

Training of Dangerous Goods Drivers in Europe

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Always when accidents happen, is the call loud for better training for those responsible for the movement of dangerous goods. This was quite evident, especially after an accident in 1978 at a Spanish campground, where over 200 people were killed by an exploding gas tank truck. The driver of this dangerous goods transporter was at this time not trained and knew almost nothing of the danger of his cargo.

At first in Germany and then later in the entire area covered by the "European Agreement concerning the international carriage of dangerous goods by road" (ADR) was laid down that drivers of vehicles loaded with dangerous goods are to receive special training. With regards to the transport of radioactive material, training requirements were stipulated for drivers of vehicles carrying radioactive material classified under schedules: 5 – 13, according to "International Atomic Energy Agency" (IAEA) recommendations.

The training is standardized in all 36 ADR contract countries for movements of goods crossing international borders. Here too, the 15 countries of the European Union have standardized training, with no differentiation between national and international transport.

Driver Training: Germany between 1979 and 1990

So the carriage of goods in tanks, tank trucks has become safer, but carriage in packages i.e. the carriage of packaged-goods has not. In 1987 the UN Economic Commission for Europe (UNECE) realized this and agreed upon requirements of training for vehicles that are subject to labeling requirements and whose maximum permissible weight exceeds 3.5 metric tons. It should be noted that ADR requires labeling of the transport unit based on the degree of danger and the quantity of the dangerous goods. For radioactive materials labeling is mandatory, for all transport of substances falling under the schedules 5 - 13. Due to the fact that, as a rule, radioactive material is to be carried by vehicles below 3.5 metric tons, the limit of 3.5 metric tons was not held applicable here. Thus training was mandatory whenever radioactive material of schedules 5 - 13 were carried.

As it was anticipated that thousands of drivers would have to be trained, a rather long transitional period was provided for, which ended at the end of 1995. In Germany, this long period was viewed as a difficult time, the first years went by with almost no activity, an attitude of "wait and see" was prevalent. Towards the end of this transitional period, a call for "urgently needed" extension was then loud. So in Germany, dangerous goods driver training was introduced in steps over a period of several years. In comparison, drivers of radioactive materials vehicles pertaining to schedules 5 through 13, had to be trained as of the middle of 1991, in all, some 3.500 drivers of vehicles.

Training of Dangerous Goods Drivers	
1978	“Los Alfaques” accident (Spain) (220 killed)
1980	First training in Germany (tank truck drivers)
1983	ADR introduces training (tank truck drivers)
1987	Training for packaged-goods drivers (transitional provisions 31. December 1995)
1989	EU-Directive (mandatory training for domestic carriages)
1990	Training for packaged-goods drivers effective in Germany: 7/91: - vehicles \geq 38 metric tons, - carriage of RAM schedules 5 through 13 - and of explosives 1/93: - vehicles \geq 7.5 metric tons 1/95: - vehicles \geq 3.5 metric tons
1995	Training for carriages under ADR: 3/95: Rome meeting: Establishing of a course syllabus 4/95: First discussion WP.15 Geneva 10/95: Second discussion WP.15 Geneva
1997	Uniform syllabus for all ADR Member States
2001	End of the transitional period New restructured ADR, Chapter 8 (no schedules)

Fig. 1 Table of Events: Training of Dangerous Goods Drivers

Only the basic contents of training were laid down in the ADR model course syllabi, which were drafted in Germany. The duration and management of the training courses, for instance, were prescribed in detail in guidelines. Responsibility for all questions arising from driver training was delegated to the local Chambers of Commerce and Industry by ordinance as a part of the industry’s self-administration. Anyone meeting the demanding criteria for approval as a course operator may offer training courses. Large firms often conducted driver training for their own employees.

Today the European Union comprises 15 member countries. Every EU member has rights as well as duties and the “Commission of the European Community” carries a certain responsibility for insuring a smooth and trouble free exchange of goods among the EU member countries.

As early as 1988, the “European Commission” realized the adequacy of ADR’s driver training provision for transboundary dangerous goods movement, however, this provision did not apply as of this time to domestic carriage in the EU member countries. Was there a problem? One is tempted to ask: “Can’t every state do as it pleases within its own borders”? Here one must recall the introduction of the Common Market in 1993. Among other changes, it provides for services rendered in any of the EU member countries. Any EU citizen or commercial enterprise may offer services either national or international to carry goods, including dangerous goods and radioactive material, in any EU member country. In Europe this is called “cabotage”.

