FAQ

Answers to the 4 most common questions we get asked about QFES

Let's start!

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What is the QFES Referral Process and Timelines when a building has a Performance Solution?

Let's break it down

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1. Prepare a Performance Based Design Brief

- First, your fire engineer, design team and building certifier need to identify areas where **fire engineered performance solutions** are needed for the development.
- Next, your fire engineer prepares a Performance Based Design Brief with the proposed fire strategy for the building.
- Then, the design team reviews in full, and any mutually agreed changes are made prior to lodgement to QFES.

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TIP

Involve your fire engineer early (e.g. concept phase) to assist with identifying potential Performance Solutions and fire safety requirements.

An experienced fire engineer can often see design problems ahead of time of which the design team can consider throughout design development.

Further, there may be opportunities to discuss value management opportunities which can influence the design from the beginning.

2. Lodge the Performance Based Design with QFES

→ Your building certifier lodges the Performance Based Design Brief via QFES online platform which enters the meeting queue.

→ **QFES meeting timeframe:**

Timing will vary depending on the local QFES resources which can be constrained at times of high demand. Timing can vary between **3-4 weeks** through to **6-8 weeks** depending on the jurisdiction.

TIP

It is recommended to discuss with the fire engineer and building certifier to understand what time frames have been experienced recently to gauge the potential turn around time for project planning.

3. Meet with QFES and receive feedback

- Your fire strategy is presented to QFES during the Performance Based Design Brief meeting for their review and comment as an advisory agency to the building certifier.

- Your design team then considers QFES feedback and resolves, with the intent of **receiving endorsement from the QFES and building certifier to proceed** with the Fire Engineering Report (FER).

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TIP

Consider the right audience for the QFES meeting. Limit the number of attendees to the key stakeholders relevant to the fire strategy.

Additional stakeholders can come along but try not to overwhelm the room, and have a set agenda so that the fire strategy can be clearly conveyed and easily understood by the QFES for their input.

4. Complete the FER and submit to QFES for assessment

→ The Fire Engineering Report is completed with the fire engineering assessments.

→ The Fire Engineering Report is lodged with the relevant design documentation by the building certifier to the QFES for their assessment.

→ **Assessment Timeframe:**

20 business days from FER submission to QFES.

5. Referral Agency Response

→ QFES will respond formally and state whether the Performance Solutions in the FER are "Suitable" (in other words, whether the QFES accepts them).

TIP

On receipt of the QFES assessment, look for the term "Suitable" for each item. Should any items be identified as "Unsuitable" then this may require further consultation with the fire engineer, design team, building certifier and QFES.

6. Decision Notice

→ Your building certifier makes a decision for building approval.

7. QFES inspects the building

→ The QFES will be required to attend site and conduct an inspection prior to handover.

→ The fire engineer should also undertake their final site review to visually identify the Fire Safety Engineering Requirements in the approved FER.

TIP

Talk with your fire engineer to understand what is required for your development and what the timeline looks like for the FEB and FER documentation.

Noting that projects with computer modelling can often take longer to analyse when compared to projects that do not.

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Will the Queensland Fire & Emergency Services reject our Performance Solution?

What you need to know

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This is a common question and a good one to ask!

- What initial departures are there from the Building Code of Australia (BCA).
- What new departures might arise during design that need to be considered?
- Are any of the items risky and if so, what is the likelihood of them being supported?

The answer is usually - it depends

An experienced fire safety engineer may have encountered similar Performance Solutions previously and can draw upon their prior experience to provide a guide to whether the QFES is likely (not guaranteed!) to support the proposal.

TIP

Control the controllable

Remember that the QFES does not recognise precedence and each development is subject to its own assessment based on its own merits and the ever-changing built environment.

Just because it has been done before, doesn't mean that it can be done again. Just like how the BCA and Australian Standards are updated, so does the position of fire engineers and QFES.

