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The Honorable Robert J. Bryan

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT TACOMA

JAMES HORTON; JAMES BARNHART;)
JEROME PAYTON; J.B., through his)
next friend, LORRAINE WEST; and)
K.M., through his mother DEBBIE)
MOORE, on behalf of themselves)
and all others similarly situated,)

Case No. C94-5428 RJB

DECLARATION OF
DR. RICHARD L. LIPSEY

Plaintiffs,)

v.)

BOB WILLIAMS, in his official)
capacity as Superintendent of Green)
Hill School; JEAN SOLIZ, in her)
official capacity as Secretary of)
the Department of Social and Health)
Services; and SID SIDOROWICZ, in)
his official capacity as Assistant)
Secretary of the Juvenile)
Rehabilitation Administration;)
and the CHEHALIS SCHOOL DISTRICT,)

Defendants.)

RICHARD L. LIPSEY declares as follows:

1. I am a chemical environmental toxicologist employed by Lipsey and Associates, a consulting firm in Jacksonville, Florida.
2. I have a Ph.D. in environmental toxicology. Attached to this affidavit is my professional resume. Attachment A. While working in the field of chemical research and development and as a University of Florida Professor, I conducted and/or supervised numerous experiments and tests involving chemical toxicology. I

1 have served as a consultant to the U.S. Environmental Protection
2 Agency, U.S. Department of Agriculture, and the U.S. State
3 Department. I have also provided consulting services to many
4 federal and state law enforcement agencies, including the U.S.
5 Department of Justice, and various state highway patrol, county
6 sheriff, and city police departments.

7 3. I am familiar with available toxicological (scientific)
8 and medical research regarding Oleoresin capsicum (OC), including
9 the material safety data sheets issued by manufacturers of OC, the
10 Canadian Police Research Center publication regarding the
11 toxicology of OC, and the ACLU publication on pepper spray
12 entitled "A Magic Bullet Under Scrutiny." I have conducted a
13 thorough medline/toxline computer search of the literature on
14 respiratory and hypersensitivity problems related to OC. Finally,
15 I have reviewed my files from the various OC lawsuits in several
16 states in which I have served as an expert witness for both
17 plaintiffs and defendants.

18 4. Pepper spray is commonly used by police departments and
19 correctional facilities. I have consulted on several cases
20 involving the proper use of pepper spray and the hazards
21 associated with its misuse. I have advised law enforcement
22 agencies as to the proper use of pepper spray. Within the last
23 six months, I have testified in cases where individuals alleged
24 misuse of pepper spray in Florida and Oregon.

25 5. OC is the active ingredient in pepper spray. OC is
26 derived from chili peppers, and is also the active ingredient in

1 Tabasco sauce and Sloan's liniment. Pepper spray can temporarily
2 incapacitate a person by causing a burning sensation of the eyes
3 and throat. When OC is inhaled, the respiratory tract is
4 inflamed, causing rapid, shallow breathing. This is a
5 biochemical reaction that does not result in lasting tissue
6 damage. All effects of pepper spray exposure completely subside
7 within 15 to 45 minutes.

8 6. The proper use of pepper spray does not constitute a
9 health hazard. The effects of pepper spray are completely
10 temporary, with no lasting effects after 15 to 45 minutes. Pepper
11 spray exposure can cause coughing, but research has shown that the
12 effects of pepper spray are no worse for asthmatics than for non-
13 asthmatics. Persons with asthma or allergies are not affected any
14 worse by OC than persons without asthma or allergies. There are
15 no known cases of hypersensitivity or allergy to OC. Research has
16 found no significant difference in either magnitude or duration on
17 broncho-constriction between normal, smoking, or asthmatic
18 subjects exposed to OC (Fuller, Dixon and Barnes, 1080-1084).
19 Further, the effect of pepper spray is no different for persons
20 aged 15 through 21 than for older persons. There is no
21 physiological difference between juveniles and adults in terms of
22 the effects of OC.

23 OC pepper spray is not federally regulated. However, OC has
24 been examined by government and private research organizations.
25 A two-year study conducted by the FBI Firearms Training Unit in
26 cooperation with the U.S. Army Chemical Research and Development

1 Center revealed no long-term health risks associated with the use
2 of OC. The study concluded that no ill effects or adverse
3 reactions were experienced by 899 subjects who were exposed to OC
4 (Weaver and Jett, 6).

