

Witness statement

Royal Commission into the Home Insulation Program

Royal Commissions Act 1902 (Cth)

Statement of: **Peter Venn**

Occupation: semi-retired

Date: 26th May 2014

I, Peter Venn, solemnly and sincerely affirm,

Background

I was born in Queensland in 1950. I had a rural upbringing and very basic education. I qualified as a carpenter in the late 60's then became interested in the then new technology of air cushion vehicles (hovercraft). I travelled to the UK to study them closely and returned in 1976 to commence an agricultural weed control business using small hovercraft as a vehicle to access difficult terrain eg. swamps, shallow rivers etc, contracted to most of the large mining companies and dozens of local governments along the East Coast of Australia. This culminated in the invitation of EXPO 88 organisers to conduct joy rides on the Brisbane River fronting EXPO. I designed and built the 4 hovercraft and took 138,000 passengers for a short hovercraft ride, (this still stands as a world record for one event). I have travelled the world in pursuit of hovercraft development and clocked up over 17,000 hours of commercial hovercraft operation. I have received a certificate of appreciation from Qld police for the volunteer flood rescue work I have been involved in and was recently awarded a certificate of excellence from the World Hovercraft Federation. this was one of only a handful ever awarded, one being to Sir Christopher Cockerell, the British Hovercraft inventor and also Dr Bertelsen the best known hovercraft pioneer in the US, and I was the only Australian ever to receive this award.

I have always done my best to be professional, despite my lack of education, and honourable. when I found out that the Electrical Industry were spending large sums of money with a public relations company to discredit my hard work in the home insulation industry I took this very personally and was devastated.

I too lost a very close family member to a preventable farming accident and subsequent legislation has now made this tragedy very unlikely to happen again. I feel very strongly for the families of these young men and I hope and pray that the Royal Commission uncovers the REAL reason those boys died and that the powers that be can put measures in place to severely reduce the chances of it happening to other young lives.

- 1 My previous wife Daphne, and I started our own foil insulation installation business "Silverline" about 25 years ago. We insulated tens of thousands of homes with foil over a 20 year period and we no significant safety experiences during that time.
- 2 I was introduced to foil technology in around 1989 through a network marketing system "Eagle Shield Ceiling Insulation" and didn't like the network marketing system. I decided to start my own business and market it myself in the traditional manor. I thought the idea of foil from a thermal perspective was good one. I have a construction industry background and it was obvious to me the benefits of a radiant barrier, compared to bulk insulation products, particularly in Queensland (hot humid climate).
- 3 I contacted a company in America that manufactured foil insulation and started importing a good quality product from there. I found a product that I was very satisfied with the quality of and used that product for over 20 years while running the business. When I first came across the product I set up a small marketing company with around 3 or 4 people in it. We went to home shows and other similar events, which was a popular way of marketing insulation and other new home materials at the time.
- 4 Wren Industries and Silver Batts were well-established foil insulation businesses before I started Silverline. They had been using foil to insulate walls and floors and limited ceilings since the 1950s. Foil had not been used much in ceilings at the time I started my company and I pioneered a high quality single-layered foil for use in ceiling spaces. The single-layered foil was different to what was commonly used by the foil industry at the time, which was batts, but instead of the batt being made of fibreglass it was made of foil. Foil was manufactured in batt form because I think it was easier to market the product to people as batts because that's what people understood insulation to be. My wife and I felt that it was not necessary to make the foil insulation look like batts. We thought that with appropriate marketing, such as demonstrations, we could show to the potential customer that foil could be in a roll form and still get the same results. We used to do some really interesting demonstrations at home shows.
- 5 Our business did very well marketing the foil in a roll form and over the years the product we were marketing gathered more and more momentum and we started to get lots of referrals.
- 6 I was a member of the Aluminium Foil Insulation Association (**AFIA**). All the major manufacturers and retailers of foil were represented on that body. At one stage there was close to 20 businesses involved in AFIA. A lot of those businesses don't exist anymore.
- 7 Over time my wife and I built up the Silverline business into quite a substantial and successful family business, worth around \$1 million. It was a lucrative business and Silverline was installing insulation in up to 8 houses a day. Silverline had a customer guarantee that if any time after the installation anything disturbed the foil, such

as a tradesman or possum etc in the ceiling space, they could phone us and we would come back and inspect it to make sure it was still properly in place. We did that for 20 years. Every week someone would phone up saying that a plumber or electrician had disturbed the insulation and we would go and put it back at no cost. That was the rapport and standard we had with our customers.

