p 

REPORT OF ACTIVITY IN 2010

1. *L'Administration des Enquetes Techniques* (AET) [The Technical Investigation Department]

1.1 General context

The Technical Investigation Department was set up in 2008 following the coming into force of the law of 30 April 2008, dealing with a) the setting up of The Technical Investigation Department, b) the amendment to the amended law of 22 June 1963 on the salary scales of Civil Servants and c) the repeal of the law of 8 March 2002 on the technical Investigation bodies for serious accidents and incidents that occur in the fields of civil aviation, shipping and railways.

The creation of such an independent technical investigation body was required in order to comply with the Community and international requirements which deal with the procedure for Investigations into serious accidents in the various modes of transport. Luxembourg opted for a multi-modal structure covering the fields of civil aviation, shipping, both on the high seas and in inland waterways and railways. The advantage of such a structure is that it optimises the available resources in view of the fact that the general approach of a technical investigation is similar in all the modes involved.

After the internal recruitment of a mid-grade civil servant at the end of 2008, the Department will see its staff increased by the additional engagement of an engineer requested initially for 2009 and approved at the end of 2010.

1.2 Functional context

The main activity of the Department is to carry out a safety investigation following a serious accident or incident in one of the fields referred to in the law of 30 April 2008 mentioned above. The aim of this is to identify the factors that led to this event and, if appropriate, to issue safety recommendations in order to avoid such a situation recurring. The improvement of safety is, therefore, the sole objective

of the Department and it is not its job to pronounce on where the responsibility for an accident or a serious incident lies.

Thus, a safety investigation is not limited solely to the facts immediately attached to an event but it covers also numerous other aspects in relation to the operation and the organisation which concern directly or indirectly the sector under investigation.

Independence, both on the organisational level as on the operational level, is therefore a most important element in the functioning of a technical investigation body. These principles are, moreover, enshrined in the Community and international reference documents which deal with safety investigations in the fields of transport.

1.3 Activities and fields of application

1.3.1 Railways

Fatal accident on the tertiary system at Differdange – 3 February 2009

The report on the fatal accident that occurred on the night of 3 February 2009 on the tertiary system at Differdange has been delayed until the first half of 2011 for organisational reasons within AET.

1.4 Legislative projects

The continuous evolution of the regulations which govern the fields of transport for which the Department is responsible requires regular amendments to the national legislation.

Legitmisation certification for the staff of AET

A draft of a Grand-Ducal Regulation prepared in 2010 dealt with legitimisation certification. The object was to amend the existing regulation by adding, in particular, some arrangements regarding the staff of the Technical Investigation Department whose main remit is to carry out technical investigations in accordance with the law of 30 April 2008 and who must have the permanent status of investigator to accomplish their task without delay. The draft has been presented to the authorities and will be dealt with during 2011.

1.5 European and international cooperation

Because of its remit which covers several modes of transport the Technical Investigation Department is invited to attend numerous meetings and other activities, both on the European and on the International level. The contacts and the information gathered during these events are very important as they permit the Department, in case of need and if no internal competence is available, to have recourse to the expertise and knowledge of foreign authorities and organisations.

Cooperation between the investigation bodies is also encouraged by the international organisations (ICAO), [International Civil Aviation Organisation], IMO [International Maritime Organisation], and by European organisations (ECAC) [European Civil Aviation Conference], (EMSA), [European Maritime Safety Agency], (ERA) [European Railway Agency], in the modes of transport concerned.

1.6 Training

As a technical investigation body with a multidisciplinary remit, the fields of work of the Technical Investigation Department are in fact very diverse. The demands on the staff of the Department, who are at present few in number, are all the more pressing as a basic knowledge in each of the fields covered is indispensable for bringing the work conferred by the law to a successful conclusion.

It is thus planned to carry out continuous training and other courses of improvement regularly, aimed on the technical investigations in the sectors, of civil aviation, deep sea and river shipping and railways. In 2010 the staff of the Department have spent a total of 11 days on training in the fields mentioned above. This training has for the most part been similar to the continuous training courses organised by the *l'Institut national de formation publique* (INAP) [The National Institute for Public Training].

1.7 Statistics for 2010

1.7.1 Railways

ITEM	CATEGORY	ACCIDENTS	SERIOUS INCIDENTS	INCIDENTS	**TOTAL PER CATEGORY**
A	Damage to installations or rolling stock	-	-	-	**-**
B	Disruption to installations	-	-	-	**-**
C	Shunting incidents and accidents	-	-	4	**4**
D	Incidents and accidents when trains were running	-	-	4	**4**
E	Incidents and accidents to road vehicles on level crossings in the area administered by the Operating Department	-	-	5	**5**
F	Accidents at work	-	-	1	**1**
G	Accidents involving people (including suicides)	-	-	4	**4**
H	Fires, explosions	-	-	-	**-**
J	Offences	-	-	-	**-**
K	Natural events	-	-	-	**-**
L	Demonstrations, strikes	-	-	-	**-**
M	Other extraordinary events	-	-	-	**-**
	TOTAL BY CLASSIFICATION	**0**	**-**	**18**	**18 TOTAL**

A revised list of safety recommendations issued following the frontier accident at Zoufftgen on 11 October 2006 is given below. These results were published by the Luxembourg Railway Authority (ACF) in their 2010 report.

