

AUSTRALIAN VINTAGE RADIO GROUP

In April of this year a group known as the Historical Radio Society of Australia was formed. We understand that one of our members, the Magic Spark Radio Museum of Alice Springs was instrumental in setting up this organisation. We wish them well. Anyone requiring further information should contact the secretary:

Ray Kelly,
49 Sharon Road
Springvale, Vic 3172

OBITUARY

WALDO EDEN HUNTER

On May 8 one of Auckland's best-known old timers, Waldo Hunter, died peacefully in his sleep. Wally, as he was known to all, had led a busy life, for the last 30 years as owner of the firm which carried his name. Although not a member of the N.Z.V.R.S. Wally greatly assisted in setting up our Bulletin in the early days and it was thanks to his efforts that it got off to a good start.

Market place

DISPOSING

Large range of old type valves, 2.5-volt and later. Cheap to members. Write for details.

Jack Patrick, 3 Charles St, Takapuna
Auckland. ph 492-947

Receivers, NZ Philips 596 (1949); Akrad 6P9 (1949); Columbus 84 (1937); All working but cabinets need attention. Spare dial plate and escutcheon for Philips 596.

George Newlands, 42 Old Porirua Rd, Ngaio, Wgtn.

Valves, four Stewart Warner 201A type in exchange for Radiotron 201As.
Dave McLaren, 25 Aotea St, Dunedin.

WANTED

Parts for Radiola 17 - porcelain volume control, main porcelain resistor and 1200 ohm resistor (both in power supply); 'eyelid' dial lite cover from front escutcheon; power transformer for RCA R4 (1931); base and driver unit for B.T-H horn speaker.
Dave McLaren, 25 Aotea Street, Dunedin.

Test equipment, especially RCA-Rider 'Chanalyst', Silver 'Vomax' VTVM, Rimco 'Dynalyser', Meissner 'Analyst' or any other tuned signal tracers.

Brian Baker, Wellington St, Russell.

Majestic chassis model 210, also model 164; Cabinet for Majestic 130A; small oval GEC nameplate for model BC 3358.

Ray Knowles, 507 Wellwood Street, Hastings.

Two S625 valves. Osram or Marconi double-ended screen grid types, wanted for my 5-valve battery set. Can anyone help?

Ian Ranson, 1/11 Lambrown Drive, Glenfield
Auckland, Ph444-9611 (Collect)

Circuit diagrams, wanted for NZVRS files. Collier & Beale e.g. Gulbrandsen, Radion, State) pre-1950 only; Radio Corp (Courtenay, Pacific, CQ) pre-1934 only
John Stokes, 617 Dominion Rd, Palmoral, Auckland

NZVRS

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BULLETIN

NEW ZEALAND
VINTAGE RADIO SOCIETY

An organisation devoted to the preservation and restoration of early radio equipment, and collation of associated information



HOW THEY DID IT IN 1924

A somewhat romanticised picture of summertime listening in the U.S.A. Note the Amplion 'Dragon' speaker perched atop the receiver

NEW ZEALAND VINTAGE RADIO SOCIETY

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N.Z.V.R.S. BULLETIN ...

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Contributions to the BULLETIN, and advertisements, should be sent to The Editor.

EDITORIAL COMMENT

"Can You Hear Me Mother?". Do these words sound familiar? Should they? Probably not, unless you're over 50, and even then Perhaps they may be recognised as the caption to a picture of one of our members which appeared in the Bulletin a couple of years ago (Vol 1, No 4, p 8, if anyone's interested).

More recently, and with considerable interest, I came across these very same words again in a most unexpected place. There they were in the leading article of the New Zealand Herald dated Saturday, July 3, 1982, headed THE GOLDEN AGE OF COMEDY. This leader was by way of being a tribute to George Formby who had died that week.

The editor, if it were he, really let himself go, fairly wallowing in nostalgia it would seem - even to the extent of quoting extensively from the 'German Commissionaire Scene'. I thought I was the only one who did that sort of thing nowadays when I wrote of Clapham and Dwyer's 'Surrealist Alphabet' eleven years ago in the Phonographic Record.

Once again fond memories have been evoked; reading those catchwords certainly struck a responsive chord on my part. So now it's my turn to do a bit of wallowing.