8 I wanted to pass the business on to my children because it was a well-structured business, but within 2 weeks after the HIP closed our business did not exist anymore. It was very hard to come to terms with the fact that even after we had tried so hard and operated successfully with a good rapport with our customers for over 20 years, we ended up being the villains.

9 We closed down the business and laid 30 people off work. I went into retirement after that because I couldn't see any way forward after that experience.

The Silverline business before the HIP

10 We did very well with our business because foil insulation technology in the hot humid climate of Queensland is far superior to bulk insulation material. See Prof Richard Ainsley's testimony. Bulk insulation companies knew this and I think that made them a bit intimidated by the new technology we were offering. Anyone who understands basic physics and the way insulation works can see that foil offers a fantastic insulation solution in a climate like Queensland. Putting bulk insulation into roof spaces in a climate like Queensland is like putting on a blanket to keep cool. Before the HIP 30% of our work was re insulating houses that had already been insulated with bulk insulation, sometimes by removing it and often by just covering it with foil, as is done in America. Why do we mention hot humid climates and the difference this makes to insulation needs? Because R values for bulk insulation are measured at 0 moisture content in the atmosphere. In Queensland we have sometimes over 90deg humidity rating and this fact absolutely destroys the R value of bulk insulation and can reduce the R value to far less than 50%.

11 The analogy I give people if they want to know why foil works better in warmer climates is that if it was raining and I want to stay dry I have two choices; put a towel over my head to soak up the moisture, or use an umbrella. Using a towel is like bulk insulation, the bulk insulation soaks up the heat and essentially the R values are all about the capacity of the insulation to absorb the heat. An umbrella is very thin but it works by physically getting rid of the water and deflecting the rain. That is how foil insulation works. Whereas with bulk insulation the heat is 'soaked up', foil reflects it away. The radiation can't go through the foil so the ceiling underneath the foil stays as cool as the ambient temperature during the day. Our foil was independently tested by engineers here in Australia and was given a calculated R value of up to 4 when used in ceilings in summer.

12 In Queensland both the days and nights are hot. If bulk insulation is installed the energy during the day is soaked up in a bulk mass and then at night time it dissipates and radiates down into the room. This means that at night time the house can be much hotter if it is insulated than it would be if it wasn't insulated because the

bulk insulation acts like a thermal blanket. The industry term for this is "Night time furnacing". With foil, when the energy collides with the foil, the foil doesn't heat up. Even if it did, because the foil is so thin it can't store any energy so when the sun goes down in the evening and heat source goes away, the foil is already cold. This means that the insulation doesn't have to cool down because it never heated up in the first place. Over 90% of heat that comes into a home comes in the form of radiation and the key principle behind how foil technology works is that foil blocks the radiation with a reflector.

