

DENR Memorandum Order

No. 96 – 06

February 28, 1996

**SUBJECT : Guidelines on the Implementation
of the Log Control and Monitoring
System**

Pursuant to DAO No. 96-04, Series of 1996, the following guidelines on the monitoring of the movement of logs/timber from the cutting area, or from the initial port of discharge in the case of imported wood materials, to the final destination are hereby issued for the information and guidance of all concerned.

Sec. 1 Coverage – This shall apply to the harvest, transport and disposition of locally-produced logs and lumber under valid and existing licenses or permits issued by the Secretary or his authorized representative, including logs and lumber harvested from trees planted inside private wood lots or tree plantations. The same regulation will also apply to logs and lumber imported in accordance with regulations governing the matter.

Sec. 2 Objectives - In consonance with the policy enunciated in DAO No. 96-04, the following objectives are sought to be attained:

- 2.1 Standardize gathering of timber resources data for easy storage, retrieval and audit;
- 2.2 Systematize the tracking of log flows from cutting areas to end-users;
- 2.3 Optimize utilization of the timber resources;
- 2.4 Provide information for the updating of timber/mill recovery factors from residual and plantation forests;
- 2.5 Improve the collection of forest-derived revenues; and

Curtail unauthorized cutting, transportation, processing and disposition of timber and wood products.

Sec. 3 Pre-harvest Inventory - To provide basic information that guide the licensees and DENR in the preparation of the desired annual rations plan and day-to-day activities, the following pre-harvest activities l be undertaken.

Grid-mapping

- 3.1.1 With the use of an accurate topographic map, convert the map sheet corner coordinates to UTM using the PRS92 computer program.
- 3.1.2 Select one corner of the timber concession area, the coordinates of which have already been converted to UTM, and establish a baseline and a base meridian.
- 3.1.3 Using the concession corner and the baseline/base meridian, draw one kilometer square grids (100 ha. Block) and label the lines by kilometer north of the equator an kilometer east of the western meridian. The blocks will be designated by the UTM coordinates of their lower left hand corners.
- 3.1.4 Establish the different block corners on the ground by using one corner block as reference point and by using instruments such as GPS, compass and distance measuring tape. Mark the block corners by their corresponding easting (longitude) and northing (latitude)

Sub-blocking

For ease of logging set-up establishment and identification, and the management, control and monitoring by the licensee and DENR, the 100-ha blocks established basee on the procedures outlined above shall be divided into 25-ha sub-blocks.

To provide ease and accuracy in the establishment of ground control for maps, location of section corners on the ground, etc., the use of Global Positioning System (GPS) instrument is highly advisable.

3.3 **Timber Inventory**

The conduct of timber inventory and related activities shall be jointly undertaken by the CENRO and the licensee/permittee.

3.3.1 20% Inventory of Annual Cutting Area

A timber inventory of 20% intensity should be first be conducted within the proposed annual cutting area to determine the sustainability of the area relative to the computed annual allowable cut.

3.3.2 100% Inventory of harvestable trees by logging set-ups.

Using selective logging criteria and prescriptions, 50% of species with DBH of 60 cms and 100% of 70 cms and up, in accordance with DAO 12, Series of 1992, except for prohibited species, shall be inventoried and marked showing the UTM block code, set-up and tree numbers and an arrow indicating the direction of fall to avoid or minimize damage to residual trees. These information shall be recorded for every harvestable tree in the INVENTORY RECORDS (LCMS DATA CAPTURE FORM 1) In addition, the species, diameter at breast height (DBH) and estimated height in five (5) meter logs should be recorded. Merchantable height shall be determined through the use of height-measuring instruments such as clinometer, abney hand level, relascope, etc. while DBH shall be measured with the use of a diameter tape.

Where applicable, inventory should also be conducted along allowable clearings, and results should also be reported on LCMS DATA CAPTURE FORM 1. The type of clearing should be specified in the form.

