2.2.10 Procedure for Backfilling

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Scope

The following work procedure must be followed whenever Fiberspar LinePipe is being backfilled.

Introduction

To assist field operations when backfilling Fiberspar LinePipe, this procedure and accompanied Backfill Decision Tree have been developed. The decision tree is designed to help determine if backfilling can be conducted normally, or if special measures are required to protect the LinePipe. In the Decision Tree a rock is defined as any object (including frozen dirt) having a diameter of ⍰4 in. (30 cm). No rock is perfectly spherical and this sizing criterion should, therefore, be considered a guideline value and will require the judgment of field personnel.

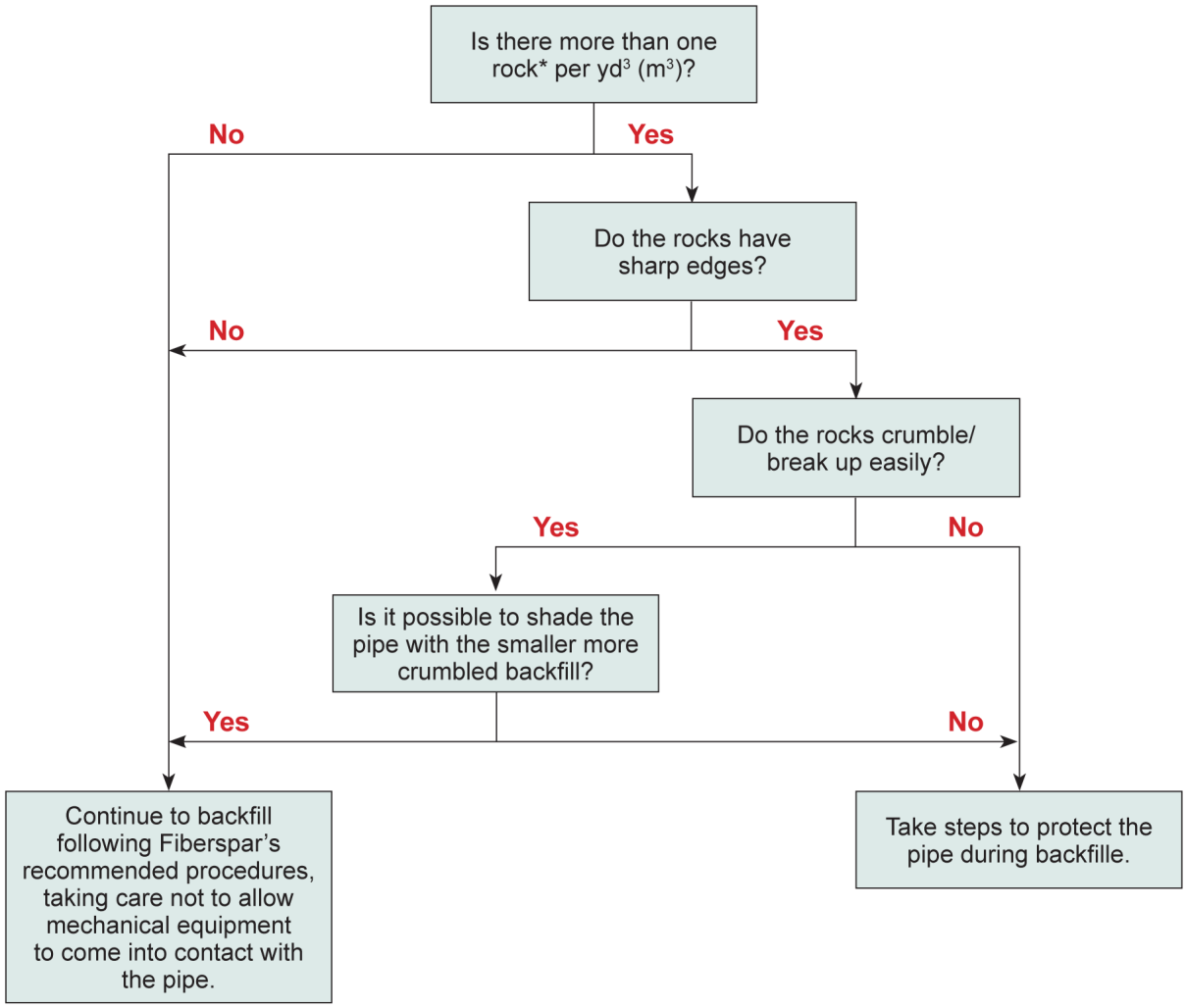
Procedure

- Before backfilling, Fiberspar LinePipe should be inspected to ensure that there is no visible damage and that the pipe is bedded on smooth soil so that the weight of backfill will not press the pipe down onto a point load underneath.

- Care should be taken with backfilling, particularly in shading the first 1 ft (30 cm) of cover. The first 1 ft (30 cm) of cover should not contain any large rocks, and the pipe should be covered gently, taking care not to allow mechanical equipment to come into contact with the pipe.

- Larger rocks, large pieces of frozen soil or tree trunks can be used as infill once a reasonable cover over the pipe is achieved, but these should not be dropped into the ditch during the backfill process.

If the backfill material is not suitable, several methods of dealing with LinePipe that requires protection are suggested in the Decision Tree. These suggestions are not meant as an exhaustive list and practical solutions may be found in different locations. The main aim of any backfilling process is to protect the LinePipe from large/sharp rocks that could externally damage the LinePipe over time. It should be noted that damage from rocks can come from below as well as above, and attentions should, therefore, also be given to trench bottoms that may pose a threat to the pipe. Every location will require a judgment call to be made and other factors such as the skill level of the backhoe operator will also come into play.



Although every case will be different possible steps to protect the pipe during backfill include:

1. Shade the pipe with sand for a depth of 1 ft (30 cm).
2. Use a sieve bucket attached to the end of the backhoe to remove the larger rocks until the pipe is covered to a depth of 1 ft (30 cm).
3. Wrap the pipe with a rock guard such as Tuff-N-Nuff©
4. Spray the line with a protective foam

* A rock is classified as any object (including frozen dirt) having a diameter of > 4 in. (30 cm)