- 13 Putting foil over ceiling joists is just as effective as putting foil under the rafters, in fact laying the foil across joists can be even more effective than under the rafters because in winter time you lose a lot of heat through the unprotected ceiling and heat goes out through the attic. It's like saying holding the umbrella two metres above your head is more effective than holding it just above your head.
- 14 We were very conscious about safety right from the word go. We knew we were under scrutiny from bulk insulation installers because they wanted us and our product out of the industry. This was made clear to us in many ways at home shows and we were always made very unwelcome in the insulation industry.
- 15 I remember saying to my wife that while we remained a relatively small family-run business we might be able to survive, but if we ever got bigger than that the bulk insulation industry would want us gone. I was warned by a colleague in America about that because the same thing happened over there to the foil industry. The big bulk insulation companies had all the power and I believe they saw us and our product as a threat. Foil was very simple, effective and economical, which made it a competitive product.
- 16 We were very careful in terms of our safety record right from the beginning and developed a very strict safety program. Foil insulation in ceilings was relatively new and we knew we would be under the microscope by other installers.
- 17 Our first safety rule was that we would only allow fitters to do 1 fitting a day starting very early in the mornings so they could be out of the ceiling before it heated up to much. Even if we had eight different installations scheduled for the day, these were done by different fitters. I did a lot of fittings personally and I knew that once you had been in the ceiling space for 2 or 3 hours you were in no fit condition to go back up into another ceiling. The fitter would be tired and we didn't consider that safe.
- 18 My biggest fear was never that someone might staple a wire with their stapler. The chance of getting hurt by stapling though a wire is very small if the equipment and methods used are correct. The biggest safety concern I had while installing insulation was the use of knives to cut the material. We all carried knives in the roof space to cut the foil, but I made sure that they were plastic handled knives. I wouldn't allow anyone to take a knife up with a metal handle. The danger is that while cutting the insulation, it's possible to cut through or jam the knife into an electrical cable.

- 19 The other big fear I had was that in Queensland over the past 20 years or so the standard of wiring has deteriorated to such a terrible point where exposed wires are often left hanging over the ceiling joists and people can step or trip on them. The quality of wiring up in roof spaces is generally very poor and potentially very dangerous. If someone walks over cables they might pull that wire out of the junction box and then it is possible to put a bare hand or knee on an unprotected bare wire. I pulled Silverline out of many jobs and had to reschedule them until an electrician had looked at the issues and made the roof space safe for my installers. Attached at **Annexure [X]** are photographs that I took over the years of some examples of the poor quality wiring we found in roof spaces. Our safety checks started with our Sales Reps when they went out to do quotes. They carried ladders and torches and were instructed to go into the roof space and inspect it for any obvious safety risk eg electrical issues, access, things stored in the attic, old insulation etc. These Sales Reps had regular training meetings as well as the fitters.
- 20 In older homes wiring is an issue because of the potential deterioration of materials, in particular in relation to rubber around wires that decays over time. In newer homes the problems are more around the standard of the wiring work. In both instances electrical safety is key and sometimes we would refuse to do a job because I did not feel the roof space was safe or the electricians working for me advised that we not go ahead with the job until the electrical issues were fixed.
- 21 When I was an apprentice first working in the building industry I remember seeing that the majority of wiring was done properly. Wires were all bunched together neatly and correctly placed alongside the timbers. Independent Government inspectors would sign off on all electrical work done. However, over the past 20 years regulation has changed in Queensland to allow the electrical industry to inspect their own work and there is no longer a requirement to have the work independently verified. Since then the wiring standard in ceilings has noticeably plummeted. I recognised this as a major risk for installers of insulation and I aimed to address this through training my installers to recognise the hazards and wait for an electrician.
- 22 In my opinion, Master Electricians Australia knew about the likelihood of poor quality wiring in roof spaces and that's why they were so against the use of foil insulation, because their own standard of work was very low. Poor wiring together with foil in the hands of a person who does not know how to spot the hazards can cause serious problems. Unfortunately this is what happened under the HIP. It is my very strong opinion that if the standard and quality of wiring in homes was better, a lot of the problems could have been avoided.
- 23 We had a very strict protocol around wiring issues and we had electricians working for us to deal with those issues when they arose. When new installers started with Silverline, on their first day we spent a few hours showing them pictures of what to look out for in a ceiling, such as the backs of downlights, bare wires and junction boxes etc.
- 24 Our installers were trained that when they started a new install, the first thing they were to do was to climb up into the ceiling with nothing but a torch or floodlight and were to thoroughly inspect the ceiling to look out for the

things we had pointed out to them. I had an electrician working for me as a fitter so I could utilise his expertise to do checks of roof spaces as well as conduct safety lectures for new installers.

