Proposal for Membership of PFPNet
Presented to Potential Members

Proposal No: PFPNet2016 - 001
Issue No: 01
Date: 1st November 2016

PFPNet
Hydrocarbon Passive Fire Protection Network

Document History & Approval				
Issue & Date	Prepared	Reviewed	Approved	Comments
01/11/16	*Simon Thurlbeck*	*John Dunk on behalf of Steering Committee*	*Simon Thurlbeck*	

MMI
engineers • scientists • innovators

PFPNet
Hydrocarbon Passive Fire Protection Network

Proposal Contacts		
PFPNet	Contact	Simon Thurlbeck
	Address	MMI Engineering Ltd The Brew House Wilderspool Park Greenall's Avenue Warrington Cheshire WA4 6HL
	Email	simon.thurlbeck@pfpnet.com
	Telephone	+44 (0) 1925 230655
	Mobile	+44 (0) 7885 651021
PFPNet	Contact	Gemma Shackleton
	Address	MMI Engineering Ltd The Brew House Wilderspool Park Greenall's Avenue Warrington Cheshire WA4 6HL
	Email	gemma.shackleton@pfpnet.com
	Telephone	+44 (0) 1925 230655

PFPNet
Hydrocarbon Passive Fire Protection Network

Proposal Summary

The Hydrocarbon Passive Fire Protection Network (PFPNet) is being established as an industry organisation, open to all interested parties to become Members, and funded by membership subscription.

It has the objectives of increasing knowledge of passive fire protection and raising standards and awareness generally across the industry. Subscriptions will be used to manage, administer and promote PFPNet, and to develop materials and networks that can achieve these objectives.

PFPNet will be managed by a Steering Committee with input from Members who will be encouraged to actively participate, and will assist to set the agenda and priorities that the organisation identifies.

PFPNet has the aim of becoming a global organisation, recognising the global nature of the hydrocarbon industries. A 'strategy for growth plan' has been established, which sees PFPNet develop from a European base, to have full membership and representation in the Americas and Asia Pacific regions. It is anticipated this strategy will be revisited and amended as needed.

A one-day meeting, held in Manchester, UK on the 7th September of 2016, pulled together 70 people from diverse hydrocarbon PFP-related backgrounds - who identified the themes and topics that they felt needed addressing in order to raise standards.

Based on the output from this meeting, and a target number of initial Members to launch PFPNet, a Scope of Work has been established for 2017. The Scope of Work balances the need for PFPNet to produce deliverables that will have an immediate benefit, whilst administering itself and, importantly, promoting and growing itself to become a global organisation.

The first annual Membership fees for 2017 are based on a target minimum number of 30 Members, and will be:

- £500 for a Sole Trader
- £6000 for a Company, Corporation or Institution, with one membership covering any location for that Company, Corporation or Institution

This will permit two technical deliverables to be developed, along with a technical conference and the formation of four sub-committees. The selected topics are provided in the proposal. In addition, this level of funding will enable PFPNet to be promoted and administered, and will put in place systems, such as a website, which will be used for future years.

If more than 30 Members are obtained, then the additional funds can then be applied to further the goals of PFPNet. The proposed additional Work Scope topics are detailed in the proposal.

To register to become a Member of PFPNet, please visit the PFPNet website www.pfpnet.com, where joining instructions and payment details can be found.

We look forward to working with you in making PFPNet a success.

Table of Contents

PFPNet
Hydrocarbon Passive Fire Protection Network

1.0   Introduction

Over the years, through real events, the dangers of oil and gas fires and their impact on people, plant and assets, as well as the environment, has become very clear. The ability to protect people and assets has improved significantly as industry has come to better understand the cause, development and effect of hydrocarbon fires and explosions. One means of protection that is used widely is Passive Fire Protection (PFP). PFP systems, a term to encompass all fireproofing systems, has been used extensively in the oil, gas, petrochemical and chemical industries for many decades. However, despite this experience, and the greater understanding and knowledge that has been developed, it is evident that the subject is not understood by the industry in general, with the key knowledge residing with a limited number of people and organisations. The result is the misunderstanding and misuse of PFP systems, in which the lessons learned have not been passed on, and which then manifests in failures or deficiencies in the PFP schemes developed.

Such deficiencies in knowledge and understanding arise at all stages of the use of PFP systems:

- At the design stage, where the need for PFP is identified through safety and engineering studies that lead to the development of a specification
- In the development and testing of systems that provide assurance that a system will help a protected item to meet its performance requirements during a fire
- During the installation of a system, where competency and knowledge is essential to ensure that the system performs as designed and tested
- During inspection and maintenance, where the task is to ensure that the system remains fit for purpose, and can be demonstrated as such

The subject is wide-ranging, covering many systems and many technical disciplines. At present, there is not a single industry body fully dedicated to the subject of hydrocarbon passive fire protection in all its forms and for its many uses.

PFPNet intends to change that.

2.0   What is PFPNet?

The Hydrocarbon Passive Fire Protection Network.

An industry organisation, open to all interested parties to become members, and funded by membership subscription.

Run for the benefit of its Members as a not-for-profit organisation with the objective of increasing knowledge of passive fire protection, and to raise standards and awareness generally across the industry.

Managed by a Steering Committee with input from Members who will be encouraged to actively participate, and will assist to set the agenda and priorities that the organisation identifies.

3.0   What Isn't PFPNet?

PFPNet will consider **ALL** systems, not just coatings. The subject of passive fire protection

encompasses all systems that go to make up a fire protection scheme.

PFPNet is not a trade association, it is a technical organisation. The purpose of PFPNet is to raise technical standards and understanding within the industry.