Not all of what are today called 'Golden Oldies' are songs and music, no indeed. To those of us who remember them with affection those comedy items, humorous sketches and monologues were listened to eagerly and enjoyed time after time. And who, having heard them, will ever forget those catchwords and phrases which at the time were on everyone's lips? Flanagan and Allen's "Oi", and (from Will Hay and his Scholars) Harbette's "Yesh" were worked into everyday conversations, while in 1940 Cyril (Cuthbert Bostril) Fletcher's "Dreaming Oh My Darling Love of Thee" seemed to be made to order for the occasion amongst recently mobilised troops.

Yes, like the Herald's editor, I too rejoice in those "fruity voices and simpler humour of the past".

* * * * *

Word has been received that a vintage radio group known as the Historical Radio Society of Australia has recently been formed on the other side of the Tasman. We wish them well and look forward to hearing news of their future activities. For those interested the secretary's address will be found elsewhere in this issue.

J.W.S.

MUSEUMS ... MUSEUMS

B.F.SHEPHERD

There seems to be some misunderstanding about museums. so lets look at them in the most simplistic way and that means omitting a lot.

There are museums (and "museums") and collections. All they have in common is that they display exhibits. True museums actively research and teach - if in doubt ask any university - and they're recognised internationally, and freely exchange information. Quite bluntly the other sort don't observe the same standards.

Collectors assemble anything from the superbly rare and exotic down to useless junk. Good collections often end up in museums labelled with the collector's name, and as such can form the basis of an institution, as in the cases of the Turnbull and Hocken libraries: a similar example is the Governor Gray Collection. Some multi-millionaire collections, so large as to be museums in fact, have needed separate buildings to house them. There they have been left, but remain collections as there is no research or teaching associated with them. Reprehensible is the collector who merely gathers things but makes no attempt to learn anything about them: he can easily become an unintentional vandal.

B.F. ('Mick') Shepherd has been an ordinary member of the Auckland Museum for the last 15 years. During this time he has learnt something of museum philosophy and working. What he has to say should be of interest to all N.Z.V.R.S. members; it is an opportunity to learn something of the thinking which is behind museum policies.

True museums are trustees, preserving the past for the enlightenment of the future, and have staff who can act as consultants for the general public; any member of a museum can have access to such a service (but make an appointment). Staff will answer questions, recommend helpful books, and so on. Normally each person would be a specialist in only one department of the museum.

No one seems to know nor care, but it's considered that art galleries most likely divorced themselves from museums because of their need for extra viewing distance and variations of optimum temperature, humidity and so on; most important considerations for both of them. But that's where the divorce ends, for they recognise each other freely. Both deal basically with wood, oils, canvas, pigments etc in their own ways, but it's the identical standards which seal the friendship.

L2



Brehaut Collection
The papier mache horn got wet! A Ferranti horn speaker, before and after.

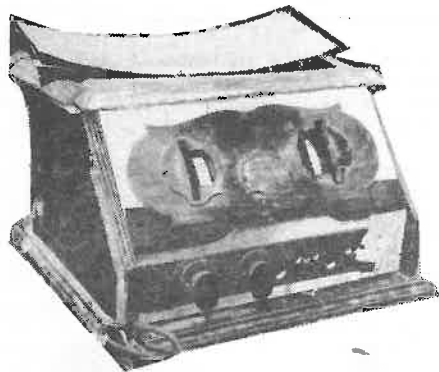
The article was published in the NZVRS Bulletin in French by AE A Journal Jan-Feb. 1988

Both galleries and museums use the term 'restoration' but it has a different meaning for each. In neither case does it mean what the general public understands by such an expression. We'd better drop this word and settle on 'conservation' instead, for that's what both museums and galleries want for their exhibits, and it's what they do to their exhibits.

Essentially, museums want a series of exhibits spanning as many centuries as possible and demonstrating those landmarks which are formed by the progress of thoughts and achievements of mankind. Exhibits should be proveable as to period and maker, complete if possible, and close to new condition as may be procurable. Normally such a collection would be added to only to augment the information it contains, or to identify additional progress. But you have to be a couple of steps behind the play to confirm that progress has actually occurred.