- 25 If the installer thought there were potential hazards up in the roof space, they were instructed not to touch anything themselves and to not proceed any further with the job until we had one of our electricians check it out.
- 26 If the installer inspected the ceiling and felt it was safe to begin, then the installation would go ahead. The installers were trained to use the equipment in a particular way, for example we had a very strict program about safe stapling techniques. The protocol was to use the minimum amount of staples possible to reduce any potential risks. The procedure we taught our installers when using a staple was to run one hand over the ceiling joist before doing so to make sure there was nothing under the foil. Because the foil we used was paper thin, it was immediately obvious if there was a lump or a wire under the foil and then the installer would not put the staple in. We would always say that stapling is a two hand job; the left hand checks and the right hand staples.
- 27 In terms of training, all new installers to Silverline would have a day of instruction from myself and or a qualified electrician about the job and the hazards to look out for. They were also issued with a fitting manual that we printed on how to fit the insulation. The installer then had to go out as an off-sider for a week or more, depending on their level of competency. Often the people we employed were already tradespeople, for example electricians, plumbers, and air conditioning fitters, and their training was quicker because they already had experience in the kind of work we were doing. Our fitters were well paid so there was no pressure on them to hurry their jobs.
- 28 The new installer went out with an experienced fitter for quite a few jobs and then that fitter would give feedback on how they were going. If we weren't happy with the quality of their work we wouldn't use them. If they got positive feedback and I was confident that they knew how to install the insulation correctly and safely, then I would let them start fitting on their own.
- 29 Silverline also conducted spot inspections of our installers to make sure that they the jobs they were doing were of a suitable quality. It was important for me to be confident in the people I employed. I would get rid of staff if I was not happy with the quality of work they performed. On a few occasions I let staff go.
- 30 Foil had been used in walls since the 1950s. I did not see a difference between the hazards of using foil in a wall cavity or in a roof space. I knew that if we exercised the same standard of safety in the ceiling as what the industry has always done for walls everything would be safe. And in our case it was, we never had a problem. The use of foil in wall cavities is a well-established and acceptable industry practice and I do not see why it should be treated differently in a roof space. Walls are no more or less dangerous than ceilings. In some ways the use of foil in walls may be even more hazardous as people often drill into their own walls to hang a picture

or put up a book shelf etc., but it is industry practice to use foil in walls and not many safety issues arise as a result.

- 31 I applied the Australian Standard that deals with wall insulation, which specifically references foil, to the work I did up in the roof space. The biggest difference between using foil insulation in walls is that it is done in new buildings, rather than as a retrofit, and that is what the standard specifically referred to, but there were elements of the safety standard that were transferable and very applicable to the work that we were doing and I adhered to that standard so far as it applied to the work that my company did. For example, the standard sets an appropriate distance for foil insulation from power points and I adhered to that.
- 32 Before the HIP Silverline was very comfortable using metal staples in the installation work that we did. A lot of houses in Queensland are built using iron bark, which is a very hard wood, and often the plastic staples won't go into that wood at all. We felt a well-trained person using metal staples was better than using plastic because half the time they didn't work and then installers would get frustrated and this was more likely to lead to mistakes than having a solid workable product like metal staples. I felt that using metal staples, when properly trained, was a very acceptable risk. We never had an issue using these staples over 20 years. In my opinion electrocution by putting a metal staple through a wire is very unlikely when the installer knows what they're doing. All our staplers were rubber handled hammer tackers (we would not allow squeeze staplers) and the staple leaves the stapler in a fraction of a second so there's no connection between the stapler and staple, even if the staple is connected to the wire. The rubber handles also operate to stop conductivity.
- 33 I was not aware that any deaths had occurred in New Zealand related to the use of metal staples until it was reported in the media after the death of the first installer under the HIP.

