Valve for degassing to reception facilities fitted with a flame arrester

Transmitted by the Informal Group of Recommended ADN Classification Societies

1. In 9.3.X.62 (Valve for degassing to reception facilities) it is required that the flame arrester is capable of withstanding a deflagration.

   “A permanently installed or portable spring-loaded low-pressure valve used during degassing operations to reception facilities, shall be fitted at the piping used to extract air.

   If the vessel’s substance list, according to 1.16.1.2.5, contains substances for which explosion protection is required according to column (17) of Table C of Chapter 3.2, this valve shall be fitted with a flame arrester capable of withstanding a deflagration. …”

2. In 1.4.3.8.1 it is required that the flame arrester is capable of withstanding a detonation.

   “1.4.3.8 Reception facility operator

   1.4.3.8.1 In the context of 1.4.1, the reception facility operator shall in particular:

   …

   (b) Ascertain that, when prescribed in 7.2.3.7.2.3, there is a flame arrester in the piping of the reception facility which is connected to the degassing vessel, to protect the vessel against detonations and passage of flames from the side of the reception facility.”

3. It must be noted that “withstanding a detonation” is more severe than “withstanding a deflagration”.

4. There seems to be a disharmony in the requirements for the flame arrester. In 9.3.X.62 is requested that it has to be capable of withstanding a deflagration and in 1.4.3.8.1 is requested that it has to be capable of withstanding a detonation. The group of ADN Recommended Classification Societies could not solve which request is the right one for this purpose and asks the Safety Committee to discuss this point and decide which kind of flame arresters have to be used for the degassing facilities.

5. In 7.2.3.7.2.3 it is not required that the flame arrester has to be capable of withstanding a deflagration or detonation. To be clarified.