

# OTIF



ORGANISATION INTERGOUVERNEMENTALE POUR  
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES

ZWISCHENSTAATLICHE ORGANISATION FÜR DEN  
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**RID:** 1<sup>st</sup> Session of the RID Committee of Experts' standing working group  
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**Subject:** Transport of coal in bulk as dangerous goods in rail freight transport

**Information from the International Union of Railways (UIC)**

## Background

1. Towards the end of 2011, a few incidents were reported in barge transport on the German part of the Rhine in which coal self-ignited during transport in bulk in open barges. The examination by the Bundesanstalt für Materialforschung und -prüfung (BAM) of samples taken from one of the barges affected showed that for some samples tested using the N.4 test according to the United Nations "Manual of Tests and Criteria", the criteria for classification in Class 4.2, packing group III were met.
2. A larger test series of coal samples initiated by the German Federal Ministry of Transport, Building and Urban Development and coordinated by stakeholders of the coal industry yielded the result that using the N.4 test for (imported) coal, it cannot be ruled out that such coal has the properties of dangerous goods according to Class 4.2, packing group III. Coal samples of different origins and from different parts of the transport chain were tested.
3. About 70% of the (imported) coal samples tested responded positively to the N.4 test. Based on additional tests on coal using the N.4 test however, it cannot be ruled out that coal has the properties of Class 4.2, packing group II.

## Situation in Rail Freight Transport

4. The RID regulations allow the bulk transport of coal (as UN 1361) in rail freight as dangerous goods, Class 4.2, packing group III, under the conditions of special provision VW 4.

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5. For many decades coal has been transported in bulk without any particular problems. Therefore, not a single case has occurred so far in which a shipper has declared coal as dangerous goods for rail freight transport. As a result, in rail freight today, coal is transported exclusively in open wagons all over Europe. In addition, the rail freight sector argues that the transport of coal in e.g. sheeted wagons or movable-roof wagons could run the risk of deflagration.
6. On the other hand, the risk of coal self-igniting during rail freight transport is much less of a problem. According to data from Germany since 1997, only five wagons could be documented which were affected by a smouldering fire due to self-ignition of coal during transport. Since three of these five wagons were on the same train, self-ignition of coal in rail freight transport can be regarded as an extremely rare event.
7. On the basis of the total number of coal wagons transported during this period, the risk is of the order of 1:2.5 million. Thus the transport of coal as dangerous goods under the existing regulations of RID would possibly reduce the existing extremely low risk of self-ignition even further, but at the same time might possibly create a much higher additional risk. Moreover, the railway companies do not have the necessary movable-roof wagons to transport coal as dangerous goods, nor do the shippers have the tarpaulins necessary to cover the open wagons used today.

#### **Next steps**

8. At the August meeting of the ADN Safety Committee, the European Barge Union (EBU) submitted a proposal for a special provision for the barge transport of coal in bulk as UN 1361. For reasons of fair competition and particularly in view of the small number of cases of self-ignition of coal in rail freight transport, an analogous special provision for coal (UN 1361) should be included in RID.
  9. The wording of this special provision has to take into account the specific loading and transport conditions of rail freight. Moreover, based on additional tests using the N.4 test, specific sorts of coal or different origins (e.g. coking coal or German coal) could be exempted from the RID regulations.
  10. Until these special conditions of carriage are implemented in RID, the rail transport of coal in bulk as dangerous goods has to be legally safeguarded by a multilateral special agreement between the states affected.
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