



Ship Type: All Trade Area: Worldwide

Bulletin 368 - 06/04 - Carriage of Coal Cargoes - Updated

Further to [LP Bulletin 309](#) 06/03 which detailed a case of mis-declaration of coal cargo in Indonesia we have been advised of several recent incidents that have highlighted further possible problems arising out of the “safe carriage of coal cargoes”.

It appears that there are still possible problems relating to the information provided by the shipper and/or his appointed agent. The IMO Code of Safe Practice for Solid Bulk Cargoes clearly states that the master shall be provided in writing the characteristics of the cargo and the recommended safe handling procedures for loading and transport.

In a recent loading in the Far East, the master was presented with a Shipper’s Declaration which gave a brief outline of the cargo characteristics which included the following: -

“This cargo is not considered liable to emit significant amounts of methane. This cargo is not considered liable to spontaneous combustion.”

The master had studied the relevant entry in the IMO Code and followed the recommendations of the Code under the heading “General requirements for all coals”.

For the first 24 hours of the voyage the holds were surface ventilated to release any methane evolved from the cargo. No methane was detected in this period and the hold ventilation was closed. The hold atmospheres mentioned were monitored for methane, carbon monoxide and oxygen twice daily in accordance with recommended procedures. However, within four days of sailing from the load port, it was noted that the levels of carbon monoxide in some of the cargo holds showed a steady rise. The master reported these figures in his daily report and requested advice.

The results of these tests indicated that there was a possible spontaneous heating problem with the cargo and the master was advised to follow the recommendations of the IMO Code described under the heading “Special precautions Self-heating coals”.

In particular, he was advised to completely close down the cargo spaces, sealing all joints in covers, ventilators, etc with Ramnek tape. He reported air movement through the coaming drains and these were also closed. Within a short period of time, the levels of carbon monoxide and oxygen began to fall and this fall continued through the voyage. Discharge was completed with no problems.

In respect of coals liable to spontaneous heating, the Code recommends that the hatches should be closed immediately after completion of loading in each cargo space. The atmosphere in the cargo spaces should be monitored and, if the carbon monoxide level shows a steady increase then the cargo spaces should be completely closed down. The covers could also be additionally sealed with suitable sealing tapes.

It should be noted that even well fitted hatch covers may be weather-tight to rain and seas over the deck. However, with various rolling movements of the ship, the covers may not be “airtight”. Leakage of air into the cargo space will then assist spontaneous heating of the coal. Subsequent heating of the coal will set up thermal movements within the cargo space, hot products of combustion out of the space and a fresh supply of oxygen into the space to assist further oxidation and heating of the coal.

It is suggested that ships chartered to carry coal cargoes should be provided with an adequate supply of sealing tape to maintain effective sealing of the cargo spaces.

Members should note that this incident highlights the need to closely follow the recommendations of the IMO Code related to the carriage of coal.

Source of information: Cliff Mullins (Minton, Treharne & Davies Limited)
through the Carefully to Carry Committee