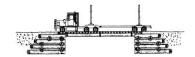


ENGINEERING BRANCH

FIELD OPERATIONS DIVISION

ENGINEERING BULLETIN



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FSR Bridge Inspections and Load Rating Posting Responsibility

This bulletin is best viewed electronically as there are embedded hyperlinks to reference documents.

By policy, the Ministry retains the responsibility for bridge and major culvert inspections on Forest Service roads given the significant value of these structures and their implications on safety. Scheduling of routine condition inspections of FSR bridges and major culverts is typically coordinated through Ministry Bridge Engineers in the Engineering Groups, Engineering Branch, Field Operations Division.

Where there are industrial users on Forest Service roads, a District Manager will delegate maintenance responsibility to one of the RUP holders, excepting the responsibility for bridge inspections as advised in the covering letter for RUPs (FS102A) which states:

"The Ministry of Forests and Range will continue to carry out 2 or 3 year inspections of Forest Service bridges and major culverts. If responsible for maintenance, please note that you may be required to carry out the necessary repair or replacement of bridges and major culverts. The maintenance work shall be consistent with Ministry of Forests and Range regulations."

The determination of load ratings on Forest Service road bridges generally resides with the Ministry of Forests and Range. However, where a maintainer, in the course of their operations, encounters a potential safety concern, structural defect or deficiency with an FSR bridge or major culvert, <u>Section 75 of the Forest Planning and Practices Regulation</u> requires them to address the problem by doing one or more of the following:

- (a) correct the defect or deficiency to the extent necessary to protect
 - (i) industrial users of the bridge, and
 - (ii) downstream property, improvements or forest resources that could be affected if the bridge fails;
- (b) close, remove or replace the bridge;
- (c) restrict traffic loads to a safe level;
- (d) place a sign, on each bridge approach, stating the maximum load capacity of the bridge

It would be expected that if the maintainer determines that the bridge or major culvert needs to be closed, removed or replaced or loads restricted to a safe level, that they would inform the District Manager. In such cases, it would be anticipated that the Ministry would inspect the structure and determine an appropriate course of action. Note that if a licensee wants to replace an FSR bridge structure, under Section 79 (7) of the FPPR, they are required to provide 30 days notice to the District Manager who may impose requirements (District Manager Requirements letter).

Bridge and Major Culvert Inspection

The Engineering Manual, section 6.7 (note that this section of the manual is being updated at this time), provides guidance, including responsibilities, for Routine Condition and Close Proximity Bridge Inspections on FSR bridges and major culverts. Bridge and major culvert inspections are required to be carried out by qualified personnel. For identified safety concerns, structural defects or deficiencies, inspectors are expected to bring them to the attention of District Manager or Timber Sales manager as soon as possible. Where the safety concern is of significant risk, the inspector should take immediate action in the field as appropriate to the situation which could include: closing the bridge or restricting the loads to a safe level by placing a sign on each approach to the bridge.

Ministry staff would review and take necessary action, when it becomes aware of a safety concern, to evaluate, down rate or close a bridge or major culvert. Where MFR is responsible for maintenance, MFR would repair the deficiencies, close and/or remove the bridge and advise known users of findings. If there is a delegated maintainer, MFR would advise known users and, in particular, the designated maintainer who would be responsible for repairs, down rate or close a bridge or major culvert, as appropriate <u>as soon as possible</u>.

FSR bridge inspection reports are to be reviewed by Ministry Bridge Engineers. Deficiencies identified in inspection reports must be conveyed by the District Manager to the designated maintainer for addressing.

Note that delegated maintainers as part of their obligation to maintain the road would conduct road inspections. In carrying out road inspections, they will likely inspect surficial aspects of bridges and major culverts such as condition of bridge signage, approaches, curbs and deck planks, scour and debris. These road-related inspections would not constitute routine condition or close proximity bridge inspections, and are not a substitute for, nor preclude routine condition inspections.

More detail on policy and guidelines relating to bridge and major culvert inspection, load posting, procedures and roles and responsibilities can be found in the Engineering Manual.

Posting of Downrated Structures

Where crossing structures are identified with safety concerns, structural defects or deficiencies and/or are down load rated (not having full design capacity), permitted and known users are to be advised as soon as possible by the District Manager. Forest Districts should ensure that down rated FSR structures are posted with the allowable load rating, in the field, as soon as possible. Once posted, the responsible maintainer would be required to maintain the signs.

Posted load rating signs will take the form as follows:





OR

For further information on the interpretation of Load Rating, please refer to Engineering Bulletin #1, or the Engineering Manual, Section 6.7.

The sign constitutes a "traffic control device" as defined in <u>Section 6 of the Forest Service Road Use Regulation</u>. The regulation specifies:

- 3) A person must not erect a traffic control device on a forest service road without the prior consent of the district manager in whose district the road is situated
- 4) A person must not damage, deface or remove a traffic control device erected or posted on a forest service road or its right of way without the consent of the district manager.
- 5) A person must not operate a vehicle contrary to a traffic control device

The regulation does not permit an RUP holder to increase a posted load rating without approval from the District Manager. Further, road users must comply with a posted load rating sign. Actions to the contrary would be a contravention under <u>Section 13 of the FSR Use Regulation</u>.

Further Information

For additional information, please refer to the **Engineering Manual**, Section 6.7.

If there are any questions about the content of this bulletin, please contact any of the Engineering Group, Bridge Engineers or:

Brian Chow Chief Engineer (250) 387-8615 <u>Brian.Chow@gov.bc.ca</u>
Mike Penner Bridge Engineer (250) 387-6566 <u>Mike.Penner@gov.bc.ca</u>