

Attn
The Right Honourable Theresa May MP
The Home Secretary's private office
2 Marsham Street, London SW1P 4DF

Friday 27th June 2014

Dear Home Secretary;

The Ziegler Wasserwerfer 9000 model Water canon.

I am writing to you in my capacity as chair of The Scientific Advisory Committee on the Medical Implications of Less-Lethal Weapons (SACMILL) which provides independent advice to Ministers of Her Majesty's Government on the medical aspects surrounding the use for less-lethal weapons (LLWs).

In 2013, SACMILL was tasked by the UK Less-Lethal Technologies and Systems Board to provide initial advice on the medical implications of the Ziegler Wasserwerfer 9000 model (commonly referred to as 'WaWe9') water cannon system to inform the procurement process.

The committee issued an interim medical statement on the device in November 2013. This advice was based on the information available at that time. This included an updated assessment of the medical risk of water cannon deployment prepared by Dstl, a preliminary technical assessment by CAST of the device itself as well as documents relating to training and use of the device from the College of Policing and the Metropolitan Police Service.

SACMILL's interim statement contained a number of recommendations related to the testing of the WaWe9, the mechanical or electrical modifications that would be required to satisfy the committee's concerns and a request for rewritten guidance and training documents.

I am writing to you today to update you on the latest developments in the on-going appraisal of this water canon system by SACMILL.

Last month the committee were provided with further submissions from CAST, the College of Policing and the Metropolitan Police Service, which documented recent progress towards satisfying SACMILL's recommendations. The papers included:-

- A letter from Chief Constable David Shaw summarising the work he commissioned to meet our recommendations.
- A report from CAST detailing the jet pressure testing undertaken so far and identifying the mechanical and other modifications that can be made to the machines to satisfy our requirements.
- Two documents from the College of Policing entitled 'Module E4 – Water Cannon in Public Order' and 'Water Cannon Training Module: Medical Implications Summary Document' together with a manual from the Metropolitan Police Service detailing the Standard Operating Procedure for the WaWe9.

Having read through the new materials provided, SACMILL now notes that:-

- CAST have provided an itemised and credible plan for mechanical modifications of the WaWe device in response to SACMILL's recommendations. These directly address areas of major

concern such as the issue of the closest contact range of the water cannon, the function of the rear mounted jet and the provision of an effective video and PA system on the vehicle.

- As suggested by Dstl and requested by SACMILL, CAST has now provided a detailed testing protocol for monitoring the pressures developed by the WaWe9 and provided some sample data to illustrate the feasibility of this approach. Crucially, CAST have identified a mechanical modification that can be used to reduce the jet pressure such that it could be better matched to the output from the Somati RCV 9000 vehicles currently used by the PSNI and previously assessed by DOMILL.
- In addressing another recommendation, The College of Policing and the Metropolitan Police Service have provided SACMILL with a rewritten training curriculum and a Standard Operating Procedure manual both of which are more relevant to the WaWe9 devices.
- <redacted>

Since issuing its interim statement on the WaWe9 in November 2013, no further adverse medical evidence has emerged and no fresh technical problems have been identified by SACMILL which would cause it to change its mind about the potential for deployment of the device once it has been fully tested and finally assessed and approved. Since the WaWe9 machines have only just arrived in the UK and have yet to be modified as proposed, this evaluation has yet to take place.

While the committee obviously cannot anticipate any final decision it may reach when this has been completed, it recognises that substantial incremental progress has been made towards fulfilling its recommendations and looks forward to receiving the documents and data that would enable it to produce a final report in due course. We will be sending interim comments related to the recent information we received to the Metropolitan Police Service and to CAST in order to facilitate this.

Yours sincerely,

Prof RJ Flower (Chair, SACMILL) Air Marshall Sir Paul Evans (Surgeon General)

cc. Chief Constable David Shaw, ACPO; Home Office