
Economic Commission for Europe**Inland Transport Committee**

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Working Party on the Transport of Dangerous Goods

English

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Joint Meeting of Experts on the Regulations annexed to the European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways (ADN) (ADN Safety Committee)

Forty-fourth session

Geneva, 26-30 August 2024

Item 5 of the provisional agenda

Reports of informal working groups

Correspondence group on fumigated cargo**Report on a second face-to-face meeting**

Submitted by the Government of Germany on behalf of the Chair of the correspondence group

Summary

Related documents: Informal document INF.17 of the forty-third session

ECE/TRANS/WP.15/AC.2/88, para. 73

Introduction

1. As announced at the forty-third session of the ADN Safety Committee, the working group held a second face-to-face meeting at the Federal Ministry for Digital and Transport in Bonn, Germany, on 4 and 5 June 2024. The meeting was attended by delegates from Germany (Chair, experts from the agricultural sector and the labour inspectorate), the Netherlands, EBU/ESO and GAFTA/UNISTOCK/COCERAL.
2. Given that all incidents documented so far concerned consignments from Hungary and Ukraine, the working group expressed its great regret that no Contracting Parties from the Danube region participated in the work. The Chair agreed to reach out to the Secretariat of the Danube Commission.
3. The representatives of the associations GAFTA/UNISTOCK/COCERAL and EBU/ESO offered to approach association members from the Danube region in a targeted manner regarding the lack of knowledge about the transshipment and transport operations there.

I. Work results

4. The Chair submitted a written report on the development of this project from the first documented incidents in 2017 to the forty-third session of the ADN Safety Committee.
5. The German delegation reported on new incidents on the German section of the Danube. In the period between 5 March and 28 May 2024, 12 inland navigation vessels from Hungary arrived with cargoes of between 1,000 and 1,850 tonnes of grain, where, at the start of unloading, high concentrations of the fumigant phosphine were released and measured. The maximum value measured was 5 ppm of phosphine. In all cases, the respective masters

stated that they had not been informed of the fumigated state of the cargo. In each case, the crew had to leave the vessel, and a qualified fumigator-in-charge was asked with carrying out the necessary measures.

6. The delegation from the Netherlands and the EBU/ESO delegation reported on two recent incidents that occurred during the transshipment of agricultural goods from trains to inland navigation vessels, one in Germany and one in the Netherlands. In both cases, containers from Ukraine containing the agricultural products in bulk were lifted above the cargo holds of the inland navigation vessels by means of a crane and their contents were emptied into these holds. The masters suspected that fumigants had been released because there were rests of sachets in the grain and conspicuous odours. However, the shipping agents and consignors had denied that the grain or the containers had been fumigated. The filling of the vessels was continued and only in the silo, the destination of the transport operation by inland navigation vessel, the presence of the fumigant was determined in a measurement. The representatives of the Netherlands and Germany recommended that in such cases masters immediately inform the competent authority at the place of transshipment and arrange for a medical examination of the persons involved.

7. For the representative of the Netherlands, the new incidents make it clear that additional safety requirements are necessary and that the current safety situation during the carriage of fumigated cargo is unacceptable and has to be improved.

8. The working group agreed that its work served neither the quality assurance of grain as foodstuff or animal feed nor the protection of the personnel of shore facilities or other means of transport. The work consists in developing rules and regulations for an optimum protection of persons on board of inland navigation vessels during carriage (including loading and unloading) against health hazards due to fumigants.

9. The group was unable to unambiguously determine whether in other fields of law or in accordance with contractual practice there is an obligation in the ADN Contracting Parties to provide information on a possible fumigation along the transport chain. For this reason, the original plan to develop a uniform, legally watertight solution via the ADN is to be maintained.

