

## **Safety Adviser for Hazardous Materials: A Way To Improve Safety**

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Hazardous materials carriage in Europe is governed by complicated regulations. However, what good are the best regulations if they are not being complied with? Quite often, regulations are not observed simply because they are not known among those subject to them.

### **HAZMAT ACCIDENT STARTED IT ALL**

In 1987, in a small town in Germany, a serious tank truck accident occurred. It killed six people, severely injured some 40, and demolished 12 buildings.

Politicians in particular were agitated into heated discussions, asking for further measures to be taken.

- highway improvements (more local beltways),
- advances in vehicle technology,
- improvements of emergency response action, and
- better training of all transport participants.

As to the last item, mention should be made of an even more severe accident in Spain that killed more than 200, which had given rise to special tank truck driver training.

This mandatory training was improved and extended to apply to packaged-goods drivers. A further intention was to train not only drivers but their superiors as well.

About 2 years after the tank truck accident the "Statutory Ordinance on the Appointment of Dangerous Goods Officers and the Training of Designated Persons in Enterprises and Factories" was ready for promulgation. The essentials are set out below.

**Two years after the Herborn disaster (1989)**  
**S.I. on the Appointment of Dangerous Goods Officers and the Training of Designated Persons in Businesses and Industrial Enterprises (S.I. on D.G.O.s)**

Fig. 1 Two years after the Herborn disaster a Statutory Instrument was put into force

<b>Statutory Instrument (S.I.) On Dangerous Goods Officers (DGOs) (contents)</b>	
§ 1	appointment
§ 2	requirements
§ 3	duties and obligations
§ 4	obligations of the entrepreneur
§ 5	designated persons
§ 6	infringements
§ 7	clause with regard to Berlin's former special legal status
§ 8	entry into force
 <b>Further official announcements on the S.I. on DGOs</b>  	
* statement of reasons	
* explanatory statements from the Federal Department of Transportation	
* German Industrial and Trade Association's model statute	

Fig. 2 Statutory Instrument (S.I.) on Dangerous Goods Officers

Every company that carried, shipped, or packed dangerous goods was to appoint a DGO if it met any of these conditions:

- upwards of 50 tonnes (net) per year,
- radioactive material of schedules 5 through 13, and
- highly dangerous goods more often than 4 times a year.

<b>German Industrial and Trade Association's model statute</b>	
* Suitable premises	
* Professional training staff	
* Suitable teaching aids	
 <b>Approval</b>  	
* Uniform syllabus	
General part (all modes)	Specific part (single modes)
* Duration of training: 29 hours for each mode of transport	
* Reduced total (duration) for combination of several modes	

Fig. 3 German Industrial and Trade Association's model statute

The DGO has to be qualified (through initial training) and attend prescribed training courses at least once every 3 years. Responsibility for all procedures relating to this training has been delegated to local Chambers of Commerce and industry as part of industry's self-administration.

All Chambers of Commerce and industry jointly developed a training system: training course organizers to provide suitable premises and professional teaching staff.

approval is granted once all requirements have been met.

the subjects to be covered are laid down in a syllabus, and

duration of training is 29 hours for any one mode of transport: if several modes are combined, each mode is given fewer hours.

<b>Structure of DGO Training</b>	
<b>DGO Training Syllabus</b>	
<b>General Part of Syllabus (GP)</b>	
1	S.I. on DGOs
2	The international context
3	Carriage of Dangerous Goods Act
4	Criminal law and law concerning liabilities
5	Other provisions
<b>Specific Part of Syllabus (SP)</b>	
1	Introduction
2	Persons in charge
3	Framework statutory instruments
4	Classification
5	Packaging of dangerous goods
6	Marking and labeling
7	Documentation
8	Operation
9	Further aspects

Fig. 4 Structure of DGO Training

#### **DUTIES AND RESPONSIBILITIES**

After completion of initial training, appointment as DGO for a firm follows. His tasks include monitoring everything related to dangerous goods carriage. He has to keep records of his activities, and report deficiencies to management rather than being personally responsible for remedial action. He has to file an annual activity report with management. This report shall contain:

nature and quantity of dangerous goods.

mode of transport.

packagings and vehicles used.

staff employed.

particulars on loading and unloading equipment, and particulars on training courses and accidents. Management has to submit the annual activity report to the local competent authority on request.

