



ETANKFIRE Project – Rules for participation

The ETANKFIRE Project is a research project aimed to provide a platform of knowledge ensuring proper investment in fire protection of ethanol storage facilities and is open for participation according to the rules below.

1 Background

The use of ethanol has increased significantly as a means to fulfil climate goals by replacing fossil fuels with renewable fuels, but the introduction of ethanol fuels creates new risks and challenges from a fire protection point of view. The ETANKFIRE project has been established on the initiative of the department of Fire Technology at the SP Technical Research Institute of Sweden (SP) in close cooperation with Resource Protection International (RPI). The project will provide a platform of knowledge ensuring proper investment in fire protection of ethanol storage facilities. The goals of the project are to develop and validate a methodology for fire protection and suppression of storage tank fires containing ethanol fuels and to determine the large scale burning behaviour of ethanol fuels.

During 2011 the tentative ETANKFIRE project plans have been presented at two workshops and at a number of seminars and conferences in order to collect feedback from various stakeholders. Based on this input, the present document defines the organisational structure of the project and rules for participation.

2 Project description and work plan

The project is structured into seven work packages (WP0 to WP6) as shown in Figure 1. The work in WP1 to WP4 will be related to the extinguishment of ethanol storage tank fires while work related to the burning behaviour will be handled in WP5. The first phase of the ETANKFIRE project will include WP1, WP 2 and WP5 and the amount of work in each WP will depend on available funding.

The suggested medium and large scale tests in WP3 and WP4 will involve substantial resources and will be included in a second phase of the project. This second phase will require additional funding.

A presentation of the technical content of the project is given in the ETANKFIRE Description (DoW)¹.

¹ ETANKFIRE Description of Work, dated 2012-03-07 (www.sp.se/en/index/research/etankfire/administration).

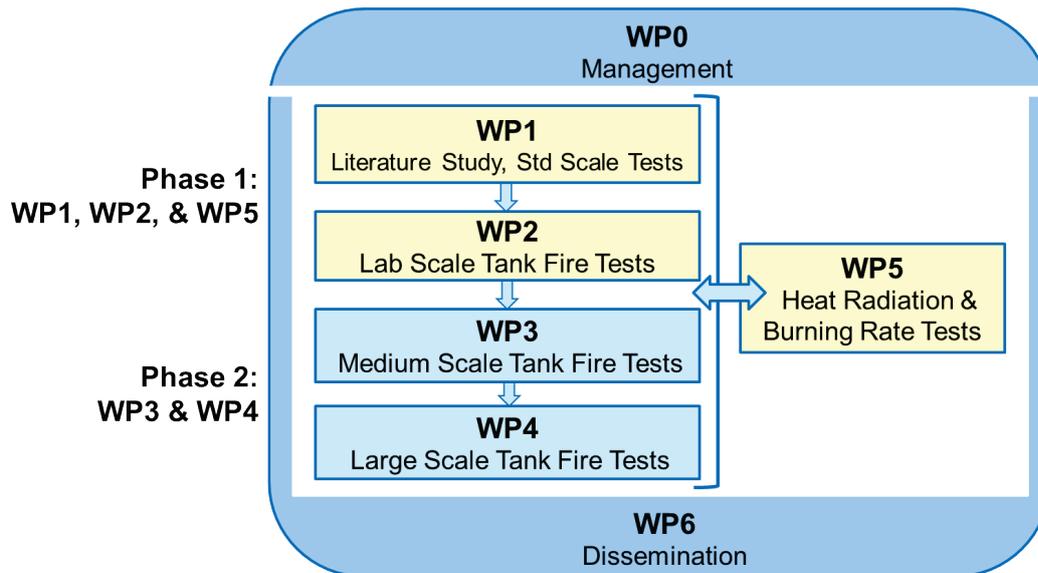


Figure 1. ETANKFIRE project structure where Phase 1 will involve WP1, WP2 and WP5 and Phase 2 will focus on WP3 and WP4. The activities in WP0 and WP6 will be included in both Phase 1 and Phase 2.