Results of the safety recommendations

L'Administration des Enquêtes Techniques (AET) [Technical Investigation Department] was set up by the law of 19 May 2008. In 2009 it published its first safety recommendations together with the *Bureau d'Enquêtes sur les Accidents de Transport Terrestre* (BEA-TT France) [Land Transport Accident Investigation Bureau], as part of the technical report on the railway accident at Zoufftgen. This accident occurred in 2006 and resulted in the death of 6 people.

Following this accident 21 recommendations were made of which 15 have been implemented or are in the process of being implemented, 5 have been rejected and 1 did not concern the staff of Luxembourg State Railways. All these recommendations were given in the report for 2009. ***Additional information*** on the progress with certain recommendations is given below:

Recommendation R7 (CFL): re-train the Bettembourg CCP staff on the use of the *Installations Permanentes de Contre-Sens* (IPCS) [Wrong-track Working Fixed Equipment (WWFE)] by adapting this training to suit the current practices at CFL and to ensure that their knowledge is regularly updated.

The initial WWFE training was provided by the SNCF Training Centre. The local managers of Bettembourg station attended this course in 2009 and subsequently carried out the training specially adapted to the Bettembourg signal box. They now monitor that the knowledge is maintained.

The training of the local managers of Bettembourg Station was carried out in 2010.

Recommendation R8 (CFL, SNCF, RFF): examine the feasibility of extending *SAAT (Système d'Annonce Automatique des Trains SNCF)* [the SNCF Automatic Train Announcing System ATAS] to Bettembourg, by displaying the first train announced on the VCP (Visual Control Panel).

The automatic train announcement systems such as the ZNL 800 [*Zugnummernmeldeanlage* – train number announcement system] of CFL or the ATAS of SNCF are only aids to operation and never affect the safety of train running. They can only contribute indirectly to the improvement of safety.

CFL and SNCF have taken the decision to develop an interface to connect the ZNL 800 and ATAS systems. This interface is in the trial phase between Longwy (SCNF) and Rodange (CFL).

The introduction of this installation is scheduled for 1st January 2011.

Recommendation R13 (CFL): provide Bettembourg CCP staff (and if necessary staff elsewhere using similar systems) with further training on electric traction and ensure that their knowledge is kept up to date.

The question of how to make an emergency power cut-off has been raised with traffic managers regularly in the training courses. A note on this subject was published in April 2008.

In 2010 permanent monitoring was provided by means of safety audits.

Recommendation R15 (CFL): based on an analysis of staff activity, examine the safety regulations so that the division of the safety tasks to be performed in a signal box like the one at Bettembourg CCP by the different employees in the box (Traffic Controller, Train Announcer and Signalmen), corresponds both to the employee responsibilities and to operational constraints.

A new organisation at Bettembourg CCP was introduced on 16 July 2007.

Two operating managers with defined responsibilities have been put in place, one operating manager for the station sector and one for the frontier section. The post of train announcer has been abolished.

Recommendation R17 (CFL): examine the possibility, when passing on safety information at handover, of using standardised documents (at national or local level), to ensure that this information can be traced and provides comprehensive coverage of all the information (and only that information) required by the person taking over.

The different registers and note books used at signal boxes are standardised documents and their use is obligatory. The completion as well as the correct annotation of the documents are checked.

Since 2010 the safety information is transmitted to staff electronically by personal-mail.

Recommendation R18 (CFL, SNCF and RFF): prepare staff responsible for safety to deal with the emergency situations that are most likely to occur, including in particular:

- identifying the risks to be dealt with;
- formalising reaction scenarios;
- training and the staging of exercises.

Multifunctional exercises take place ***at least once a year*** between SNCF and CFL and this is done in the context of a serious situation.

Since September 2006, CFL have a computerised control post simulator that can be used by the control post operators during their refresher training which, among other things, can simulate the measures to be applied during serious operating situations. The feedback received from the operators and trainers shows that the use of this simulator definitely increases the quality of the continuous training.

Recommendation R21 (CFL): enable local managers to be on the spot and have the necessary means to check and monitor the staff on the ground.

Since February 2009 a reorganisation of the operational zones has been put in place with the creation of a railway safety assistance section which has the particular job of supervising and managing the control posts from the point of view of safety.

Since 2010 coordination meetings have been held periodically between the operational zones in order to strengthen the feedback of experience.