PFPNet is not a governing, regulating or standards body, as it has no formal remit or charter to allow this. However, documents and guidance developed by PFPNet could become standards if approved by other bodies, and any courses could become accredited by an accreditation body.

PFPNet is not a duplicate of any existing technical organisation. The work of PFPNet will provide the detailed technical knowledge and underpinning competency that will permit other documents and standards to be applied correctly.

4.0   The Aims of PFPNet

The vision of PFPNet is to be able to satisfy the following aims:

- To identify and set the forward agenda for PFP in the hydrocarbon industries – identifying the current problems and the future needs, and then systematically resolving them as a collective industry response
- To raise awareness and competency, and reduce the uncertainty and lack of clarity that can arise across all disciplines who are involved with the PFP
- To capture technical information and experience into written documents, guidelines and training courses that represent Best Practice
- To provide detailed knowledge that enables documents, codes and standards, company standards and recommended practice and procedures to be advanced
- To bring together the users and suppliers of PFP systems into a technical partnership under the banner of one industry organisation, providing a forum for debate and knowledge sharing
- To use the collective strength of PFPNet as a means for influencing change as to how PFP systems are treated across the industry

5.0   What Systems will PFPNet Consider?

A complete fire protection scheme can use many different systems to provide the specified level of protection and deliver the desired fire resistance performance. Elements that make up this overall system can include:

- Passive Fire Protection coatings, materials and systems
- Cryogenic Spill Protection coatings, materials and systems
- Composite systems
- Combined fire and thermal insulation systems on process equipment
- Insulated and non-insulated fire and blast barriers (including fire and blast walls, valve enclosures, windows, doors)
- Penetration seals
- Jacket and enclosure systems associated with items such as ESDVs, control systems, valve flanges, etc.
- Cable tray fireproofing
- Wraps and mats
- Specialised high performance systems
- Fire dampers, ducts and air transfer grilles

6.0   The Plan for PFPNet as a Global Organisation

6.1   The Need for a Global Organisation

The industries in which PFP systems to resist hydrocarbon fires are deployed are truly global. Projects can be engineering in one region, built in another, and operated in yet another, and with ownership often being held by global multi-nationals. For PFPNet to achieve its aims, its influence must be felt in all global regions through an active regional presence, but must also seek to reflect regional activities and practices, and liaise with regional bodies, such as standards bodies or accreditation bodies.

A primary aim of PFPNet is to develop that regional structure, with an active membership and activities in the Americas, EMEA and Asia Pacific.

6.2   The Development Plan

PFPNet needs to start somewhere. The strategy for development is to:

- Establish PFPNet in the UK/Europe as a first step
- Start work on producing the deliverables to gain momentum in 2017
- Have an immediate engagement with key organisations and stakeholders in the other regions during 2017 as one of the primary activities
- Establish the PFPNet portal as a means of helping to communicate with worldwide Members
- Take the activities to international locations through a regional structure that starts fully in 2018

The reason for the start in the UK is simply that trying to establish a global organisation initially has proved difficult to undertake, particularly without any funding, and with restriction on travel by potential Member companies. By developing real, tangible, deliverables, and developing momentum, this should provide the springboard to push for a global organisation.

If the opportunity arises to accelerate this process, then this will be taken.

7.0   Seeking Endorsement and Acceptance of PFPNet

It is essential that whatever PFPNet produces as part of its activities receives wide endorsement and use across the industry.   Only then will the full aims of PFPNet be met.

This can be through acceptance by the industry that the PFPNet deliverables are considered Best Practice and become referenced within codes and standards. One of the primary aims of PFPNet is to influence, and where possible if any PFPNet deliverables, or parts of them, can be incorporated or accepted as standards by Standards Bodies such as ISO, API or Norsok, then this route should be pursued, and PFPNet will set out to achieve this outcome through engagement with such bodies.

In seeking to provide training for those involved with hydrocarbon PFP, PFPNet either needs to establish and promote its own competency and accreditation process, or work with groups who are already established and have some role in competency assurance and accreditation, and are industry accepted and approved.   This can encompass established industry bodies who already provide some degree of training and accreditation, such as NACE, ICORR, FROSIO, and working with training partners and organisations who can

provide local training provision.

8.0   Who is Behind PFPNet?

Dr. Simon Thurlbeck is leading the organisation of PFPNet. MMI Engineering Ltd (MMI) has been supporting Dr. Thurlbeck's efforts and has been driving the launch of PFPNet to date, by providing administration and organisation. MMI is a global consulting company that specialises in major hazards risk management. MMI devised and ran the Joint Industry Project on Acceptance Criteria for Damaged Fire Protection Coatings. Through the activities across the whole range of the PFP lifecycle, MMI has seen the need for capturing knowledge and raising of standards, and devised PFPNet as a vehicle to achieve this.

John Dunk will be the first Chair of the PFPNet Steering Committee, which has been established to help launch the group. John was formerly the Global Director of fire and insulation products with International Paint, the manufacturers of the Chartek product line, and has over 35 years of experience in the development and use of PFP coatings in the hydrocarbon processing industries.

The PFPNet Steering Committee has a membership of individuals who have been selected to bring specific areas of experience to PFPNet, and collectively this group represents the perspective of Owners, Engineering Designers, Installers, Regulators, and Testing entities, with John Dunk representing the views of the Manufacturing community. The Steering Committee represents the views of the members, and provides independent Governance of PFPNet.

