IBAT Meeting Summary

March 30, 2017

Attendees

BSEE – Joe Levine, Candi Hudson, Staci King, Tom Lillie, Vincent Burke, Nathan Good, Bipin Patel, Mark Kozak, Chris Oliver, Neil Funwei, Julian Pham, Trang Vu, Christy Lan
OSHA – Dan Crane
NASA – John Figert
PHMSA – Vincent Holohan
Naval Research – James Jennings
NETL – David Alman
NIST – Tim Foecke

Action Items:

1. BSEE to update the IBAT Charter and redistribute
2. PHMSA to share information on known bolt failures on pipelines
3. All members to provide a list of applicable standards for each industry
    A. BSEE will consider adding to standards gap analysis database
4. Consider database for knowledge & information sharing per IBAT members feedback during meeting
5. All members to provide feedback on proposed IBAT meeting dates
    A. June 29, 2017
    B. September 21, 2017
    C. December 14, 2017

2017 IBAT Team Goals

1. Data sharing
    A. This is IBAT's highest priority
    B. BSEE will share ANL gap analysis
    C. A list of applicable standards for each industry
2. Determine operating environment (Fit-for-Service Environment)
    A. Holistic approach to looking at environments in which bolts occur
3. Material planning requirement (MPR) consistency

Summary

1. IBAT Charter discussion
    A. Goals
        i. Sharing information is the key goal of this group
        ii. Make the repository the top goal on the IBAT Charter to make it more prominent
            a. Repository should be kept as an informal sharing of information
    B. Value
        i. Punctuation errors in the first sentence.
        ii. Add "sharing information" to the value of this team as well
        iii. Characterize operating environment for bolt usage
            a. Microbiological impacts of seawater
            b. Salinity
            c. Water depth

C. Deliverables
    i. Connect subject matter experts to other relevant bolt projects
    ii. Determine the knowledge gaps
    iii. Review standards, best practices across industries
        a. BSEE has contract with ANL to do an industry standards requirements gap analysis
    iv. Consistent/Standard material planning requirement (MPR)

Recent Bolt Investigations Discussion

a. Bay Bridge Bolts Failure
    A. Similar failure modes as BSEE has seen in subsea environment

2. Navy
    A. Navy uses corrosion resistant alloy materials for fasteners in subsea environment
    B. Starting to see materials with non-homogeneous microstructure (banding). This microstructure impacts the result material properties.
    C. More materials coming in from Europe – a concern
    D. Continuous casting causing problems
    E. Considering recommending to ASME and ASTM to add concerns with continuous casting and recommend batch mold casting into standards
    F. May incorporate concerns with continuous casting and recommend batch mold casting into Navy specifications in the future
    G. NOTE: PHMSA has seen similar problems with continuous casting in previous work in a shipyard

3. PHMSA
    A. Only a few failures involving bolts
    B. Weld failures are more frequent on pipelines