

TRANSPORT OF DANGEROUS GOODS IN TURKEY: AN ANALYSIS IN THE CONTEXT OF EU INTEGRATION

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Transport of Dangerous Goods

- The transportation dangerous goods deserves special attention primarily due to the risks associated with this activity.
- A dangerous good: Any substance or material capable of causing harm to people, property, and the environment (US DOT).



Dangerous Goods

**ARTICLES OR SUBSTANCES WHICH ARE CAPABLE OF POSING A
SIGNIFICANT RISK TO HEALTH, SAFETY OR PROPERTY**

CLASSIFICATION OF DANGEROUS GOODS:

CLASS 1: EXPLOSIVES

CLASS 2: GASES

CLASS 3: FLAMMABLE LIQUID

CLASS 4: FLAMMABLE SOLIDS

CLASS 5: OXIDISING SUBSTANCES

CLASS 6: TOXIC AND INFECTIOUS SUBSTANCE

CLASS 7: RADIOACTIVE MATERIAL

CLASS 8: CORROSIVES

CLASS 9: MISCELLANEOUS DANGEROUS GOODS

Transport of Dangerous Goods: Modal Regulations



WP 15 /
RID

- ADR
- RID



AND
(Genova)

- ADNR/ADN



IMO
(London)

- IMDG-Code



ICAO
(Monreal)

- ICAO-TI
(IATADGR)



IAEA
(Wien)

ADR: European Agreement Concerning the International Carriage of Dangerous Goods by Road

ADR Requirements

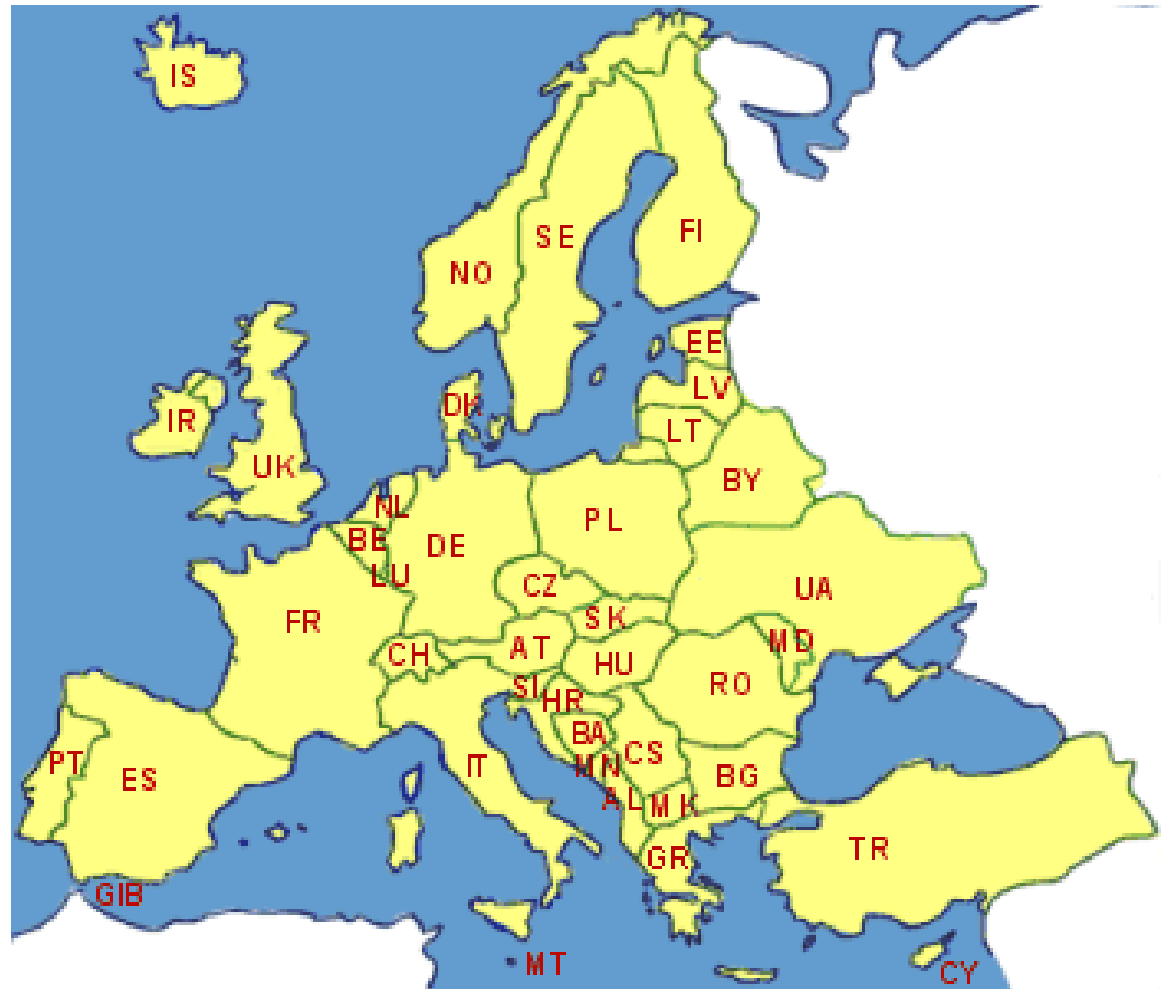


- Rules and regulations for transportation – responsibilities of all parties
- Certification of all vehicles and equipments
- ADR certification of drivers

ADR Parties

Signatories (1957):
Austria, Belgium,
France, Germany,
Italy, Luxembourg,
Netherlands,
Switzerland, the UK

Final party: Turkey



Turkey: History

1976 - Local Regulations for Transport of Dangerous Goods in Turkey

1987 - Law on Administrative Structure and Duties of Ministry of Transportation

1983: Revisions: Increased security regulations

2003 - Law of Highway Transportation

2005 - Law on Approval to Join the ADR Convention

Jan 2012: Current target

2009: Intended date to put this regulation in force

Purpose

- To develop a general overview regarding the dangerous goods transportation sector in Turkey with relevance to integration of ADR
 - To support practices to improve the efficiency and security of dangerous goods transports
 - To identifying issues and problems concerning the application and control of rules and regulations in line with the road transport legislation of the European Union,
 - road safety and social, fiscal, and technical rules.