9.0   Governance of PFPNet

The Steering Committee provides the mechanism by which PFPNet will be run. Its role is to:

- Ensure independence across all decision making
- Identify and set the technical agenda for PFPNet
- Identify subcommittee structures and members
- Identify and ratify the selection of subcontractors
- Monitor and delegate management of finances and ratify any financial decisions
- To develop and then ensure adherence to the Constitution

PFPNet will be run as a transparent organisation, with all information relating to decisions and financial statements made available to all Members. It is the role of the Steering Committee to ensure this transparency.

At this stage, the Steering Committee has been assembled to help launch PFPNet and guide it through the early development. At later stages, elections may be required for Committee Members.

A copy of the original Terms of Reference is contained within Appendix A.

10.0 The Legal Status of PFPNet

It is the intention that PFPNet will be an independent not-for-profit organisation. As the group is being launched, MMI is taking the lead in setting up and developing PFPNet, with any payments from Members being processed through MMI. Payments and membership

fees will be collected by MMI and deposited in an account designated for use in connection with PFPNet exclusively. At the early stages of PFPNet, this arrangement provides low cost flexibility, enabling its viability to be determined and the group launched in as simple manner as possible.

However, the Steering Committee is considering setting up PFPNet as a separate legal entity. Should this transpire, then payments and any contracts will be made with that entity.

Members will be appraised of this arrangement in due course.

11.0 Who Should Become a PFPNet Member?

Members will be drawn from the wide spectrum of companies and organisations who are involved with PFP:

- Oil, gas and LNG operators
- Petroleum/petrochemical companies
- EPC contractors
- Design contractors
- Integrity management companies
- Applicators and installers
- Consultants
- Academic institutions
- Regulatory and certification bodies
- Testing organisations
- Manufacturers and suppliers

PFP is a multi-disciplinary subject, with those involved in its use and specification drawn from disciplines such as safety engineering, chemical engineering, structural and mechanical engineering, materials technology, architectural, and many more. It is often these multi-disciplinary activities that can lead to uncertainties over the "ownership" of PFP, which adds to the confusion.   When system design and manufacture, testing and research, and inspection are added in - the list of interested parties grows considerably.

The message is that PFPNet will be of interest to many different disciplines.

12.0 How will PFPNet Work?

Any revenues generated for use by PFPNet will be used to administer and promote PFPNet, to develop further deliverables, and to enable events such as conferences and technical meetings to be held.

Revenue will be generated through Members' subscriptions and, hopefully, revenue generating activities, such as the management and upkeep of accreditation schemes, or the delivery of training courses to fee paying delegates.

The number of activities that can be undertaken by PFPNet depends on the level of funding available from subscriptions and from revenue generating activities.   More funding enables more activities.

Initially, the funding available depends on the number of Members and the cost of membership. Because PFPNet is just being launched, the available funding will start small,

with the aim that, over time, it will grow. As PFPNet develops and membership grows, then funding will increase, meaning more activities can be undertaken. Some of the proposed activities will also result in opportunities for revenue generation.

The Scope of Work for 2017 will be established based on a level of subscriptions obtained from a minimum number of Members that PFPNet is targeting from the start of 2017. If, during the course of 2017 the membership is further developed, then new activities can be commenced during 2017 using that additional funding. The use of this funding will be decided by the Steering Committee.

13.0 What Will PFPNet Provide for its Members?

13.1 Benefits and Deliverables

To meet the aims outlined in Section 4.0, PFPNet will provide any (or all) of the following:

- Guidance documents
- Technical clarification notes
- Training courses
- Research programmes
- Technical meetings
- Annual conference
- Manufacturers showcase
- PFPNet events
- Networking opportunities
- An information portal

13.2 Website and Communication

The PFPNet website and the application of available technology is essential to keep the group vibrant, updated and connected, particularly when a primary aim of PFPNet is to be a global organisation.

The functionality of the website will provide:

Update Section

To include information such as:

- Deliverable progress announcements
- Announcements of upcoming events – meetings, demonstration days, etc.
- ISO and technical standards update
- Manufacturers announcements

Subcommittee Section

An area and login established for each subcommittee for information exchange related to the development of a deliverable.

Technical Library

Giving Members access to the deliverables that PFPNet produces, such as guidance

documents, technical notes, recordings of technical meetings, etc.

Discussion Forum

To provide the opportunity to ask questions of the membership and receive advice through developed threads. This Forum will be moderated to keep the discussions focused on technical issues.

Manufacturers System Information

Intended for the users of PFP systems and products to understand what systems are available, this section will contain a pro-forma summary page containing, for example, a list of Approvals and links to Manufacturers websites and key contacts.

Register of Technical Specialists

In a similar manner to that of the manufacturer's area, this section of the website will compile a register of technical specialists, their specialist areas of expertise, and contact details.

Access to Competency Schemes and Accreditation Registers

Once the schemes and registers are established, the portal will give access to the measures of competency that are used to assign an accreditation, and access to accreditations held by individuals. This may be through links to other organisations if it is considered that established 3rd parties provide the best means for managing and overseeing such accreditations.

Access to On-Line Training Courses

The website will provide access to training materials and on-line courses for those who have registered to undertake training using these materials. This may be directly run and administered by PFPNet, or through a third party, in which case links will be provided.

Social Media

Promotion of, and announcements for PFPNet, will be managed through regular bulletins and updates through social media platforms (LinkedIn, Twitter, etc.)

13.3   Peer-to-Peer Networking

PFPNet will not just provide technical deliverables, but the opportunity to network amongst the Members, which is seen as a vital by-product of the group. Proposed opportunities to do this include:

- Online Meetings – focused around presenting a particular deliverable to the wider organisation (and which will be recorded)
- Regional Technical Meetings – presenting a particular deliverable on a face-to-face basis to each region (1 deliverable = 3 meetings)
- Annual Technical Conference – Presenting technical papers, with a regional rotation over a 3-year cycle
- Manufacturers Showcase Technical Session - Showcase day from manufacturers to explain new system developments to potential users

The ability to undertake all of these activities will develop with time as PFPNet matures and membership increases to a level that this can be funded.

