



Interagency Bolt Action Team (IBAT) Charter

Background

The Bureau of Safety and Environmental Enforcement (BSEE), in response to reports of subsea critical drill through equipment bolt (fastener) failures directed its Quality Control-Failure Incident Team (QC-FIT) to conduct several technical evaluations related to the design, manufacture, material selection, and performance of subsea bolt failures¹. BSEE encouraged the oil and gas industry to address offshore fastener safety concerns that pose a significant risk to both personnel safety and the environment. Recently, the BSEE Director expressed concerns about the oil and gas industry's speed with regard to addressing the subsea fastener failure issues. As a result, an Interagency Bolt Action Team (IBAT) was formed for the purpose of promoting collaboration among federal partners in order to share expertise, information, data, experiences, and best practices on fastener safety and recommend possible solutions to resolve critical equipment fastener failures.

Introduction

The mission of the Interagency Bolt Action Team is to broadly communicate, share knowledge, offer expertise about fastener performance; conduct research; document failure history; evaluate fastener equipment failure data; assess fastener equipment manufacture and applications (materials, environment, and quality); and recommend guidelines and/or standards for fastener use on critical equipment.

Whereas, BSEE has a concern with fastener failures in a subsea environment and is interested in developing partnerships with other federal agencies for the purpose of sharing research and expertise; and

Whereas, BSEE is a federal agency that regulates and oversees the offshore oil and gas industry and wants to increase the safety throughout the industry; and

Whereas, industries outside the offshore oil and gas industry have expertise in fastener performance and similar fastener concerns; and

Whereas, this IBAT charter will establish a mechanism for the participating parties to share information and expertise relating to bolt design, manufacturing, installation, and performance; and

Now therefore, BSEE establishes the Interagency Bolt Action Team (IBAT) to address the fastener failure concerns.

Goals

The goals of the IBAT are:

¹ Fasteners are considered any hardware that mechanically joins two or more objects together, e.g. bolts, nuts, studs, etc.

1. Form a diverse repository of information related to fastener failures that can be used by all agencies to make better informed decisions.
2. To assess fastener materials, performance and best practices throughout multiple industries.
3. Collectively share and review the following: design; materials; coatings; installation; quality assurance (QA)/Quality Control (QC); inspection; monitoring; maintenance; environment; failure data; research; failure testing and analysis; performance; manufacture processes; regulations; industry standards; human factors; and best practices.
4. Review fastener performance and qualify the use of fasteners in various environments across industries.
5. Determine the various fastener standards that exist in the various industries.

Value

The IBAT will allow the participating agencies with expertise from multiple industries to communicate periodically in order to share their knowledge of various incidents and failures, and make a unified determination influencing the best practices (planning, designing, construction) for fasteners application in different environments. The team will also work together to characterize the operating environment for bolt usage and the possible impacts the environment has on bolt integrity. This sharing of information and characterization of environments will benefit all participating agencies by increasing the available information for evaluating that a bolt design is fit for service for the proposed operating environment. This effort would encourage the use of performance-based best operating practices to promote operational safety and protect the environment. The data would provide industry information about performance trends allowing each corresponding industry to benchmark their performance against aggregate relevant data.

Deliverables

BSEE will serve as the secretariat for this team and maintain the IBAT Action Plan. The IBAT deliverables include, but are not limited to the following:

- Meeting summaries and roster of participating agencies.
- Record of past and current known bolt failures; lessons learned; and future research studies with IBAT members including the following:
 - Fastener failure data; root cause analyses (RCA) reports; raw data; fastener failure trends; fastener failure history based on fastener type, material, and environment; fastener test procedures and test data; fastener performance; and best practices;
- Establishing connections among subject matter experts with knowledge of relevant bolt projects;
- Determining the gaps in knowledge related to bolt design, manufacturing, and environmental impacts;
- Providing a review of industry standards and best practices across industries;
 - BSEE has a contract with Argonne National Laboratories (ANL) to do an industry standards requirements gap analysis; and
- Development of consistent/standard material planning requirements (MPR) for bolts

Meetings

The IBAT will meet quarterly. Meeting summaries will be shared with each participating agency.

Amendments and Review

The terms of this charter may be amended by written request to the Deputy Director of BSEE. This team shall be in effect through December 31st, 2018.

IBAT Agency Capabilities and Subject Matter Expert(s)

Each IBAT member will provide a summary statement of their agency's relevant fastener expertise, experience, capabilities and limitations (e.g. restrictions on providing guidance for industry standards).

Each IBAT agency member will designate at least one subject matter expert (SME) who will participate in IBAT meetings, telecons, initiatives, etc. A biography or resume outlining the designated SME's experience, knowledge, and expertise should be provided.

Use of Name

Agencies are free to identify themselves as participants on the IBAT. The participating parties agree not to use each others names in any advertising or other form of publicity without the prior written consent of that participating party.

Resolution

With this charter, BSEE establishes the Interagency Bolt Action Team (IBAT), bringing several federal agencies together to share information and knowledge of best practices for fastener safety throughout the regulated industries.



Doug Morris
Chief, Office of Offshore Regulatory Programs
Bureau of Safety and Environmental Enforcement

8/31/17
Date

IBAT Members

- U.S. Department of the Interior
 - Bureau of Safety and Environmental Enforcement (BSEE)
 - Bureau of Land Management (BLM)
- U. S. Department of Energy (DOE)
 - DOE Headquarters (DOE-HQ)
 - DOE – National Energy Technology Laboratory (DOE-NETL)
 - DOE – Oak Ridge National Laboratory (ORNL)
- U.S. Department of Homeland Security (DHS)
- Federal Energy Regulatory Commission (FERC)
- National Aeronautics and Space Administration (NASA)
- U.S. Department of Commerce - National Institute of Standards and Technology (NIST)
- U.S. Nuclear Regulatory Commission (NRC)
- U.S. Department of Labor - Occupational Safety and Health Administration (OSHA)
- U.S. Department of Transportation
 - Pipeline and Hazardous Materials Safety Administration (PHMSA)
- U.S. Coast Guard (USCG)
- U.S. Navy
 - U.S. Naval Surface Warfare (Naval Sea Systems) Command – NAVSEA, Carderock (NSWC)
 - U.S. Naval Research Laboratory (NRL)