Exhibits are expected to show some deterioration because the truth is that everything - absolutely everything - deteriorates, slowly, imperceptibly but inevitably. Or becomes more fragile - same thing. Exhibits must always demonstrate warts-and-all truth to the viewer, and you can include blackheads and acne as well. Should an Ancient Roman housewife return to life today, she would see her favourite bronze statuette just as it was when she dusted it last, though the patina should show the effect of 2000 years of exposure to air and, hopefully, similar daily dusting. She had no Brasso in her day so museums use no Brasso. Exhibits must look years old (you name it) because that is precisely what they are.

Conservation is easy to say but may be hard to do. It consists of halting any deterioration which has already taken place, plus preventing any more occurring in the future. This is manifestly impossible as nobody has yet achieved perfection, so that conservation is a continuous process. Conservation implies preservation, and vice versa, unless you're a confirmed purist.



Brehaut Collection
A Radiola 20, before and after. A story
without words. But what do museums think?

The credo of a museum goes something like this: An article is either old or it is new, but it can never be both - for such is an absurdity. If it is old such age must be evident so that no student is misled. It must be displayed so that the student is encouraged to visualise its pristine state, and nothing should either assist or impede his personal imagination in any way whatever. Anyone doing anything of this nature is imposing his own mental vision upon that of the student. If possible an exhibit should be complete, but if not, several incomplete articles may compensate by stimulating an additional flow of imagination and enquiry.

From a needle to an anchor, that's it. Every viewer, from a small child to a post-graduate, is a student: the museum exists entirely for students.

So far it sounds ridiculously simple, but this is just the beginning: clean things gently but leave them as they are. Doing this is the moment of truth for the exhibit, for it is at this stage that the item is evaluated and assessed. It is regarded in isolation as well as in relation to other exhibits; in relation to the preservation required, and just how much it will stand; in relation to often purely local policies or intentions. There a thousand indefinable factors which may be applied, but all may reasonably summed up by - 'what can learnt from it?'. The answer to this decides its value to the museum, and that's nothing whatever to do with its market value.

There's one inevitable snag. Museums have been short of space for donkeys' years, and this means that only a fraction of what is offered can ever be accepted. Nobody likes it but - sorry, join the queue.

Who's to relate all this to radio sets? Not the museum staff, for their expertise lies in totally unrelated fields. They're merely laymen as far as radio is concerned, and they'll be the first to admit it (and get off the subject!), just ask, and you'll soon find that out. And there you have the plain and simple reason why different museums give different responses about radio. But, at the same time, they're not anti-radio.

Or are those fields unrelated? Not if you're prepared to teach yourself, for museum staff can tell the treatments for wood (that's cabinets), porcelain and glass (that's dials and shattered valves), pretty well all metals (that's chassis). And as for small components, capacitors and the like, such people almost certainly have access to the information but simply are not aware of the fact. They have the addresses, anyway. So, for instance, you'd look at wood treatments and their application to furniture, but never breathe the words 'plywood cabinet! There's no deception in this because the most important thing to be learned is the standards they impose. Try watching an art conservator cleaning varnish on an oil painting before throwing this thought away.

Museums aren't going to go away, and neither are their standards. But are the so-called 'specialist museums' any different? I can't answer with any certainty, for my personal knowledge is restricted to superficial viewing only: I have not had the opportunity of speaking with officials. The impression gained is that they consider that an article may be restored to its new condition and that 'canababising' is acceptable. With mass-produced articles there would seem to be some merit in the latter case.

There come to mind one such article of which I have expert knowledge, but which is best considered in the abstract. Inevitably it showed modern additions and materials: I thus became the Roman housewife who saw the Brasso, and the only lasting impression has been of the actual workmanship. But what's the result of such an article on a student? Isn't he accepting an illusion for a reality? And which craftsman should he remember - the original or the modern? Should not the moderns make their own originals, for instance? Is he seeing truth based on pure reason and logic, or is it one qualified by the yardstick of another's vision? Either way his mental processes are automatic and unconscious.

Sort that lot out and you'll know enough about museums. Everyone should do it sooner or later; so it might as well be now.

TOO MANY TOOBS

Looking through some old AWA guff recently I came across a "Complete List of RCA Valves" published about Jan. 1946. Apart from transmitting, industrial and fancy types like Acorns there were no less than 272 different receiving types listed! This was only currently produced types, too, because pre-1930 battery valves were not included. Nor were non-RCA types like 6J8G, 6G8G, 6P5, 6A3, 6K5, 7A7, 6G7G, 6N6 etc. No wonder RCA issued "preferred types" list in an attempt to stem the tide.

