



**Forest
Practices
Board**

Audit of Forest Planning and Practices

Tembec Industries Inc.
Forest Licence A19040

FPB/ARC/125
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Audit Results

Background

As part of the Forest Practices Board's 2010 compliance audit program, the Board randomly selected the Rocky Mountain Forest District as the location for a full-scope compliance audit. Within the district, the Board selected Forest Licence (FL) A19040, held by Tembec Industries Inc., for audit.

FL A19040 permits Tembec to harvest 477,652 cubic metres of timber annually from the Cranbrook Timber Supply Area (TSA). During the one-year period of this audit, Tembec harvested 546,062 cubic metres under FL A19040. The licence is currently certified to the Forest Stewardship Council 2005 standards for British Columbia. The primary operating areas are scattered throughout the TSA, around the cities of Cranbrook, Kimberley and Fernie, and the communities of Sparwood and Elkford (see map on page 2).

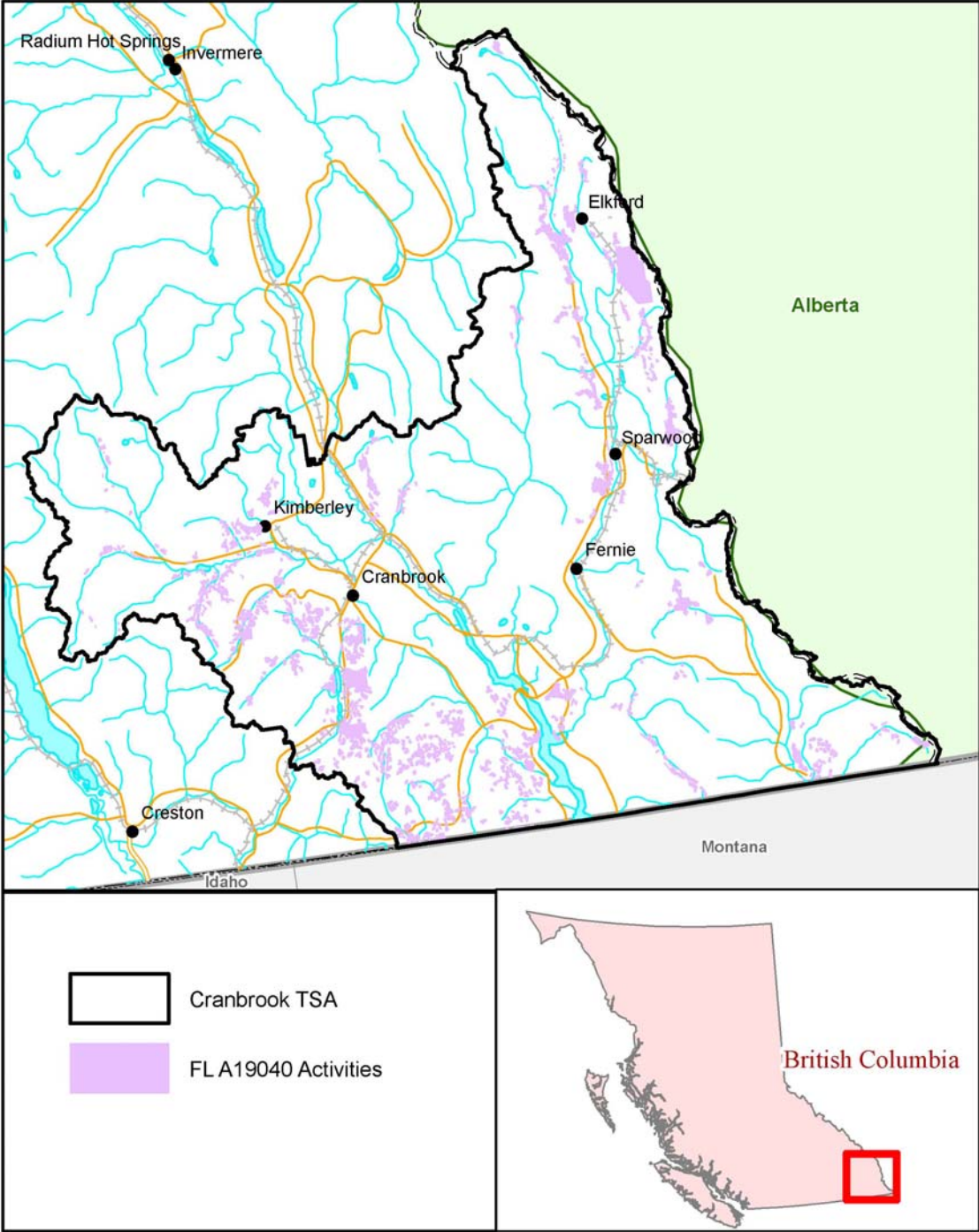


FIGURE 1. Harvest block east of Elkford.

The Board's audit fieldwork took place from July 5 to 9, 2010.

Additional information about the Board's compliance audit process is provided in Appendix 1.

**Audit of Forest Planning and Practices
Tembec Industries Inc. FL A19040**



Objectives Set by Government

Tembec's FL A19040 operates under the Kootenay Boundary Higher Level Plan Order (KBHLPO), established in October 2002. This order contains 10 objectives, most of which are relevant to forest practices. Key provisions include:

- Spatial deployment of biodiversity emphasis in legally established landscape units.
- Retention targets for old and mature forest, by landscape unit and biogeoclimatic subzones.
- Establishment of caribou-forest-retention requirements in specific zones (the original order has been refined through a variance order and later through a government action regulation).
- Green-up requirements established at 2.5 metres, except in community watersheds, visual areas and enhanced resource development zones.
- Habitat and connectivity requirements for grizzly bear (to date, this order has not been applied spatially via habitat mapping as originally envisioned).
- Provisions to protect consumptive-use streams outside community watersheds.