3 Scope and limitations

The ETANKFIRE Project will provide improved generic understanding of ethanol burning behaviour and fire protection and suppression of ethanol storage tank fires by evaluating relevant available fire fighting methods. The test programme and selection of extinguishing media/equipment will be proposed by the Research & Testing Group (RT Group) and confirmed by the project Steering Committee (SC), see paragraph 4. The project might also address issues pertaining to fire prevention and fire risk reduction if deemed appropriate by the SC.

It is not the intention of the project to conduct tests aimed for specific product development. This will be the responsibility of the fire protection industry and such tests must be conducted outside the frame of the project, see paragraph 8 and 9.

The ETANKFIRE project will be divided into two phases to separate the medium and large scale tank fire tests from the rest of the project. Tests of this size require large resources, both experimental and financial, and will be performed in a second phase of the project, see paragraph 2 above. This document deals with funding of Phase I (WP1, WP2 and WP5). Membership fees may be changed for participation in Phase II (WP3 and WP4). Note that WP0 (Management) and WP6 (Dissemination) will be distributed between Phases I and II.

4 Project organisational structure

The project will be coordinated by SP Technical Research Institute of Sweden (SP) in close collaboration with Resource Protection International (RPI). The ETANKFIRE Project organisational structure is shown in Figure 2 and described in detail in the following sections.

4.1 Research & Testing Group (RT Group)

The RT Group, consisting of SP, RPI, and other research providers contracted by SP and/or RPI for specific tasks, will plan and conduct the necessary research. The individual responsibilities of these organisations are given in more detail in paragraph 5 and are subject to the conditions set forth in the ETANKFIRE Consortium agreement² and the DoW1.