Peter Lankshear.

AUCKLAND RADIO VLD - ZLD

In addition to the two main spark stations at Awanui and Awarua there were installed at much the same time three low-power stations, one each at Auckland (VLD), Chatham Islands (VLC) and Wellington (VLW). These three stations were mainly intended for working coastal shipping and nearby overseas vessels. They were actually standard Telefunken 2½ KW ships' sets put to use as land stations.

The Auckland station was situated on the roof of the Chief Post Office which was, and is, close to the waterfront at the foot of Queen Street. The aerial was a 4-wire flat top, typical of its day, with 15 ft wooden spreaders. Each wire was terminated in a ½ inch diameter copper ball, the purpose of which was to reduce corona discharge. Two 40 foot masts were mounted atop the roofs of two cupola-like structures forming part of the main building. The radio room was on the roof alongside the shed which housed the lift machinery - not an ideal position for reception. The transmitter was powered by a motor-alternator supplied from the 460-volt DC mains. The receiver used a simple crystal detector and it remained in use until 1922.

In 1923 the receiver and transmitter were removed from the roof and reinstalled in a room on the first floor adjoining the Telegraph Office. This change necessitated the erection of an additional mast to allow the lead-in wire to be taken down through the light well. The station was connected by a Morse landline circuit to Awanui, which came in handy when receiving conditions at the CPO were bad.

The information contained in this article has been adapted from an unpublished essay by T.R. Clarkson who has kindly allowed the N.Z.V.R.S. to make use of it in this way. Tom Clarkson was stationed at Auckland Radio during the period mentioned and was intimately connected with the operation and maintenance of the station, as well as being responsible for the introduction of the remote reception technique referred to.



TOM CLARKSON,

By this time crystal detectors had been superseded by valves and in 1922 VLD's receiver had been modified to use an Australian 'Expanse B' valve followed by a two-stage audio amplifier using Osram valves. The HT supply for the receiver was provided by a bank of No 6 dry cells, while the LT was from a storage battery.

Although the transmitter worked well in both locations reception was always marred by interference. Both the lift motor on the roof and the telegraph equipment in the adjacent room contributed quite a high level of interference. At that time the famous Murray multiplex telegraph system (invented by New Zealander Donald Murray) was at the height of its popularity. It used DC on the line and time-divided channel switching which caused considerable sparking at the contacts which plagued reception at VLD.

All kinds of methods were tried to overcome the interference problem. A Faraday shield was placed around the operating room but without improvement. A counterpoise was run across the roof directly below the aerial to eliminate the need for a direct earth connection but this, likewise, did not help. While on a visit to the U.S.A. one of the engineers had discussed the problem and brought back a selective audio filter, but it proved to be quite useless. A move to a better location seemed to be the only solution to the problem.



The Post Office, Auckland.

c.1913. (Wireless Works photo)

With the encouragement of the District Engineer an investigation of the environs of Auckland was made for a suitable new receiving site; two possibilities were Mount Victoria (North Shore) and Pollen Island (Avondale). When making tests it became the practice to feed the output from the receiver back to VLD over a telephone line. One such test was conducted from the Avondale Post Office where very good receiving conditions existed, and on hearing the signals the operators were elated. Stations never before heard in daylight, such as VIS Sydney, VLM Melbourne and VPD Samoa, came in strongly. These good results led to a receiver being installed at Avondale and left permanently tuned to 500 KHz. This was in 1927 and it marked the start of the remote reception era at VLD.

Some time later a disused telegraph line running up the old coast road from Milford was discovered and this led to the idea of erecting a receiving station in that locality. Eventually a prefabricated hut was erected on the top of Crown Hill nears Browns Bay. Two pairs of wires were connected through to the Auckland CPO and a third pair was used to trickle-charge the filament battery via a connection to the Takapuna telephone exchange. Kiwi ingenuity at its best!

AUCKLAND RADIO VLD- ZLD

Remote receiver hut,
Crown Hill, Milford.
(c.1929)

The receiver's filament supply was obtained via a telegraph line from the Takapuna telephone exchange.