The Southern Rocky Mountain Management Plan was prepared as a sub-regional plan for eastern portions of the Cranbrook TSA. The plan is designed to be consistent with the KBHLPO, and was approved by Cabinet as government policy in August 2003. Examples of the forest practices aspects of this plan include spatially identified old-growth management areas; provisions to manage riparian areas in domestic watersheds; and ungulate winter range cover requirements, which have since been established under the *Government Actions Regulation*.

Audit Approach and Scope

The Board conducted a full scope compliance audit, in which all harvesting, roads, silviculture, protection activities and associated planning done between July 1, 2009, and July 9, 2010, were included in the audit. These activities were assessed for compliance with the *Forest and Range Practices Act* (FRPA), the *Wildfire Act* (WA), applicable transitional elements of the *Forest Practices Code of British Columbia Act* (the Code) and related regulations.

The Board's audit reference manual, *Compliance Audit Reference Manual, Version 6.0, May 2003*, and the addendum to the manual for the 2010 audit season, set out the standards and procedures that were used to carry out this audit.

Planning and Practices Examined

Tembec conducts operational planning under its forest stewardship planⁱ (FSP), approved in November 2006. The audit examined this FSP.

During the audit period, Tembec harvested 80 cutblocks with a gross area totaling 3,871 hectares. The audit examined 45 of those cutblocks. Most harvesting was conducted with ground-based systems. Three of the cutblocks were harvested under Code requirements and the rest under FRPA.

Tembec built 101 kilometres of road, nearly all of which was within planned or harvested cutblocks. It was responsible for maintaining 3,590 kilometres and deactivating 8.7 kilometres of road during the audit period. Tembec constructed two new bridges, and was responsible for maintaining 203 bridges. Tembec did not deactivate any bridges during the audit period.

The Board audited 37 kilometres of new road construction, 506 kilometres of road maintenance and 3 kilometres of road deactivation, as well as both new bridges and 53 maintained bridges.

Within the audit period, Tembec site-prepared 6 blocks, planted 138 blocks and gave 9 blocks brushing treatments. Also during the audit period, 138 blocks had regeneration obligations due and 90 blocks were due to meet free-growing obligations.

The Board audited 3 site-prepared blocks, 17 planted blocks, 2 of the brushed blocks, 18 blocks with regeneration obligations due, and 28 blocks that were due to meet free-growing obligations.

During the audit, six active sites were encountered and the fire preparedness requirements of WA were audited.