3.3.3 Marking of Residual Trees

Simultaneous with the inventory and marking of the harvestable trees, tree marking of healthy residuals to be left/saved after logging should be conducted in accordance with the provisions of DAO No. 12, Series of 1992

Computer Encoding of Harvestable Trees Data

The LCMS Data Capture Form 1 signed by the DENR and the company timber management officers and submitted to the CENRO by the Timber Management officer of the DENR assigned in the area, shall be encoded in the CENRO computer to generate the LCMS Report 1. The number of trees and volume generated in the said report, in agreement with the company president/manager will be the basis for the assessment of the initial forest charges the company will have to deposit before any logging operation for a particular logging set-up is allowed.

Collection of Forest Charges and Silviculture Fees

3.5.1 As a pre-condition to the start of harvest operations the licensee shall deposit the amount equivalent to the forest charges imposable on the harvestable trees based on the 100% inventory conducted in accordance with Section 3.3.2 hereof. Immediately after the cessation of logging operations in any given set-up, a reconciliation of the deposited amount and the forest charges payable based on the actual scale of the harvested volume, shall be made, as outlined in the preceding sections. In case the amount deposited is more than the forest

charges, based on the scaled volume, the excess amount shall be applied to the succeeding logging set-ups or cutting coupes. On the other hand, an additional amount shall be paid by the permittee/licensee in the event that the deposited amount is less than the actual forest charge assessment on the volume extracted.

3.5.2 The silvicultural fees for damaged residuals shall be assessed by the CENRO in accordance with the provisions of DAO No. 28, Series of 1993.

1.1 Sec. 4 Timber Harvesting Monitoring Activities

4.1 Felling and Bucking

Only trees marked for harvesting shall be felled. After felling, the tree number, set-up number and the UTM Code shall be chiseled on both ends of the harvested trees. If the trees are bucked into logs at the stump site, a log number shall be chiseled in addition to the abovementioned identifiers. Actual measurement of DBH/DAB and merchantable height shall be done and recorded in LCMS DATA CAPTURE FORM 2.

4.2 Log Landing/Log Deck Monitoring

All trees and logs skidded to the landing site shall immediately be marked/chiseled on both ends with their corresponding species group code, tree number, log number, UTM code and the set-up number. All trees in the log landing site shall also be recorded on LCMS DATA CAPTURE FORM 3, indicating the species, tree number, log number, set-up number and UTM Block Code. If scaling is done at the log landing, the big end and the small end diameters and the log length shall also be reflected on LCMS DATA CAPTURE FORM 3, which is to be submitted by the DENR Scaler to the CENRO for generation of the LCMS REPORT FORM 3. Comparisons should now be made between the volume

reflected in the inventory of harvestable trees (LCMS REPORT 1) and the Log Landing/Log Deck master list (LCMS REPORT 3). This is the basis for the CENRO to assess the additional refund/credit of excess payment

At this point, the DENR-generated LCMS REPORT 3 will be the basis/reference for approval of application to transport logs within or outside the province.

1.1.1 Sec. 5 Log Transport Documentation

5.1 Log Marking

Before any log is transported, the following identifiers must be chiseled on both ends of the log either at the log landing or log deck.

SGC – TN – LN

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UTM – SUN

CA

HN

WHERE:

SGC	=	Species Group Code
TN	=	Tree Number
LN	=	Log Number
UTM	=	UTM Block Code
SUN	=	Set-up Number
CLM	=	Company Log Mark
HN	=	DENR marking hatchet number

5.2 Document Preparation

Department Administrative Order No. 7, Series of 1994 stipulates that only forest products transported outside the province of origin shall be covered with Certificate of Timber

Origin/Certificate of Lumber Origin (CTO/CLO) and those within the province shall be covered with Trip Tickets.

The documents necessary for log transport within the province are LCMS DATA CAPTUREE FORM 4-A or 4B, on which the company will have to indicate all the information chiseled on both ends of each log (i.e., UTM Code, tree number, log number, set-up number and the length and the big and small end diameters of the logs). The truck plate number and the name of the driver also recorded on the LCMS DATA CAPTURE FORM 4.

