Supporting Model Engineering since 1970

Federation of Model Engineering Societies

NEWSLETTER

May 2025

Editorial

A substantial part of this newsletter includes reports from the AGM - the FMES Trophy/Polly Model Engineering Prize winners and the conclusions arising from the workshop on risk assessment. By coincidence, I was alerted to the existence of an article published some years ago profiling the club that sponsored one of the prize winners. The publisher of that article has kindly given permission to include it in this newsletter and I thought it provides a useful reminder that we will still welcome feedback from clubs on the work they do with young engineers.

Many thanks to those clubs who are sending me copies of their newsletters. More will be welcome. In this newsletter there are two articles from club newsletters, one on springs and one on a repair to boiler tubes. Thanks to Worthing, Bristol and the authors.

There is a brief update on progress in developing safeguarding guidelines and contact details for Colin Walton who has taken up the role of Boiler Registrar. Bob Polley reminds us that the Federation are still seeking someone to take on the role of Treasurer.

6th September ie. the date of the FMES Rally at Rugby, might seem some way off but it's not too early to make a note in your diaries. Rugby have extensive facilities and the Rally provides an opportunity for members of other clubs to use them. The article gives an overview of Rugby's tracks, the competitions and the Rally.

Tony Lee

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

Chairman's Chat

It's the time of year when clubs will be, if they have not already started, looking to their summer activities, their schedule of outdoor events, their visits to other clubs and other clubs visits to themselves, the interaction with the general public with open days and perhaps stands or portable tracks at local fetes and shows. By the time you read this I will have had the first visitors to my track, a group of folk, a club, who collect and renovate small stationary petrol and diesel engines. They visit annually with their engines and enjoy riding behind my diesel-electric loco, quite often driven by one of their members. It's always a good interchange of ideas and thoughts between two different but similar hobbies

On a similar theme I recently took the FMES stand to a show hosted by a local railway preservation society. I had on the stand a range of complete and part built models which hopefully represented the range of interests of the model engineering fraternity. The general public showed most interest in the non railway items, apart from a railway velocipede model. So what's to be learnt, I feel perhaps it is too easy for us to become solely miniature railway orientated. I appreciate that most clubs "make their money" from public running days on their tracks (sorry I'm not forgetting the boat clubs, the meccano clubs, etc) but I wonder if there is a need to consider widening the appeal of our hobby by encouraging those with and who build non railway models to "come out of the shadows" and play a greater role in promoting our hobby. It's just a thought.

The FMES is still looking for a "money man", but seriously we need a treasurer. We are coping, thanks mainly to one man who works tirelessly in the Fed's interest, but we do need someone to take on the role of treasurer. You do not have to be a banker, accountant, etc by profession as with modern software, such as sage, the role is much easier than it once was. So please if you feel you could fill this position get in touch and have a chat. To paraphrase an old saying, do not think what the hobby can do for you but what you can do for the hobby.

Bob Polley

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

Federation of Model Engineering Societies

FEDERATION TROPHY & POLLY MODEL ENGINEERING PRIZE

POLLY MODEL ENGINEERING LIMITED

2025 AWARD WINNERS

The awards were made at the FMES AGM Event Day held at the Whitewebbs Transport Museum on 1st March 2025

Here are the three award winners…..

info@fmes.org.uk 01327 342167 www.fmes.org.uk

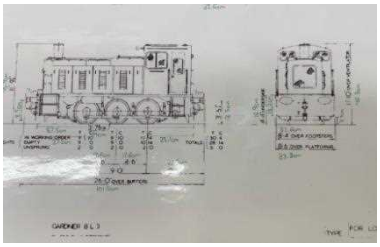
Archie Paul

Archie is 16 years old and has been actively modelling since he was 13 with the support and assistance of his father and members of his club. He is a member of Pinewood Miniature Railway Society and enjoys supporting them in their club activities including many technical and maintenance tasks as well as supporting the club with their public running operations. These include signal box operation, preparation and disposition of rolling stock and locomotives and other duties under supervision where appropriate.

He started by building an 0-6-0 electric locomotive assisted by his father particularly for the wooden body. He then developed this loco by making a new and improved body for it, resulting in a much detailed and representative model of a class 14 'Teddy Bear' (using some 'rapid prototyping' for details) that he ran at the Echills Wood rally.

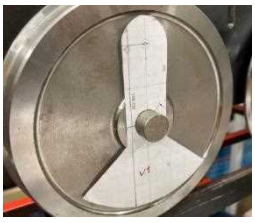
He then acquired a 'poorly' 7.25" gauge Bridget steam engine, unfortunately with a failed hydraulic test. Archie mended this using 'pro fuel' as a heat source and the loco then happily passed its tests. Unfortunately, this then brought other defects to light and he rebuilt a lot of the key running parts of the chassis including piston rings, valve stem guides (using titanium as a material).

As well as rebuilding a small lathe and some other projects, he has now started work on a Class 03 that has advanced as far as the chassis that we had the pleasure of seeing at the awards event. Archie's skills have now developed to the point where the class 03 is all his own work, including the design of the loco and its parts. Archie has embraced the use of modern manufacturing methods and some ready-made components in his projects, as well as an excellent grounding in traditional manual skills.



We look forward to seeing Archie's development and more projects in time.

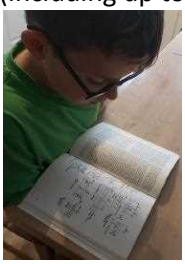
Archie was awarded the FMES trophy, £100 Polly Model Engineering Limited voucher and £100 FMES cash prize.

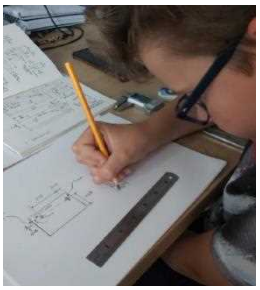


Spencer Priddy

Spencer is has featured in this competition before, being a winner in 2023. It is pleasing that he continues to develop his skills and interest in Model Engineering as evidenced by his competition entry. Spencer is now 13 years of age and is a member of Portsmouth Model Engineering Society. He continues to support the club activities on all occasions including social events, track and other maintenance and public running. He is developing his skills all around club activities and is mentored to learn driving and management of steam engines, with a careful and safety conscious approach.

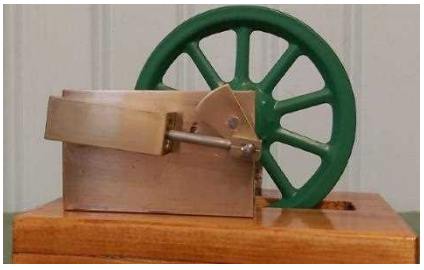
As we have seen in previous years, he has developed his skills by building successful electrically powered locomotives (including up to 5" gauge). Bitten by the 'locomotive bug', Spencer now wishes to develop his abilities with the construction of steam engines, with his ambition being to build a substantial larger scale steam locomotive. Recognising, however, that skills need time to develop, he has decided to embark on a somewhat less ambitious project, but still requiring the necessary degrees of precision and knowledge that a larger project would require.





Spencer researched around the topic and decided to pursue a small oscillating engine featured on You Tube and originally described by Tubal Cain. This was of interest as it could be made using only a pillar drill as a machine tool. He acquired some useful and informative books on the subject and decided on a design called 'Elizabeth' in one of the books. It was necessary for Spencer to design all of the parts and contemplate how he would manufacture them.

The portfolio that Spencer made for his entry to the competition was very detailed with lots of photographs demonstrating progress with this project (too many to reproduce in full here) but a representative selection is included. The skills demonstrated included hand tool use including cutting, filing, soldering, drilling and fitting parts together to make them work.



Spencer's engine was tested successfully using compressed air, and he has plans to make some more of this type for other projects.

A second project that Spencer has worked on is a slight step away from steam engines and locomotives – but nonetheless 'model engineering' – the build of a radio controlled 'Tamiya' car from a kit of parts. Whilst Spencer has not had to machine anything for this, it has engineering complexity that is invaluable for learning as his photos demonstrate.

We look forward to seeing Spencer's development and work on his next projects.

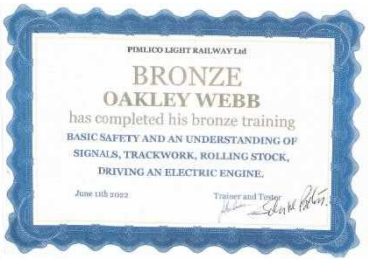
Spencer was Highly Commended for his continuing development and club support and was awarded an FMES certificate, £70 Polly Model Engineering Voucher and £70 FMES cash prize.

Oakley Webb

Oakley is 13 years old and has been an active member of Pimlico Light Railway since 2021. He joins in many club activities, especially maintenance and updating facilities. He participates in the club's training programme, with his abilities now extending to safety awareness, maintenance of stock, track and facilities, as well as managing steam engines. Although young, he has learned to drive engines and to quote his mentor at the club he displays a maturity beyond his years regarding supporting club activities, health and safety and essential maintenance and engine testing.

He has learned important basic engineering skills at the club by building at stationary steam engine. This involved hand and lathe work, learning and carrying out silver soldering and, of necessity, learning imperial measurements to complement his knowledge of metric. This has involved machining, drilling and sheet work, as well as reaming, threading and the use of D bits.

He is an active hobbyist at home as well, making progress with his 00 gauge railway, as well as some other less model engineering but nonetheless practical projects at home that he completed during lock down.



We look forward to seeing Oakley's progress both at club and with his skills in the future!

Oakley was Commended for his club activities and progress learning model engineering skills and was awarded an FMES certificate, £50 Polly Model Engineering Voucher and £50 FMES cash prize.

This article appeared in the newsletter of Worthing & District SME reprinted here with the kind permission of W&DSME and the author

SPRINGS & THINGS .... By Neil Furze

Recently our "Speedy" Adrian Vickers had shown signs of age and needed serious attention. One glaring problem was the suspension as when the boiler had a reasonable water level, and in addition the tanks were fully laden too, the axle boxes were seen to be fully driven into the horns. This led to concerns that the locomotive could well decide to step off the tracks if the suspension was unable to offer a smoothed ride and allow for the ups and downs of the rails especially on the tighter curves. (A problem we initially encountered with our Britannia in its early days).