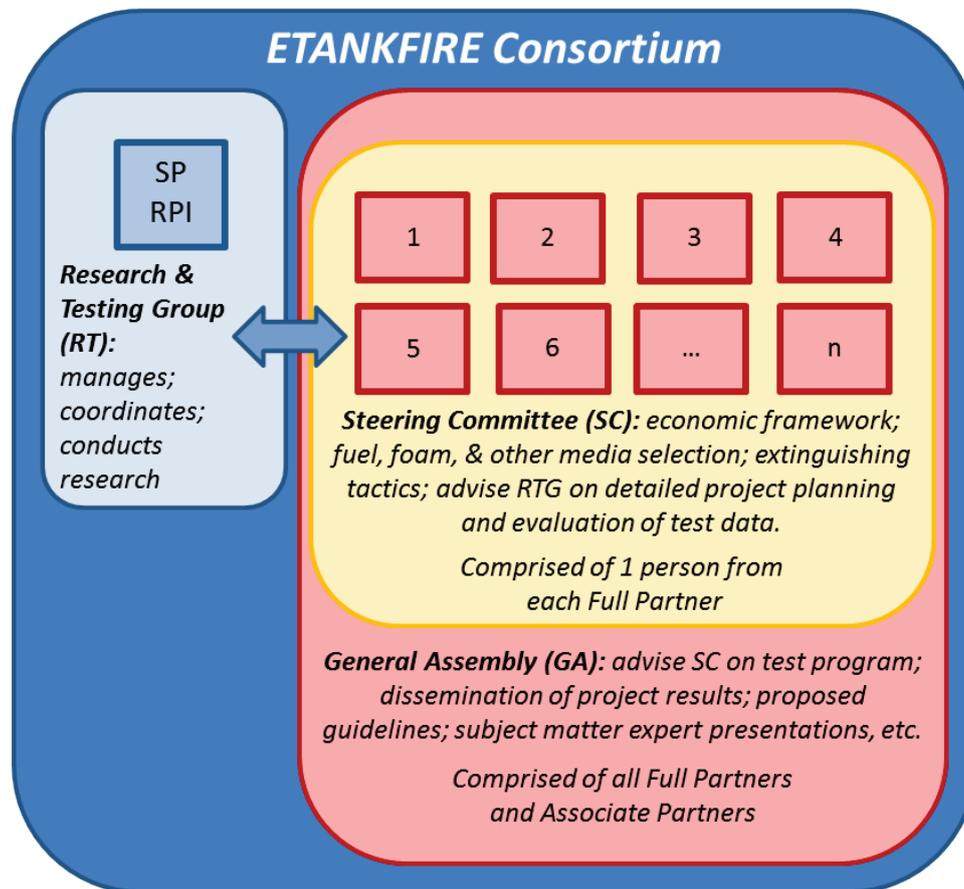


Figure 2. The organisational structure of the ETANKFIRE project

4.2 ETANKFIRE Consortium

Participation in the ETANKFIRE project is open for all stakeholders on two alternative conditions defined as:

- Full consortium partner (with option for additional General Assembly delegates)
- Associate consortium partner

Further, SP and RPI will be members of the ETANKFIRE Consortium.

A detailed description of the partner commitments, classification and fees are given in paragraphs 5, 6 and 9.

² RT Group – ETANKFIRE Consortium AGREEMENT for the ETANKFIRE Project, dated 2012-03-07 (www.sp.se/en/index/research/etankfire/administration)

4.3 Steering Committee (SC)

A Steering Committee (SC) within the ETANKFIRE Consortium shall be comprised of one representative from each full consortium partner and one representative each from SP and RPI.

The SC will be the decision making section of the consortium and will participate in selecting fuels, extinguishing tactics, selection of foam concentrate(s) and other extinguishing media/systems and advise the RT Group on matters concerning detailed project planning and evaluation of test data. Should the SC not be in agreement (two thirds majority) concerning technical planning of the project, final decisions will be taken by the RT Group.

4.4 General Assembly (GA)

The general assembly shall be comprised of all ETANKFIRE consortium partners (full and associate partners). The GA will be given the opportunity to comment on and provide input to the proposed test programme, dissemination of project results, proposed guidelines, etc. The GA will act in an advisory role to the SC.

4.5 Meetings

There shall be three SC and GA meetings for Phase 1 of the project (kick-off, mid-term, and final) and the meetings will, as far as possible, be held in conjunction with each other to minimise travel. The SC will also have additional face-to-face and/or telephone meetings as necessary. The agenda of the combined GA and SC meetings will start with a GA meeting where the RT Group will give all partners a status report of the project followed by a presentation of the project plans to allow GA partners to comment and to provide input and proposals to the subsequent SC meeting.

Subject to SC approval, non-partners (e.g. research organisations, regulators, standard organisations, etc) may also be invited to participate in GA meetings to provide input to discussions on specific subjects of interest.

5 Partner commitments

5.1 SP responsibility

The main responsibilities of SP in the ETANKFIRE project are:

- Project coordination;
- Detailed test program development;
- All aspects of the practical test work (conducted by SP or contracted to other research providers at SP's discretion);
- Evaluation of test results and reporting; and
- Publication in scientific journals, relevant magazines, and technical reports.

5.2 RPI responsibility

The main responsibilities of RPI in the ETANKFIRE project are:

- Chair SC and GA meetings, including organisation of meeting venues and agenda;
- Participation in research programme as appropriate;
- Coordination of dissemination activities (seminars, workshops);
- Participation in relevant publications; and

- Provide connection to the LASTFIRE initiative.

5.3 Full and Associate Partner responsibilities

The main responsibilities of a partner in the ETANKFIRE project include:

- Participate in SC meetings (Full Partners);
- Participate in GA meetings (Full and Associate Partners);
- Provide assistance to the RT Group concerning identification of existing relevant testing and research work or fire incidents in ethanol tanks;
- Provide in-house incident data relevant to ethanol or water miscible products, in particular tank fires or large scale spill fires. The information should preferably include a description of the incident (cause, fire area, preburn time, etc) and the emergency response (extinguishing tactics, media application rates, etc) and outcomes of incident investigations. Note that all information will be used as reported on an anonymous basis, as required by the specific partner;
- Provide input to and comment on ETANKFIRE activities;
- Make suggestions to the SC for presentations at GA meetings; and
- Hosting of RT Group, GA, and SC meetings if deemed appropriate. Hosting includes providing a meeting room with audio-visual equipment, beverages, and food during the meeting. Hosting does not include travel expenses, accommodation, and meals outside of the meeting, although hosts may choose to hold a meeting dinner at their own discretion.