10. The Chair, also representative of Germany, pointed out that, after selecting measures offering maximum safety for the crew during carriage, it also had to be examined whether these measures are feasible in practice. In addition, the economic impacts on the supply chain should be considered. The safety precautions for the protection of the crew had to be proportionate vis-a-vis the additional burden imposed on traders, fillers and unloaders. He also pointed out that, in addition to ensuring the safety of carriage, the preamble of the ADN Agreement also provided for facilitating transport operations and promoting international trade.

11. Subsequently, the group re-examined the previously proposed amendments.

12. Regarding the current proposal for the definition of "fumigated cargo", there were doubts as to whether the unrestricted scope, which includes all non-dangerous goods such as wood, is necessary and manageable. So far, no incidents have become known with regard to goods other than grain and animal feeds, and the EBU/ESO delegation did not have detailed knowledge of further categories of fumigated goods in bulk in inland navigation vessels. If the comprehensive scope is maintained, other fumigants must be considered and other industry organizations must be involved. The group maintained its intention not to specify a concrete time prior to the loading of the inland waterway vessel for the "fumigation" that is to result in the classification as identification number 9007. This means that it is sufficient for the fumigation to take place at some point in the supply chain before the vessel is loaded.

13. The working group confirmed the threshold values considered to be harmless so far. These values are to apply to the "surrounding air" directly above the cargo and not "in the cargo" itself. To the knowledge of the group, no other fumigants are used for grain, animal feeds and oil seeds.

14. The working group then continued its work with the proposed amendments that had previously not been discussed.

15. In cases where the master suspects that fumigants are being released during carriage despite gas-free measurements having been performed during loading, the group believed that it made sense to oblige the master to immediately inform the locally competent authority and stop the vessel's journey. The competent authority is to be given the task to decide on the necessary measures. The group will consider whether it can provide guidance on possible safety distances.

16. The group concluded that it was necessary to again perform a measurement to confirm compliance with the defined thresholds immediately before unloading the inland navigation vessel at its destination. Due to influences such as temperature, duration of the journey and humidity, residues of the fumigant (also from sachets or sleeves) might be re-activated during a longer journey or during unloading and be stirred up and released during unloading e.g. using a crane gripper. The responsibility for this measurement is to lie with the unloader within the meaning of 1.2.1 of ADN.

17. During the discussion, differing views were expressed on whether the crew should be obliged to use personal warning devices that react to fumigants. While the government representatives considered this contribution by the carrier to be reasonable (in many cases, ADN requires personal protective equipment and measurement devices to be carried on board, costs for this are low), the representative of EBU/ESO advocated leaving this decision to the individual responsibility of the carrier. He stated that such an obligation was not necessary if the filler provided a documented gas-free measurement.

18. The group confirmed the prohibition of fumigation of the cargo during the journey. [*in-transit fumigation*].

19. Experts participating in the meeting confirmed that potential retained samples collected from the consignment remained in the enterprise on shore and were not carried on board the vessels. For this reason, the group came to the conclusion that it would refrain from developing provisions on the carriage of fumigated cargo in "limited quantities".

20. The group supported two new proposals submitted by Germany in accordance with which the consignor should confirm in writing to the master that the fumigants have been removed from the cargo and, as already known from 5.5.4.2 of ADR/RID/ADN for fumigated cargo transport units of UN No. 3359, the application of the planned special provision of ADN is to be indicated in the documents issued in connection with the transport operation. As most of the incidents have occurred during the unloading of inland navigation vessels, this information is to be available on board until the end of the unloading operation.

21. It was then examined whether the proposed measures are feasible.

22. In the opinion of the group, there are tried and tested procedures, also on seagoing vessels, for removing used sachets or sleeves that contain fumigants. In contrast, the removal of loose tablets does not seem to be feasible. Calling for the removal of such tablets could thus lead to them not being used before carriage by inland navigation vessel. However, in cargo holds of seagoing vessels, the fumigant is distributed throughout the cargo hold by means of powered recirculation, which can also be used to force the gas out of the cargo.

23. After the introduction of the multiple measurements, there may not be enough skilled personnel for this task. The group was of the opinion that the legal obligation to perform a great number of these measurements would, however, lead to new capacities being built up rapidly.

