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## ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Rail Transport
(Fifty-second session, 5-7 October 1998,
agenda item 16)

INFORMATION ON DEVELOPMENTS IN VARIOUS RAILWAY FIELDS

#### Addendum 4

Transmitted by the Government of Luxembourg

Please note that the distribution of documentation for the Working Party on Rail Transport (SC.2) is no longer "restricted". Accordingly, the secretariat has adopted a new numbering system whereby all working documents other than reports and agendas will be numbered as follows: TRANS/SC.2/year/serial number. Reports, agendas, resolutions and major publications will retain their previous numbering system (i.e. TRANS/SC.2/189).

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#### (a) Environmental questions related to railway operations

Local tests on non-harmful biodegradable lubricants for switch gear have been extremely successful and the exclusive use of these products has been introduced over the entire network.

The CFL have also recently begun to use a biodegradable product for laying track, to replace the lubricant used to date in fastening sleeper screws and bolts.

The hedges and bushes along the track are mechanically cut in 50 m sections twice a year. This system enables the cuttings to be recycled.

## (b) Safety in railway transport

The CFL have made intensive efforts to reinforce railway safety on the Luxembourg network.

The following measures have been decided on and are progressively being implemented:

It has been decided to equip CFL locomotives with MEMOR 2 data storage equipment. This appliance stores the position of the fixed warning signal announcing a reduction in speed or ordering a halt and if not obeyed it prompts an emergency stop;

A research bureau has been made responsible for the feasibility study for setting up an automatic speed-control system on the CFL network;

DB rolling stock travelling regularly on the CFL network (type 628.4 railcars) will be equipped with a contact brush signal-repetition system;

Additional fixed warning signals are installed at certain points where there are unusually long distances between the warning signal and the corresponding main fixed signal;

The new 3000 series locomotives (delivery scheduled as from the second half of 1998) are equipped with TBL and KVB repetition systems;

Light rail motor tractors and heavy track maintenance mechanical equipment are equipped with the contact brush repetition system.

# (c) Use of computers in rail transport operations, in particular in the management of rail goods traffic

A computerized tool known as "SIGMA" (computerized system for goods traffic management) has been managing freight transport and equipment on the entire CFL network and in respect of cross-over through the HERMES network since 1991.

(d) Introduction of new transport technologies and application of modern techniques to railway operations, in particular regarding the interface between rail transport and other transport modes

As far as we know, there are no plans for new technological features at this time.

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