Involvement in the HIP

- 34 I saw the HIP coming and was very concerned about the program. I knew that even though we had developed a high level of safety for our business and the installers we employed, I knew other people wouldn't bother to do the same thing. For this reason despite pressure when good material was difficult to obtain I would not wholesale our material to other fitters.
- 35 I was involved in the HIP right from the beginning. I became aware of the program through the media and advertising and registered our interest straight away. I knew we had to join the program because we wouldn't get any business without it. I was very wary about the program and did not want it to roll out because I could tell it was going to become a shambles. I knew that on the surface installing insulation looked like very simple job. You went to Bunnings, bought a roll of foil, or batts, typed an ABN into the computer, put some insulation

into a ceiling and got a cheque from the government. Anybody with an ABN could do it. I don't think people adequately appreciated the potential dangers in a roof space, particularly if the electrical wiring has not been done correctly. As the HIP rolled out I became aware that it was possible that people I had rejected as fitters were accepted by the Government as part of the program and I had concerns about the quality of their work. I had a really bad feeling. I didn't think anyone would get killed, but I had a bad feeling about the program.

- 36 Most of our installers were trades people and the ones that weren't had been with us for years and were very experienced. Our original team met all the competency requirements for involvement with the HIP and when we brought more people on board I made sure they were experienced trades people.
- 37 I think that the competency requirements for participation in the HIP were sufficient in terms of some trades, like plumbers and electricians. I had quite a few electricians working for me at that time because it was hard for electricians to find work. Had the other Government requirements in terms of training and supervision been strictly adhered to, this may have been sufficient because this was the model we always operated on and it worked well. Our new installers were given detailed on-the-job training with a qualified or experienced installer. However, under the HIP I questioned the motivation for people to comply with the registration requirements, including for training and supervision. Until after the first installer death it did not feel like the government was checking up on any work and I think it was very easy to not comply with the requirements of the program.
- 38 We were stretched during the HIP to meet demand because demand for our product was so intense that customers were putting a lot of pressure on us. Even when metal staples were banned as part of the HIP, customers asked for them anyway because they didn't want to miss out on taking advantage of the program. We did not permit the use of metal staples after their use was banned and replaced them with plastic, but there were supply issues and customers were not happy about that. There was enormous pressure from customers because they just wanted insulation before the Government stopped the program. The pressure continued right up until the last day of the program.
- 39 After the first installer tragedy I knew that foil was going to be under major scrutiny. We were one of the first companies to move to plastic staples after that and we sourced the first batch of plastic staples from New Zealand. It was very difficult to source these because suddenly all the foil companies wanted them and there was a supply shortage. I ended up making some plastic clips, made of plastic pipes, to use instead of staples in order to try and overcome the situations where the timber was too tough for the plastic staples to pierce. I also doubled our efforts in terms of safety meetings with our staff. I split my staff into small groups for these safety meetings to make sure that people got the information on a more personal one-on-one level.
- 40 We were audited by inspectors several times during the HIP and on every occasion the auditors went away impressed and one, Dennis Greenfield, Senior Electrical Safety Officer, said our safety standards were higher than even what they expected or required. We had a safety meeting every week and those meetings were recorded. Every person had to sign off at the end of every training session. Unfortunately this didn't mean

much because the media, the electrical trade union and the bulk insulation companies were very against the foil industry. We contacted Master Electricians and asked for Malcolm Richards to meet with us at our office to see how we worked and to speak with our fitters but this never did eventuate.

41 The deaths of the installers under the program were tragic, but I felt like these deaths and the other things that went wrong with the HIP were an opportunity for the larger batt companies to wipe us out completely. When all the negative press around foil started to come out, My new wife Elaine thought it would be good to contact a publicity company to share our story. The company we contacted "Cole Lawson" said that they couldn't represent us because they were already engaged by the electrical trade union or similar electrical body to "discredit the foil industry". When I heard that it really bowled me over.