Investigation showed that springs, of which there are two per axle box, so totalling 12, were weak and strangely were also of different sizes - the free length ranging from about 0.7" to almost an inch. The spring material seemed to be the same, measuring 48 thou or if you prefer 1.2 mm or even 18 gauge, and the active turns would appear to be 8. We have no surviving drawings of the build to fall back on, and other sources of information were sadly lacking any spring specifications. Seeing what was on offer with the usual engineering supplies market was one possibility.

Interestingly no supplier gives the spring rate of what's on offer so not being the designer (LBSC in our case) I had no idea what was needed and certainly no intention of experimenting with the motley collection of what was fitted so I decided to investigate making my own of 3/8in diameter, 18 gauge and overall length of 1in or so including non-active turns and see how they turned out.

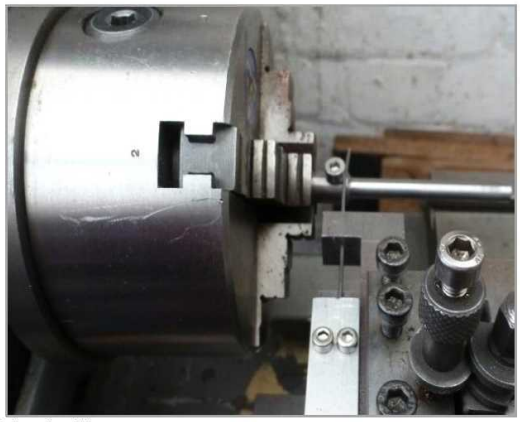
First question: what wire? B&Q offered steel wire 1.2 mm diameter nominally 8 metres long and coiled safely on a half round channel for the princely sum of £3.27 certainly worth investigating it certainly seemed springy enough but feeding and handling it could prove hazardous as uncoiling might well be asking for trouble. It's amazing how much energy is stored in a coil of springy wire and as our eyes are about as tough as the skin on a tomato they need protecting. I considered that goggles or safety glasses would be insufficient as any exposed part of my face and neck wouldn't benefit from being punctured either. I searched Amazon and purchased a full-face protective visor similar to what or two strange people adopted during the Covid mask panic.

Second question: What do you wind springs on? The answer is a mandrel which leads to what size?

When wound on a a rod and the tension is released the newly formed spring goes "boing" and the coils become shorter and of a greater diameter both internally and externally. The only thing under control was the diameter of the mandrel. Asking Google regarding *Helical Spring Mandrel Design* points to https://daycounter.com/Calculators/Springs. This simple calculator asks for coil diameter, wire diameter and wire material. You can use whatever units you like, but all must be the same. For this exercise I used 0.375", 0.0048" and B&Q wire and the answer came out 0.285in. Using some 10mm scrap rod about 2" out of approx 90mm piece of it (should be about twice the length of the spring being made), was turned down to 0.285in with the end centred to allow use a live centre. The start of the wire needed to be secured; some designs call for a suitable hole drilled through the 10mm diameter bit and the wire bent 90 deg and stuffed in, I decided to tap the hole 4mm and secure the wire with a 12mm cap screw. The step from 10mm down to .285" should be

angled, not sharp to allow the wire to glide down to the business part of the mandrel.

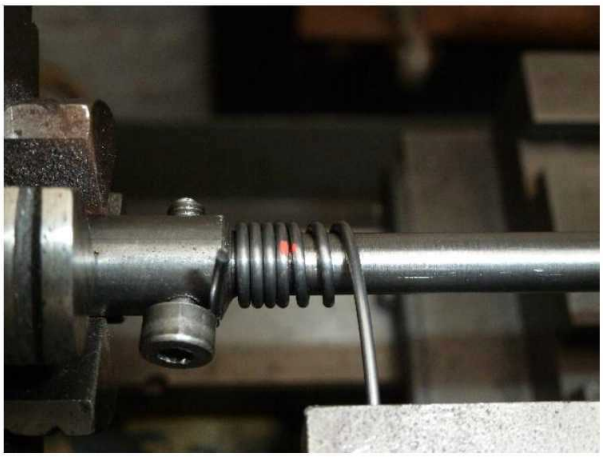
Third question: How do you deliver the wire? Well, by making a device to fit into the lathe tool holder as shown. A gash piece of 25 x 12 steel was butchered into the shape shown. The 1.5mm hole was angled upwards at 10 degrees to ultimately present the wire to the mandrel top surface in generally the desired direction. This was suggested by *blondie hacks, springs* on You tube, but only an "L" shaped part of the tool and not the piece I



finished with.

Fourth question: How do you wind the spring? Now begins the learning curve, and you'll make many springs, some good, some bad and some a disaster, but this does work. With the wire being presented to the top of the mandrel the chuck will have to be wound in the reverse direction to that used for normal turning, and by hand too, not just because that's a good way to unwind the chuck on a Myford but for safety and to have complete control over the process.

So, you set up for thread cutting at 10 tpi but don't engage the half nut. Set the saddle to present the wire to under the cap screw on the mandrel and lock it down; and now is a good time for the live centre to be positioned. Manually wind the wire on and using the saddle and feed the wire on to the turned part of the mandrel. Make 3 complete tight turns keeping an eye on the saddle else you'll over lay one turn on another, then engage the half nut.



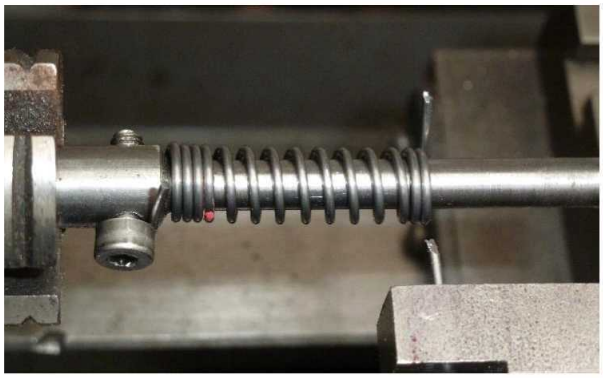
After you've made a complete turn, you can see where your first turn has just left the close 3 turns at the start.

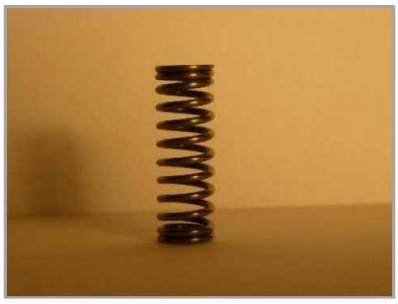
Mark the wire at this point with a marker for reference and mentally say “one” or even out loud if no one is nearby. Now continue laying the wire down manually with the half nut still engaged keeping count as you complete a turn with reference to your mark. When you have counted, in this case to 8, do another full turn and disengage the half nut and using manual control of the saddle lay down another 2 or 3 close turns.

At this point you may cut the new spring free; this is where you get the “boing” and the spring assumes is final dimensions inner, outer and length. The wire is very tough and unless you have a very small pair of bolt cutters it's best to use a metal cutter with a Dremel to make the cut; an angle grinder is not recommended.

Removed from the mandrel you now have a spring that's not quite like you thought you were going to get, as during the release the inner and outer dimensions increased but at the cost on the total number of turns. Deep joy.

Fifth Question: How do I keep tension in the wire when winding? Blondie hacks suggests you hold the wire, presumably with your third hand. That where the extra part of my tool holder feeder came in. I used a piece of Aluminium bar held down with 2.5mm cap heads to pinch the wire and apply a friction brake to the wire. Nothing precise just a guestimate by the pull required to pull it over the mandrel.





Final Question. How do you finish it off? You now have to trim off the excess coils at the ends so that from where the first active coil leaves the static ones there's about 2 static ones left, similarly the other end is dressed, using the Dremel again. The two ends are cleaned up with a linisher so the they are to all intents and purposes square.

Conclusions:

One school of thought suggests that the springs could be tempered now. This involves wrapping them in steel wool then making a sandwich with an outer wrapper of aluminium foil and placing in an oven at gas mark 8 (230c or 450f) for 20 mins. I didn't think I would survive this exercise as the anti rust additive added to steel wool will pollute the oven and anything cooked therein for a considerable length of time, certainly longer than my existence once the better half discovered what I'd done.

The demo spring just made ended up with an overall length of 1.054 inches - the fun is getting several of them to end up the same. The answer appears to be consistency during winding especially the point when the active turns separate and rejoin again at the end. The outer diameter indicated 0.362” about 13 thou under the expected size and the inner diameter 0.265 so that should hopefully clear ¼ inch.

For our Speedy springs I used music wire, Roslau - that's of German origin and polished as well from Hugh Craig Harpsichords in deepest Gloucestershire.

NEIL

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

Risk Assessment:

AGM Event Day Workshop March 2025

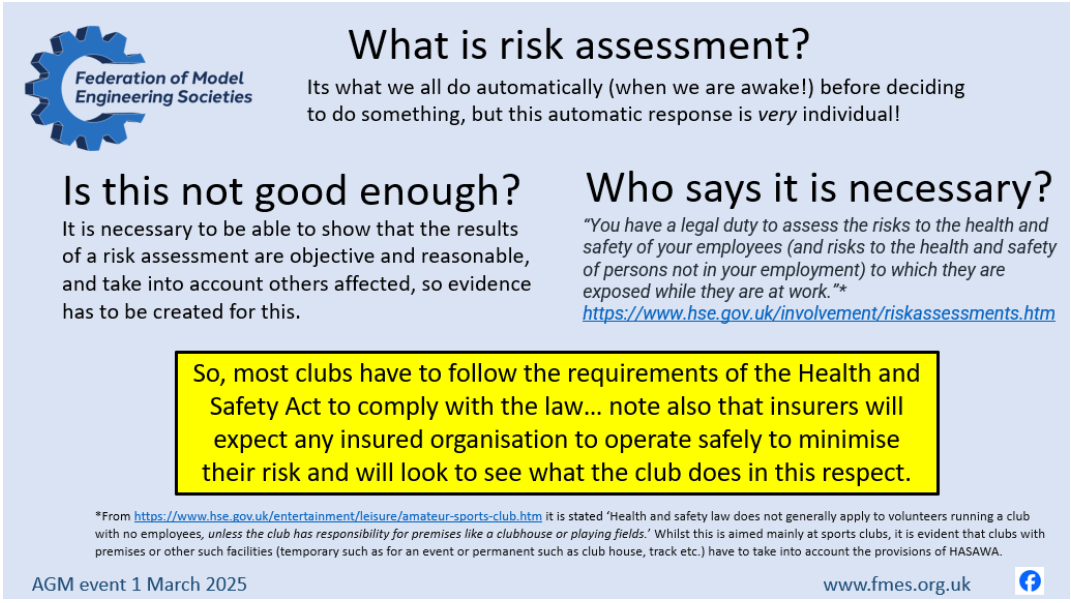
The workshop that we regularly hold at the AGM event day is still going and we are still finding topics to work on at it…if you have ideas for new topics, do please let us know! Apart from the entertainment of the attendees, the point of a workshop is to produce something that may be of interest to our members, or to ourselves by finding out member clubs views on topical issues. In the past this has informed our strategy development (including the no-longer-new website), priorities for supporting Young Engineers, gaining feedback on Insurance and of wider interest: getting and keeping new club members. This time we decided to focus on a very important aspect of modern club management: the requirement to demonstrate awareness and management of Health and Safety responsibilities by carrying out risk assessments.