14.0 The Role of Subcontractors and Subcommittees

14.1 The Use of Subcontractors

PFPNet will use its funds from subscriptions to employ subcontractors to develop documents and training courses that the membership of PFPNet identifies as needed.

The use of subcontractors to accomplish tasks will make the task a priority for the selected subcontractor, and not a 'spare time activity' to fit around the day job. One major issue with the use of committees to produce standards is the length of time necessary to produce a document, subcontractors will significantly speed up delivery times.

14.2 The Role of Subcommittees

Sub-committees will be formed to focus on managing the delivery of individual tasks.

Where a sub-committee is formed around the development of a deliverable, such as a guidance document or training course, then its role will be to:

- Identify the scope
- Identify suitable subcontractors
- Undertake a bidding process and select a subcontractor
- Review the deliverables as they are produced
- Approve the deliverables on behalf of PFPNet

A sub-committee can also be formed to investigate and recommend a course of action on how PFPNet should approach a particular industry requirement, or as an activity to engage with an outside body, such as a standards body or certification body, with a view to gaining acceptance of a PFPNet deliverable.

Examples of both the development of deliverables, and engagement activities are proposed in the 2017 work plan. All Members are eligible to participate in sub-committees, subject to approval by the Steering Committee who will review the credentials and experience of potential Sub-Committee Members to ensure that the best possible team is assembled to oversee the best quality of deliverable, but Members should recognise that a level of time commitment will be required. Where sub-committees have the potential to be oversubscribed, the main Steering Committee will determine the sub-committee make-up.

15.0 Proposed Scope of Work - 2017

15.1 Meeting Output from 7th September 2016

A meeting was held on the 7th of September 2016, which was attended by a wide spectrum of companies involved in fire protection for the hydrocarbon industry. Several workshops generated a list of topics that participants felt required addressing through the work of PFPNet. These are provided in Appendix B.

The number one requirements from each workshop were identified as:

- *Workshop on Design, Engineering and Specification* – A description of how fireproofing schemes can be developed. A clear road map that describes the steps needed to get to the point of developing a specification, with a checklist
- *Workshop on System Development, Testing and Certification* - Guidance document needed that provides clarity on differences between standards, appropriate standards for particular scenarios and hazards, and methods of testing and assessment
- *Workshop on System Application and Installation* - Best practice guide for designers, fabricators and installation operatives that provides clear design requirements, and detail, prior to the project construction phase
- *Workshop on Inspection, Maintenance and Repair* - Develop training modules for PFP/CSP, specific to the generic type of products. To include an understanding of why PFP/CSP is used, its purpose and criticality

15.2   Deciding on the Base Scope of Work for 2017

The Scope of Work for 2017 has been developed to balance the need for PFPNet to promote itself and grow, and also the need to produce deliverables that have an immediate benefit to the membership. The Steering Committee has developed the 2017 Scope of Work, using the output from the 7th of September 2016 workshops.

The proposed work is based on an initial base work scope, which can be delivered from funds generated from an assumed base membership, and then an additional work scope that can be commenced should additional Members above the base membership be added.

The proposed Base Work Scope is based on **30 Members** at the membership fees defined in Section 18, providing a base budget of £180,000.

15.3   Base Scope of Work for 2017

15.3.1 Introduction

This 2017 Base Work Scope comprises a mix of administration tasks, along with defined technical deliverables. The primary cost item is for subcontractor fees to undertake the development of the deliverables.

For the purposes of budgeting, this subcontract fee has been taken to be a **£50,000 unit cost** per deliverable. Accurate costs cannot be assigned at this time, because scope hasn't been developed by a subcommittee, and the process of selection of suitable subcontractors will be through a competitive bidding process.

The overall cost estimate for the delivery of the 2017 Base Work Scope is **£180,000**. This is comprised of the following activities:

15.3.2 Administration Tasks

The following Administration Tasks are required to ensure the day-to-day running of PFPNet:

- The development of a website that has the required functionality to service the needs of PFPNet
- The regular management and update of website content
- Accounting services for invoicing Members and managing the tender process for any

subcontractors to PFPNet
- Arrangements for Steering Committee, Sub-Committee and Technical Meetings/Conferences, such as obtaining and booking meeting venues, issuing invitations and preparing meeting notes

It is proposed that existing marketing and accounting resources are available within MMI, and these will be deployed to undertake these tasks.

15.3.3 Promotion Tasks

Development and promotion of PFPNet is an essential element of the 2017 activities. Proposed tasks include:

- Social media, magazine articles, and other promotional campaigns that are necessary for the promotion of PFPNet
- Direct activities of the Chair of PFPNet, and MMI, in promoting and developing the PFPNet group, particularly in areas outside the UK. Note that MMI will use existing travel opportunities as a direct vehicle for PFPNet development and will not invoice PFPNet for expenses, etc.

Once the group is established, it is likely that these cost elements will reduce, most likely in 2018.

15.3.4 2017 Meetings

It is proposed to hold:

- Two Steering Committee Meetings in 2017
- One Technical Conference, to be held in the UK around September
- Eight subcommittee meetings related to the development of two deliverables and two other tasks that have been identified as required

There are expenses associated with arranging, and paying for, venues and catering for these events.