In practice this would have forced whoever carried dangerous goods within a Member State to comply with that Member States domestic regulations. In extreme cases, this would have meant invalidation of a driver’s training certificate for transboundary carriage (ADR Certificate) when used for domestic carriage.

The EU solved this problem by issuing a new Directive (EWG 89/684) that an ADR Certificate is valid for transboundary and domestic carriage and must be recognized in any EU member country.

However, even in 1988/89 it was well known that not all ADR Member States and EU member countries trained to the same standard, and therefore reciprocal recognition would have disadvantaged those States that required thorough training. So the “Commission of the European Communities” was re-

quested to submit a report on the state of driver training in its member countries. It took rather long time to compile that report, but in late 1994 it was presented.

One rather extreme finding was that of the training of drivers for radioactive materials in Germany in comparison with other countries. This program extended to over 30 hours of contact whereas in other member countries it was as little as 5 hours time which was considered adequate. Obviously there was a need for harmonization of training practices and a syllabus at the European level.

UN ECE and the Commission of the European Communities

The next question then arose: which organization should actually go about harmonizing the training requirements? Should it be the "European Union" with its 15 member countries, or the UN Economic Commission for Europe with 28 Member States? Ireland was of the opinion: as all countries of the EU are also member states of the ADR agreement, clearly, the harmonization process should therefore best be attempted by the ADR member states.