Logs intended to be transported outside the province shall be covered with a Certificate of Timber Origin (CTO) obtainable from the concerned CENRO. To request for the Certificate of Timber Origin from the CENRO, the company will have to use LCMS DATA CAPTURE FORM 4-A. The information chiseled on both ends of the logs is to be reflected in the space provided in the form (UTM Code, tree number, log number, set-up number, the small and bid end diameters and the length of the logs, date of transport and the name of the vehicle/vessel). The CENRO will encode the data contained in LCMS DATA CAPTURE FORM 4-A to generate the LCMS REPORT 4-A which will now the basis for the validation of the logs for shipment and at the same time will now be the tally sheet to be attached to the issued CTO.

LCMS REPORT 5 is the basis for inspection/validation by the DENR?MFPC monitoring stations and for the issuance of discharge permits by the CENRO at the point of destination.

Sec. 6 Log Processing

Daily Log Milling Tally

All logs processed in wood processing plants (WPPs) will be recorded in LCMS DATA CAPTURE FORM 5, TO be submitted on a weekly basis by the WPP permittee to the CENRO for encoding in the computer. The report generated will indicate the volume of logs processed. The updated LCMS REPORT FORM 5 will provide the basis for checking the lumber stock inventory reported by the WPP permittee.

Sec. 7 Log Sales and Transport

Logs sold to other WPP in other provinces will be entered in LCMS DATA CAPTURE FORM 4-B which is to be submitted by the licensee to the CENRO together with the request for a CTO. LCMS DATA CAPTURE FORM 4-B which will be attached to the CTO and that will serve as Tally Sheet. LCMS REPORT 4 will also be the basis by the monitoring stations in conducting inspection and verification and for the issuance for the discharge permit by the CENRO of destination.

Sec. 8 Manual Reporting System

In the event that the CENRO has no computer, the set of data capture forms for the manual system of LCMS will be used in the quantitative evaluation and monitoring of the licensees logging activities. The set of forms will be the basis for log transport within the province and will also be the basis for the issuance of CTO in the event that the logs are to be transported outside the province.

A copy of these manualized DATA CAPTUREE FORMS will be submitted to the PENRO for encoding in order to generate the different LCMS reports for distribution throughout the DENR hierarchy and to the Multi-Sectoral Forest Protection Committees.

Sec. 9 Submission of the Accomplished Forms

LCMS Data Capture Form 1 – Should be accomplished by the licensee and the DENR Field Timber Management personnel and should be submitted to the CENRO concerned immediately after the inventory, for computer processing. After processing, the licensee will be provided with a copy of the computer-generated INVENTORY Master List (LCMS REPORT 1).

LCMS Data Capture Form 2 – Should be accomplished daily by the licensee; and submitted to the CENRO week for computer processing. After processing, the licensee will be provided a copy of the FELLING AND BUCKING Master List (LCMS REPORT 2).

LCMS Data Capture Form 3 – Should be accomplished by the DENR Scaler daily and submitted to the CENRO weekly for computer processing and for the generation for the LOG LANDING/LOG DECK Master List (LCMS REPORT 3), a copy of which shall be provided to the licensee.

LCMS Data Capture Form 4-A – Should be accomplished by the licensee daily during the transport operation on a per truck basis and submitted to the CENRO for the generation of the LOG TRANSPORT Master List (LCMS REPORT 4). This form is accomplished if the log transport is only within

the province. This Data Capture Form serve as the Trip Ticket.

LCMS Data Capture Form 4-B – Should be accomplished by the licensee for the logs intended for shipment outside the province, either through land or water transport. This accomplished capture form will be submitted by the licensee to the CENRO together with the request for the issuance of the CTO, and the same will be attached to the issued CTO as Tally Sheets.

