



Accidentology of conveyors, elevators, and transporters **APPENDICES**

Lessons from the ARIA database

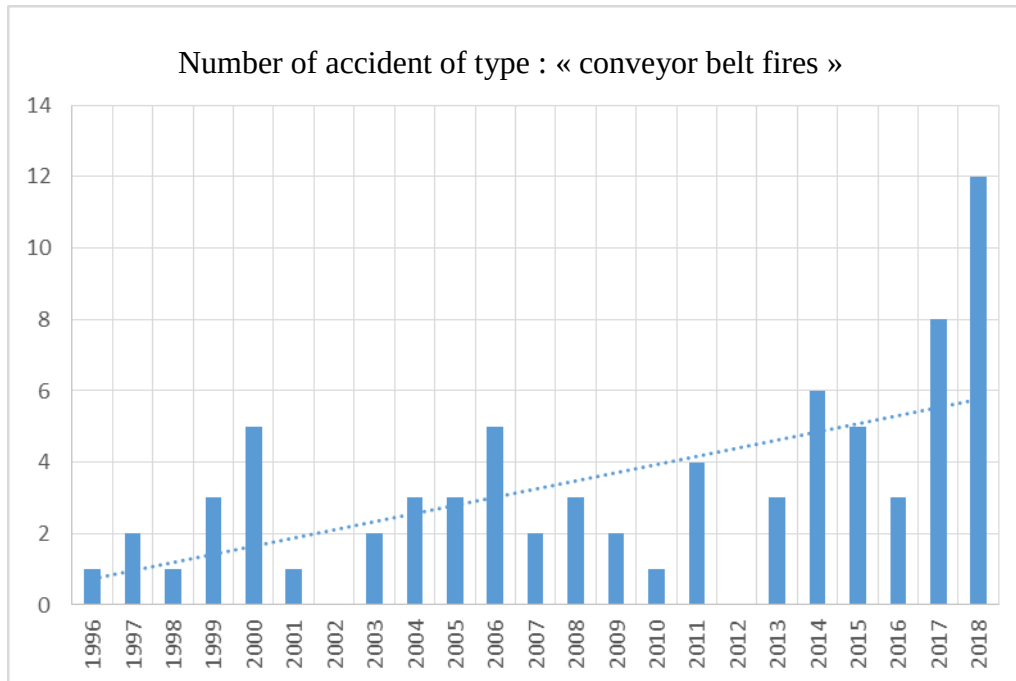
– September 2019 –



APPENDIX 1

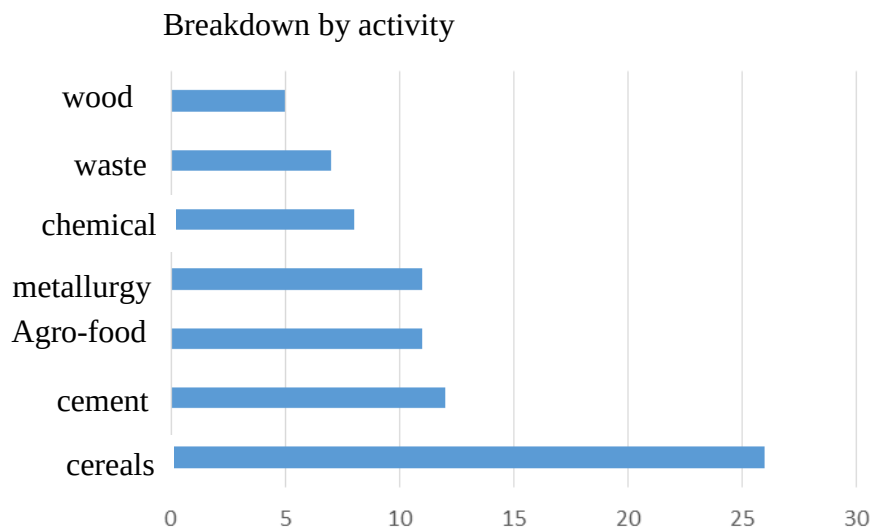
A closer look at conveyor belt fires

Conveyor belts are made of combustible materials (rubber, textile). They are often used to transport materials that are also combustible, so the risk of combustion is therefore present. The accidentology available in the ARIA database documents nearly 80 accidents involving the combustion of conveyor belts, in all sectors combined. The annual distribution of these accidents is represented in the graph below:



This graph shows an increase in such fires in recent years.

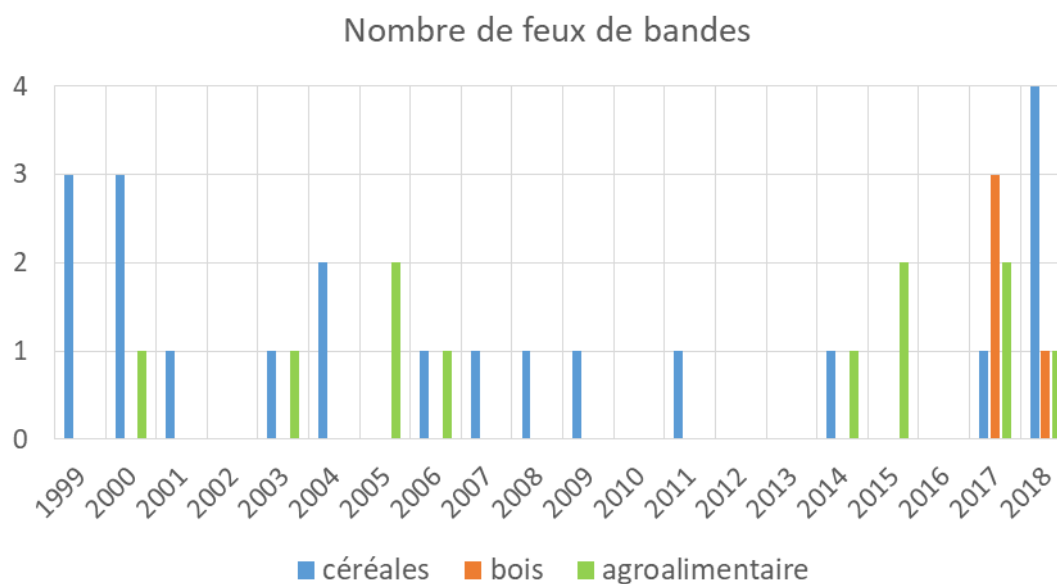
They concern various sectors of activity, although the cereal silo sector accounts for nearly 1/4 of these accidents, as shown in the graph below:



Certain sectors such as wood storage and silo storage of organic materials are subject to French regulatory requirements requiring the use of belts that meet self-extinguishing standards.

The first French 'orders' requiring the use of flame-retardant belts date from 2004. The French state-of-the-art silo guide, which appeared in 2008, specifies the expected characteristics of these belts: compliance with standard ISO 340 (self-extinguishing) and in case of belt replacement, the use of efficient belts is recommended, designed according to standards NF EN 12881-1 and NF EN 12881-2).

Despite these regulations, conveyor belt fires in these areas have resurfaced in recent years. However, this type of accident had become rare between 2010 and 2013, as shown in the graph below:



This trend can be observed in the 3 sectors studied: the cereal industry, the wood sector and the agro-food industry¹.

The BARPI published an ARIA Flash on these conveyor belt fires and a list of the right questions to be asked. It is available on the web site:
www.aria.developpement-durable.gouv.fr

¹ Flash ARIA – June 2018: “Conveyor belt fires, are the standards being met?”