Risk assessments are required as a key part of complying with the Health and Safety at Work Act, which, in spite of its main focus on employment in places of work, does apply to volunteer clubs and organisations that operate facilities (tracks, clubhouses, workshops etc). See 'Useful links' section below.

The workshop asked the participants (who were grouped on tables, each facilitated by someone who took notes of comments and findings) to carry out a risk assessment on one of three, brief, 'scenarios' that were presented and then rationed out to the tables so that all were discussed.

Although the workshop certainly did identify risks with the scenarios, the point was not to decide detailed responses to what, after all, were 'theoretical' situations (and no doubt differently pictured according to personal experience), but to carry out a process for risk assessment that could -and should - be carried out for most club situations.

The introduction included:



info@fmes.org.uk 01327 342167 **www.fmes.org.uk**
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

It is up to each club to decide what 'reasonable' is: and in any disputes, ultimately the judge/jury decide! Guidelines play a role in establishing at least reasonable courses of action.

This introduced the concept of 'what is reasonable' and how it is defined. The following is from the HSE and can be found at https://www.hse.gov.uk/enforce/expert/alarpglance.htm .

It is the cornerstone that drives decisions:

"ALARP" is short for "as low as reasonably practicable". "SFAIRP" is short for "so far as is reasonably practicable". The two terms mean essentially the same thing and at their core is the concept of "reasonably practicable"; this involves weighing a risk against the trouble, time and money needed to control it…but the risk needs to be identified still.

Here are the workshop activities and findings for readers interest, illustrating the risk assessment process. Later there is a brief discussion with some FMES comments and suggestions.

The three scenarios were:

1. A club open day with paying public passengers on a railway around a park, in good weather with steam and 'diesel' haulage and ground level trains with around 15 passengers on each.
2. A club working day in a public park including regular maintenance, digging, welding, painting, use of machine and hand tools.
3. A club visitors day at a track in a public park with members of other clubs attending with a barbecue and social get together (but no public rides etc).

These scenarios were allocated to tables in the room, so each had at least one table discussing it. Scenarios 1 and 2 had two tables participating.

There were four parts to this exercise, corresponding to the four stages necessary to consider an objective risk assessment. Each was presented in turn, in the appropriate logical order, and the participants were invited to consider the parts as follows:

Part 1.

This part is to carry out an open discussion to identify the risks that the participants perceive may be presented by the scenario allocated. In 'real life', the 'scenario' would clearly be known in some detail to the participants of the risk assessment and the activity would not be constrained by time (as was the case in the workshop), so the results would be a longer list, more detailed and more relevant. The participants were discouraged from discussing the risk identified except to explain it at this stage. This is key to making an objective list.

The results of the discussions for each scenario and the development of the 'risk list' for each are shown in the left most columns of figures 1, 2 and 3.

Part 2.

This part is now to analyse the 'risk list' created in Part 1, and identify the relative likelihood of each of the risks. This part of the process is, of course, usually a very subjective analysis and it is not really appropriate to consider categories of likelihood more extensive than of 'High', 'Medium' or 'Low' likelihood.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

The results of this part of the analysis are shown in the middle columns in figures 1, 2 and 3 for each scenario respectively.

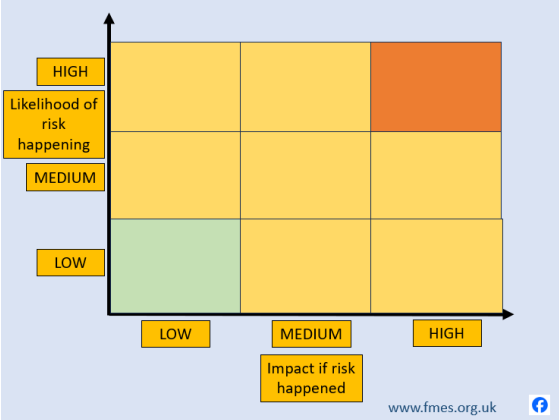
Part 3.

This part is to further analyse the 'risk list' by considering the gravity of each risk. In other words, if there was an incident caused by that risk, what would the consequences be (ie the 'impact'). As before, there is little point in most cases for considering a greater fineness of assessment that three broad categories of impact: 'High', 'Medium' and 'Low'.

The results of this part of the analysis are shown in the right most columns in figures 1, 2, and 3 for each scenario respectively.

Part 4.

The final part of the risk assessment (but not of management actions required, see later) is to assemble the data gained in a form that makes interpretation clear, allowing conclusions to be made and, if required, actions to be agreed. One way to achieve this is to present the findings graphically on a 'risk/consequences' graph. This is a standard presentational aid and comprises a two-dimensional graph with axes 'likelihood' and 'impact' of the form to the right. The colours will be discussed later.



The results of this part of the analysis are shown in figures 4, 5 and 6 for each scenario respectively.

Discussion:

a. About the process

The first point to be made is that the exercise carried out in the workshop was theoretical in that the scenarios as presented were the only details available. No doubt participants used their own experience of the circumstances *suggested* by the scenario but because most came from different clubs and hence different experiences, no reliance should be placed on the content of the 'risk lists' created or, indeed, their analysis. The point of this exercise - and article - is to illustrate a standard *process* for carrying out a risk assessment as the Health and Safety Act requires. The process can, by all means, be used to generate risk assessments for specific situations but not the data used.

The colours used in the graph are illustrative and indicate suggested priorities for required intervention. The point of the graph is that data points in the top right of the graph (ie. 'high/high' or red in the illustration) suggest greatest focus for management, to *possibly* low priority for action for those data points in the bottom left (ie. 'low/low' ie. green in the illustration). The meaning and priority for action should be agreed by the risk assessors before conducting the exercise, and there is

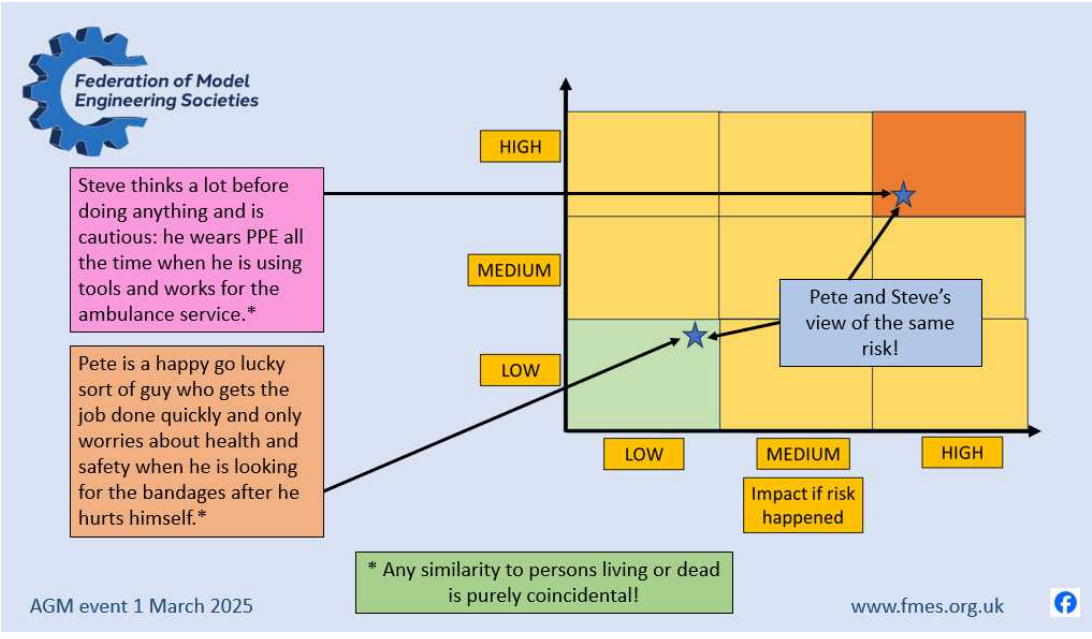
info@fmes.org.uk 01327 342167 **www.fmes.org.uk**
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

no restriction for reconsidering the risk assessment especially if it identifies higher priorities than otherwise thought for action. Beware of deliberately lowering an impact and/or likelihood score without a reasoned and objective rationale if the previous result presented an unpalatable conclusion.

The aim of the risk assessment process is to identify or perceive risks (part 1), to analyse them (parts 2, 3 and 4) *and then to do something that is informed by the assessment.* What is done is a matter for the management of the process and the relevant club or organisation. Generally speaking, any risks identified as having high impact/high likelihood MUST be discussed and actions agreed to lessen the impact and/or likelihood. It is probable that any risks presenting medium or high impact at least should have some mitigation agreed with emphasis according to their nature and the opportunities for improvement (see 'ALARP/SFAIRP' above). The goal of improvement is to reduce the risk assessment to a lower and more acceptable level *because something is done – mitigating actions - to reduce it*.