Findings

The audit found that the planning and field activities undertaken by Tembec Industries Inc. complied in all significant respects with the requirements of FRPA, WA and related regulations, and applicable transitional elements of the Code, as of July 2010.

Operational Planning

The audit found that Tembec incorporated the objectives of the KBHLPO into the FSP and that forest practices met the objectives and strategies.

The FSP was found to be consistent with legislated requirements including the KBHLPO. Planning at the landscape and stand level, as well as site plans, was evaluated to ensure consistency with the FSP and legislated requirements.

Timber Harvesting

The audit found that harvesting was conducted in accordance with the requirements of legislation and site plans. The majority of the logging was done to address the mountain pine beetle.

Wildlife Tree Retention (WTR)

The WTR targets are set out in the FSP, and the objectives for the WTR targets are based on biogeoclimatic subzone and landscape unit. The audit found wildlife trees were retained in patches, dispersed groups and as individual stems, focusing on non-pine and deciduous species. WTR objectives were met, and the wildlife trees provide immediate structural diversity and will act as a source of coarse woody debris recruitment over time. Auditors observed very little windthrow in WTR areas.

Riparian

Tembec demonstrated good riparian management by:

- establishing wildlife tree patches around wetlands and/or creeks; and
- locating block boundaries outside of riparian management zones where logical.

Skid Trails

The audit observed numerous instances of steep slope harvesting using ground-based equipment. In general, skid trails were fully rehabilitated shortly after harvest to recover the site for reforestation. This entailed recontouring the trails and placing organic materials back on disturbed surfaces. In this way, operations kept within the legal limits for access structure occupancy.

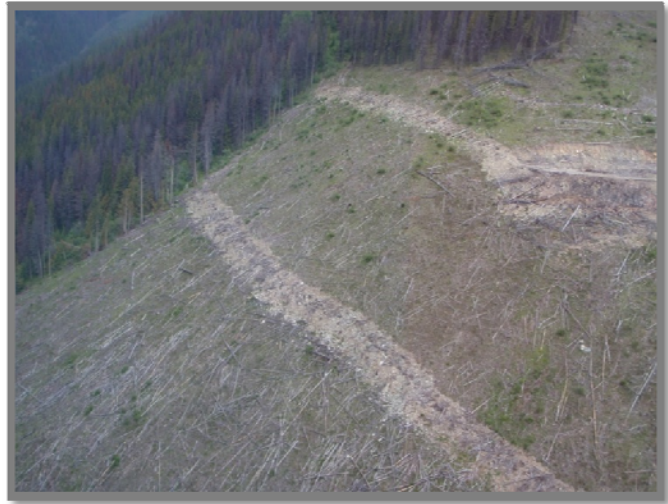


FIGURE 2. Example of rehabilitated skid trails.

Road & Bridge Construction, Maintenance and Deactivation

No concerns were identified with road and bridge construction, maintenance or deactivation during the audit. The audit found that:

- natural drainage patterns were maintained;
- maintained crossings showed good practices with respect to sediment control, such as using grass seeding and silt fencing along ditchlines and sediment ponds; and
- bridges were well signed, well armoured and well maintained. In a few instances, bridge alignment and decking allowed sediment to reach streams. In these cases, the amount of sediment was estimated to be small due to limited traffic using the bridges.

Silviculture obligations and activities

There were no concerns noted with site-preparation activities, planting, regeneration obligations or free-to-grow obligations during the course of the audit. With minor exceptions, Tembec met government's seed-transfer requirements.

Fire Protection Activities

Tembec has a current fire-preparedness plan and operators assess fire danger classes regularly. Their six active sites included three active harvesting sites, two road construction sites and one road deactivation site. All were found to have sufficient fire tools present, as well as adequate water-delivery systems.

Fuel management was found to be up-to-date with regard to landing piles being burned seasonally and no significant amount of older, unburned accumulations was detected.

Audit Opinion

In my opinion, the operational planning; timber harvesting; road construction, maintenance and deactivation; silviculture; and fire protection activities carried out by Tembec Industries Inc., on Forest Licence A19040, between July 1, 2009, and July 9, 2010, complied in all significant respects with the requirements of the *Forest and Range Practices Act*, the *Wildfire Act* and related regulations, as well as applicable transitional elements of the *Forest Practices Code of British Columbia Act*, as of July 2010.