More information concerning the specific partner classifications is given in paragraph 6.

5.4 Partner representation

All member companies/organisations shall appoint one specific individual who will be the contact point for that company/organisation and will be responsible for ensuring, as far as is practicable, that all partner commitments for that company/organisation are fulfilled. For Full Partners, the designated individual shall also be the representative on the SC.

All communication and distribution of documents from the RT Group will be directed to the partner representative who will be responsible for further distribution within the partner organisation. Requests for information received by the RT group from partner organisations will be forwarded to the respective organisation's representative.

6 Partner classifications

6.1 Full Partnership

Full Partnership entitles a company/organisation to the following:

- One designated delegate in the SC;
- Two additional designated delegates in the GA;
- Additional GA delegates will be allowed for an additional fee, see paragraph 9;
- Any number of additional delegates from the host organization may participate as observers in GA meetings;
- Invitation to attend all testing activities, if practicably feasible, at the discretion of the RT Group; the RT Group decisions are final concerning attendance and safety for these test activities;

- Access to all deliverables, including raw data, which can then be distributed on a need-to-know basis within the company/organisation by the designated partner. The Full Partner shall ensure that this information does not spread beyond the Full Partner's company/organisation; and
- If deemed practicably feasible by the RT Group, Full Partners will be given the opportunity to conduct additional product development tests of their products, using the same test setup, instrumentation and test procedures at an additional cost basis, see paragraphs 8 and 9. The RT Group decisions are final concerning test set-up, attendance, and safety for these additional tests.

6.2 Associate Partnership

Associate partnership entitles a company/organisation to the following:

- Two designated delegates in the GA;
- Any number of additional delegates from the host organization may participate as observers in GA meetings;
- Invitation to attend selected testing activities, if practicably feasible, at the discretion of the RT Group; the RT Group decisions are final concerning attendance and safety for these test activities;
- Access to all technical reports prior to public availability, which can then be distributed on a need-to-know basis within the company/organisation by the designated partner. The Associate Partner shall ensure that this information does not spread beyond the Associate Partner's company/organisation; and
- If deemed practicably feasible by the RT Group, Associate Partners will be given the opportunity to conduct additional product development tests of their products, using the same test setup, instrumentation and test procedures at an additional cost basis, including a percentage of the fixed costs, see paragraphs 8 and 9. The RT Group decisions are final concerning test set-up, attendance, and safety for these additional tests.

7 Dissemination

The RT Group will provide raw data to the Full Partners as soon as possible after a test series is completed.

Draft Technical reports will be available for all Partners within 6 months after completion of the tests. All technical reports will initially be confidential until review by all Partners.

Final Technical reports and/or articles shall either be ready for submittal to a journal or magazine for publication or shall be made publically available within 6 months of completion of the Technical reports.

In connection with publication of project results, the names of all partners in the ETANKFIRE Consortium shall be indicated. The test results shall be not be identified with any specific fire protection or fire suppression system, media manufacturer or product.

The format and content of publications relating to the ETANKFIRE project, including results for product specific testing, are subject to approval of the SC prior to public release. Confidential testing data that is not intended for publication is not required to be released to

the SC. Approval of publication of results cannot be presented as an endorsement of a specific product by the ETANKFIRE project and a disclaimer to this effect shall be included in all publications.

8 Product specific testing

During the project duration and if practicably feasible, specific product development tests using the same test setup, instrumentation, and test procedures as used in the ETANKFIRE project will be offered to Partners on an additional cost basis, given approval of the RT Group (based on availability of testing facilities).

Tests for non-partners may be conducted at the discretion of the RT Group and SC (based on both availability of testing facilities and original equipment manufacturer considerations).