15.3.5 2017 Base Deliverables

From the 7th of September Workshop, the following guidance documents have been identified as being priority deliverables for PFPNet in the first year of operation:

PFPNet Document 1 - Introduction to Fire Proofing

In all workshops a common identified theme was that, with no recognised qualification in fireproofing, but with many technical disciplines involved in all stages of fire proofing, there is a need to have a basic description of what fire proofing is, the different types available, why it's important, and the roles that the different disciplines play in determining fireproofing schemes. The target audience for such a document can be varied, and the likelihood is that the documents contents will be used as training material for different audiences.

This training requirement could be as wide and varied as:

- A standard one-hour introduction for an applicators/installers training course, or an inspectors training course, to set the scene

- Modules within an academic course, either undergraduate or postgraduate, for courses such as safety and risk management, structural engineering, fire and explosion risk management, etc.
- A one-day training course, providing an introduction to individuals from safety, structural, mechanical, materials, integrity and architectural disciplines

The developed information within the guidance document should be flexible enough to support the development of any identified training requirement, but should also be a standalone document.

A subcommittee will define the contents page of this document, and the potential training uses of the material, and this specification will form a tender document.

PFPNet Document 2 - Fireproofing Scheme Development Roadmap

During the workshop on *Design, Engineering and Specification*, a clear consensus identified the need for a guidance document that leads the user through the process of developing a fireproofing scheme from the start of the process up to the point where a specification is developed. The document should contain detail such as the different methods that can be deployed and their likely outcome on the extent and type of any scheme, a checklist to ensure that all stages in the process have been satisfied, and a set of specifications at the end of the document to ensure that the correct information has been passed on from the design process to ensure a correct and complete specification has been developed.

This should include all systems that are likely to be specified as part of this process, from valve protectors to PFP coatings.

A subcommittee will define the contents page of this document that will form a tender document.

The intention is that both of these documents are available for the September 2017 Technical Meeting/Conference.

15.3.6 2017 Subcommittee Activities

Two sub-committees are required to be formed to oversee the two deliverables noted above. That is:

- Introduction to Fireproofing Subcommittee
- Fireproofing Scheme Development Roadmap Subcommittee

In addition, two further sub-committees will be formed to start looking at two essential items that were noted during the 7th September meeting. These are:

- Training Programme and Accreditation Subcommittee
- Standards Engagement Subcommittee

The *Training Programme and Accreditation Subcommittee* will be charged with determining how best to deliver the training courses that have been identified as requiring development by PFPNet, and how to ensure that PFPNet understands how an accreditation scheme can be developed, and whether this needs to be in conjunction with other, external organisations that may already exist. The work of this subcommittee will establish the future direction of training and accreditation that PFPNet should take.

PFPNet
Hydrocarbon Passive Fire Protection Network

The *Standard Body Engagement Subcommittee* will be charged with establishing links with relevant standards organisations to raise awareness of the activities of PFPNet, and identify the mechanisms and routes by which any of the outputs of PFPNet can make their way into existing codes and standards. Such organisations might include, for example, API, ISO and Norsok. The subcommittee can also report back on where the existing standards bodies see that PFPNet should focus its efforts as well.

15.4   Cost Estimates for 2017 Activities

Activity for 2017	Cost
Administration	£17,000
Membership Development and PFPNet Promotion	£30,500
Steering Committee Activities and Technical Meetings	£31,180
Base Deliverables	£90,000
Subcommittee Meetings	£9,440
2017 Total Cost	£178,120

Table 1 – Summary of Costs for Base Work Scope – 2017

15.5   Potential Additional Scope of Work for 2017

Based on an assumption of £50,000 per deliverable, plus some subcommittee administration fees, and a membership fee of £6,000, then for every nine new Members that are added to PFPNet, one new deliverable can be started (firstly through the formation of a subcommittee, followed by the identification of a subcontractor to undertake the work, and then oversight and review of the deliverable as it develops, before it is finally approved by the Steering Committee for release).

If sufficient additional funding cannot be raised, meaning the additional scopes cannot be started in 2017, then these activities will roll into 2018 as priority items, unless the membership identifies other priorities.

The "next on the list" deliverables that were identified as essential from the 7th of September 2016 meeting, are:

PFPNet Guidance Document 3 - Testing Guidance Document

Provide a guidance document that provides clarity on the differences between the currently available test standards, appropriate standards for particular scenarios and hazards, and methods of testing and assessment. The need is to provide a clear description of what tests can be used to provide a demonstration of performance and how that relates to real fire hazards and scenarios.

This was identified in the workshop on *System Development, Testing and Certification*.

PFPNet Document 4 - Best Practice Detailers Manual

Develop a Best Practice Guide for designers, fabricators and installation operatives that

provides clear design requirements, and detailing, prior to the project construction phase. The intention is to remove subjectivity in detailing that arises and push the decision-making to the design activities, rather than to a site detailing activity. This will remove the potential for in-service problems to arise through uncontrolled or ad hoc detailing that can often be incorrect, leading to a fireproofing scheme that is not fit for purpose, or details that result in problems in-service that require maintenance.

This was identified in the workshop on System Application and Installation.

PFPNet Training Course 1 – Inspectors Training Course

Develop training modules that cover the inspection of PFP/CSP that are specific to the generic type of products that are currently in use. This will cover coatings, penetrations, jackets, insulation systems, etc. The courses should include an introduction that can be derived from the introduction to fireproofing guideline to provide an understanding to inspectors of why PFP/CSP is used, its purpose and criticality, etc. The modules should cover the typical anomalies that can be observed from systems, means by which inspections should be undertaken, and criteria for assessing the criticality of anomalies, permitting judgement on acceptability. Nomographs/photographs and checklists should form part of this course.