In the new setup use was made of a step-by-step push-button mechanism to vary the tuning around 500 KHz in small jumps. This was an improvement over the fixed tuned system as previously used at Avondale and constituted the world's first use of a remotely controlled receiver.

In 1923 it became necessary to change the transmitter from spark to valve working, though this was not originally done for reasons of convenience or efficiency, but for another reason entirely. The need was brought about by the advent of radio broadcasting. When the key was pressed at VLD the resultant signal could be heard on every broadcast receiver within miles and, of course, this effectively spoilt the reception of the local flea-power BC stations. So it was that public pressure sounded the death-knell of spark stations in city areas.

As a stop-gap measure a small valve transmitter was constructed and used to replace the spark outfit during broadcasting hours, i.e. from 8 to 10 pm, as it was in those days. Shortly after this, in 1926, two 'Polar' brand transmitters were obtained from the Radio Communication Co in England and used to replace the spark transmitters at Auckland and Wellington. These sets consisted of a single valve oscillator using a large Mullard triode of about 350 watts dissipation. In Auckland, power was obtained from the existing 220 volt, 500 cycle alternator and converted to DC by a pair of half-wave rectifiers; no filtering was used. Together these three brightly lit valves gained for the set the nickname "The Three Lamps", the real Three Lamps being a well-known Ponsonby landmark.

Because the aerial was directly-coupled to the oscillator - that is the aerial's own capacitance and inductance constituted the only high-frequency tuned circuit - it was soon discovered that the new set was ineffective at the required frequency of 500 KHz. Originally this type of set was intended for use by ships on the Atlantic run where the CW frequency used was about 170 KHz (1800 metres). Consequently aerial series capacitors had to be improvised, after which the set gave good results on 500 KHz. Later a conventional inductively-coupled circuit was used which gave an aerial current of 5 to 6 amps with an input of about 750 watts.

In windy weather a problem was encountered caused by the swaying of the original heavy aerial which could not be pulled up tight enough to prevent it causing wobbly signals. To obviate the trouble a new lighter flat-top 4-wire aerial was erected which proved quite satisfactory.

In 1927, following the Washington Conference, the prefixes of all New Zealand call signs were altered to use 'Z' instead of 'V'; thus VLD became ZLD, and so on.

(cont at foot of next page)



THEY COLLECT MOTOR-BIKES TOO

A mouth-watering haul of goodies obtained by the father and son team of Alan and Stan Brehaut during a recent expedition.

AUCKLAND RADIO VLD - ZLD (cont)

Also in 1927 short-wave first came into use by the Post Office when an experimental link was established between Wellington and Apia, Samoa. The situation was soon reached where the Samoa traffic could be handled direct from Wellington without using Awanui, and this, coupled with ZLD's increased coverage, resulted in the steady decline of Awanui's importance leading to the station's closure in 1930.

About that time a small 1-valve emergency transmitter had been constructed at Auckland; it had an input of only 5 watts and was powered from the nearby 240 volt telegraph battery. It came in handy for calling up ships in the harbour, though its range under favourable conditions was surprising. On one occasion tests were made with a Norwegian tanker 'Brunswick' and the operator was able to copy Auckland's signals from as far away as 1800 miles.

In 1934 some ingenious adaptations of automatic telephone switching were incorporated in the ZLD remotely-controlled receiver. Up till then almost all traffic was handled on 500 KHz but the new system enabled the ready choice of two alternate frequencies, most ships by then being fitted for working on 425 KHz as well.

At that time there was still talk of having ZLD moved completely to Browns Bay, but nothing eventuated, due in part to developments in aviation radio in the 1930s. In addition there arose a need for a radio-telephone service for small ships such as trawlers. So it was that Auckland Radio found a new home at Musick Point near Bucklands Beach. This location was named as a memorial to Captain Edwin C. Musick who was in command of a Pan Am Sikorsky flying boat 'Samoa Clipper' when it was lost with all the crew during a pioneer flight in 1939.