The results of these tests will remain confidential but can be provided to the ETANKFIRE project at the discretion of the Partner. Should results be provided they will be treated generically together with data from similar products studied in the project. Such results cannot be published without the consent of the SC to in order to avoid publication of individual company specific results prior to the ETANKFIRE project results. The SC cannot withhold their consent without just cause.

The cost calculation principles for product specific testing is presented in paragraph 9.

9 Partnership fees for Phase I of ETANKFIRE

9.1 Full Partners:

The Full Partner fee is 50 k€.

Each Full Partner has one representative on the SC and two additional representatives in the GA. Should they wish to have further representatives on the GA, an additional 2 k€ will be billed for each GA delegate over the standard allotment.

9.2 Associate Partners:

The Associate Consortium Partner fee is 20 k€.

Each associate partner has two representatives in the GA.

9.3 Payment conditions

The payment conditions for the partnership fees are stipulated in the ETANKFIRE Consortium agreement².

It may be possible to exchange all or part of a cash payment for an in-kind payment of fuel if the fuel is required for testing and calculated at cost rate, at the discretion of the RT Group.

If a partner chooses to discontinue their association with the ETANKFIRE project the partnership fees paid or due to be paid will not be refunded.

9.4 Termination of project

If the project is terminated by a unanimous decision of the SC prior to completion of all planned deliverables, the remaining project funding will, after full disbursement to the RT Partners for completed work, be returned to the partners on a prorated basis determined by their principal investment.

9.5 Product specific testing for Full Partners

During the normal course of testing, the RT Group may grant permission to a Full Partner to conduct product development tests on the Full Partner's own products using the current test setup, instrumentation, and test procedures. In this case the Full Partner will be required to pay for the additional time (personnel and laboratory resources) and consumables/fuel associated with the additional tests at a project costs basis.

9.6 Product development testing for Associate Partners

During the normal course of testing, the RT Group may grant permission to an Associate Partner to conduct product development tests on the Associate Partner's products using the current test setup, instrumentation, and test procedures. In this case the Associate Partner will be required to pay for the additional time (personnel and laboratory resources) and consumables/fuel associated with the additional tests at a project costs basis. In addition, a prorated portion of the fixed costs (e.g. investment cost in specific test equipment) will be charged. The portion of the fixed costs per test will be based on the number of tests conducted within the ETANKFIRE test programme, e.g. if the project has invested 100 k€ to conduct X tests, the Associate Partner will be required to pay 100 k€/X in fixed costs per test. The additional revenue thus generated to cover fixed costs will be reinvested in the Consortium as additional project funds.

The project costs, including the fixed costs, to be charged for product specific testing will be determined by the RT Group at the commencement of the project or each work package or each test series as relevant.

10 Venue of first meeting

The first meeting for the ETANKFIRE project will be hosted by SP in Sweden. The date will be decided in the first quarter of 2012.

11 Revision history

Revisions that have been made to this document since the ETANKFIRE Consortium has been formally established are listed in Table 1 below.

Table 1. ETANKFIRE Consortium rules revision history.

Rev. No.	Date	Section	Description
1			
2			
3			
4			

Partnership Commitment

Please return this form to SP TECHNICAL RESEARCH INSTITUTE OF SWEDEN
(An editable form is available at www.sp.se/en/index/research/etankfire/administration).

Please indicate below your intention to join the ETANKFIRE project.

A formal ETANKFIRE Consortium Agreement will then be issued based on the above conditions for signature.

Name:

Company / Site Address:.....
.....

Contact Details (Tel & email):

* Please tick appropriate box to indicate partnership classification

a) Full Partner*

Designated Steering Committee Partner (1 max):

Name: Email address:

Designated General Assembly Contacts (2 max):

Name: Email address:

Name: Email address:

Additional General Assembly Contacts (Only permitted for companies/organisations having Full Partnership, add additional signature lines if necessary):

Name: Email address:

b) Associate Partner*

Designated General Assembly Contacts:

Name: Email address:

Name: Email address:

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