Remembering the rather difficult definition of 'reasonable', scoring something with, for example, a 'high impact' score suggests that the risk might be to cause significant personal injury as this is the main basis for health and safety (H&S) activities. There are other risks to a club of course, and the same process could be used to assess these but with different emphasis. It is important though that H&S is not subjugated to other risks as a result of priorities. For example, a club may consider that a high impact/high likelihood risk might cause adverse publicity if an incident happened. Actions agreed to mitigate this risk should not compromise any activities to mitigate a H&S risk. To put it crudely, if the risk was a train derailed and caused injury, then actions should be in place to mitigate this risk as a priority and not how to deal with bad press!

One other aspect that might be considered is that assessment of risk (even with HSE comments on 'reasonable') is the subjective nature of judgement of individuals (see illustration below). The impact on this could be either overly optimistic or overly pessimistic judgements may be made. Awareness of this is a practical step and maybe club management could set up a mechanism to agree such differences (eg. a team approach?).



info@fmes.org.uk 01327 342167 **www.fmes.org.uk**
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

One other aspect to bear in mind when performing a risk assessment is the nature of the people that the assessment is focussed on. For example, if your club offers rides to disabled people, then what may be a low risk for an able bodied person could be a high risk for someone who is disabled.

Figure 1, Scenario 1 Public open day

RISK	LIKELY			IMPACT		
	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1. Derailment		X0			0	X
2. Visitors on the track			X		X	
3. Trains colliding	X					X
4. Cinder burns		X0		X		0
5. Excessive speed			X	X		
6. Passengers misbehaving on train	X0					X0
7. Signal malfunctions	X			X		
8. Train malfunction	X			X		
9. Passenger illness	X0			X0		
10. Dogs/animals on site		X		X		
11. Debris on track	X				X	
12. Hot surfaces		X			X	
13. Tripping/falls	0				0	
14. Level crossing			0			0
15. Overweight people		0		0		
16. Poor or untrained supervisors		0				0
17. Vulnerable people supervision	0				0	
18. Overcrowding		0			0	
19. Food hygiene			0			0

Key: X and 0 are scores from different tables.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

Figure 2, Scenario 2 Club maintenance day

RISK	LIKELY			IMPACT		
	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1. Sunburn/dehydration			X		X	
2. Injury through lifting		X				X
3. Power tools usage		X				X
4. Trip hazards			X			X
5. Falls from height			X0			X0
6. Chemicals (burns, toxicity etc)		X				X
7. Burns etc through hot work			X			X
8. Moving vehicles (cars/trains etc)	X				X	
9. Injury by flying debris		X		X		
10. Burns caused by flammables			X			X
11. Insect bites		X			X	
12. Tiredness through long hours			X			X
13. Digging, shifting materials			0		0	
14. Injury from hand tools			0		0	
15. Injury from grinders			0			0
16. Injury from welding			0			0
17. Electrical shock (working with electricity)		0				0
18. Injury from gases			0			0
19. Injury from painting		0			0	
20. Injury from machine shop work			0			0
21. Injury from hydraulics			0		0	
22. Injury from hedge cutting		0				0

Key: X and 0 are scores from different tables.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

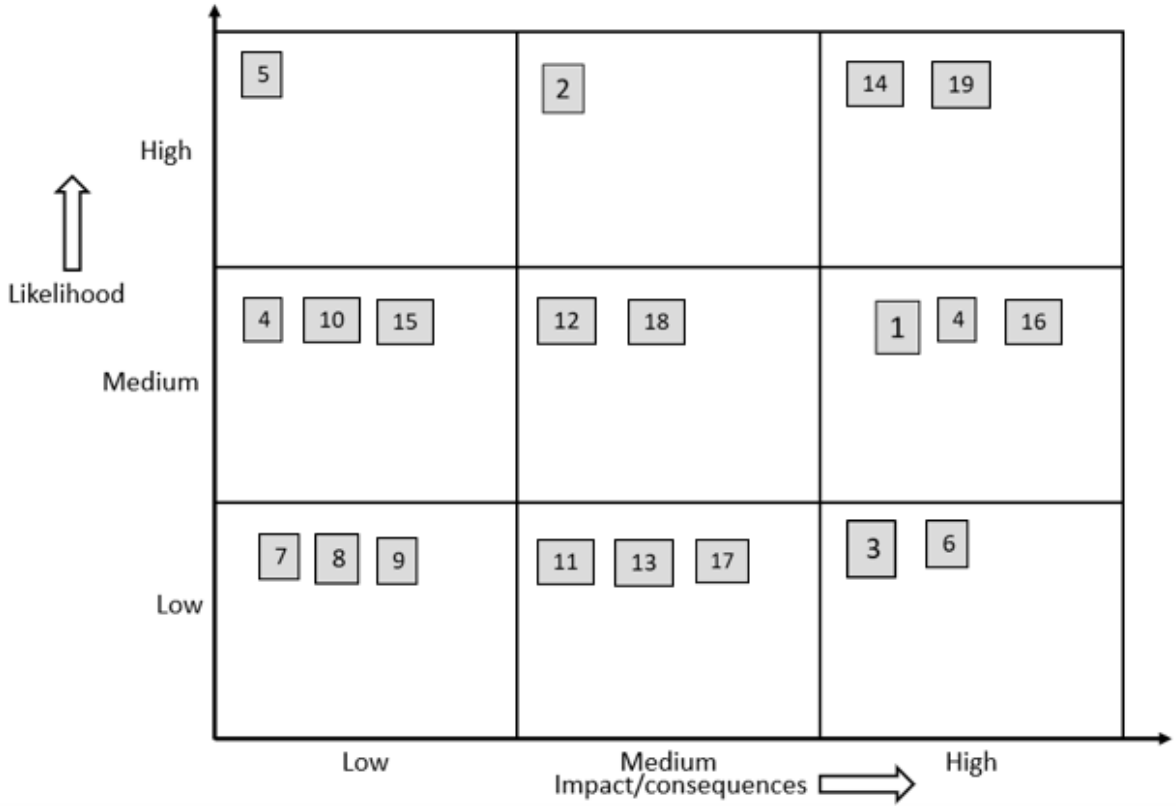
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

Figure 3, Scenario 3 Club visitors day and social event

RISK	LIKELY			IMPACT		
	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1. Derailing	X					X
2. Stock/locomotives movement	X					X
3. Food poisoning/allergies	X				X	
4. Burns	X					X
5. Fire or weather related risks			X			X
6. Tripping/slipping		X				X
7. Sparks and soot (eyes, clothes, skin etc)			X			X
8. Vulnerable people (eg. age related)		X			X	
9. Animals	X			X		
10. Poor eyesight (or drivers, officials, all)	X			X		
11. Trees and debris falling etc	X				X	
12. Gas or flammable liquids	X					X

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

Figure 4, Graph for scenario 1



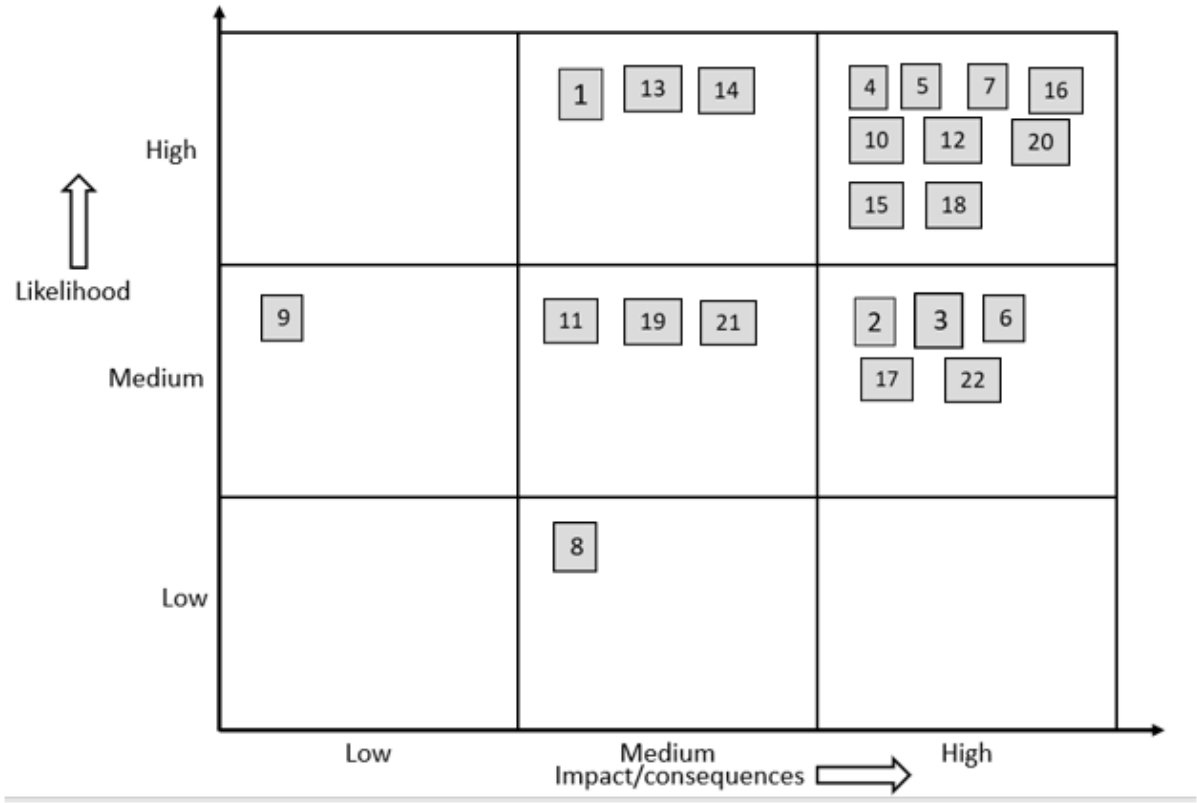
If a number appears twice, it is owing to the same risk attracting different assessment from more than one table (eg. here number 4).

For this analysis, risk numbers 14 and 19 (Level crossing and food hygiene) evidently gave the most concern to the teams at these tables. Managing these risks should entail deciding actions to reduce either or both the likelihood and impact were these to happen. Note that a level crossing is possibly a large and complex circumstance and fundamental change would be expensive (if possible anyway): so getting rid of the level crossing and eliminating the risk might not be a 'reasonable' thing to do, however the high position of it remains a serious risk and so other mitigating activities need to be considered (eg. signalling, gates, TV cameras, trains whistling etc.).

