

TNO Defence Research

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 92 CR 420

Subject

Your letter

Dear Matthew,

Trying to absorb the contents of your letter I asked myself the question "Where is the end"? On the one hand we have the sliding scale of riot control or temporarily disabling agents, on the otherhand there are the toxic compounds of military use e.g. obscuring smokes. The motive for having riot control agents is that they are humane and the user can refrain more violent methods, which would cause casualties. However, in the past some people believed that Mustardgas was such an agent. (Haldane. In defense of chemical warfare). If you would allow the use of these agents outside national borders in defensive military modes chemical war will start all over again. In WW I France used an irritating gas, in turn used by Germany as an excuse to use chlorine and so on. By the way the French first use was inside their national borders. The restriction to use riot control agents inside national borders only would still have allowed the use of temporarily disabling agents by Iraq against the Kurds. Maybe a solution can be found in permitting only the use of UN certified riot control agents in UN certified devices. A criterion for certification of an agent could be that the LD50 is 10^6 times larger than the ID50. Similarly the criterion for certifying a device could be that under no circumstances it will subject a human to an LD50. This would permit the use within the national borders. For defensive military use the technical inspectorate could be asked to see if they are really used in a defensive mode and if certified agents and devices were used. Certification can be carried out by te UN or any designated institute. Manufacturers can ask for certification, pay for certification and will get guarantees for safeguarding proprietary information. (TNO is doing this all the time).

The other problem of the use of toxic compounds not meant to be Chemical Warfare agents can probably not be handled by the certification procedure. The composition of obscuring smokes and the devices used are often

Enclosures

Netherlands organization for
 applied scientific research

TNO Defence Research consists of:
 Physics and Electronics Laboratory
 Prins Maurits Laboratory and



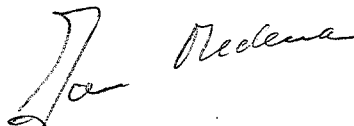
The Standard Conditions for Research Instructions
 given to TNO, as filed at the Registry of the District Court
 and the Chamber of Commerce in The Hague

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classified information. They can however, cause serious problems. (Paralysis in Unita soldiers in Angola). At this point in time I wouldn't know how to solve this problem else than a general ban on toxic smokes. Both the opponent and the own troops will be similarly affected. So there is good reason to ban them anyhow.

I have looked at the problem of riot control agents from my (technical) perspective. Maybe lawmakers and diplomats will disagree with the certification idea, the solution sounds too easy, but in my opinion it's the only way out. Manufacturers should have no difficulty in accepting the idea because already for every new chemical compounds that they want to introduce they have to provide full information on potential hazards.

Kind regards,



Dr. J. Medema

Manager Research Group Protection and Risk Assessment