Economic Commission for Europe
Inland Transport Committee
Working Party on the Transport of Dangerous Goods
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-second session
Geneva, 21-25 August 2023
Item 1 of the provisional agenda
Item 5 of the provisional agenda
Reports of informal working groups

Correspondence group on fumigated cargo

Intermediate findings

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

Introduction

1. In accordance with the mandate given by the ADN Safety Committee at its forty-first session, the members of the correspondence group on fumigated cargo, i.e. representatives of the German (Chair), Austrian, Dutch, and French delegations as well as the industry associations, the European Barge Union and the European Skippers Organization (EBU/ESO) and Grain and Feed Trade Association (GAFTA), exchanged views in writing on how the carriage of bulk cargoes fumigated for pest control purposes prior to being loaded onto an inland waterway vessel could be regulated in the regulations annexed to ADN.

2. The primary aim is to ensure that the carrier is informed in due time about the fumigated status of the cargo to avoid any risk to the persons on board the vessel resulting from the release of toxic gas from the fumigants.

* Distributed in German by the Central Commission for the Navigation of the Rhine under the symbol CCNR-ZKR/ADN/ WP.15/AC.2/2023/39

** A/77/6 (Sect. 20), table 20.6.
I. Preliminary proposal for new provisions in ADN 2025

3. The correspondence group agreed on the following proposals for amendment and requests that the ADN Safety Committee evaluate them:

(a) Section 1.2.1 – Definitions

In section 1.2.1, insert the following new definition:

"Fumigated cargo means a cargo carried in bulk (such as grain, feed, wood) which prior to carriage on inland waterways was treated specifically by the application of biocidal products and/or plant protection products to control target insect pests in the product and its enclosure."

(b) Section 3.2.1 – Table A

In Table A, insert a new entry after ID No. 9006 as included in the annex to this document;

(c) Section 3.2.2 – Table B

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

<table>
<thead>
<tr>
<th>Name and description</th>
<th>ID No. UN No.</th>
<th>Class</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUMIGATED CARGO</td>
<td>9007</td>
<td>9</td>
<td>Only accepted for carriage in accordance with SP 804</td>
</tr>
</tbody>
</table>

(d) Sub-section 2.2.9.2 Class 9 – Substances and articles not accepted for carriage

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."

(e) Chapter 3.3 – Special provisions applicable to certain articles or substances

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) The [consignor] [principal] must ensure that residues of [tablets or sachets], if used for fumigation, are removed from lots intended for loading and disposed of properly.

(b) Immediately [before] [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:

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphine</td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Sulphuryl Fluoride</td>
<td>10.0 mg/m³</td>
</tr>
<tr>
<td>Methyl Bromide†</td>
<td>1 ppm</td>
</tr>
</tbody>
</table>

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

(c) This has to be confirmed by the [consignor] [principal] in a traceable form. He has to inform the carrier in advance in a traceable form that the cargo offered for transport was previously fumigated and cleared by way of a clearance measurement. The information shall be kept on board during the journey.
For the carriage of previously "Fumigated cargo, UN 9007", a fumigation measuring device of the previously used fumigant is prescribed/recommended for the crew. This may also be provided in the form of a toximeter.

When it is suspected that the cargo still or again releases residual amounts of fumigant above a value mentioned under (b), the vessel shall be stopped at a suitable berthing area as far away as possible from residential areas until gas levels reach a safe level as per the table above. The competent authority shall be notified without delay.

Immediately before unloading the fumigated cargo from the cargo holds of the vessel, the remaining concentration of the toxic gases and vapours resulting from previously used fumigants shall be measured under the responsibility of the [consignor] [principal] by [a qualified] [an approved] expert. The [consignor] [principal] shall inform the unloader in advance in a traceable form about the result.

Any in-transit fumigation on board vessels is prohibited.”

II. Justification

4. The only bulk cargoes that are known to have potentially been fumigated for pest control purposes are agricultural products. In the corresponding branch of industry, only the three designated fumigants are currently being used due to other legal provisions (e.g. Biocidal Products Regulation of the EU).