Thought maybe should be given also to risks 2, 12, 18, 1, 4 and 16 to identify ways to reduce these too.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

Figure 5, Graph for scenario 2

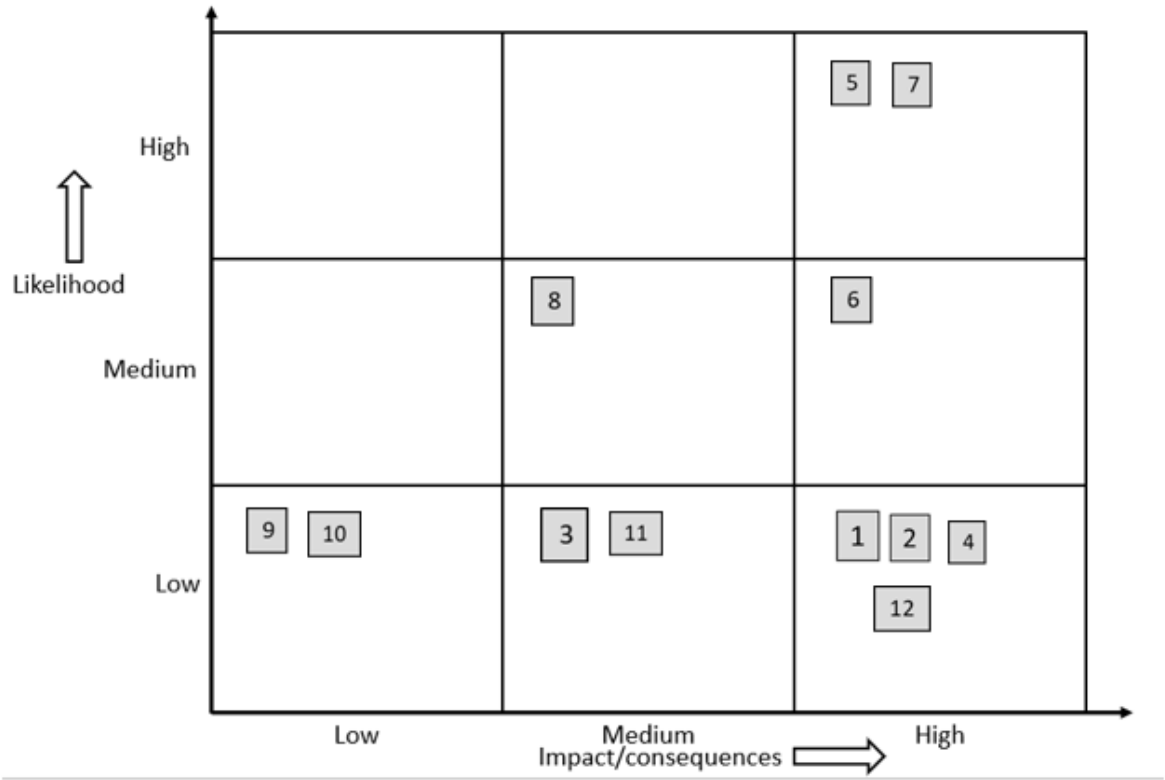


For this scenario, the tables considered a significant number of possible high likelihood/impact risks. Perhaps this is not surprising given the potentially risky nature of the tools used by club members (and, remember, risks to passers by too, such as 'arc eye' from welding) and the 'traditional' approach that members 'know what they are doing'! The actions to eliminate or at least mitigate these risks probably lie in the normal workshop defensive measures found on commercial factory floors: but it is for each club to decide, in its circumstances, the approach that they will adopt.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

Figure 6, graph for scenario 3



One table considered this scenario and generated a spread of results across much of the graph. As before, action should be taken over risks 5 and 7 as a priority, and probably something about risks 6 and 8 as well.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

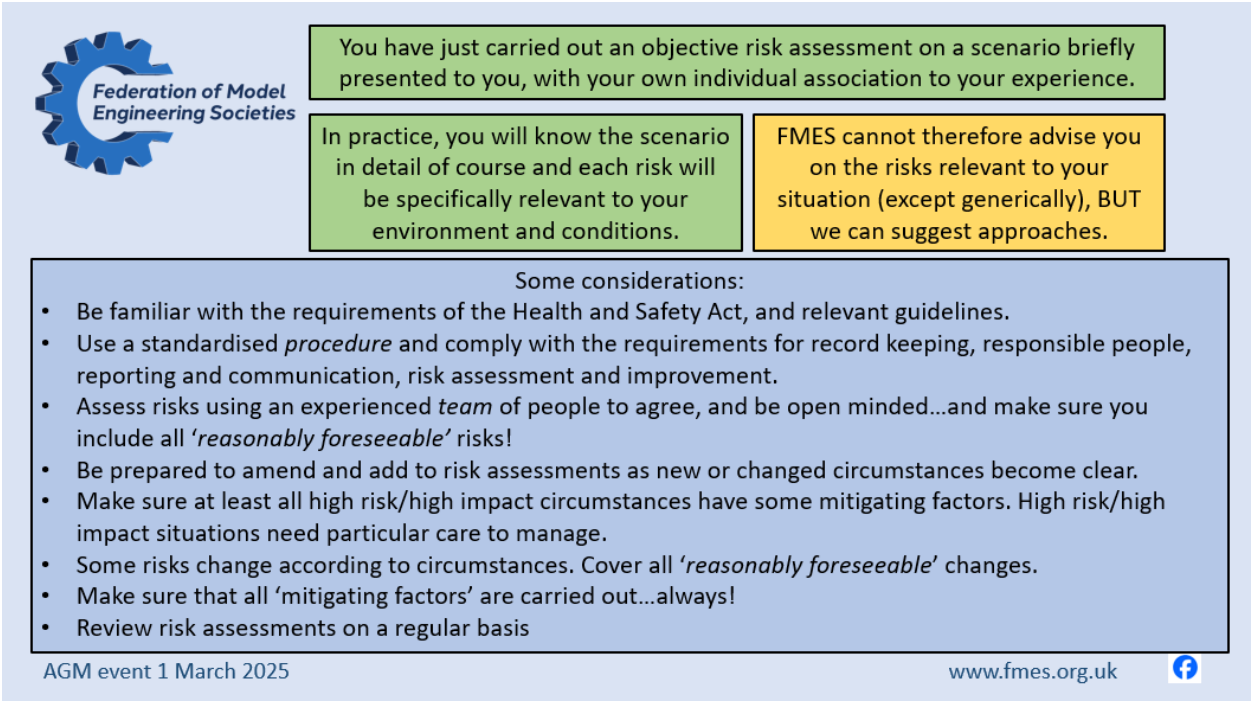
b. About the results

The results generated by this hypothetical risk assessment are, as you may expect, lacking in explanation and detail. It is also unlikely that every reader will have the same opinion of the status of a given risk, or the completeness of the list in the first place. That is not the point of the exercise of course: it is simply a demonstration of the use of the process. It is not, therefore, constructive to consider whether the risks and their assessment are appropriate: they are only, here, illustrating an objective and clear way to carry out a risk assessment.

The process demonstrated then shows the first two stages of managing risk: identifying that a risk exists, and using an objective means to decide how important it is to be dealt with in an appropriate manner (ie. analysis).

The third stage involves the *management* of the risks. The use of the graphs (and the agreed definitions of what constitutes high/medium and low values) provides evidence that the risks have been assessed: for this to have been a valuable exercise, the high priority risks now need to have actions agreed and implemented to eliminate, or more likely *mitigate* the risks to reduce their profile (ie. what is the likelihood and impact AFTER remedial activities have been done). The aim of the risk assessment and management is to reduce all risks to a low enough level for it to be a *reasonably* safe environment for all involved.

c. FMES recommendations:



info@fmes.org.uk 01327 342167 **www.fmes.org.uk**
A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

d. Some useful information and links:

An introduction to the Health and Safety at Work Act (HASAWA) can be found at https://www.hse.gov.uk/legislation/hswa.htm . There have been clarifying additions since such as the Management of Health and Safety at Work Regulations 1999.

From https://www.hse.gov.uk/entertainment/leisure/amateur-sports-club.htm it is stated 'Health and safety law does not generally apply to volunteers running a club with no employees*, unless the club has responsibility for premises like a clubhouse or playing fields.*' Whilst this is aimed mainly at sports clubs, it is evident that clubs with premises or other such facilities have to take into account the provisions of HASAWA. Note that when HSE has been involved in incidents at clubs, it is clear that they regard that clubs (at least with facilities) fall within their interpretation of HASAWA. In addition, when an H&S incident has caused claims upon insurance, it is evident that the insurers expect compliance with HASAWA to mitigate *their* risks.

An explanation of what HASAWA covers is found at https://www.hse-network.com/health-and-safety-at-work-act-1974-explained/ .

Re risk assessments and actions arising as a result. More can be found on this at:

https://www.hse-network.com/how-to-perform-a-risk-assessment/

Regarding the interpretation of 'reasonable' in the H&S context, HSE have guidelines for their staff that have to assess if an organization has applied appropriate standards in this respect:

https://www.hse.gov.uk/enforce/expert/alarp1.htm

Paul Naylor/FMES 7 March 2025

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

As those who attended the AGM are aware, we are working on a response to support clubs on the somewhat thorny topic of safeguarding. This is not easy as 'safeguarding' is about providing a safe environment for all, and this includes not only young people but also any individual who has some vulnerabilities. It is also virtually impossible to provide a 'rulebook' on what to do to instruct clubs to take the appropriate steps, and so adequate safeguarding will always rely on each club, in their particular circumstances, to define what these steps are.

One important step that we intend to take is to work with a credited professional in the field who will comment and guide us on our work.

We hope to be in a position to develop our first response on this topic for clubs later this year, and then we will be seeking feedback and comment to help us take any relevant further steps.

If you have any comments for our interest now, please let us know at info@fmes.org.uk, however we will be actively seeking these later when we have publicised the first response.

Paul Naylor/Peter Kenington

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

A Repair to Steel Boiler Tubes

The following anecdote of a repair to a steel boiler originally appeared in the newsletter of the Bristol Society of Model and Experimental Engineers. Kevin Slater CEng, is a design authority on boilers for the Steam Boat Association and experienced boilermaker (Steamwell-Boilers.co.uk). Kevin has kindly provided a slightly update version which is reprinted here with his permission and that of BSMEE.