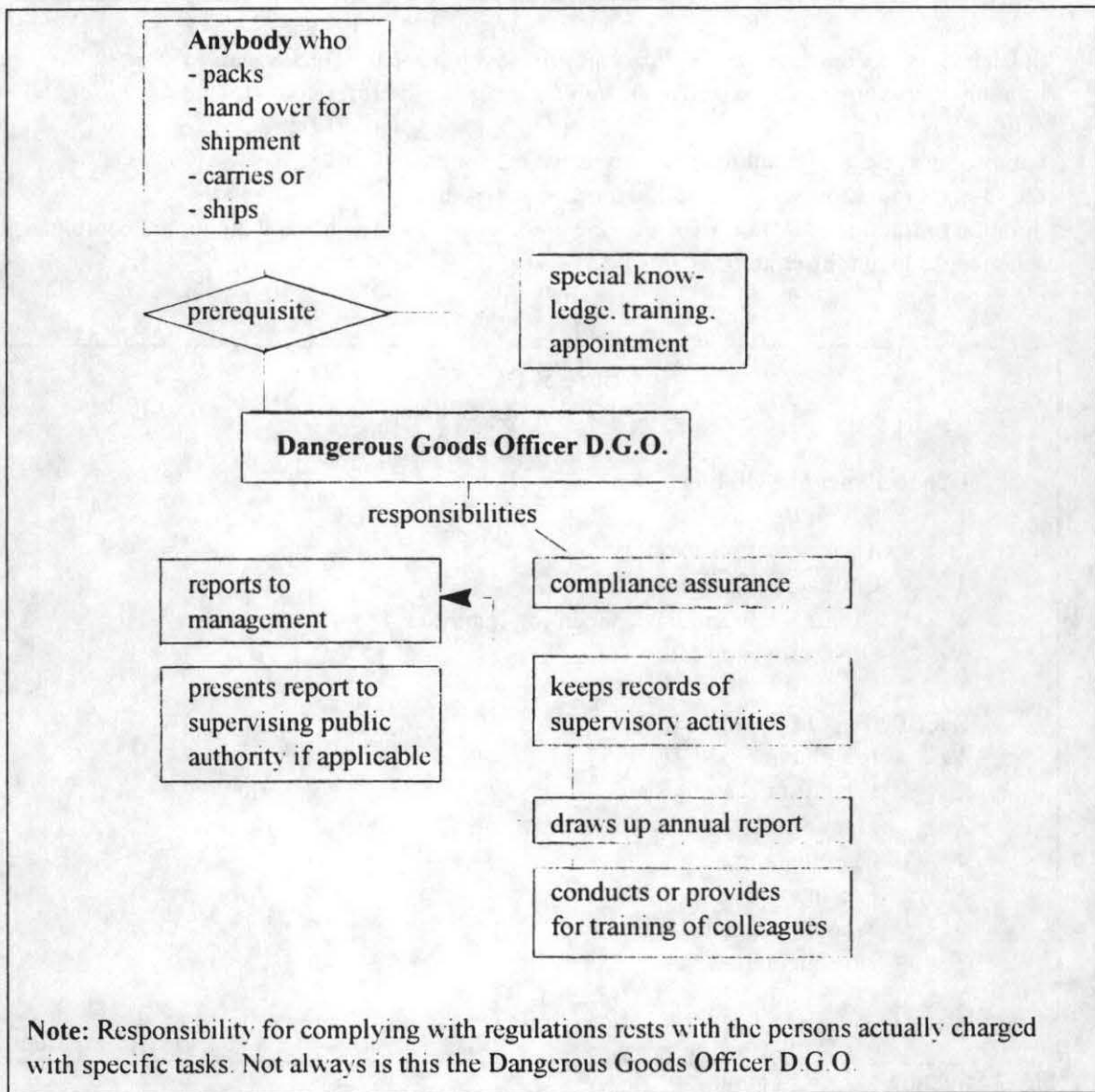


Fig 5 Dangerous Goods Officer D.G.O.

### TRAINING OF DESIGNATED PERSONS

Persons in charge of transport operations have to be trained for all firms that pack, ship, or carry dangerous goods, regardless of quantity of these goods. No procedure for this training is prescribed: it may be conducted by external trainers or by the in-house DGO. Designated persons are those personally responsible for transport-related activities, as somebody whose area of responsibility includes packing or supervision of packing or radioactive materials.

## REGULATIONS PROVED EFFECTIVE

Intense training activity followed promulgation of the DGO Statutory Ordinance. A transitional provision that exempted practitioners from training was little used. Very soon a more conscious attitude towards dangerous goods handling could be observed.

## EU BECAME ACTIVE

The European Union of 15 States intends action in those areas of dangerous goods transport either not covered by international agreements or insufficiently regulated. It may issue statutory ordinances that are directly binding or directives that need to be transposed into domestic law by every European State.

In 1989 the EU issued a directive on driver training which required, for instance, RAM drivers with packages of schedules 5 through 13 to complete a special training.

Germany applied to the European Commission for making mandatory the appointment of DGOs at the EU level in all firms packing, shipping, or carrying dangerous goods. Several years of negotiations in Brussels followed, and today a wording has been agreed upon whose adoption is due in 1995 under the present Spanish Presidency.

D.G.O./Safety Adviser	
<b>EU activities</b>	
* 1989:	Directives driver training
* 1993:	German application
* 1993-1995:	intensive consultations
* 1995:	Council of Ministers' (of the EU) resolution on principles - title: Safety Adviser - guarantees safety of carriage for dangerous goods - training and examination - accident report - reciprocal recognition of training certificates
* 2000:	transitional provisions to expire

Fig. 6 EU Activities / Safety Adviser

## SAFETY ADVISER FROM 2000 ONWARD

Starting with the year 2000, every firm conducting shipment, carriage, or unloading of hazardous materials will have to appoint a Safety Adviser. Exemptions are provided for: armed forces (which in Germany are presently fully subject to the DGO Statutory Ordinance).

small quantities (referring to the ADR Agreement for specification), and occasional carriage.

Subject to management's responsibility, the Safety Adviser is to identify ways and means for guaranteeing carriage of dangerous goods under conditions of optimum safety. External Safety Advisers may be employed for this task.

Training subjects are prescribed, and there is a final examination. Training certificates are reciprocally accepted within the EU. After 5 years a refresher and advanced training is required. The Safety Adviser has to produce reports on accidents and after the completion of a calendar year. A detailed list of the Safety Advisers' tasks and of the subjects for training and examination is given in the EU Directive's annexes.

### **SUMMARY**

Extensive regulation governs dangerous goods transport. These regulations are often difficult to understand. Lack of application, however, will endanger life and environment. To ensure proper application, firms are in need of specific advice. In Germany, this is presently provided by DGOs, and for the European Union there will be Safety Advisers from the year 2000 on.