This was identified in the workshop on *Inspection, Maintenance and Repair*.

15.6 Scope of Work for Future Years

Subsequent years work programmes will be developed from the list of topics and agreed in advance. The list will be revalidated on an annual basis by engagement with the membership.

It is envisaged that fixed costs and promotional costs that were associated with the initial launch and 2017 PFPNet activities will be reduced, with more money used to fund technical deliverable developments, such as guidance documents and training courses, along with an increase in the number of events and meetings.

Prior to invoicing Members for any annual subscriptions in 2018, a proposal will be issued that summarises the work undertaken to date, and lays out the proposed work programme for the upcoming year.

A full list of topics identified from each of the workshops held on the 7th of September 2016 is presented in Appendix B. Future work scopes could be developed from this list, or from other topics raised by the Members.

16.0 PFPNet Membership Fees

16.1 Definition of a Member

A Member is an individual or company who accepts the terms and conditions under which PFPNet will operate and pays the membership fee in full.

A company is considered to include all parts of the company, such as affiliate operating companies and different office locations, regardless of location or country.

16.2   Membership Fee for 2017

The Steering Committee has reviewed the likely membership that could be obtained at the start of 2017, and reviewed the list of deliverables generated from the 2017 meeting, and identified where subcommittees could be formed to help establish future deliverables.

From this assessment, the annual membership fee for 2017 will be:

* ***£500 for a Sole Trader***
* ***£6000 for a Company, Corporation or Institution, with one membership covering any location for that Company, Corporation or Institution***

16.3   What will Members Receive?

* Eligible to sit on sub-committees to develop documents
* Full access to the website
* Access to all deliverables
* Attendance at all Technical Meetings and Conferences
* A limited number of places on Training Courses (number to be determined by subcommittee)

16.4   Financial Control of PFPNet

MMI will administer PFPNet on behalf of PFPNet Members. A sub-bank account for PFPNet has been established to allow invoicing and payment to be separate from MMI's normal operations.

A separate set of financial statements for PFPNet will be provided using MMI's existing accountants and auditors where needed. Financial statements will be generated for the Steering Committee for their review.

16.5   How to Join PFPNet

To join PFPNet, a prospective Member should visit the PFPNet website www.pfpnet.com and complete the online registration and joining form.

This will require:

* The name of the company
* The name and contact details of the primary contact
* Confirmation of membership for 2017
* Preferred payment and invoicing methods

Once registered, details for making payment to PFPNet will be provided.

17.0   Conditions

17.1   Anti-Competition Statement

In accordance with its Constitution and Management Document, PFPNet is an industry group established to:

- **Educate** - Increase awareness and understanding of issues relating to passive fire protection when used to protect against hydrocarbon fires
- **Capture, Retain and Disseminate Knowledge and Experience** - Create a forum for sharing of information, discussion of relevant topics, and to raise standards in the industry
- **Training** - Provide training in specific areas of hydrocarbon passive fire protection
- **Research** - Fund research work to further the objectives of the group
- **Inform** - Develop and publish information that aids the achievement of the above

It is managed by a Management Committee with membership open to any party interested in the aims and objectives of PFPNet - be they owners, operators, engineers, suppliers or other entities involved in the hydrocarbon processing industries with an interest in passive fire protection. As such, it does not regard itself as a Trade Association, and has no intent to develop or support commercial matters or issues. Nevertheless, the Management Committee of PFPNet are aware of Competition Law and compliance, and have therefore developed this Competition Law Policy Statement.

17.1.1 Competition Law and Industry Associations

Competition law prohibits certain agreements and other forms of conduct, including information exchange, which may prevent, restrict or distort competition. It is important, both for companies and individuals, not to infringe the competition law rules; doing so may result in the imposition of significant fines, reputational damage and, in some cases, criminal penalties for individuals.

Price-fixing agreements to limit output and allocation of customers or markets generally constitute the most serious forms of anticompetitive agreement. In such cases, it is not necessary for the competition authorities to show anticompetitive effects in order to establish that an infringement has occurred. 'Price-fixing' is interpreted in a broad sense to include elements of price, such as the dates of price increases, margins, rebates and agreement on 'passing on' industry charges or costs to customers.

Industry associations may attract scrutiny from the competition authorities because anticompetitive agreements between competitors on a market are commonly concluded, implemented and/or monitored through the medium of industry association contact.

Where anticompetitive arrangements arise in the context of industry association contact between competitors, fines may be imposed by the competition authorities on the industry association itself, even though the association is unlikely to be active on the affected market.

17.1.2 Potentially Anticompetitive Conduct Involving Industry Associations

Activities of industry associations that may give rise to a risk of infringing competition law include:

- Discussions at meetings or in online forums hosted by an industry association that may prompt member firms to consider modifying their terms of business or practices with regard to commercially sensitive matters
- Adoption of non-binding decisions or recommendations that may in practice lead members to align their competitive conduct on the market
- Adopting best practices and standard-setting measures that may lead members to align their competitive conduct on the market, or 'shut out' competitors who do not have access to, for example, a shared technical standard

- Imposing rules, regulations and/or membership criteria that may have an impact on the ability of operators to compete freely on the market

17.1.3 Commercially Sensitive Information

Commercially sensitive information is not considered appropriate, nor should be entered to or advised to, any PFPNet meeting, be that a meeting in person, web meeting or group meeting such as a teleconference. Neither should such information be communicated by members of PFPNet to the group or other member parties.

Commercially sensitive information typically relates to matters such as:

- Prices and other terms of business, including discount and rebate structures
- Customers and potential customers
- Costs
- Volume or value of sales
- Business strategy
- Bidding intentions for contracts

The foregoing is intended to provide examples of commercially sensitive information, but is not an exhaustive list.

