SAFETY BULLETIN



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Concerns about Offshore Epoxy Adhesive Use

Recent offshore inspections by BSEE personnel revealed the widespread use of composite repairs (i.e., epoxy adhesives). Numerous applications were identified as questionable with respect to manufacturers' recommended usage and industry accepted practices. The inspections also revealed that the epoxy repairs were done without a risk assessment or a determined repair life.



Pipe Support Connection



Tie Down



Improper Surface Prep Application

Epoxy adhesives should only be used in strict compliance with the manufacturers' stated recommendations for the intended use of the adhesive and the procedures for its application. Epoxy adhesives should not be used for any application that requires a permanent repair.

Repairs to production process piping:

You must seek approval from the BSEE District Manager before you make temporary repairs to facility piping. Such requests must be made on a case-by-case basis for a period not to exceed 30 days, per 30 CFR 250.841(b). For production equipment, operators should seek guidance from the respective BSEE District Office prior to the use of an epoxy adhesive. The communication should inform the District Office of the type of adhesive, the equipment to which it is being applied, the purpose of the application, and the method of application. Additionally, the communication should include a risk assessment associated with the use of the adhesive and the projected repair life.

Repairs to structural steel:

Approval for the use of any epoxy composite or adhesive requires an application for a repair or modification permit; this permit is required for both paste grade or fluid grade epoxy, and also when used as a repair option for use in applications on offshore oil and gas fixed or floating platforms. The permit must be submitted to the BSEE Office of Structural and Technical Support in accordance with 30 CFR §250.905. Structural

applications are defined as any use of these products for strength (connections), load transfer/capacity, or tie-down.

Therefore, BSEE recommends that operators:

- Ensure that all employees applying epoxy adhesives on production piping or equipment, or for structural applications, are familiar with the recommendations of current industry practices including ASME PCC-2; follow the requirements of 30 CFR 250.841 and 250.905; and are trained in the application of epoxy adhesives.
- Ensure that manufacturer's specifications regarding the use of epoxy adhesives are located with the product on facilities.
- Conduct a survey of current applications of epoxy adhesives to determine if the adhesive was applied properly and in accordance with manufacturer's specifications and regulatory requirements. The survey should also determine if the repair life of the application has been exceeded.
- Take the necessary actions to resolve any deficiencies identified during the above referenced survey.

A **Safety Bulletin** is a tool used by BSEE to share lessons learned from an incident or near miss. It also contains recommendations that should help prevent the recurrence of such an incident or near miss on the Outer Continental Shelf.