Research Question

- What is the current state of dangerous goods transportation sector in Turkey?
- What are the existing rules and regulations concerning dangerous goods transports on road?
- What are the application and control situation of DG regulations in Turkey?
- What are the problems concerning application and control of rules and regulations in Turkey?
- What are the current problems related to operations of dangerous goods transportation?
- What implementation barriers exist to reach the desired flow?

Method

- Context: Transport of dangerous goods by road
- Face to face interviews took place in March – April 2011 with competent authorities, one industry trade association, and six leading leading companies providing international DG transportation service.

Questionnaire

- Prepared in line with ADR agreement to cover
 - Section 5 (Consignment procedures),
 - Section 7 (Provisions concerning the conditions of carriage, handling, loading, and unloading),
 - Section 8 (Requirements for vehicle crew, equipment, operation and documentation)
 - Section 9 (Requirements concerning the construction and approval of the vehicles).
- The following key areas were identified for investigation:
 - volume, sector size, organizational structure, company, size, handling, transportation volumes, expectations, encountered problems, regulatory standards, operations management systems, certification and education

Overview

Comp.	Modes	Other services	Certificates	DG Class	Fleet Size
C1	Road, air, sea, rail, inter modal	warehousing, customs clearance, insurance, and logistics consulting	ISO 9001, ISO 10002, ISO14001, ADR	3-6, 8,9	1.300
C2	Road, air and maritime	International trade support	ADR, K1	3	45
C3	Road	order management, general warehouse	ADR, C-2, R-2	2,3	240
C4	Road	Warehousing, forwarding	ADR, UND	3	1.500
C5	Road, air, sea,	Customs clearance, and insurance services	L2	3	500
C6	Land, sea	Production and filling	L2	3	200

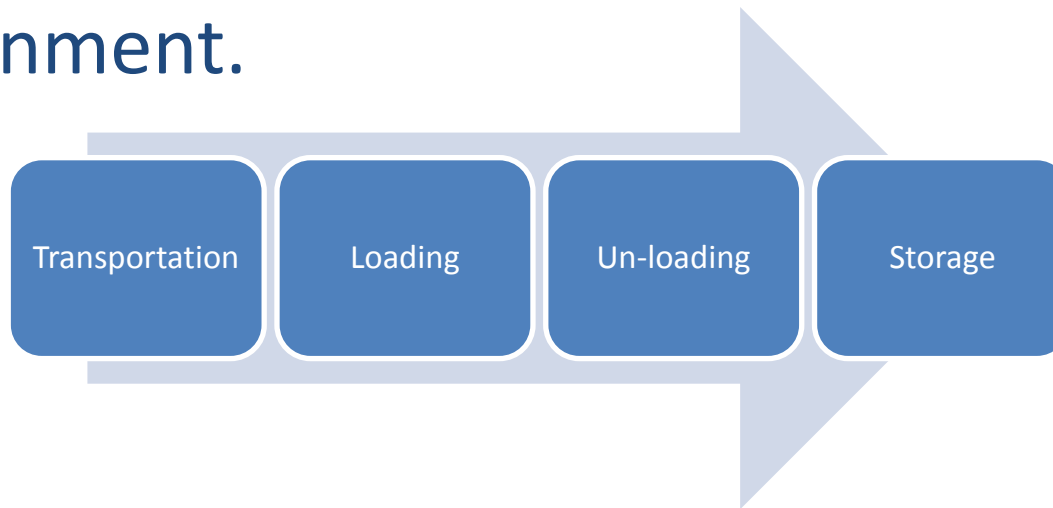
Types and Routes

- Class 3 Flammable liquids: 90% of 22m DG transported



Risk and Safety

- Class 3 materials (Flammable Liquids) : most risky DG class that incurs the highest risks during transportation and handling.
- Class 6 (Toxic substances): Highest risk for environment.



No Accident Statistics for DG!

Problems and Expectations

1. Driver Certification:
 1. Insufficiency of training and testing companies
 2. Time required for certification: 5-6 months
2. Low control standards
3. Lack of ADR implementation preparations
 1. 20.000 uncertified vehicles
4. Uncertainties in auditing and inspection processes
 1. Safety advisor: An ambiguous term

Training and Technology

- Four companies comply with the ADR regulations: obtain training from internationally certified trainers and renew the process under legal conditions.
- Other two companies provide self training courses within the organization.
- Most companies do not have a separate operational control system to manage the hazardous material transport processes and technologies.

Conclusion

- Long and costly implementation period:
 - Above 2 billion Euros for adopting and certifying 20K vehicles
 - Drivers certification: Insufficient resources
 - Lack of a defined plan:
 - Lack of necessary information and statistics
- Operational efficiency:
 - Reduced cost of technology
 - Risk control
- Monitoring:
 - Revised regulation and control system
 - More and better structured random controls need to be regulated

Areas of Interest

- Truck Driver Training
- Safety and Risk Measurement
- Routing and Operations Management
- Competition Analysis: International vs local companies
- Trade off : Risks vs Economic burden

Thanks for your attendance...

