



BSEE has seen an increase in incidents involving grating. These incidents are a result of personnel misjudging grating integrity and/or not understanding how physical changes to the grating affect integrity. In 2020 and 2021, there were multiple grating failure incidents reported to BSEE, including:

- A fatality incident occurred when grating gave way (bottom image) as personnel stood on grating after it had been ripped (top image) and chisel gunned.
- A man overboard incident occurred when grating shifted as personnel walked on the grating after the welds holding the grating to the structure were removed.
- A near-miss incident occurred when a worker walked over severely deteriorated grating, but caught himself before falling completely through.

When replacing grating, demolition operations such as ripping grating (cutting the crossbars along a sheet), needle or chisel gunning, and removing anchor welds can affect a section of grating's ability to hold personnel or equipment. The ability of deteriorated grating to hold weight cannot be determined visually or by prior experience, especially after demolition operations have begun.

For detailed information about the fatality incidents, see BSEE panel reports [2022-01](#) and [2022-02](#).

**Therefore, BSEE recommends that operators and contractors consider the following:**

- Train personnel on the dangers of insufficient grating.
  - Physical alterations to grating such as ripping, needle or chisel gunning, and/or removing anchor welds or clips will decrease the load capacity possibly causing grating that held persons before these actions to become unsafe.
  - When replacing deteriorated grating, personnel should assume the grating to be unsafe to walk on without fall protection.
    - The integrity of deteriorated grating cannot be judged visually.
    - Walking on deteriorated grating previously without incident does not ensure an incident will not occur.
  - Modifications to a sheet of grating can affect the rated load capacity.
- Create or revise procedures for the removal and replacement of grating to ensure removal preparations do not create a more hazardous walking and working surface, specifically for work on large areas or entire decks.
  - Procedures should provide orderly steps conducive to working on small areas of affected grating at a time and identify safe working practices.
- Practice preventative maintenance rather than reactive maintenance where possible. Replace grating before it is deemed hazardous.

A **Safety Alert** is a tool used by BSEE to inform the offshore oil and gas industry of the circumstances surrounding a potential safety issue. It also contains recommendations that could assist avoiding potential incidents on the Outer Continental Shelf.

**Category: Grating/Open Holes**