



SUBJECT BA maintenance –NZPFU - NZFS joint statement
DATE 12 July 2013
TO Operational personnel only
FROM Paul McGill, Deputy National Commander
STATUS Information only

Action No action

Summary This is a joint statement issued by the NZPFU and NZFS.

As you know, most of the maintenance of the new breathing apparatus (BA) sets has now been outsourced to their manufacturer, Draeger. However, there remains a need for on-station BA set management and maintenance. The NZFS and NZPFU will be working together to design and implement this on-station BA management and maintenance system. We will also jointly review this system after its introduction and make any necessary improvements.

Below we provide more detail about these decisions and plans.

Acknowledgement of the BA tutor and technician group

Fire Service management and the BA project acknowledge that the BA tutor and technician group felt unwanted as a result of the decision to outsource the maintenance to Draeger. They also acknowledge the lack of direct communication with the group and the resulting lack of understanding of the reasons for the decision. They regret that these things happened and apologise to the staff members affected.

Management would also like to thank the tutors and technicians for the many years of service they have invested in maintaining and servicing BA sets, and in developing the manual and maintenance framework. The Fire Service has been fortunate to have a large group of dedicated and skilled staff who invested considerable time and effort in keeping this piece of life-critical equipment in excellent working order. The decision to outsource the maintenance was in no way a reflection of the work of the tutors and technicians.

Rationale for outsourcing BA set maintenance

The decision to outsource BA set maintenance was taken for a number of reasons, outlined below.

New technical components

The roll-out of the new BA sets will see a step change in technology, in particular by introducing electronics. The trend over recent years when introducing electronic and highly technical equipment is for them to be accompanied by a maintenance arrangement with the supplier, as has happened, for example, with multi-gas detectors and thermal imaging cameras.

All new sets will have radio communications built into the mask. The telemetry sets have a modem and transmitter, along with an electronic Entry Control Board (ECB) and repeater units in some areas. These electronic components are outside the scope of current BA maintenance and the traditional skills required by BA tutors and technicians.

In summary, BA sets are becoming increasingly complex and require a high level of technical training and skill to carry out all the required maintenance. Like modern motor vehicle maintenance, it is now a role for dedicated

specialists.

Draeger will be accountable for set performance

The total-care maintenance arrangement offers the Fire Service the opportunity to make Draeger accountable for their sets' performance under a formal contract. Other than user error, any issues with the sets are down to Draeger.

The Fire Service has spent over \$7 million providing firefighters with the latest technology in BA and is now investing in making sure the sets are serviced and maintained by fully certified Draeger technicians who are accountable for servicing all components.

Availability of staff for other duties

Over the last few years the Fire Service's priorities for its firefighters have changed. This has meant a shift away from in-house maintenance of some items, such as vehicles and ladders, to an emphasis on proactive fire risk-reduction activities.

Outsourcing BA set maintenance is another example of this shift and gives the organisation the opportunity to allocate staff previously engaged in BA servicing to other priorities.

Reducing the logistics burden

The total-care maintenance arrangement has the benefit of reducing the logistics requirements of the in-house maintenance system. As Draeger will be testing sets on site, there is less need to move sets around for testing and no need to send out loan sets. This has also reduced the total number of sets.

Our maintenance system is out of step with overseas practice

Research carried out by the Fire Service in Australia and the UK shows that few, if any, overseas brigades use on-shift firefighters to service their BA sets.

The UK has a well-established history of Draeger providing a total-care solution similar to ours. In some cases, the total-care maintenance arrangements have been in existence for over 10 years and the brigades we have spoken to consider them to be working well.

In Australia, supplier maintenance of the sets is less common – New South Wales uses Draeger to service sets as a complement to their in-house staff – but none of the brigades use on-shift firefighters. Brigades that service the sets in-house do so using full-time technicians based in a central location. These technicians also service a wider range of items, for example gas detectors, cylinders, oxygen equipment, splash and gas suits, and compressors.

Some maintenance activities will continue

Some activities the BA departments carried out will continue and we appreciate the commitment of Fire Service staff in performing them.

These activities include:

- managing the sets being returned to Draeger for repair
- managing the Area logistics sets
- maintaining cylinders and servicing valves
- testing gas suits
- testing air purity.

Fire Service staff will also carry out repairs to the BA sets that do not require the set to be re-tested, for example, replacing harness parts, neckstraps and LDV covers. Draeger has developed a set of instructions for carrying out this work and the Fire Service has offered to train and certify staff to do it. This includes training on servicing the new 90⁰ valves and air purity testing.

We envisage that all users on station will carry out battery changes in the communications units and manage the battery packs in the telemetry sets. However, we will fit in-cab chargers to all telemetry sets later this year, which will significantly reduce the need to exchange these battery packs.

In-house technical experts

A key part of the new maintenance system will be to develop a small group of experts to act as the Fire Service's in-house technical resource. This group will be trained to full Draeger technician level and will primarily:

- monitor Draeger's performance
 - conduct internal set investigations
 - advise management on technical developments in BA.
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Update on addressing issues with the BA roll-out

The NZFS and NZPFU have been working together to address the BA roll-out issues associated with BA seat brackets and PASS alarms, as detailed below.

BA seat brackets

Following trials of BA seat modifications, including an ergonomic assessment of the modified seat, the NZFS and the NZPFU have agreed on the changes to be made to the seats nationally. These changes will be rolled out to all appliances with BA seats over the next 3 to 4 months.

All the modifications to be carried out have been approved by the manufacturer of the seats and any structural modifications have been tested and certified by an engineer.

PASS alarms

Two modifications are being made to the Bodyguard 1000 PASS alarms on the standard sets (the telemetry sets do not have these units):

- The motion sensor will be adjusted to make it more sensitive to movement and easier to cancel when it goes into pre-alarm.
- The thermal sensor alarm will be turned off.

Motion sensor: Following feedback from firefighters and trialling of a more sensitive setting by operational crews, Draeger will be carrying out modifications to the units. The PASS alarms will still function in the same way as before, but they should not go into pre-alarm as often and crews should find it easier to cancel the pre-alarm with a shrug of the shoulder.

Thermal alarm: This feature will be turned off as it has been causing confusion at incidents and firefighters find it difficult to differentiate the thermal alarm from the motion sensor alarm.

The decision to turn the alarm off has been taken following a thorough risk assessment of its impact. The key elements of this risk assessment are that:

- the alarm is being confused with the motion sensor alarm at incidents
- firefighters are trained to recognise the symptoms of heat stress
- not all firefighters have access to the thermal alarm feature because the telemetry sets do not have it
- there is no requirement to have a thermal alarm in any standard relating to BA sets.

The Fire Service will continue to monitor developments in this field and will reconsider this technology if and when a solution that meets our requirements becomes available.

Carrying out the PASS alarm modifications: The BA project will liaise with each region and area to communicate the timeframes for the modifications to

the PASS alarms. Draeger will make the modifications and they will need to physically sight each unit to make the software changes. The modifications will be carried out as follows:

- For sets due for annual test by the end of July 2013, Draeger will carry out this work as part of that process.
- For the remainder of the sets, there will be a pool of modified units used to swap out with unmodified ones.

Where to go for more information

If you have questions about this decision or want to know more about what happens next, please contact Rob McMahon on rob.mcmahon@fire.org.nz or (04) 496 3735.

Sign-off

We thank you for your ongoing commitment to the Fire Service.

Paul McGill, Deputy National Commander, New Zealand Fire Service

Derek Best, New Zealand Professional Firefighters Union

End of notice