LCMS Data Capture Form 5 – Should be accomplished by the licensee daily during milling operations, submitted to the CENRO for computer-generated MILLED LOGS Master List (LCMS REPORT 5) will be the basis for the concerned monitoring agencies in Mill stock inspection and verification.. A copy of LCMS Report 5 shall be provided to the company for records reconciliation

Sec. 10 Document Reconciliation

The effectiveness of the LCMS depends on the implementation of the system of checks and verification procedures that are incorporated in the process. The system is facilitated by the use of computer technology which provides efficient logging data storage/retrieval and processing system to reconcile records and information on the movement of logs from the cutting area to the processing plants.

The INVENTORY MASTER LIST (LCMS REPORT 1) in the CENRO computer serves as the basic databases to which all records of logs will be reconciled. Log identifiers are unique and are therefore, such identifiers can no longer be used once the movement of a specific

log from one point to another has been properly recorded. From its CENR-based databases, the DENR will be able to prepare running summaries or inventories of logs transported, noting down the corresponding log identifiers and scaling measurements. Logs not included in the list or not properly documented (e.g., incorrect identifier, scaling measurements), etc. are to be confiscated.

Only original copies of document, duly signed by the authorized DENR personnel, will be honored. Expiry dates of the log transportation documents, such as the Certificate of Timber Origin (CTO) and the Log Transport Trip Ticket must be strictly observed. No erasures or changes in the documents will be honored unless an accompanying Certification by the issuing Officer for such changes is attached to the originally documents.

Sec. 11 Program Support and Training

The Director, ENR-SECAL Program Management Office and the Director, Forest Management Bureau, shall provide the necessary staff and financial support for the effective implementation of this Order, to include but not limited to the organization of the corresponding field implementing units; assist in the preparation of the necessary action plans and programs; coordinate and monitor FPIS-related activities; and the training and orientation of concerned personnel of the DENR and its publics.

Sec. 12 Transitory Provisions

Pending the formulation of specific guidelines governing the harvest and disposition of trees produced from forest plantations, the 100% inventory and marking of harvestable trees as provided in Section 3 hereof is dispensed with. In lieu thereof, the marking of the harvestable trees consistent with Section 3 of this Order should be undertaken based on the actually harvested timber but which should be undertaken before same are transported outside the cutting block

Sec. 13 Definitions of Terms

LCMS - Log Control Monitoring System

- M - Universal Traverse Mercator Coordinates given in meters contains an easting (meters East) and a northing (meters North) within one of 60 zones.

- S - Global Positioning System
- M Block- A 100 ha. Block (1km x 1 km) drawn in the map based on the maps latitude and longitude coordinates. It is read on the easting and northing labels intersecting at its lower left corner.
- a Capture Forms- Forms to be used to gather raw data in the field, filled out manually and used as input for encoding in the computer.
- PC - Multi-Sectoral Forest Protection Committee
- Inventory Master List - List generated/printed by the computer of individual trees inventoried for harvest in a given set-up and block of a particular licensee
- Landing/Log Deck Master List – List generated/printed by the computer of individual logs moved to particular licensee.
- Transport Master List - List generated/printed by the computer of individual logs approved for transport given a specific conveyance and period of time by a licensee.
- ed Log/Tally Master List - List generated/printed by the computer of individual logs which has undergone the milling process by a particular permittee
- S 92 - Computer program to convert longitude and latitude readings into UTM values and vice versa
- M Block Code - Refers to a particular UTM block which has been coded using the system prescribed by the DENR

Sec. 14 Penalty Clause

DENR Officials found and verified to have violated or abetted in the violation of the provisions of this Order shall be dealt with accordingly in accordance with the existing regulations governing the

matter. Forest products extracted, transported and/or disposed of, which are violative of this Order shall be subject to confiscation, including the conveyances in the transportation of the same. Likewise, the lessee/permittee who owns the logs shall be penalized by suspension/cancellation of the operating permit and such other sanctions imposable under the DENR existing rules and regulations.

Sec. 15 Repealing clause

This amends and/or modifies existing Orders, Circulars and Instructions which are inconsistent herewith.

Sec. 16 Effectivity - This Order shall take effect immediately

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Recommend by:

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