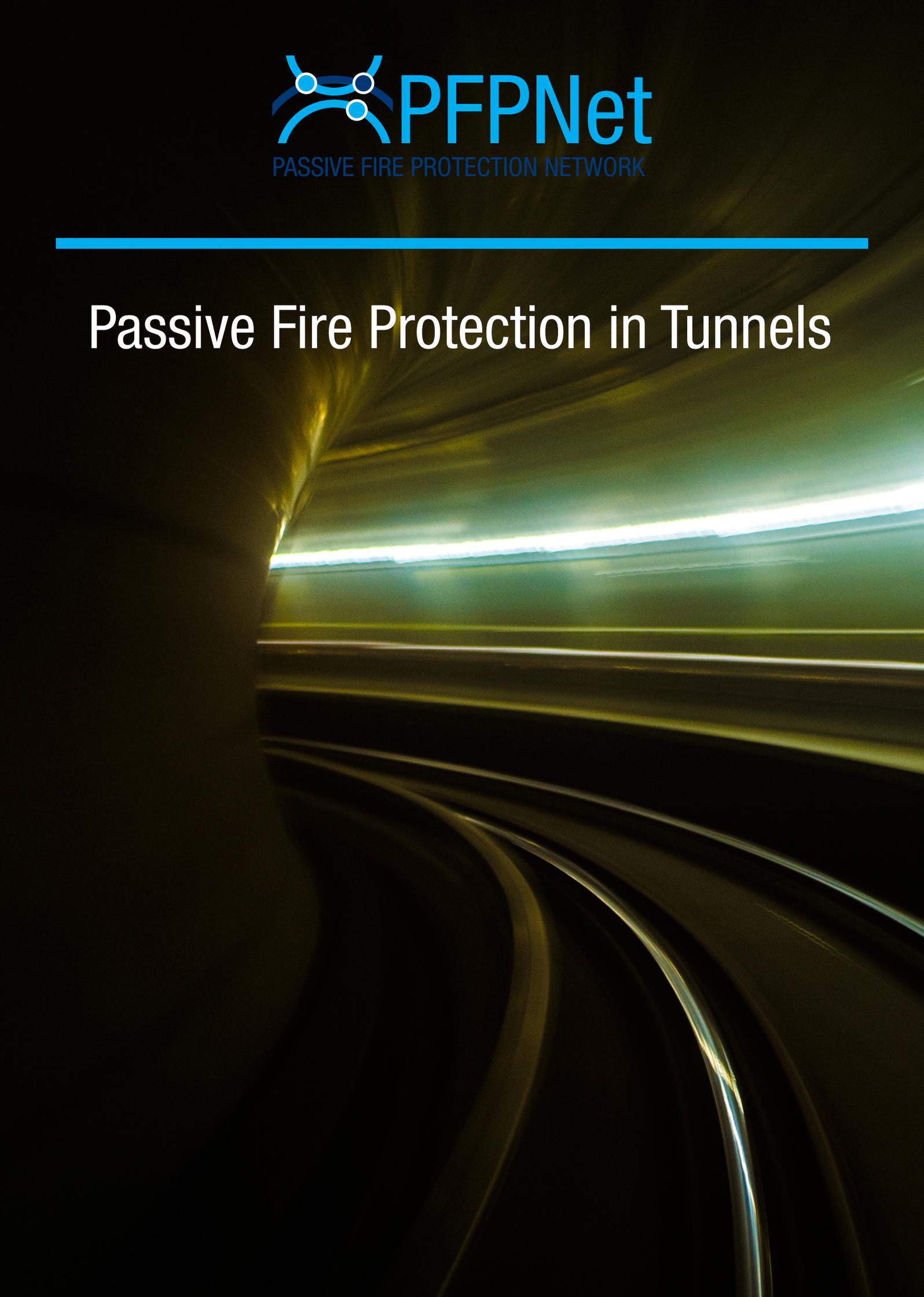


Passive Fire Protection in Tunnels



PFPNet - PASSIVE FIRE PROTECTION IN TUNNELS DEVELOPMENT OF A NEW TECHNICAL SUB-COMMITTEE

About PFPNet

The Hydrocarbon Passive Fire Protection Network, PFPNet, is an industry group set up a little over three years ago specifically for the purpose of increasing knowledge, understanding and training in hydrocarbon fire protection for the oil, gas and chemical processing industries.