A better question to ask is:

→ **What can we do in our zone of control to set ourselves up for the highest chance of success?**

The practical steps you can take to increase your chances

1. **Build a strong case:** After ensuring that your Performance Solution meets the Performance Requirements of the BCA, your fire engineer can make a strong case for their Performance Solution and demonstrate the validity.

2. **Communicate clearly:**

   → Clearly explain the departures from the BCA.

   → Detail provisions in layman terms so all stakeholders in the QFES meeting can understand.

   → Explain what a solution looks like and how it demonstrates compliance.

3. **Use visual aids:** Markups on architectural and design drawings can much more clearly show the fire safety requirements proposed to support the Performance Solution. Architects can even provide 3D models to help explain!

TIP

Consider a preliminary meeting with QFES

If there is a particularly contentious Performance Solution proposed for your development, meet with the QFES early (e.g. concept design) to talk through the proposal.

A picture paints a thousand words!

QFES building approval officers are not intimately knowledgeable of your development. Markups of drawings and 3D models go a long way to bridging that knowledge gap in a short period of time and clearly explaining what you are proposing.

Don't get too technical!

QFES are educated in fire safety and have extensive experience in fire brigade operations, but they may not be across all technical and esoteric aspects of fire safety engineering - so be careful not to delve into too much detail.

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You can't be too prepared

Anticipating QFES' position is a critical element in increasing your chances of success. You can do this by:

- → Trying to predict fire brigade questions before the meeting.
- → Being prepared to answer with respect to their concerns.
- → Being open to feedback and actively listening.

Where appropriate, you can rebut if you are confident that the strategy addresses the feedback. Be respectful and remember - we are all in the same business, which is making buildings safe.

TIP

It's ok to ask for more time

If you don’t know the answer and/or need to review their feedback, it is often advisable to take it away and resolve with your team so you can then provide formal feedback addressing each QFES item.

Consider a second meeting if there are still concerns or further clarity is required.

Honesty is the best policy

If there is no rationale to propose a Performance Solution for the design departure, be honest with your clients.

Don’t try to pin it on the QFES hoping that when you walk into the meeting they will shut it down for you!

TIP

Plan for the worst!

Prepare for the chance that the QFES does reject the Performance Solution by preparing alternative design options in advance where possible.

This way, you can be prepared with a 'worst case' plan and costing earlier so there are less surprises for your client down the track!

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Who should attend a Fire Engineering Brief (FEB) meeting with Queensland Fire & Emergency Services?

Let's take a look

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This is a common question - and one we get asked more often than you would think!

People want to know specifics like:

- Can our clients come?
- What designers do we need to bring to the meeting?
- How many people should attend?

As always, the answer is it depends on the project.

But let's break it down to look at the four key project stakeholders who are most typically involved:

- → Building Certifier
- → Fire Engineer
- → Architect
- → Client Representative

These four project stakeholders are the four pillars that should be at a QFES FEB meeting to discuss the proposed building design with the Building Approvals Officers (BAO).

The Building Certifier

- → The QFES acts as an advisory agency to the Building Certifier first and foremost.
- → The Building Certifier plays an important role during the meeting of describing building characteristics and the proposed departures from the BCA.

The Fire Engineer

- → Presents the fire engineered Performance Solutions and supporting fire design requirements.
- → Discusses the proposed assessment methodologies and analysis.
- → Seeks feedback to understand any concerns and challenges with the intent of progressing towards endorsement of the fire strategy to proceed to Fire Engineering Report (FER) stage.

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The Architect

- Provides a general overview of the building design.
- Contributes to understanding how the building works architecturally and any nuances.

Delves into detail where needed to understand the building in the context of the fire strategy.

The Client Representative

- Project Manager, Design Manager, actual client etc.
- Attends to understand the outcomes of the meeting and to contribute when specific information is needed.

So who else can provide value?

Fire Protection Services Designer (wet/dry fire)

→ When the fire strategy involves considerable fire safety systems (e.g. fire hydrants, fire sprinklers, detection), the Fire Protection Services Designer plays an important role in talking to the fire brigade infrastructure.