5 Pepper spray is more effective and safer than mace. Unlike
6 pepper spray, mace can be ineffective against a person impaired by
7 drugs or alcohol. Additionally, although mace has been shown to
8 have long-term health risks, no long-term effects have been shown
9 to result from pepper spray exposure. Examples of documented
10 health risks associated with the use of mace are:

11
12 7. In preparation for developing an opinion as to the safety
13 of the use of pepper spray at Green Hill School in Chehalis,
14 Washington, I have reviewed Green Hill School Policy #4, dated
15 10/1/94 and 5/1/94; Green Hill School Bulletin #2 dated 5/1/91;
16 Green Hill School Policy #28 dated 2/15/91. I have also observed
17 the videotaped recordings of 4 uses of pepper spray at Green Hill
18 School, including the "clean-up" procedure. Finally, I have
19 reviewed the statements submitted in this case by Dr. Michael
20 Cohen, pediatric doctor; Dr. Michael Mylan, psychologist; and Paul
21 DeMuro, Juvenile Justice Practitioner.

22 8. Based upon my knowledge and experience, as well as my
23 review of all documentation as indicated above, it is my opinion
24 that the current policy regarding aerosol restraint at Green Hill
25 School ensures safe, effective use of the product. Properly
26 conducted training, as required by the policy, results in

1 appropriate, effective use of pepper spray. Suggested
2 decontamination procedures for OC are proper ventilation and
3 access to water. However, unlike other chemical irritants, OC is
4 biodegradable and does not linger in ventilated affected areas or
5 in clothing. Thus, no special decontamination procedures are
6 required.

7 9. Contrary to Dr. Cohen's statement, OC is not harmful to
8 persons with chronic lung disease. My computer search of all
9 available medical and toxicological literature on the subject
10 revealed that there was no evidence whatsoever that OC can harm
11 anyone with chronic lung disease, including asthmatics. Dr. Cohen
12 stated that OC has not been show to be harmless. However,
13 scientific research cannot prove a negative. Therefore, that
14 statement has very little meaning. In fact, pepper spray has not
15 been found to be harmful to humans, beyond the temporary effects.

16 Dr. Cohen stated that OC can cause a spasm in the larynx.
17 This is the desired effect of the product. Dr. Cohen further
18 states that about 30 people have suffocated and died after being
19 sprayed with OC, but goes on to admit that none of the deaths were
20 attributed to OC. In fact, all research related to deaths
21 following the use of OC, including an ACLU report published in the
22 fall of 1993, reveals that no deaths were caused by OC.

23 Dr. Cohen mentions a study by Levy in 1991 involving animals
24 which purported to show that pepper spray can cause "degeneration
25 of nerve fibers." I personally read the article cited by Dr.
26 Cohen. The author actually stated that if newborn animals are

1 injected with high doses of capsaicin, it can be "potentially
2 neurotoxic." Such results have never been reported from pepper
3 spray in actual use. The research showed that, using a
4 hypersensitive laboratory animal, guinea pigs, and using near
5 fatal doses, nerve damage may be possible. This isolated
6 publication has not been substantiated by any other researcher.
7 However, Ross in 1991 reports that nerve damage has never been
8 shown in humans.

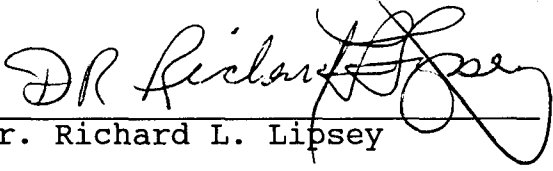
9 10. The statement of Dr. Michael Milan, psychologists, has
10 no scientific merit because he simply states that OC causes pain
11 and has little value in deterring inappropriate behavior. I am
12 not a psychologist, but I know that all effects of OC are
13 temporary, and I have seen hundreds of instances where OC has
14 indeed deterred inappropriate behavior in aggressive, angry males.

15 11. Mr. DeMuro stated that OC is dangerous if you make a
16 juvenile walk downstairs after being blinded by the product. OC
17 does not cause blindness; rather, OC exposure results in a
18 temporary inability to open the eyes for a period of time. This
19 temporary effect is abated in 2 to 5 minutes. The respiratory
20 effects dissipate in as little as 2 minutes. The eyes may
21 continue to sting for 10 to 20 minutes. In the instances of OC
22 use at Green Hill School which I observed on videotape, the
23 persons being led downstairs were not blind. Because of the
24 passage of time, the effects would be burning eyes, not inability
25 to open the eyes. Additionally, the residents were not in danger
26 because they were being assisted by staff.

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12. Pepper spray is commonly used nationwide to effectively temporarily incapacitate persons in custody with no lasting effects whatsoever. No health risks associated with pepper spray have been substantiated. When properly used, OC pepper spray is a safe, effective method of temporarily incapacitating a person.

DATED this 17 day of November, 1994.


Dr. Richard L. Lipsey