PFPNet is a not-for-profit organisation which uses membership subscriptions to fund specific work packages which are based upon the requirements of the membership and targeted to improve knowledge, understanding and standards in the industry. Since its formation PFPNet has delivered some key work packages to achieve these goals and will shortly deliver an industry leading training package targeted that inspectors and engineers involved in the installation of PFP materials.

PFPNet membership currently comprises a number of leading companies in the oil, gas and hydrocarbon processing industries from owners to engineers, leading construction contractors, regulatory authorities, fire test laboratories, manufacturers of passive fire protection and contractors who apply passive fire protection materials.

Why organize a new technical sub-committee?

In September 2019 PFPNet were asked to consider if it could undertake work to address the issue of passive fire protection in tunnels by forming a technical sub-committee of knowledgeable individuals with good experience in this area. Again, the objective would be to increase knowledge, understanding and standards as well as provide a forum for individuals and companies with an interest in this area to address key topics.

In January 2020 an initial meeting was organised which was attended by a number of companies involved in tunnel fire protection. The objective of the meeting was to discuss what the key issues were for them and if the establishment of a PFPNet Tunnels Sub-committee would be of benefit. The outcome of the meeting was positive, some of the companies attending were already members of PFPNet and were able to explain what they have seen as the advantages of PFPNet membership in relation to their activities in the oil and gas industry.

What will the sub-committee work on?

The meeting was asked to propose activities that a technical sub-committee for tunnels could be involved in, some of the key activities individuals felt were important and could be addressed are as follows:

- Harmonization of test standards
- Common understanding of terminology
- Provide knowledge throughout the production chain
- Assess aspects of sustainability
- Provide guidelines
- Reduction of cost
- Avoid duplication of efforts (costs)
- Central point of knowledge and distribution of information
- Training and qualifying of staff
- Create awareness in countries that are not yet looking into tunnel safety
- Have a common voice with regard to the use of PFP in tunnels
- Promoting passive PFP over active systems which the group felt would lead to better safety
- Gather knowledge from various countries and institutes

What will the sub-committee work on? (cont...)

- Create awareness in countries that are not yet looking into tunnel safety
- Have a common voice with regard to the use of PFP in tunnels
- Promoting passive PFP over active systems which the group felt would lead to better safety
- Gather knowledge from various countries and institutes
- Understand what tunnel owners require
- Fill the gaps of the current international tunnel standard
- Raise the bar for safety
- Prepare for changes like new energy powered cars and other aspects that create the tunnel of the future

Things to consider additionally:

- Impact of an explosion on PFP
- Reparability and fire resistance after a fire
- Smoke and toxicity
- Role of insurers
- Risk based approach
- Fixation of PFP (installation and maintenance)
- Cost of PFP in relation to tunnel closure or loss

Attendees were also asked what was important for a tunnel sub-committee to attend to and the responses to this question included:

- A quality standard (code of conduct) to commit to
- Information and requirements of tunnel owners
- A group to represent the geographical boundaries
- A group with commitment to work on harmonization and sharing of knowledge
- Gathering and sharing of information from other committees
- Ways to influence standardization processes and committees

The next steps

With the idea to have this sub-committee organized by June 2020 (PFPNet conference) we invite relevant companies, authorities, contractors, engineering companies and test laboratories etc. to join in our efforts. Participation of PFPNet is needed to finance the activities of the sub-committee and therefore companies would be required to be members of PFPNet paying an annual fee which is currently set at £6000.

This is an opportunity for companies who have an interest in tunnel fire protection to have an influence on current and future issues relating to tunnel safety and potentially to assist to create new standards.

Members of PFPNet with an interest in the oil and gas industry have already benefited from delivery of industry guidance some specific technical areas of hydrocarbon fire protection as well as sharing of knowledge and shortly delivery of some industry-leading training programs. It is expected that after formation a Tunnels Sub-committee will be able to achieve similar benefits for its members.

A follow-up meeting will most likely be planned before June to finalize the organisation of this committee.

For more information contact john.dunk@PFPNet.com or micha.dejong@efectis.com