

**Audit of Timber Harvesting
and Road Construction,
Maintenance and Deactivation**

**Forest Licence A20010
Tolko Industries Ltd.
QuestWood Division**



December 1998

FPB/ARC/13

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A. Report from the Board

This is the Board's report on a compliance audit¹ of Forest Licence A20010² held by Tolko Industries Ltd—Questwood Division (Tolko). Activities under this licence took place in eight operating areas located west of Quesnel (see map).

The audit examined Tolko's timber harvesting, road practices, and related operational plans, for the period May 1, 1997 to July 17, 1998. The audit assessed compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

The Board's conclusions are based on an audit of the following plans and practices:

- harvesting of 53 cutblocks
- operational planning for 78 silviculture prescriptions and 58 logging plans, some of which related to the above cutblocks
- layout and design of 25 kilometres of road
- construction of 88.3 kilometres of road
- maintenance of approximately 426 kilometres of road
- temporary deactivation of 17.8 kilometres of road
- maintenance of seven bridges

Conclusions

Tolko's timber harvesting and road construction, maintenance and deactivation practices complied with Code requirements in all significant respects.

The instances of non-compliance identified by the audit were few in number and minor in nature. Areas adjacent to small streams and wetlands were provided more protection than the Code requires.

The Board notes that Tolko made a substantial effort to ensure that interested parties had an opportunity to comment on changes to its approved forest development plan before harvesting and road construction began. These allowed Tolko to harvest trees affected by bark beetles and blowdown. These minor changes are not normally provided for public review under the Code.



Keith Moore
Chair
December 7, 1998

¹ Part B of this document provides background information on the Board's audit program and the process followed by the Board in preparing its report.

² The report from the auditor (Part C of this document) provides specifics about the operating areas of Forest Licence A20010, the forest planning and field activities of Quest Wood that were the subject of this audit, and the audit findings.

B. Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government's and agreement holder's compliance with the *Forest Practices Code of British Columbia Act* and regulations (the Code). The Board is given the authority to conduct these periodic independent audits by section 176 of the Act. Compliance audits examine forest planning and practices to determine whether or not they meet Code requirements.

The Board undertakes both "limited scope" and "full scope" compliance audits. A limited scope audit involves the examination of selected forest practices (e.g. roads, or timber harvesting, or silviculture) and the related operational planning activities. A full scope audit examines all operational planning activities and forest practices.

The Board determines how many audits it will conduct in a year, and what type of audits (limited or full scope), based on budget and other considerations. The Board audits agreement holders who have forest licences or other tenures under the *Forest Act* or the *Range Act*. The Board also audits government's Small Business Forest Enterprise Program (SBFEP) which is administered by Ministry of Forests district offices. Selection of agreement holders and district SBFEPs for audit is done randomly, using a computer program, to ensure a fair, unbiased selection of auditees.

Audit Standards

Audits by the Forest Practices Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with generally accepted auditing standards.

The audits determine compliance with the Code based on criteria derived from the *Forest Practices Code of British Columbia Act* and its related regulations. Audit criteria are established for the evaluation or measurement of each practice required by the Code. The criteria reflect judgments about the level of performance that constitutes compliance with each requirement.

The standards and procedures for compliance audits are described in the Board's "Reference Manual — Compliance Audits, Version 3, May 1998".

Audit Process

Conducting the Audit

Once the Board selects an audit and decides on the scope of the audit (limited scope or full scope), the staff and resources required to conduct the audit and the period covered by the audit are determined. Board staff also meet with the party being audited to discuss the logistics of the audit before commencing the work.

All the activities carried out during the period subject to audit are identified. This includes activities such as the sites harvested or replanted and road sections built or deactivated during the audit period. The items that comprise each forest activity are referred to as a “population.” For example, all sites harvested form the “timber harvesting population.” All road sections constructed form the “road construction population”. The populations are then sub-divided based on factors such as the characteristics of the sites and the potential severity of the consequences of non-compliance on the sites.

The most efficient means of obtaining information to conclude whether there is compliance with the Code is chosen for each population. Because of limited resources, sampling is usually relied upon to obtain audit evidence, rather than inspecting all activities.

Individual sites and forest practices within each population have different characteristics, such as the type of terrain or type of yarding. Each population is divided into distinct sub-populations on the basis of common characteristics (e.g. steep ground vs. flat ground). A separate sample is selected for each population (e.g. the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e. more audit sampling) is allocated to the sub-population where the risk of non-compliance is greater.

Audit work in the field includes assessments from helicopters and intensive ground procedures such as the measurement of specific features like road width. The audit teams generally spend two to three weeks in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code is more a matter of degree than absolute adherence. Determining compliance requires the exercise of professional judgment within the direction provided by the Board.