24. Regarding the question of whether the measurements are feasible for the different loading operations, the following scenarios were considered:

- (a) seagoing vessels – inland navigation vessel;
- (b) floating warehouses in seaport – inland navigation vessel;
- (c) inland navigation vessel – inland navigation vessel;
- (d) silo – inland navigation vessel;
- (e) rail wagon – inland navigation vessel; and
- (f) container hanging from a loading crane – inland navigation vessel.

25. The group had no knowledge of problematic loading operations between road vehicles and inland navigation vessels.
26. The group did not have any indication that in any of the scenarios a measurement directly before or during filling (by means of a loading hose, a crane gripper, a bottom outlet on a silo wagon, via a conveyor belt or through the closed container doors) would be unfeasible. The group considered tried and tested procedures as a given also for the measurements after loading in the open holds of the inland navigation vessels.
27. The representative of EBU/ESO did not expect the proposed measurements to result in considerable delays in carriage by inland waterways. He assumed that the additional costs for the measurements would be incurred by those who commissioned the inland waterway transport operations. The representative of Germany expressed concerns that these costs might be passed on to the end user.
28. Finally, the group discussed whether individual measurements could be replaced by other measures already established for transshipment in order to avoid a disproportionate burden and double measurements. It identified the options below.
29. If in-transit fumigation has been carried out on a seagoing vessel, the first measurement "immediately before or during filling of the inland navigation vessel" may be replaced by a certificate to be handed to the master of the inland navigation vessel certifying the gas-free condition of the cargo based on MSC.1/Circular.1264 — Recommendations on the Safe Use of Pesticides in Ships Applicable to the Fumigation of Cargo Holds — (27 May 2008), Amended by MSC.1/Circular.1396. For the second measurement, the master must be considered as the filler of the inland navigation vessel.
30. If grain is loaded into the inland navigation vessel from a container previously carried by rail, the first measurement "immediately before or during the filling of the inland navigation vessel" can be waived if the container is carried under UN No. 3359 FUMIGATED CARGO TRANSPORT UNIT in accordance with 5.5.2 of RID and a "VENTILATED ON" date is indicated on the warning mark.
31. In the opinion of the group, failure to mark such containers accordingly and indicate them in the transport documents constitutes an infringement of applicable provisions of RID that does not have to be regulated again in ADN.
32. The group believes that outside of Germany, Belgium and the Netherlands it cannot be ruled out that loose tables are also used in silos on shore for fumigation during storage. Therefore, there should be no general exemption for this scenario. However, the first measurement pursuant to the ADN special provision could be replaced by a measurement pursuant to the GAFTA standard.
33. The current state of the proposed amendments is set out in the annex to this document.

II. Next steps

34. The group agreed to address the following in a next round of deliberations:
- (a) Supplementing further detailed information on the most recent incidents during loading from containers delivered by rail;
 - (b) Revision of the definition of "fumigated cargo" in 1.2.1 of ADN: restriction to grain, animal feeds and oil seeds;
 - (c) Consideration of the "silo on shore – inland navigation vessel" loading operation: availability of reliable documentation to be handed to the master that no fumigant has been used after an initial inspection in the silo;
 - (d) Interpretation issue regarding 5.5.2 of RID: classification of bulk goods wagons and freight containers containing fumigated grain cargo as UN No. 3359 FUMIGATED CARGO TRANSPORT UNIT or other forms of carriage of fumigated bulk cargoes by rail;

(e) Consideration of the economic impact of the proposed measures due to a possible increase in costs and journey times;

(f) Enquiry to CIPA on newly developed accident prevention provisions of the occupational accident insurance funds;

(g) Field trip to a place where relevant goods are loaded into or unloaded from inland navigation vessels on the Rhine in Germany and maybe additionally to another Contracting Party on the Danube, where trained fumigators-in-charge can also be involved.