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.

The *Audit Approach and Scope* and the *Planning and Practices Examined* sections of this report describe the basis of the audit work performed in reaching the above conclusion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient forest planning and practices to support an overall evaluation of compliance with FRPA, WA and the Code.



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Director, Audits

Victoria, British Columbia
January 26, 2011

ⁱ A forest stewardship plan (FSP) is a key planning element in the FRPA framework and the only plan subject to public review and comment and government approval. In FSPs, licensees are required to identify results and/or strategies consistent with government objectives for values such as water, wildlife and soils. These results and strategies must be measurable and, once approved, are subject to government enforcement. FSPs identify areas within which road construction and harvesting will occur but are not required to show the specific locations of future roads and cutblocks. FSPs can have a term of up to five years.

Appendix 1: Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government and agreement-holders under the *Forest and Range Practices Act* (FRPA), section 122, and the *Wildfire Act* (WA). Compliance audits examine forest or range planning and practices to determine whether or not they meet FRPA and/or WA requirements. (The transitional provisions of FRPA state that the Code continues to apply to forest practices carried out under a forest development plan, until there is an approved forest or range stewardship plan, at which point the requirements of FRPA apply.)

Selection of Auditees

The Board conducts about eight or nine compliance audits annually. Most of these are audits of agreement holders. The Board also audits the government's BC Timber Sales Program (BCTS). This section describes the process for selecting agreement holders to audit.

To begin with, auditors randomly select an area of the Province, such as a forest district. Then the auditors review the forest resources, geographic features, operating conditions and other factors in the area selected. These are considered in conjunction with Board strategic priorities (updated annually), and the type of audit is determined. At this stage, we choose the auditee(s) that best suits the selected risk and priorities. The audit selections are not based on past performance.

For example, in 2007, the Board randomly selected the Robson Valley Timber Supply Area as a location for an audit. After assessing the activities within that area, we discovered that two licensees had recently closed operations due to financial problems. As the Board has expressed concern in the past about financially strapped companies failing to meet outstanding obligations, such as reforestation, and road maintenance, the audit focused on the status of the outstanding obligations of these two licences.

For BCTS audits, a forest district within one of the 12 business areas within the province is selected randomly for audit.

Audit Standards

Audits by the Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with generally accepted auditing standards. The standards for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board randomly selects an area or district and determines the scope of audit to be conducted and the licensee(s) to be audited, all activities carried out during the period subject to audit are identified (such as harvesting or replanting, and road construction or deactivation activities). Items that make up each forest activity are referred to as a population. For example, all sites harvested form the timber harvesting population and all road sections constructed form the road construction population.

A separate sample is then 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 areas where the risk of non-compliance is greater.

Audit field work includes assessments of features using helicopters and ground procedures, such as measuring specific features like riparian reserve zone width. The audit teams generally spend one to two weeks in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code, FRPA and WA, is more a matter of degree than absolute adherence. Determining compliance, and assessing the significance of non-compliance, requires the exercise of professional judgment within the direction provided by the Board.

The audit team, composed of professionals and technical experts, first determines whether forest practices comply with legislated requirements. For those practices considered to not be in compliance, the audit team then evaluates the significance of the non-compliance, based on a number of criteria, including the magnitude of the event, the frequency of its occurrence and the severity of the consequences.

Auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet Code, FRPA and WA requirements.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that one or more non-compliance event(s) is not significant and not worthy of reporting. Therefore, this category of events will generally not be included in audit reports.

Significant non-compliance – where the auditor determines a non-compliance event(s) or condition(s) is or has the potential to be 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 one or many non-compliance events.

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 Minister of Forests, Mines and Lands.

Reporting

Based on the above evaluation, the auditor then prepares a draft audit report. The party being audited is given a draft of the report for review and comment before it is submitted to the Board.

Once the auditor submits the draft report, the Board reviews it and determines if the audit findings may adversely affect any party or person. 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. The representations allow parties that may potentially be adversely affected to present their views to the Board.

The Board then reviews the auditor's draft report and the representations from parties that may potentially be adversely affected before preparing its final report. Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.



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