17.1.4 Meeting Statement

Members of PFPNet are expected to comply with this Policy Statement, but to further reinforce the requirements, the following statement may be read at the commencement of PFPNet meetings:

"This meeting will be held in compliance with the Competition Law Policy Statement that has been provided to all members of PFPNet. In particular, it is important to remember that PFPNet activities will not include any action, express or implied, formal or informal, which goes against compliance with Competition Law. As such, no discussion will be held that relates to commercial matters or matters of commercially sensitive nature, and no information should be provided by participants during the meeting that falls into this category. Participants should not engage in any discussion that could be considered as anticompetitive, or having an anti-competitive objective or effect. Any participant who has a concern during the progress of the meeting regarding any item, comment or discussion that goes against PFPNet competition law policy, or in general relating to competition law compliance, is requested to raise their concern immediately at the meeting."

Statement Note: The PFPNet Management Committee have developed this Policy Statement with the best intent of ensuring that Members are aware of the necessity of strict observance of the requirements of Competition Law Compliance during the business of PFPNet activities. Member participants are also expected to be familiar with their own company's requirements in respect of participation and behaviour at industry meetings such as PFPNet. However, the Management Committee cannot be held responsible for the individual actions of a member company, or individuals representing a member company, which they are not aware of. Should it become evident to the Management Committee that behaviour has taken place which is in contravention of the requirements of this Policy Statement, after investigation and review, then the member company (or companies) involved will have their membership revoked.

17.2   Liabilities and Warranties

PFPNet is an industry group that is a Technical Association with aims as set out within this proposal. MMI, or any Member company, or any individual associated with PFPNet in whatever capacity, do not provide any warranty or guarantee as to the accuracy, timeliness, performance, completeness or suitability of the information and materials found or offered by PFPNet, for any particular purpose. When joining PFPNet, you acknowledge that such information and materials may contain inaccuracies or errors, and MMI, any Member company, or any individual associated with PFPNet, expressly exclude liability for any such inaccuracies or errors to the fullest extent permitted by law.

Use of any information or materials developed by PFPNet is entirely at the user's risk, for which MMI, any Member company, or any individual associated with PFPNet, shall not be liable. It shall be the user's responsibility to ensure that any products, services or information developed or made available by PFPNet through whatever means meet your specific requirements.

17.3   Confidentiality of PFPNet Deliverables

Any materials developed for fee-paying Members will be for the use of the fee-paying Members. The materials will not be freely issued by MMI or any Member of the PFPNet Steering Committee.

Members who join in future years will have access to all previous year's deliverables.

Members leaving will not have access to any future deliverable or training materials beyond those that were developed during the period of their membership.

17.4   Privacy

PFPNet is committed to ensuring that your privacy is protected. Should we ask you to provide certain information by which you can be identified when accessing or promoting PFPNet, or when using the website, then it will only be used in accordance with this privacy statement.

As part of the activities of, and promotion of PFPNet, you will be required to register with PFPNet so that you can be contacted with information related to PFP, along with administrative activities, such as invoicing.

MMI, acting on behalf of PFPNet, will use this information to allow Members' access to the day-to-day management and technical activities of PFPNet, to respond to queries, and to allow registration for events, such as the Technical Conference or Committee meetings.

MMI, acting on behalf of PFPNet, are committed to ensuring that information is held securely. In order to prevent unauthorised access or disclosure, suitable physical, electronic and managerial procedures to safeguard and secure any information collected have been put in place. Your personal information will not be sold, distributed or leased to third parties unless we have your permission or we are required by law to do so. Your email address will not be used to send promotional information without contacting you first to obtain your approval.

Details of personal information held can be requested, in writing, from PFPNet under the

Data Protection Act 1998. A small fee will be payable. Any incorrect information will be corrected on receipt of new information.

17.5   Invoicing

At this point in the evolution of PFPNet, invoices will be issued by MMI Engineering Limited on behalf of PFPNet.

17.6   Currency

Payment terms are 30 days on receipt of invoice from PFPNet. The currency for PFPNet is Pounds Sterling (GBP). VAT will be applied if appropriate.

17.7   Validity

This proposal is valid until the end of 2017.

Appendix A

PFPNet Terms of Reference

PFPNet – Terms of Reference and Management Document

Purpose

The aims of the PFPNet industry Group are:

- To increase awareness and understanding of issues relating to hydrocarbon fire protection
- To create a forum for sharing of information, discussion of relevant topics and to raise standards in the industry
- To provide training in specific areas of hydrocarbon fire protection
- To fund research work to further the objectives of the group
- To develop and publish information which aids the achievement of the above

Membership

Membership will be open to all interested parties who will pay an annual subscription in order to fund the ongoing activities of PFPNet. It is expected that various organisations will be interested in membership, and typically they will be:

- Oil and gas producers (both upstream and downstream)
- Design engineers, EPC contractors
- Fabrication and construction companies
- Integrity management contractors
- Passive fireproofing application contractors
- Passive fireproofing manufacturers

Organisation

The management and organisation of the Group's activities will be led by a Committee who will take responsibility for the direction of the Group. The following is a resume of the Committee's key activities:

- Development of agenda and organisation of the Group meetings
- Identify key topics for Group meetings, training courses, research work and other work that the Group has put forward for consideration
- Review the finances of the Group on a regular basis to ensure effective use of subscriptions and other income to the benefit of the Group
- Review materials developed for publication in various formats, such as technical notes, guidance notes and training materials
- Identify relevant collaborative activities with other industry forums, academic entities, or other bodies, which may benefit the Group in delivering its objectives
- Ensure a balanced and independent approach for all aspects of the Group's activity

It is expected that the Committee will be formed by a core group of six individuals with relevant experience, and that the meetings will be managed by a Chair of the Committee who will take responsibility for recording the Committee's discussions and output. A

minimum of four Committee Members, including the Chair, will be regarded as a quorum.