35. The Chair suggested holding a video conference in November or December. Another face-to-face meeting in conjunction with a field trip could take place in spring of 2025.

36. A working document with fleshed out proposals for amendment is to be submitted for the forty-sixth session in August 2025. These amendments would have to be adopted for ADN 2027 at the latest at the forty-seventh session in January 2026.

37. The working group asks the ADN Safety Committee to take note of and evaluate the work results and would appreciate an indication as to whether the work can be continued as described above.

Annex

1. Insert the following line at the end of Table A:

UN No. or ID No.	Name and description	Class	Classi- fication Code	Packing group	Labels	Special provisions	Limited and excepted quantities		Carriage permitted	Equipment required	Ventilation	Provisions concerning loading, unloading and carriage	Number of blue cones/ lights	Remarks
							3.4	3.5.1.2						
	3.1.2	2.2	2.2	2.1.1.3	5.2.2	3.3	3.4	3.5.1.2	3.2.1	8.1.5	7.1.6	7.1.6	7.1.5	3.2.1
(1)	(2)	(3a)	(3b)	(4)	(5)	(6)	(7a)	(7b)	(8)	(9)	(10)	(11)	(12)	(13)
9007	FUMIGATED CARGO	9	M11			804		E0	B					

2. In section 1.2.1, insert the following new definition:

"*Fumigated cargo* means a non-dangerous goods [grain, feed and oilseed] cargo carried in bulk [(such as grain, feed, wood)] which prior to carriage on inland waterways was treated specifically by the application of fumigants to control target insect pests in the product and its enclosure."

3. In 3.2.2 – Table B, insert the following entry in alphabetical order:

Name and description	ID No. UN No.	Class	Remarks
FUMIGATED CARGO	9007	9	Only accepted for carriage in accordance with SP 804

4. In 2.2.9.2, add the following indent:

"- Fumigated cargo, as defined in 1.2.1, assigned to Identification No. 9007 which does not meet the conditions of special provision 804."

5. In Chapter 3.3, add the following new special provision at the end:

"804 FUMIGATED CARGO, as defined in 1.2.1, is not subject to other provisions of ADN than the following. The carriage of FUMIGATED CARGO is forbidden if the below mentioned provisions are not met.

- (a) Documents associated with the carriage of fumigated cargo shall include the following information: 'Transport according Special Provision 804 of ADN.' This statement shall be drafted in an official language of the forwarding country and also, if the language is not English, French or German, in English, French or German, unless agreements, if any, concluded between the countries concerned in the transport operation provide otherwise.
- (b) The consignor according with 1.2.1 of ADN must ensure that all residues of fumigants, i.e. tablets, sleeves or sachets, if used, are removed from lots intended for loading into the vessel and disposed of properly. The information shall be kept on board in text form during the journey and during unloading.
- (c) Immediately before or during filling as well as immediately after filling the fumigated cargo into the cargo holds of the vessel, the remaining concentration of the following toxic gases and vapours resulting from fumigants in the surrounding air shall be below the following values:

Phosphine	0.01 ppm
Sulfuryl fluoride	0.1 ppm
Methyl bromide*	0.25 ppm

* *banned by European Union (EU) law for use in those Contracting Parties that are Members of the European Union.*

- (d) The filler according with 1.2.1 of ADN has to ensure that a clearance measurement has been performed and that the abovementioned thresholds are complied with. The information shall be kept on board in text form during the journey and during unloading.
- (e) When it is suspected that the cargo still or again releases residual amounts of fumigant above a value mentioned under (b), the competent authority shall be notified without delay and the vessel shall be stopped at a suitable berthing area, assigned by the competent authority, until gas levels reach a safe level as per the table above.

- (f) Immediately before unloading the fumigated cargo from the cargo holds of the vessel, the unloader according 1.2.1 ADN has to ensure that after measurement the remaining concentration of the toxic gases and vapours resulting from previously used fumigants is below the abovementioned thresholds.
 - (g) Any in-transit fumigation on board vessels is prohibited."
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