42 I thought there was a targeted media approached aimed at discrediting foil. Every time something came up in the media related to the HIP, it was made to look like all the problems of the program were attributed to foil. Most media stories began by mentioning foil, even when they were about house fires, which is a bulk insulation specific issue. I felt that it was implied that even the house fires were connected to foil, even though foil is non-flammable. I knew that this was the perception that was coming through the media because a lot of our customers starting calling us and they were terrified of the insulation in their roof space because of the media reports they'd heard. Foil doesn't burn, our foil product had been CSIRO tested and given a zero-ignitability rating, but customers were still terrified. We stayed in our office a long time after the HIP closed, not to install insulation, but to handle customer queries. At our own expense we sent electricians into our customer's houses to inspect their roof spaces to reassure them that everything was ok. We were very upset by this because fires were clearly a hazard of bulk insulation, but I feel we took the blame for it. Cellulose fibre when incorrectly installed is in many cases pumped and sprayed into ceilings over all electrical fittings and this is, and has been, a huge fire risk. I don't believe this has been addressed adequately at this stage.

43 When the use of foil was banned under the HIP, within 2 weeks the business that I had built up over a lifetime closed. I thought, it's s a bit of a sad story the reputation that foil insulation now has, because traditional bulk insulation, from a physics point of view, is next to useless in Queensland. Mass insulation in a hot humid climate is like keeping a doona on to keep cool. Even a sheet of cooking foil will stop far more radiant heat than a fibreglass batt. We were astonished to find that the very people that were responsible for the very dangerous wiring standards in Australia were hired with a Government payment to do a safety check on the very rooves they in many cases had made unsafe. We had customers calling us to say their insulation had been ripped out against their will, others said the inspectors wouldn't get in their roof space as they were afraid of it so just did a quick inspection from the manhole. We also had some inspectors call us to ask if we had installed it correctly as they had never seen it before. Why would you ask someone to inspect something they had no knowledge of and hadn't seen before? Master Electrician Malcolm Richards said in his statement that he had never heard of foil being used in ceilings as a retrofit before and was surprised to find it had found its way into the program.

Could this be because it had never been a problem before in the 20 plus years and the thousands of homes installed with this product prior to the HIP.

44. Initially we did not receive any information from the Government about what would happen to our business after the HIP closed. I heard there was a possibility of some help available for companies that had suffered as a result of the HIP, but because we were a foil company we did not receive any help. This information eventually came through to us in the form of an official notice from the Government, which said that companies that installed foil were exempt from compensation, see Insulation Industry Assistance Package announced 1st April 2010. We were left with around \$200,000 worth of stock. We emailed and phoned Greg Combet on numerous occasions (at least a dozen) to discuss our situation and never once had a reply from him. Greg Combet was never available to help.

Below is an extract from the Application for Compensation.

To be eligible to apply for assistance under the IIAP the applicant must meet all eligibility requirements set out in the IIAP Customer Guidelines, which are summarised in the tables below.

81 All Applicants:

Please tick yes or no for each criteria. Yes No

You hold an Australian Business Number (ABN). ~ **D**

You are claiming as one or more of the following:

- a manufacturer; or **D** **D**
- a distributor; or **D** **D**
- an importer; or **D** **D**
- an installer, ~ **D**

of eligible ceiling insulation stock (**foil insulation products excluded**) who was adversely affected* by the termination of the Home Insulation Program.

45 It is my strong opinion that if the standard of wiring and the inspection of wiring in Queensland is improved, roof spaces will be safer for installers. I think a lot of the problems in the HIP arose as a result of poor wiring and people being unable to appropriately identify those issues as hazardous. I agree with the Statement made by Master electrician Malcolm Richards that, and I quote "It is my view that three people would not have been electrocuted if Australian electrical standards were more stringent. In particular, the electrical standards should make safety switches mandatory on all circuits."

46 The outcome that I would like to see from this enquiry is that the product "foil insulation" is publicly exonerated and the blame squarely put on the shoulders of unskilled installers employed by unprofessional insulation companies that popped up during the HIP, and some blame also taken by The Electrical Safety office or Master electricians for their very poor wiring standards

47 I also believe companies, such as ours, registered before the HIP as installers of foil ceiling insulation should be given at least recognition in the form of a letter from the Government with an apology for maligning, and destroying their legitimate businesses.

48 Unless otherwise stated, this statement is based on my own knowledge.

AFFIRMED by the deponent
at BRISBANE
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Before me:

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Signature of deponent

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Signature of witness