Group Meetings

It is expected that there will be a minimum of one general meeting per annum held on a regional basis, being:

- Europe, covering Europe, Middle East, Africa, Russia
- North America for all of the Americas
- Southeast Asia for all of the southern hemisphere

Each annual meeting will be focused on a chosen theme, or themes, added to which will be general topic meetings, manufacturer presentations, and networking opportunities.

Finances

To allow implementation and establishment of the Group support will be required, not in the least to collect subscriptions and provide facilities and support services for the operation of the Group. In the early days of the group it is not feasible for financial facilities to be established independently, and MMI will provide services and support to this end.

The basic financial method of operation will be:

- Financial facilities provided by MMI for receipt of subscriptions, payment of invoices for authorised expenditures of the Group, and general accounting services
- MMI will provide detailed quarterly financial reports to the Committee for review and approval
- The Committee will manage the finances of the Group and provide an Annual Report to Members detailing areas of income and expenditure
- In addition to subscriptions, all income, which includes income from training courses, will be to the benefit of PFPNet and its Members. MMI will be able to charge to the group reasonable support cost expenditure as agreed by the Committee

Appendix B

Topics for Consideration by PFPNet

Output from the 7th of September 2016 PFPNet Technical Meeting

Common Items Noted in All Workshops

- In all workshops, a common identified theme was that, with no recognised qualification in fireproofing, but with many technical disciplines involved in all stages of fire proofing, there is a need to have a basic description of what fire proofing is, the different types available, why it's important, and the roles that the different disciplines play in determining fireproofing schemes. Covered in 2017 Base Scope
- Development of training modules, developed from the introduction to PFP manual, that can be used in various training courses and at varying levels, from 'familiarisation and introduction to PFP' through to 'expert'
- The importance of working with external bodies and standards organisations was recognised. In particular, the necessity to work with API was noted. Other bodies important to product installation, maintenance and repair would include NORSOK, ICORR and FROSIO. The important element here is endorsement of the PFPNet output, and an accreditation process that is recognised industry wide. Covered in 2017 Base Scope as Subcommittee Activities
- What went wrong – an anonymous list of failures, and post incident investigations to act as a learning activity

From Design, Engineering and Specification Workshop

- A description of how fireproofing schemes can be developed. A clear road map that describes the steps needed to get to the point of developing a specification, with a checklist. Covered in 2017 Base Scope
- As above but considering how to re-assess existing facilities that already have fireproofing
- Guidance on the use of fireproofing over insulation
- Guidance on AFP and PFP – choosing between the two and also understanding the interaction
- Guidance on interpretation of design standards
- Development of CSP design scenarios that can be used for both design and specification activities
- A full understanding of the impact of coatings details, specifically 3-sided protection and the design and specification of coatbacks, and the development of a design guide to address these issues
- Compendium of PFP thermal properties to be used in thermal modelling
- Thermal/mechanical properties of steel at -160ºC for use in CSP design

From System Development, Testing and Certification Workshop

- Guidance document needed that provides clarity on differences between standards and certification bodies, appropriate standards for particular scenarios and hazards, and methods of testing and assessment, and how a performance standard relates to a certificate. Covered in 2017 Additional Scope
- Development of prescriptive guidance on testing and assessing products, equivalent

to the 'Yellow Book' used for the thin-film intumescent market, but for all PFP systems.   The intention is to provide consistency between certification body requirements, which will benefit users by providing clarity, and manufacturers by simplifying the amount of testing required
- Technical note to explain fireproofing ratings
- Guidance on Penetration Sealing, including items such as blast testing requirements, interpreting certification for penetrations to ensure that ratings are met, etc.
- Development of High Heat Flux and Blast Testing Standards (being developed elsewhere)

From System Application and Installation Workshop

- Best practice guide for designers, fabricators and installation operatives, which provides clear design requirements, and detail, prior to the project construction phase. Covered in 2017 Additional Scope
- Adequate training of individuals who apply/install PFP and CSP materials, including jackets, seals, cable transits etc. needs to be given by way of training courses, which may be accredited or not, is thought to be critical to initial installation of products as well as ongoing maintenance requirements
- Provide standard clauses on application and installation that complement manufacturer training
- Training of inspectors who undertake QA/QC activities, including the development and roll out of checklists for installation
- Coatback, termination, gratings, 3-sided, 4-sided – see previous
- Development of an accreditation scheme that can be administered by an independent adjudication body/organisation and covers individual applicators and installers, as well as companies
- Development of an accredited apprenticeship scheme to attract younger people to the business and train them correctly from day one

From Inspection, Maintenance and Repair Workshop

- Develop training modules for PFP/CSP, specific to the generic type of products. To include an understanding of why PFP/CSP is used, its purpose and criticality. Covered in 2017 Additional Scope
- Generic best practice in repair – repair and identification of what is installed, why has it been installed? How is it to be repaired? What is it? The need for a good procedure for identifying skills needed to repair
- Guidance document as to frequency of inspection and post-inspection actions
- Guidance on NDT methods during inspection
- Interface detailing for dissimilar systems and guidance on certification of repairs with different systems
- How do you handle PFP during decommissioning and impact on costs?
- Re-validation of performance – extended life and decommissioning