Kevin worked on a four-year-old boiler with a few leaking tubes that required repair. Expanding tubes is not usually a challenge if they are new and clean. However, there were challenges cleaning the inside of the tubes on this used steamboat boiler.

Small flap wheels were initially used to clean the rust/soot/grunge from the expander landing area at the end of each leaking tube. This was only marginally successful, and the rolling action of the expander cracked away and crushed more 'grunge'. This meant having to repeatedly clean the expanding tool.

Despite the laborious process, Kevin successfully re-expanded the tubes and proved it by conducting a hydraulic pressure test to 500 p.s.i. on the boiler

The quality of Wickstead's expanders was proven as they remained undamaged.

Replacing the tubes with new ones would have been a much more expensive alternative.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

The Federation Boiler Registrar

Following the retirement at the AGM of David Mayall from the role of Federation Boiler Registrar, I am pleased to introduce you to our new registrar, Mr. Colin Walton.

Please update your contact lists to include Colin as your contact for sending copies of WSoE forms and ordering supplies such as certificate pads and blue cards.

You can order supplies using the SHOP page on the website:

https://fmes.org.uk/shop-2/

and the order will go direct to Colin, or you can contact him by email using colin.walton@fmes.org.uk or by phone on 07745 687159

His address for sending WSE forms is

12 Lytham Road
Midandbury
Southampton
SO18 2BP

Peter Squire

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

Federation of Model Engineering Societies

Annual Rally

Saturday 6th September 2025

Hosted by the

Rugby Model Engineering Society

This year's Federation rally will be hosted by the Rugby Model Engineering Society at their Rainsbrook Valley Railway site on Saturday, 6th September 2025. If bringing a steam locomotive, please remember to bring a current boiler certificate. Proof of club membership and insurance certificates are required for running models at the rally.

The RMES boasts an impressive 2½, 3½ & 5-inch dual gauge raised track with a running length of approximately 731 metres. A lifting table enables easy unloading of locos directly onto the raised track steaming bays. A traverser allows locos to join the main line from the steaming bays.

There is an even more impressive 7¼ inch gauge ground-level track of approximately 1 Mile. The ground-level track has sidings, passing loops, and station with 3 platforms that are regularly used during busy times. Various gradients up to a maximum of 1 in 85 provide interesting experiences for

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

A private company limited by guarantee registered in England and Wales No 9002737
Registered Office: 18 Wakefield Way, Nether Heyford, Northants, England NN7 3LU

visiting locomotives.

To aid the unloading of 7¼ inch locomotives into the ground-level steaming bays, a lift is used; locomotives then move into the steaming bay. Once steamed, locomotives can access the main line using a yard and turntable.

The tracks are one of the longest in the Midlands and come complete with landscaping, an extensive signalling system, and easy unloading and loading of engines to enhance the experience of driving at the RMES. Both track stations are adjacent to a newly built clubhouse with 5-star rated catering facilities where refreshments and lunch will be available. The railways' signalling system adds to the realism of a fully functioning railway on public days, whilst a reduced set provides a high level of intrinsic safety to its visiting drivers and passengers.

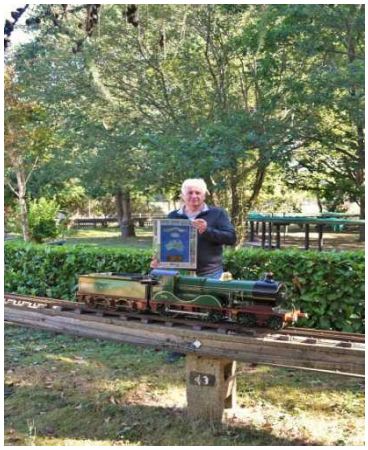
It's not all about railways, the RMES encourages the inclusion of traction engines in a variety of scales, static engines, internal combustion, carriages, 3D printing, and steam road vehicles, examples of which are invited to the rally in September.

The annual FMES Rally Competition award will be presented to the owner of any model, be it:-

- a locomotive of any gauge up to 7¼" gauge,
- road vehicles of any type up to 6" scale,
- clocks which will be displayed indoors,
- static marine (no pool or pond to run on)
- static aircraft (no airfield to launch from)
- any type of stationary engine running or static
- dioramas which will be displayed indoors

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

Entries considered will need to have been built or significantly modified by its owner. Such qualifying models will be invited to enter the FMES Autumn Rally Competition which will be judged by a member of the FMES, RMES, and a suitably qualified model engineer. The competition rules and FAQs can be found at the FMES Web Site



Alongside the FMES Rally Competition, there will also be an opportunity for prototypical outline locomotives to be judged in line with the Australian Association of Live Steamers (AALS) rules. Entrants will need to be a working steam locomotive of a Commonwealth prototype in any gauge between 2½ inch and 7¼ inch. The AALS competition rules and FAQ's can be found at https://tinyurl.com/277b7erm

Competition for the AALS Trophy shall be open to all members of Clubs and Societies affiliated to FMES and such members may nominate their locomotive for judging. If deemed appropriate, the Judges may include other locomotives present on the day but not nominated.

The RMES is based at Onley Lane Rugby CV22 5QD. Anyone who visits the RMES for the FMES rally should be able to enjoy the variety of attractions along with the company of like-minded, enthusiastic model engineering hobbyists.

On-site, there is a Club House café that will provide refreshments throughout the day, along with a buffet lunch at midday

Camping is permitted with pre-booking only by contacting the rally organisers via email george.cannon@hotmail.co.uk with the caveat that ALL waste be taken home as the site does not have sewage or waste disposal systems.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

Profile: Pimlico Light Railway

(An article originally published in Miniature Railway magazine)

One element behind the success of the FMES Trophy and Polly Model Engineering Prize winners is the support and training they receive from their respective model engineering societies.

Whilst not unique, an example of that support given by one club is described in the following article originally published in **Miniature Railway** magazine. It describes the development of Pimlico Light Railway who sponsored one of this year's prize winners and includes a brief overview of the program developed for training junior members.

NB. The article was written over ten years ago and as time and circumstances move on some details in the article are no longer current. Specifically, the club no longer organises public running but continues to be run and maintained by members and continues to develop juniors.

A few months ago we did send out a request for clubs to send in details of the work they do to develop young engineers. We received submissions from a couple of clubs but were certainly not overwhelmed with the number of responses! That request is still open and we will be pleased to hear from you.

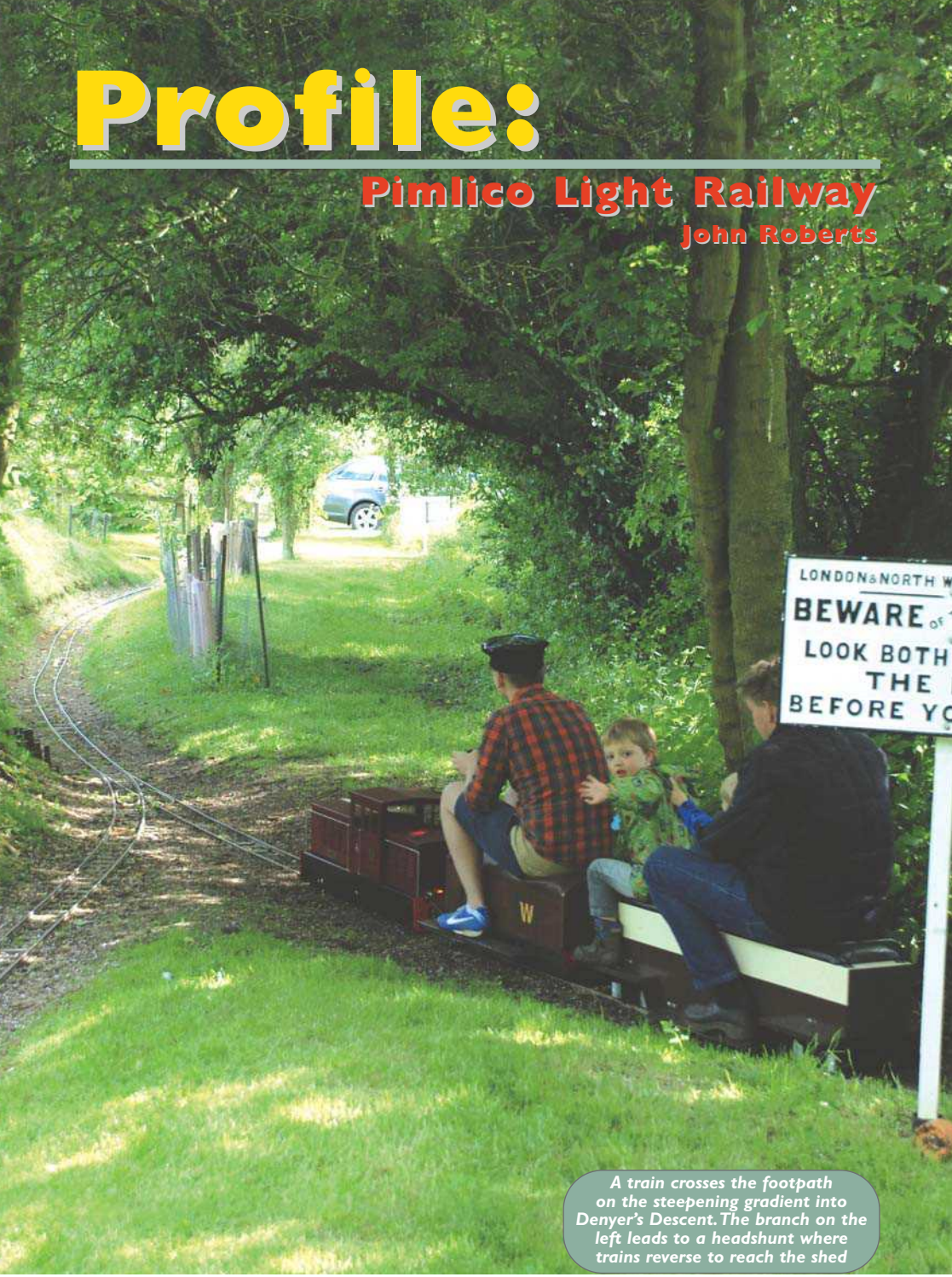
Tony Lee

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**

Profile:

Pimlico Light Railway

John Roberts

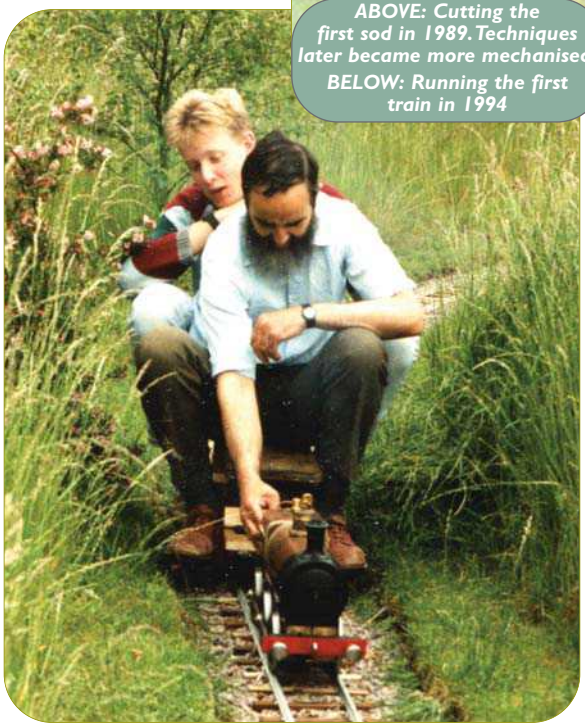


A train crosses the footpath on the steepening gradient into Denyer's Descent. The branch on the left leads to a headshunt where trains reverse to reach the shed

The Pimlico Light Railway has been a gleam in my eye since I started building my first locomotive in 5-inch gauge, 'Pansy', a GWR pannier tank by LBSC, and that was way back in 1974. Because of moves and family commitments the build took 15 years, and its completion coincided with our arrival at Pimlico House in Northamptonshire, which made a ground level track look possible. In 1991 I laid a short length of about 60 yards of track and the 'journey' began!

"...adjustments to gradients to avoid large tree roots and unforeseen pipes..."

It wasn't long before the idea of a circuit for continuous running was raised. The space was there and my out and back line left something to be desired. Digging began after levels were taken, but construction took several years, with various adjustments to gradients because of the need to avoid large tree roots and unforeseen pipes (later found to be buried scaffolding pipes going nowhere!). A circuit was finally arrived at and the first run round took place in 1994.



ABOVE: Cutting the first sod in 1989. Techniques later became more mechanised!
BELOW: Running the first train in 1994

There was absolutely no suggestion of public running or heavy use at this stage, so the line included a long climb of 1:60 to miss the pipes, and then a drop of 1:70 with a reverse curve to avoid getting too close to the septic tank and back to the level section - in all a distance of 112 yards.

The circuit established that there was a 'serious' railway in the hamlet of Pimlico and I found quite a lot of interest from people in the area, who came and ran their locos. During 1994 and 1995 various groups, from family parties to parish church open days were held, and we soon realised

that a passing loop would be really useful when running two or more trains, and this was added in 1995.

That summer the railway was 'blessed', when all the local Anglican clergy came to ride, drive, eat and drink. There's something about clergy and railways, summed up perfectly by the Reverend Audrey, who said 'the church and the railways are the safest way to get you to your destination'.

"...the railway was 'blessed' when the clergy came to ride... There's something about clergy and railways..."

I was already experiencing expansion problems with the track, solved by enlarging the fishplate holes in the rail ends to allow greater expansion of the aluminium. By this stage, the wooden sleepers - hardwood offcuts acquired over many years - were beginning to show signs of rotting. Initially they had been soaked in creosote, but this was such a messy process and didn't seem to prolong the life of the wood by a great deal. The best woods of course are members of the teak family, which contain a lot of natural oil, and some of those are still sound after 20 years on the ground. On top of all that, the cows got out and changed the alignment fairly significantly in several places - the joys of living in the countryside!

The railway's regular open days soon became popular with local people. ABOVE: 1997, BELOW: 1998

Further Growth

The idea was already forming about extending the line, and preparations were made to build a much larger loop right around the house. Unfortunately, we live on a sloping site which is - incidentally - little more than a mile from the old Great Central main line, which also struggled a bit with the topography here. After digging through stone to a depth of five feet the realisation began to dawn that to complete the circuit would mean digging to a depth of almost ten feet, even with a long 1:50 climb, which was really too much. We all metaphorically sat on our spades and revised the plans.

We could build westwards, but this would mean crossing a public footpath. There was nothing for it but to contact the footpaths officer. 'Oh !' he said, 'We haven't had this kind of application for a while - I'll have to get back to you.' Well he did, and the very amicable end result is we are obliged to have signs up whenever we're running to warn passersby. Now as it happens, someone had given me an old LNWR sign, which originated from Parsley Hay, with a warning to the public about crossing the line. Two replicas were duly made and they now grace the two places where the track crosses the footpath.

"Oh!', he said, 'We haven't had this kind of application for a while - I'll have to get back to you..."

It will be obvious by now that we were not getting any younger, and our backs had cried 'enough' after digging the basic trench, so we borrowed a JCB and found a friend who knew how to drive it.

So in November 1998 we dug a large loop, crossing the footpath twice and joining on to the tentative extension we had already excavated by hand. Machines can only do so much of course, and there was still a great deal of hand digging to do, shaping the cuttings, laying ballast and building track.

Dig a hole in a field and it becomes a river! This is the scene in November 1998, looking up from what would become Fieldway to the summit of the line at Whitehead Way

Who You Know

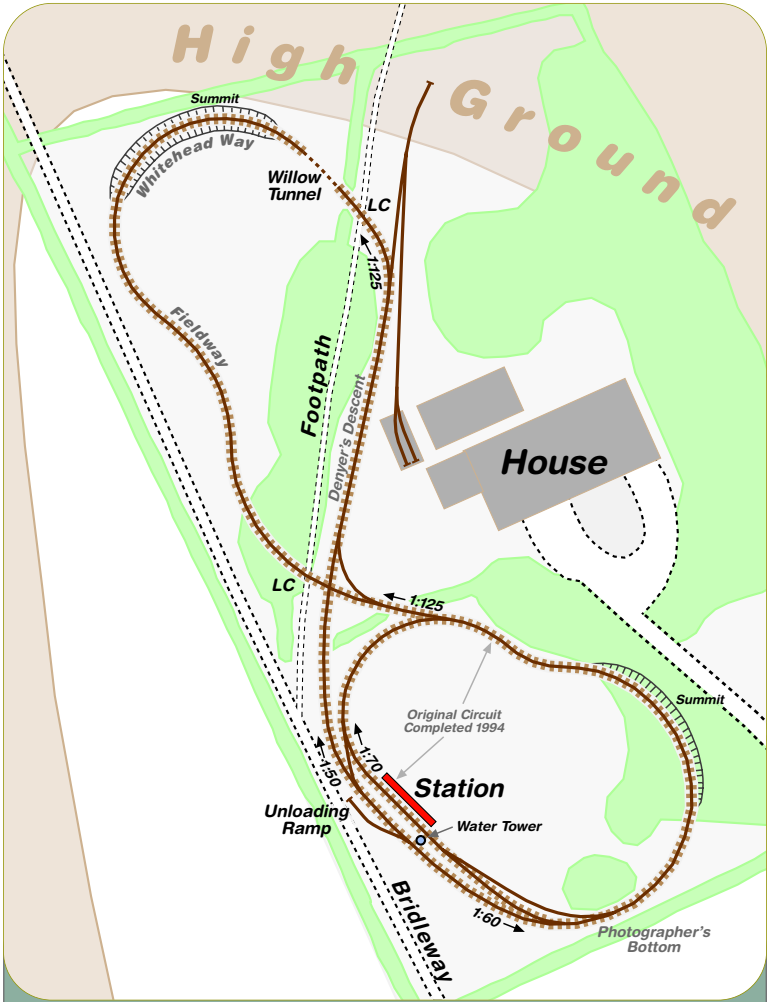
> *"...Would surplus road grit be any good, asked a friend? 40 tons was too good to refuse..."*

What it is to have contacts. At this time there was no railway club as such, just a hole in my field and the support of a few friends. The concept of insurance hadn't really raised its head, despite the increasing use of the line by various schools and church groups. As I was the local vicar, there was a sort of tacit feeling that the third party insurance cover provided by the church Parochial Council would cover any problems, and as the majority of events were either church-connected or family and friends, we carried on. Naive or what!

As to the contacts, the major concern was getting hold of enough ballast - would surplus road grit be any good, asked a friend? Well, there was a fair amount of dirt in it, but the offer of 40 tons of the stuff delivered by a farmer friend who happens to live locally was too good to refuse. It still had to be moved, but it was a great heap!!

By the middle of 1999 we had a figure of eight and a head shunt to get the engines on to the track, in total about 1/4 mile. By this time I had been approached by the mother of some children who came to one of our 'Under 5s' services. 'Do you ever run

As with most railways, maintenance relies on a dedicated band of enthusiast.
ABOVE: Mike replacing rotten sleepers in the station area - an endless task
BELOW: The annual maintenance Day always attracts a good crowd of volunteers, here awaiting lunch in 2013!



Pimlico lies in a gently sloping valley, with high ground to the north and east of the property. When the original loop (bottom right) was extended to create today's much larger layout, the new line was laid up the valley just to the west of the house. This kept earthworks and gradients to a minimum while providing an interesting run, with plenty of challenges for the driver

the trains for the children?', was the question. That was the start of another regular running session.

All this time Pansy had been our primary locomotive, along with a Speedy, another LBSC tank locomotive based on the GWR 1500 class, which had been built in the 1950s. Two visiting Sweet Peas completed the locomotive stud, but it was becoming apparent that we needed flexible, instant power and so a class 08 shunter was built using the 'Charlatan' parts from Blackgates Engineering.

The rolling stock also needed improving and updating, and a couple of 'B' set look-alikes were made, which started out with vacuum brakes which have since been disbanded. Then a couple of simple riding cars were added, as well as various driving vehicles, all based on my preference for the Great Western Railway. As I was making them, that seemed reasonable!