5. The majority of the group was in favour of the consignor to ensure that the load is measured free before the start of the journey in accordance with dangerous goods legislation. A dissenting contribution from GAFTA was to assign this responsibility to the "principal", according to the standards of this association "the seller and/or the buyer or receiver of the goods".

6. If the clearance measurement was carried out on the cargo before the latter was filled into the inland waterway vessel, no further measures, such as regular measurements during the journey or ventilation prior to unloading, are required, since it is not to be expected that a significant amount of fumigant is present during the journey.

7. Nevertheless, it cannot be entirely ruled out that, during carriage by inland waterway vessel, "hidden" fumigant residues are released to the environment. The protection of the crew members from immediate risks during the vessel’s journey is governed by different national, European or international law on occupational and operational safety. Nonetheless, to ensure the basic protection of the persons involved in unloading the vessels, a control measurement of the cargo immediately prior to unloading is appropriate. The responsibility for this measurement shall be borne by the "owner of the cargo" or the "consignor". Crew members are currently not qualified to handle fumigants.

8. No agreement could yet be reached on whether — for the protection of the persons on board — a gas measuring device should be carried during carriage.

9. The carrier in inland navigation must satisfy himself prior to the start of the journey that he is provided with evidence of the measurement of the cargo prior to the commencement of the journey and ensure that the unloading of the vessel only starts after a new control measurement has been carried out.

10. It shall be noted that the measures proposed herein can indirectly affect the carriage of fumigated agricultural products via other modes of transport. Such products are not only taken on from silos ashore but very often also from seagoing vessels and trains. A prior carriage by road vehicles is expected only in very few cases but cannot be fully excluded.

11. In maritime transport, there are established protocols for handling fumigated bulk cargoes that already include clearance measurements. For rail and road transport, this is not known to be the case, which means that in such cases, the owners of the cargo will be faced with an additional obligation.
12. Perhaps it could be discussed at the RID/ADR/ADN Joint Meeting whether the provisions of section 5.5.2 of ADR/RID on fumigated cargo transport units (UN No. 3359) do not already apply to the carriage of fumigated agricultural products in road vehicles and rail wagons today.

III. Feasibility

13. No conversion measures are necessary for vessels required for fumigated bulk cargoes. With the requirement that fumigants used for bulk cargoes must already have dispersed prior to the commencement of carriage by inland waterway vessel, applying a new warning label to the vessels is not required.

14. Sellers, consignors and loaders of agricultural products fumigated for pest control purposes, for other legal reasons, already have adequate experience and procedures to conduct the clearance measurement of cargo prior to filling it into the cargo holds of inland waterway vessels.

15. Thus, the carrier in inland navigation is largely freed up from activities and responsibilities he is not currently familiar with.

IV. Sustainability

16. The provisions on the carriage of fumigated cargo can be associated in particular with the following Sustainable Development Goals. (See informal document INF.23 of the 2023 spring session of the RID/ADR/ADN Joint Meeting):

   (a) **Goal 3 – Good health and well-being**

   The proposed provisions ensure the safe handling of dangerous chemicals during carriage. The parties involved receive appropriate information on how to handle the dangerous goods.

   (b) **Goal 8 – Decent work and economic growth**

   All employees in the Contracting Parties to ADN who work on inland waterway dry cargo vessels as well as all employees who work at fillers or unloaders of dry cargo vessels have access to an equivalent level of protection and to the necessary information on suitable protective measures they can take at their workplace depending on the dangerous goods they handle.
### Annex

<table>
<thead>
<tr>
<th>UN No. or ID No.</th>
<th>Name and description</th>
<th>Class</th>
<th>Classification Code</th>
<th>Packing group</th>
<th>Labels</th>
<th>Limited and excepted quantities</th>
<th>Carriage permitted</th>
<th>Equipment required</th>
<th>Ventilation</th>
<th>Provisions concerning loading, unloading and carriage</th>
<th>Number of blue cones/lights</th>
<th>Remarks</th>
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