ZENITH v. PHILIPS

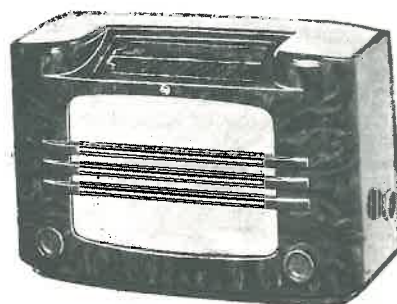
Peter Lankshear

Recently I was asked to overhaul two receivers, a Zenith 6-S-128 and a Philips 462A, both 1937 models. They had obviously both led busy lives and had been repaired with varying degrees of expertise over the years.

It occurred to me that they had more in common than their age. Both were triple-wave mantle models with 8" speakers. Each used the then latest valves (of different origins) with a lineup of mixer-oscillator, single-stage IF, diode detector/AGC and two audio stages. But from here on the divergence of American and European philosophies became apparent.

Removal of the Zenith chassis was simple, needing only the usual knob removal and the undoing of four chassis bolts before we were ready to go to work.

With the Philips it was a different matter. The removal of the three separate chassis was the subject of a two-page supplement to the extensive service data. It included making a special jig with a pulley to prevent the steel steel dial cord from tangling, the unsoldering of four leads and reaching into dark recesses to undo knobs which sprouted from three sides of the cabinet. It would have been possible to service a simple fault in the Zenith and had it reassembled and going again, in half the time it took to extract the Philips internals.



I was fortunate in having the service data for both sets; the Zenith's 3 or 4 pages were useful, the Philips 24 pages were essential.

Quite a few of the Zenith's components required replacement but their values were clearly marked. The Philips' pitch-covered capacitors were unmarked whilst many resistors had only code numbers on them.

Of the two the Philips was of more conservative design having just about twice the number of components which, though of good quality, were often inaccessible. Problems with the Philips were the metric-standard controls used and the replacement of perished rubber-covered wiring. Rewiring was made easier by having detailed service data. By comparison the Zenith's wiring looked good for the next 45 years.

Philips tuned circuits have always been very well designed and rather more sophisticated than most, whereas the Zenith's were straightforward and adequate. Much was made of the Philips Red 'E' series of valves, but in 1937 there was no significant differences between them and the U.S. octals, apart from the higher sensitivity of the EL3 output valve. I found, as have others, that the EK3 converter can be temperamental above 10 MHz.

ZENITH v. PHILIPS

Alignment proved interesting. In the writer's opinion many enthusiasts reach for their alignment kits when they should be using their test meters (and their heads. Ed) In this case both sets had been 'got at'. The Zenith alignment was straightforward, needing only a pocket screwdriver, test oscillator and output meter to complete a ten-minute job. Philips sets use high-gain coils which are sharply tuned, making alignment critical. The 462A dial being fastened to the cabinet does not come away with the chassis, so I had to work a bit blind. The wire-wound trimmers have to be adjusted by peeling off turns of the wire, but it was difficult to put it back on again if you went too far! The first instruction was to replace all trimmers but here I cheated and used the much superior 'beehive' types. This chore alone took longer than the entire Zenith alignment. Essentials were a 15 degree gauge to position the tuning capacitor rotor plates correctly and an "aperiodic amplifier" (VTVM). Full alignment was time-consuming and tedious job.

What do we make of all this? If you wanted a radio which was a nice looking piece of furniture with an adequate performance for daily use and which could be quickly serviced by a reasonably competent technician using basic equipment, you chose the Zenith. If, however, you were seeking better DX performance from a receiver with a stylish Bakelite cabinet you would select the Philips. But to keep it in good fettle would require a specialist service shop with access to the necessary 'confidential' data, and you would have to be prepared for high labour costs.

Footnote: What was my reward for all this effort? A lovely big A.J.S. horn speaker in good working order!

M3 Decals + Labels



Ever noticed those little stickers or decals which adorned the chassis of many American radios of the 1930s? And have you ever wondered what they meant?

The first one, NRA, was quite short-lived and had no specific connection with radio. The letters stood for National Recovery Act, a move taken by President Franklin D. Roosevelt in 1933 aimed at assisting America's recovery from the Great Depression. Manufacturers participating in the programme displayed the symbol NRA.

The letters RMA are more likely to be familiar as they indicate Radio Manufacturers Association; it later became RETMA, and later still, EIA.

In the last case the letters UL indicate Underwriter's Laboratory and signify that the article in question complies with the safety standards of the Association.