Based on the impressive performance of the loaned Speedy, another was built, and this too proved very successful. As the numbers of steam locomotives increased so the business of testing them became more difficult, until the tester (who came from Milton Keynes M.E.S, where I was a member) suggested that a club should be formed, enabling us to do our own boiler testing. This also came at a time when I was retiring from working full-time as a vicar, and it was becoming increasingly clear that we had no insurance cover for the drivers, or anyone else for that matter, in the case of any incident.

Despite this, we continued to run for the public through 2005, as we had always done, even finding the time to complete a Maxitrak Warship. This has regenerative braking, which proved very useful on our steeply-graded track.

"...Would surplus road grit be any good, asked a friend? 40 tons was too good to refuse..."

The railway had seen visits from clubs at Northampton, Bromsgrove and Bolton over the years, plus local primary schools, playgroups, baptism parties, children from Chernobyl, Brownies and Cubs, all of whom had been and enjoyed themselves. But we still hadn't formed an official club. That was about to change.

The Pimlico Light Railway

In April 2006 we held the inaugural meeting of the Pimlico Light Railway, and yes, there is a local connection with Pimlico in London, but that's another story.

We opened six times for the public that first year as an 'official' railway, and club membership expanded to around 25, of whom quite a number were juniors. The running was by line of sight, with two trains running at a time and on average about 50 visitors for a couple of hours on a Sunday afternoon.

The club's philosophy is based on sending half the takings of each afternoon to the charity 'Send a Cow', whilst encouraging youngsters into the hobby, and just happily running trains for the enjoyment of those who visit.

Things have, of course, moved on. The numbers attending our running sessions are not large - still in the region of 50 to 100 each afternoon - and apart from local advertising, we do very little in the way of publicity, especially as the capacity of the garden is limited. With

The railway typically attracts about 50 visitors on a Sunday afternoon. This is the lawn area near the station, with visitors arriving from the bridleway in the background

100 people here it can feel pretty full and the four trains that we usually run are kept fairly busy.

Club membership now stands at 35, of whom 21 are adults, five are aged 16/17 - so able to drive for the public - and a further nine are under 16, so it can be seen that a large proportion of the club are youngsters, and we do everything we can to support and encourage them.

We have a dedicated training scheme, with awards at different levels giving caps with Bronze, Silver and Gold badges. Then a Greasetop is awarded when they are 16 and have passed the required stages, plus a signed certificate for them to use at interviews etc, stating all their achievements while they have been members of the club.

There are three dedicated Saturdays throughout the year when the under 16s come and drive under the supervision of a Senior member. In 2015 the over-16 Juniors will be given the responsibility of being Track Marshal and Stationmaster during those sessions, in preparation for taking on those roles when we run for the public.

The Pimlico Light Railway makes a special effort to attract and train youngsters, who leave with a wide range of skills and a certificate to show prospective employers. In a competitive jobs market, this sort of dedication and ability to pick up new skills does not go unnoticed

As for the track, we have installed an automatic signalling system essentially to protect the diamond crossing and also ensure that there isn't a coming together as trains leave the station area. It isn't perfect and it would be lovely to extend it, but it works. We did try using the track circuit method, but dirt on the wheels tended to give a negative train in section, and tracking across the sleepers on damp days can have the opposite effect and give a false positive! We now use plungers in the track - not 100% reliable, but pretty good, and the Track Marshal has a red flag if all else fails!

One constant request from visiting children was for a tunnel. This would have been a major undertaking and it would have stuck out like the proverbial sore thumb, so we opted for a 'willow tunnel' instead, which seems to satisfy them.

The list of engines and rolling stock belonging to members continues to grow, with a Sweet Pea being added to the loco list, plus an electric loco from a Phoenix kit, and yet another Sweet Pea which I had been given as a box of bits. This has been put together by two Junior members and is now a reliable club loco.

Junior members have the opportunity to spend some time in the workshop and have built a Parcels Van driving car, a Travelling Post Office coach (useful on the driver training

As long-standing Pimlico driver Bob Denyer runs through from the diamond crossing with 'Joey', Jim Powell and 'Lady Godiva' wait to depart from the station. This was June 2011 - the layout has since been altered to improve visibility!

Steady lad! Edward Hornby driving Sweet Pea 'Edith Lea', hauling his parents!

mornings as it seats two), and an autocoach. There are many more projects under way - another two driving trucks, a further Phoenix kit, work on a much modified Simplex, and several oscillating steam engines have been built too.

Refreshments during the public running sessions have become an increasingly necessary and vital part of what we are doing. Usually it's mothers or wives who run these, but every now and again the Juniors run it themselves, and they're always rostered to help anyway. Jokingly it's always said that we might as well just run a refreshment stall, as this aspect usually seems to make more money than the rides, but it's all good fun and part of the whole.

Send a Cow

'Send a Cow' is a charity that John Roberts has long supported, and it appeals to members as being an essentially practical means of helping people to help themselves. Cows were initially sent from the UK to those in need, at a cost of about £1,000 a time, but they are now sourced locally at a reduced cost, and although the charity has expanded into chickens and goats, bees and fruit trees, we like to think that we have managed to buy at least one cow each year!

It is all a long way from my initial tentative steps. The railway was not built for the fairly intensive use it's getting today, and we would be nowhere if it hadn't been for the enthusiasm, hard work and goodwill of many people over the years. There is an annual maintenance day in March when everything is readied for the coming season, and more than anything else rotten sleepers are replaced. Mercifully we have a member who uses re-cycled plastic to make notice boards, and the off-cuts make excellent sleepers when cut with a suitable saw and drilled. The only trouble is, being an oiled-based product they do burn very well, so we haven't dispensed with wood altogether, and we still use it where steam engines stand for any length of time.

There is much to do, and much we would like to do, but the railway works well, provides a great deal of enjoyment to those driving and helping, and of course to the visitors as well. Long may it continue. Now where's that cup of tea? Something else that unites both vicars and railways!

GETTING THERE

The Pimlico Light Railway is a private line open to the public only on specific days. For 2015, the railway will operate on the fourth Sunday of each month from April to September, 3pm to 5pm. For the latest information, please contact the railway

FACT FILE

Pimlico Light Railway

Length: *112 yards/102 metres (1994-98), then approx 400 yards/366 metres*
Operational: *1991 on*
Gauge: *5-inch*
Location: *Postcode NN13 5TN*
Member's Locos *(not resident)*:
: *c1955 Sid Poynter* ***1507 Speedy*** *(GWR Green) 0-6-0T steam*
: *c1974 Chris Orchard* ***Simplex*** *0-6-0T steam*
: *c1975 (Builder Unknown)* ***Simplex*** *(GWR Green) 0-6-0T steam*
: *1987 J.Reardon/J.Dowse* ***Sweat Pea 'Edith Lea'*** *(Blue) 0-4-2ST steam*
: *c1990* ***Polly kit 'Polly IV'*** *0-6-0 steam*
: *1991 J.Roberts* ***LBSC 5700 'Pansy'*** *(GWR Green) 0-6-0T steam*
: *1994 B.Whitehead* ***Sweet Pea 'Florin'*** *(Blue) 0-4-0 steam*
: *2003 J.Roberts/B.Denyer* ***LBSC Speedy 1504*** *(BR Black) 0-6-0T steam*
: *2004 J.Roberts/B.Denyer* ***Charlatan 0800*** *(MR Crimson Lake) 0-6-0 battery/electric*
: *2004 J.Roberts/B.Denyer* ***Charlatan 0800*** *(LNER Apple Green) 0-6-0 battery/electric*
: *2005 B.Nicholls* ***Maxitrak Swallow*** *0-4-0 steam*
: *2005 J.Roberts* ***Maxitrak Warship*** *4w-4w battery-electric*
: *2009 J.Roberts/B.Denyer* ***Sweet Pea 'Jennifer'*** *(MR Crimson Lake) 0-4-2 steam*
: *2009 J.Roberts/B.Denyer* ***Sweet Pea 'Lady Godiva'*** *(LNER Apple Green) 0-4-2 steam*
: *2012 J.Roberts* ***Phoenix Titan*** *(MR Crimson Lake) 4w-4w battery-electric*
: *2015 J.Parsons* ***Phoenix Project Loco*** *4w battery-electric*
Operator: *John Roberts*
Contact: *john@pimlicohouse.co.uk*

FMES Committee

President	Brent Hudson
Vice President	Mike Chrisp
Vice President	Ivan Hurst
Chairman	Bob Polley
Secretary	Peter Squire
Treasurer	TBA
Vice Chairman	Paul Naylor
Safety Officer	Robert Walker

Support Team: Peter Harrison, Jim Hollom, Peter Kenington, Tony Lee, Melvyn O'Connell, Colin Walton

INSURANCE CLAIMS AND INCIDENTS

All claims and reports of incidents should be notified in the first instance to Walker Midgley FEDERATION INSURANCE BUSINESS Managed by Walker Midgley Insurance Ltd

It will be useful if Clubs also advise FMES when an incident has been reported. (Information held in confidence – internal use only)

info@fmes.org.uk

Publications Available from FMES

The FMES publications listed below are available from our stand at rallies and exhibitions or by post. Please make contact first by email, initially to info@fmes.org.uk or use the 'shop' option on the website. The figures below are for single items and do not include postage. We will minimise postage costs for multiple items. Please make cheques payable to 'Federation MES' or use BACS to Sort Code 20-71-82 Acct 43755967.

Examination & Testing of Miniature Steam Boilers BTC 2018 - Orange Book Free
Vol 1: 3 bar litres to 1100 bar litres; Vol 2: under 3 bar litres; Vol 3: LPG tanks under 250 ml.

Boiler Test Certificates - Pad of 50	FREE*
Written Scheme of Examination - Pad of 50	FREE*
Small Boiler Test Certificate - Pad of 50	FREE*
Boiler History Record Card - Pack of 10	£3.50
Plastic wallets to hold certificates size A5	£0.75
HS 2020 Passenger-carrying min railways 'Guidance' post included	£4.00

Colin Walton Tel:+ 07745 687159 Email: colin.walton@fmes.org.uk

* These publications are issued free of charge to fully paid up member Clubs and Societies ONLY, and are NOT available for general sale. For delivery by mail, the cost of postage and packing is £5.00, and must be borne by the Club/Society placing the order.

info@fmes.org.uk 01327 342167 **www.fmes.org.uk**