)**
  - **For Strategic and Critical Materials, Critical Components, Critical Technology Items, and Other Industrial Resources**

[dpatitle3.com](http://dpatitle3.com)

# When to Consider Title III

- **Military Unique Industrial Base - Uses Unique Chemistry, Cells and Batteries**
- **Military Unique Product - Military Uses Same Chemistry as Commercial Industrial Base to Build a Unique Product**



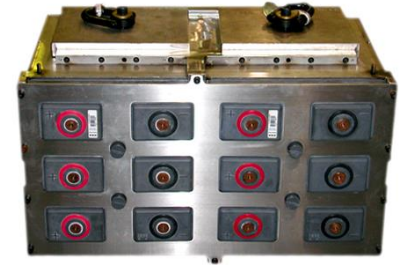
- **COTS - Military Uses Same Industrial Base and Products**



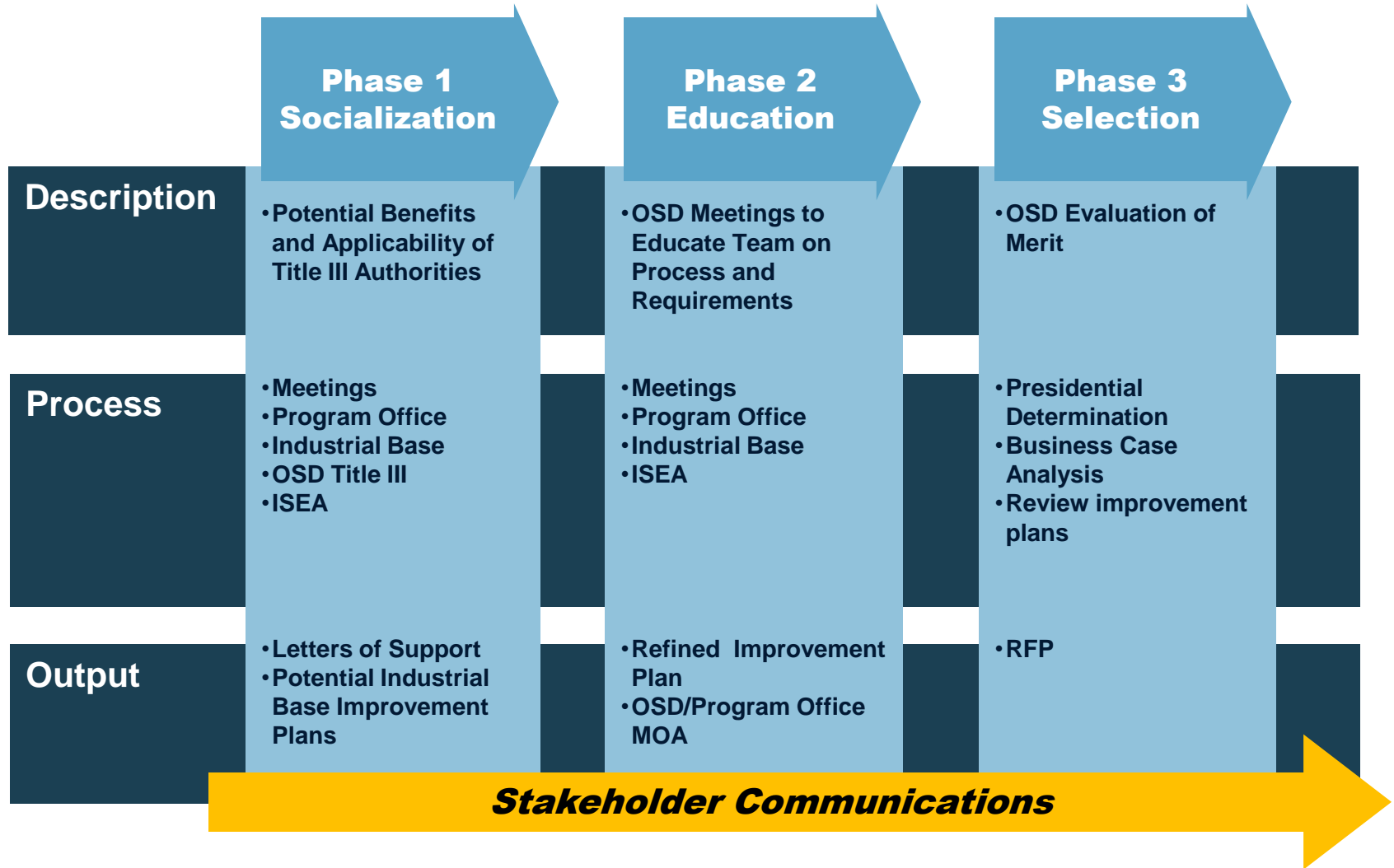
Distribution Statement A. Approved for Public Release; Distribution is unlimited.

# Submarine Main Power Battery

- **Used on All Submarine Classes**
- **Design History**
  - Replacement of Flooded Lead Acid Batteries with Valve Regulated Lead Acid (VRLA) Batteries
  - Modified COTS
- **Performance Realities**
  - Large Cells Perform Differently From Smaller Ones
  - Submarine Application Built Around Characteristics of Flooded Cells



# Process Flow



- **Title III Authorities Can Be a Powerful Additional Tool When**
  - **Industrial Base or Product is Military Unique**
  - **Commercial Viability (Establish commercially viable industrial capabilities)**
  - **Essential to the National Defense**
  - **Other Efforts Cannot Reasonably be Expected to Provide a Solution in Timely Manner**
- **All Stakeholders Must be on Board**
- **Continued Communications Are Critical**





# Point of Contact

**Keith Devries**

*Battery Industrial Base Sustainment*

*NSWC Crane Division*

*[keith.devries@navy.mil](mailto:keith.devries@navy.mil)*

**812.854.2666**

**(fax) 812.854.2043**

**(cell) 812.296.9901**

[dpatitle3.com](http://dpatitle3.com)