Auditors collect, analyze, interpret and document information to support the audit results. The audit team, comprised of professionals and technical experts, first determines whether forest practices are in compliance with Code requirements. For those practices considered to not be in compliance, the audit team then evaluates the degree to which the practices are judged not in

compliance. The significance of the non-compliance is determined based on a number of criteria including the magnitude of the event, the frequency of its occurrence, and the severity of the consequences.

As part of the assessment process, auditors categorize their findings into the following levels of compliance:

Compliance — where the auditor finds that practices meet Code requirements.

Not significant non-compliance — where the auditor, upon reaching a non-compliance conclusion, determines that a non-compliance event, or the accumulation and consequences of a number of non-compliance events, is not significant and is not considered worthy of reporting.

Significant non-compliance — where the auditor determines that the event or condition, or the accumulation and consequences of a number of non-compliance events or conditions, is significant and is considered worthy of reporting.

Significant breach — where the auditor finds that significant harm has occurred or is beginning to occur to persons or the environment as a result of the non-compliance. A significant breach can also result from the cumulative effect of a number of non-compliance events or conditions.

Identification of a possible significant breach requires the auditor to conduct tests to confirm whether or not there has been a breach. If it is determined that a significant breach has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Ministers of Forests, Energy & Mines, and Environment, Lands & Parks.

Reporting

Based on the above evaluation, the auditor then prepares the “Report from the Auditor”, for submission to the Board. The party being audited is given a draft of the report before it is submitted to the Board so that the party is fully aware of the findings. The party is also kept fully informed of the audit findings throughout the process, and is given opportunities to provide additional relevant information and to ensure the auditor has complete and correct information.

Once the auditor submits the report, the Board reviews it and determines whether any party or person is potentially adversely affected by the audit findings. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report to the public and government. The representations allow potentially adversely affected parties to present their views to the Board.

At the discretion of the Board, representations may be written or oral. The Board will generally offer written representations to potentially adversely affected parties, unless the circumstances strongly support the need for an oral hearing.

The Board then reviews both the report from the auditor and the representations before preparing its final report which includes the Board's conclusions and may also include recommendations, if appropriate.

If the Board's conclusions or recommendations result in newly adversely affected parties or persons, additional representations would be required.

Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.

C. Report from the Auditor

1. Introduction

As part of the Forest Practices Board's 1998 compliance audit program, Forest Licence A20010 was selected for audit from the population of major forest licences within the Cariboo Forest Region. The licence, held by Tolko Industries Ltd., was selected randomly and not on the basis of location or level of performance.

Forest Licence A20010 is managed by Tolko Industries' Questwood Division in Quesnel and is within the Quesnel Timber Supply Area, as shown on the attached map. The area of operation for Forest Licence A20010 is west of Quesnel, extending to the Kluskus area, and comprised of eight distinct operating areas.

Forest Licence A20010 has an allowable annual cut of 288,704 cubic metres. The actual amount harvested during the audit period was approximately 80% of the allowable annual cut, with a large component of small harvest areas that were designed to quickly address mountain pine beetle and timber blow-down.

2. Audit Scope

The audit examined the planning and field activities related to timber harvesting and road construction, maintenance and deactivation. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code), including the transitional provisions of the Code.

All timber harvesting and road construction, maintenance and deactivation activities and obligations for the period May 1, 1997, to May 31, 1998, were included in the scope of the audit. The audit included examining all aspects of operational planning - such as forest development plans¹, silviculture prescriptions², and logging plans³ - that supported the activities examined.

The activities carried out during the audit period, and therefore subject to audit, are described below:

- harvesting of 53 cutblocks
- operational planning for 78 approved silviculture prescriptions, of which 25 relate to the above harvested cutblocks
- operational planning for 58 approved logging plans, of which 23 relate to the above harvested cutblocks

- construction of 43 road sections totaling 88.3 kilometres
- maintenance of approximately 426 kilometres of road, involving activities such as surfacing and the cleaning of culverts and ditches
- temporary deactivation of 10 road sections totaling 17.8 kilometres
- maintenance of seven bridges
- development of road layout and design for 12 road sections totaling 25 kilometres

Section 3 describes the results of the audit. The Board's audit reference manual, "*Reference Manual - Compliance Audits, Version 3.0, May 1998*", sets out the standards and procedures that were used for this audit.

3. Audit Findings

Planning and practices examined

The audit work on selected roads and cutblocks included assessments from the air using helicopters and ground-based procedures. The audit examined the following:

- harvesting of 22 cutblocks, and their related silviculture prescriptions and logging plans, of which eight silviculture prescriptions and 12 logging plans were approved during the audit period
- eight silviculture prescriptions and eight logging plans for cutblocks to be harvested in the future
- construction of 23 road segments totaling 24 kilometres
- maintenance of approximately 204 kilometres of road
- maintenance of seven bridges
- development of road layout and design of nine sections of road, totaling approximately eight kilometres

Findings

The audit found that Tolko Industries complied, in all significant respects, with the road and harvesting requirements of the Code. The instances of non-compliance were few in number and minor in nature.