Mechanical Engineer

→ When the fire strategy involves a complex smoke hazard management strategy (e.g. retail malls, atriums, high rise commercial and the like), the Mechanical Services Designer contributes to the understanding of how the systems will operate.

So who else can provide value?

Structural Engineer

→ When the fire strategy involves considerable rationalisation/reduction of structural FRLs (e.g. Stadiums with considerable unprotected steel), the Structural Engineer provides an overview of the structural design and how it works.

Answers questions with respect to failure mechanisms, load ratios and other important structural considerations.

There are other fringe specialists that can attend a FEB meeting!

For example: Horticulturalists can be required where proposing significant greenery to the facades of buildings.

But for the large majority of buildings, only the four key stakeholders are typically required.

Remember the old saying “too many cooks spoil the broth”.

Ideally, the FEB meeting should be limited in number to the key stakeholders only with select optional designers needed to provide additional understanding, with one representative from each as a general rule.

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How do you structure the agenda for a Fire Engineering Brief (FEB) meeting with Queensland Fire & Emergency Services?

Let's take a look

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Let's look at an example of a standard meeting

It would generally include the following stakeholders:

- Building Certifier
- Architect
- Fire Engineer
- Client Representative

And might potentially include:

- Fire Protection Services Designer
- Mechanical or Structural Engineer

The Agenda

1. Architect gives a high-level overview of the building and any significant features.

2. Building certifier provides the key building characteristics such as effective height, rise in storeys, number of storeys contained, large isolated building (if applicable), required fire safety systems under the BCA etc.

3. Team fields any questions that QFES have with respect to the building design and BCA parameters.

The Agenda (cont'd)

4. Fire engineer presents the fire strategy for the development:

- → Systematically works through the fire engineered Performance Solutions and supporting fire design requirements, proposed assessment methodologies and acceptance criteria.
- → Seeks feedback and endorsement of the Performance Solutions proposed.
- → Resolves any feedback during the meeting, if possible (otherwise feedback may require further consultation with the design team post meeting).

The Agenda (cont'd)

5. Team fields any questions that the QFES may have.

Often there are queries with respect to the fire safety systems in the building and their design.

This is where a fire protection services designer being present in the meeting can also assist, particularly for complex developments.

The Agenda (cont'd)

6. Building certifier typically takes meeting minutes and distributes these post FEB meeting. Note that all attendees need to read the meeting minutes and provide applicable comments to ensure that everything is captured.

The meeting minutes play a key role in ensuring that feedback and discussions are recorded to enable project stakeholders to take appropriate action.

Whether this is to resolve any outstanding feedback items or to proceed to FER based on endorsement of the fire strategy presented.

The Agenda (cont'd)

7. Fire protection services designer:

- Should the fire protection services designer be attending the meeting, it is often advisable to provide an overview of the fire safety system design (e.g. booster locations, what standards the fire sprinklers and detection system will be designed to etc.).

- This can occur between the building certifier giving an overview of BCA compliance and the fire engineer presenting the fire strategy.

This can help set the scene and provide QFES with a better understanding of the building in terms of safety provisions before getting into the fire engineering detail.

The Agenda (cont'd)

8. Mechanical and structural engineer:

- Should the mechanical or structural engineers be attending the meeting, it is often advisable for them to support the fire engineer when the relevant Performance Solutions applicable to their specialised field are raised.

- The QFES may ask questions pertaining to the mechanical design or structural design to understand cause and effect or other ambiguities.

Remember that you are working as a team

Whilst the building certifier and fire engineer drive the meeting, everyone is working towards the same goal of demonstrating that the design proposals makes sense, meets the Performance Requirements of the BCA and is safe.

It's a team effort to arrive at the best possible outcome for our clients.

Need more information or have a question?

We've got you covered.
Get in touch with our team today

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