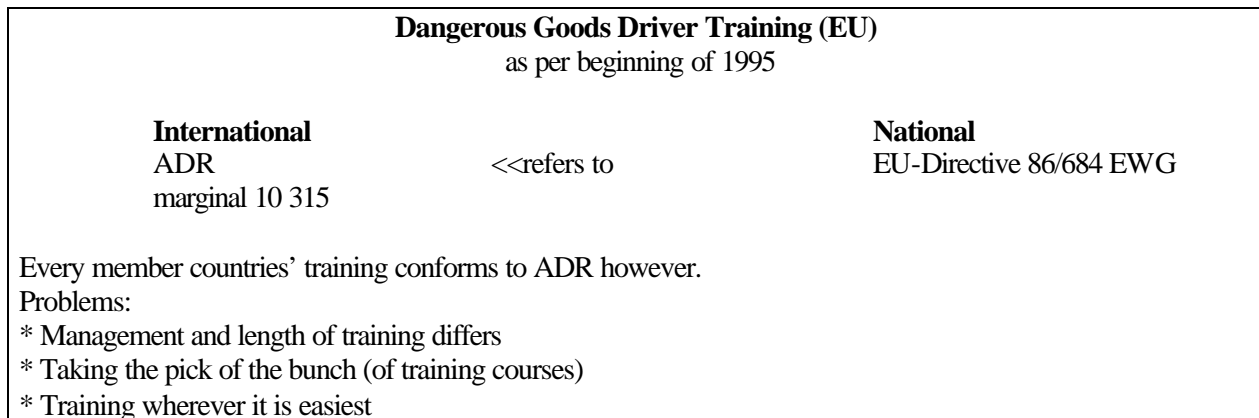


Fig. 2 Problems of Driver Training before 1995

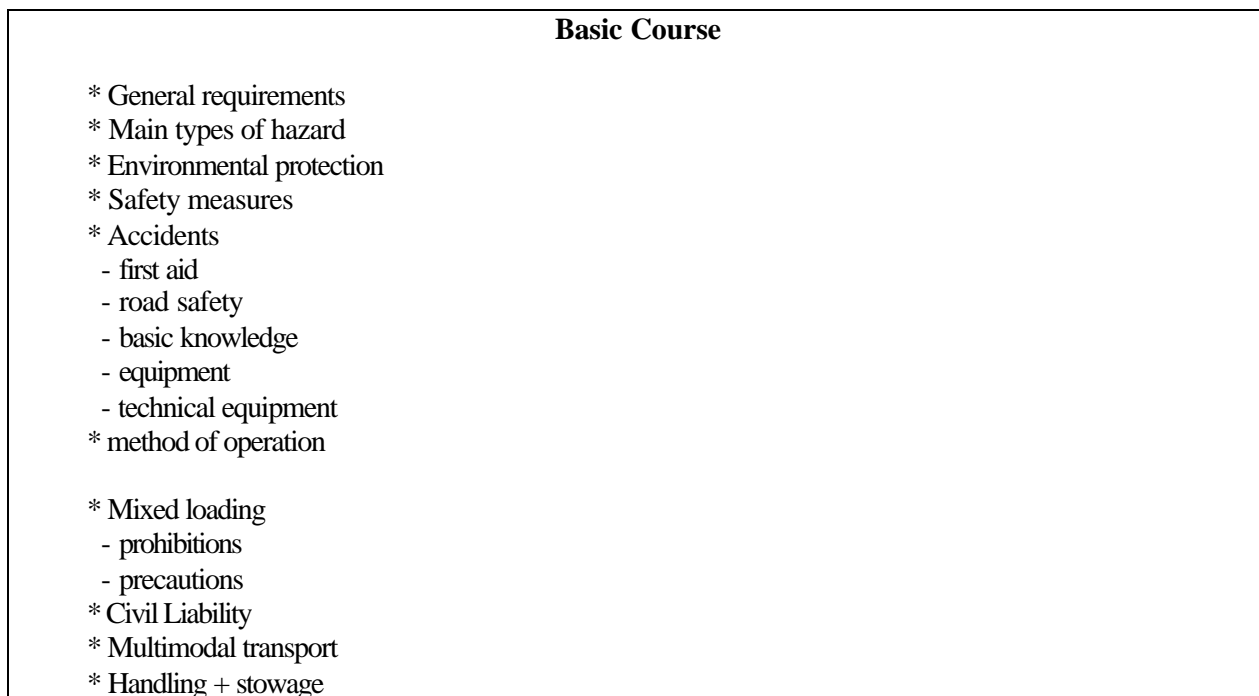


Fig. 3 Terms of the basic course requirements

ADR-Driver Training in force 1997

<p>Initial course</p> <p>Basic Course 18 hours Practical Exercises Test + Special Course Tank 12 hours Practical Exercises Test + Special Course Class 1 8 hours Test + Special Course Class 7 8 hours Test</p>	<p>Refresher course 5 years</p> <p>Course for all 1 day Test</p>
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Teaching units are 45 minutes each, with normally 8 teaching units per day

Fig. 4 System of Driver Training (in force 1997)

Special Driver Training

- Class 7, ADR in force 1997 -

* All drivers schedules 5 – 13

without

* Drivers schedule 9

- total number of packages ≤ 10

and

* sum of THI < 3

but

* Training by the employer

or

* Equivalent training under other regulations

Fig. 5 Special Driver Training for Class 7 (Radioactive Material)

The work on ADR development is done by the Working Party 15 (WP.15) of the ECE. In this case a special working group met at Rome in April of this year. The essential results are listed in the ECE document TRANS/WP.15 R:

- All vehicle drivers shall receive basic training of 18 hours in duration:
- Supplementary hands-on training.
- Advanced training course for
 - tank truck drivers, 12 hours duration plus practical exercises

- vehicle drivers for radioactive material (RAM), 8 hours duration
- vehicle drivers for explosive substances (EX), 8 hours duration.
- Cancellation of the present advanced training course requirements for RAM and EX in cases where relevant other training has been received (for example, as prescribed by German radiological safety regulations).
- Recognition of training by the competent authorities.
- Examination following each part of training.
- Refresher training within 5 years, duration: 1 day only, one course for all.
- Examination following each part of the training.

Most of the special working groups drafts were accepted by the WP.15 in May of 1995. Statistically speaking, 90 % of all vehicle drivers carry loads with a total transport index < 10; these would not have to be trained. The ECE draft further provides for training on radioactive material regardless of whether each vehicles permissible maximum weight is < 3.5 metric tons or not.

These new regulations were to enter into force on January 1, 1997. This was also the deadline for EU Member States implementation of the ADR Framework Directive on the mandatory application of the ADR to domestic dangerous goods carriage in all EU Member States. The Directive EWG 89/684 mentioned at the beginning may then be dispensed with.

Development to date

In Germany alone, there were *** dangerous goods drivers trained since 1980, a sizeable number.

In the mean time, 36 countries have joined the ADR Agreement, the last of which was Azerbaijan.

ADR as defined in a decision of the UN ECE / WP.15 in 1991 has been, in 10 years of work, in the process of restructuring. The final results came into power in the restructured format on the 1st of July 2001. The regulations for dangerous goods driver training are to be found in the new part 8. They were not changed, just adapted to the new format.

Although, the predominant quantity of the RAM drivers (Class 7) are not required to be schooled due to an exception in the regulations, the larger transport establishment often provide a general training so that the drivers have a greater flexibility of deployment.

All persons connected with the transport of dangerous goods according to ADR must receive special instructions. Special instructions are understood not to be schooling but rather practical or verbal instructions. Information about the tasks to be carried out shall be provided, underlining the aspect that everything must be done to guarantee a safe transport of goods.