Riparian features such as small S6 non-fish streams and non-classifiable wetlands were provided more protection than required by the Code.

The beetle and blowdown management strategy undertaken by Tolko required a substantial number of minor amendments to the forest development plan. These amendments allowed for the

harvesting of small patches of beetle infested and damaged trees and the construction of roads or trails to access these harvest areas. The minor amendments were not subject to review and comment under the Forest Practices Code. However, Tolko made a substantial effort to ensure that review and comment by interested parties occurred before commencing the road and harvesting activities.

4. Audit Opinion

In my opinion, the timber harvesting and road construction, maintenance and deactivation activities carried out by Tolko Industries Ltd. on Forest Licence A20010 from May 1, 1997, to May 31, 1998, were in compliance, in all significant respects, with the road and harvesting requirements of the Code as of June 1998.

In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Section 2 and 3 of this report from the auditor describes the basis of the audit work performed in reaching this opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient road and timber harvesting practices to support an overall evaluation of compliance with the Code.



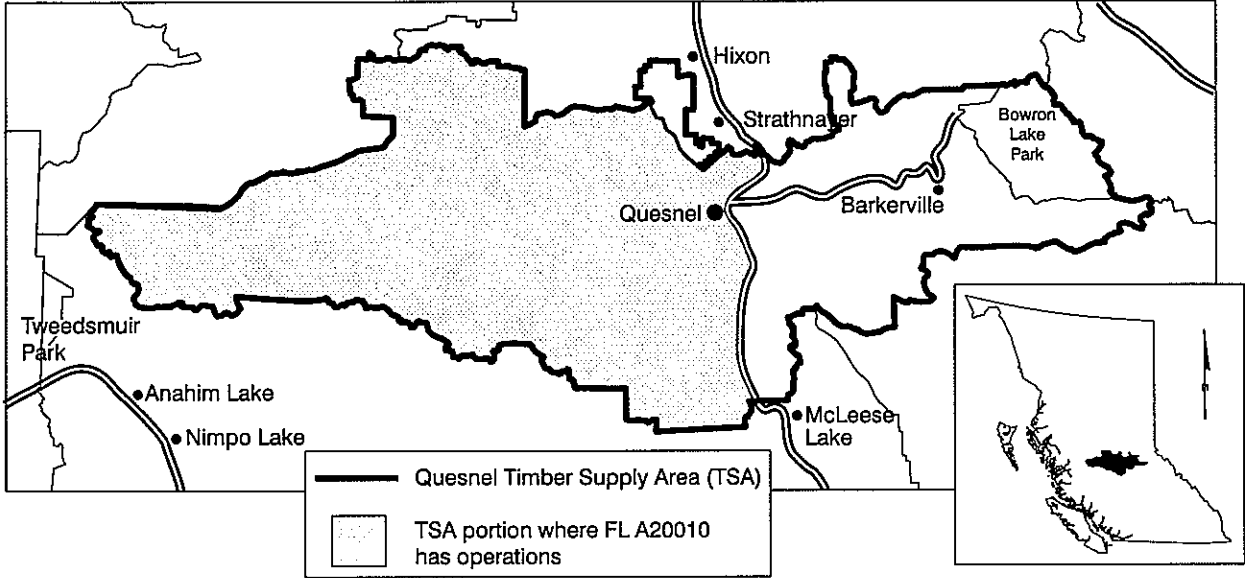
Sucha More, CA
Auditor
Forest Practices Board

Victoria, British Columbia
November 25, 1998

Endnotes

- ¹ A forest development plan is an operational plan which provides the public and government agencies with information about the location and scheduling of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect forest resources (including water, fisheries, and other forest resources). It must also illustrate and describe how objectives and strategies established in higher level plans, where they have been prepared, will be carried out. Site specific plans are required to be consistent with the forest development plan.
- ² A silviculture prescription is a site specific operational plan that describes the forest management objectives for an area to be harvested (a cutblock). The silviculture prescriptions examined in the audit are required to describe the management activities proposed to maintain the inherent productivity of the site, accommodate all resource values including biological diversity, and produce a free growing stand capable of meeting stated management objectives. Silviculture prescriptions must be consistent with higher level plans that encompass the area to which the prescription applies.
- ³ A logging plan is an operational plan that details how, when, and where timber harvesting and road construction activities will take place in a cutblock, in accordance with the approved silviculture prescription and forest development plan for the area. Information about other forest resource values, plus all current field information for the area, must be clearly shown in the logging plan.

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