

Pepper Spray Update:

More Fatalities, More Questions

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EXECUTIVE SUMMARY

Few new law enforcement technologies have attracted as much attention, or created as much controversy, as Oleoresin Capsicum, (“pepper spray” or OC”), which was legalized for use by California law enforcement agencies in October, 1992. It was legalized for civilian use in March, 1994.

By May 31, 1995, California police officers and sheriff’s deputies had used pepper spray nearly 16,000 times—in the last year at an average rate of 24 times a day statewide.

Since 1992, the beginning of a three-year “provisional certification” of pepper spray concerns have mounted about health risks associated with OC, especially fatalities among suspects in custody who had been sprayed. The provisional certification is scheduled to expire in on Aug. 1, 1995.

In this report, the ACLU of Southern California identifies 26 deaths among people who were pepper-sprayed by police officers in the period Jan. 1, 1993, through June 1, 1995. The fatality total suggests that one person dies after being pepper sprayed for about every 600 times the spray is used by police.

The fatality summary period ended just before the June 4, 1995, death of parolee Aaron Williams, 37, who, according to witnesses, was savagely beaten, kicked and repeatedly pepper-sprayed by San Francisco Police Department officers in a case that has provoked a major controversy in the Bay Area.

Increased use of pepper spray by law enforcement has raised serious concerns about whether police will use pepper spray to impose a painful chemical “street justice” without resort to criminal charges or the courts. Moreover, the growing number of fatalities in California has provoked questions about whether pepper spray was properly reviewed for safety and effectiveness before it was legalized for use by law officers or civilians.

The ACLU of Southern California obtained access to hundreds of pages of documents from the California Environmental Protection Agency’s Office of Environmental Health Hazard Assessment that reflect concerns by state scientists over pepper spray’s safety. The ACLU also obtained an internal memorandum produced by the largest supplier of pepper spray to the California police and civilian markets that concludes that serious health risks may ensue if police spray a person with OC with more than a single burst of one second duration.

In the series of 26 fatal cases examined by the ACLU, none identified pepper spray as the cause of death. But documents recovered by the ACLU establish that state scientists have warned for more than two years that so little is known about residual effects of pepper spray that medical examiners may not know what to look for during an autopsy.

The ACLU’s investigation of these fatal cases included review of autopsy reports and medical examiner investigation reports, as well as interviews with friends and relatives of the victims and investigating police officers. The ACLU also reviewed reports of investigations of some of the cases by state officials and the Los Angeles County District Attorney’s Office.

The ACLU analysis of the 26 fatalities found that:

- Victims were 54% white, 19% African-American and 27% Latino. All were male and had an average age of 35.

- Half of the victims were placed in a controversial police restraint called the hog-tie just after they were pepper-sprayed and just before they died. In half of all cases, the types of police restraint techniques used were identified as contributing to the cause of death or the primary cause of death..
- All of the victims were acting irrationally when police first contacted them, but pepper spray had a 0% effectiveness rate on them. In virtually every case, victims continued to struggle with officers after they were sprayed, sometimes becoming more combative. None of them was committing a serious violent crime when police first arrived.
- Although drugs and alcohol were involved in 24 of the 26 cases, two of the victims had no significant drug levels in their bloodstreams when they died. Both suffered from acute psychiatric disorders. than 61% of the victims showed evidence of serious underlying heart or respiratory disease and two of the victims were identified as asthmatics. These findings suggest that pepper spray may be a serious complicating factor when it is used on people with cardiovascular or cardiorespiratory disease—individuals police might not be able to recognize readily in an emergency situation.
- Although pepper spray's supporters have argued that it is likely to result in less litigation over police abuse and wrongful death, nearly a third of the California fatalities have resulted in legal action. And while pepper spray proponents have predicted victims would have difficulty winning such suits, settlements have already been paid in two wrongful death actions.

In documents obtained by the ACLU in preparation of the report, we found:

- In early January, 1995, Defense Technology Corp. of America, the major supplier of pepper spray products in California, circulated an internal research proposal that cautions police against using more than a single one-second burst of OC. More than that, the manufacturer warned, "obviously would be an overexposure, which may cause added health risks."
- A U.S. Army study conducted at the Aberdeen Proving Ground in 1993 concluded that pepper spray's active ingredient, "is capable of producing mutagenic and carcinogenic effects, sensitization, cardiovascular and pulmonary toxicity, neurotoxicity, as well as possible human fatalities."
- In a 1994 paper, the Cal-EPA's Office of Environmental Health Hazard Assessment (OEHHA) concluded that, "although it is clear that the medical examiners have thus far not made an association between OC use and these deaths, we are still concerned that in each incident, untoward reactions to OC may have been a contributing cause of death or exacerbated underlying conditions such as pre-existing disease or drug use, to cause cardiac or respiratory failure."
- In June, 1994, one OEHHA scientist observed in an E-mail message sent to a colleague, "we have agreed that OC may have been indirectly, and possibly even directly been the cause of some of these deaths."

Documents obtained by the ACLU also show that the Cal-EPA and California Department of Justice will be unable to meet an August, 1995 deadline for completion of scientific studies to quantify pepper spray's health risks. An internal Cal-EPA estimate suggests this research may be at least two years behind schedule and has no chance of being finished before the three-year "provisional certification" ends in August, 1995.

The ACLU report concludes that:

- 1) There is clear evidence that pepper spray is unlikely to work on people who are high on drugs and in psychiatric crisis and there is clear evidence pepper spray poses serious risks if it is used on people with respiratory disease, especially asthma.
- 2) There is a strong statistical association between use of pepper spray in combination with police restraint

techniques, like the controversial hog-tie, and death.

- 3) Cal-EPA scientists have warned the California Department of Justice and Attorney General. Dan Lungren of their reservations about pepper spray and concerns about its possible role in causing fatalities for more than two years, but no action has been taken in response. In fact, the Department of Justice permitted civilian use of pepper spray despite many of these fears by scientists.
- 4) No federal agency has taken regulatory responsibility for pepper spray and California's state agency that oversees law enforcement training has failed to caution police that pepper spray should not be used in excess of a single one-second burst.

The ACLU study recommends that:

- 1) The DOJ develop emergency restrictions on pepper spray to minimize exposure of people who may be at increased risk—including drug users, asthmatics, the mentally ill and people with preexisting heart or respiratory disease.
- 2) Police and corrections agencies should adopt model policies for OC use developed by the ACLU. These policies appear as an appendix to this report.
- 3) The Department of Justice and Cal-EPA work to develop effective warning labels for both police and civilian versions of pepper spray.
- 4) The Legislature should defeat AB 830, a bill that is currently pending and would repeal most regulations of civilian pepper spray use and reduce oversight over police pepper spray products.
- 5) The U.S. Consumer Product Safety Commission should intervene in the pepper spray controversy and take regulatory responsibility over both police and civilian versions of these products.
- 6) The DOJ and the California Commission on Peace Officer Standards and Training should require law enforcement agencies to summon paramedic backup any time a person in a high-risk group may be sprayed. Use of the so-called hog-tie restraint on people who have been pepper sprayed should be banned.

INTRODUCTION

Oleoresin capsicum (OC), or “pepper spray,” is gaining acceptance and popularity among law enforcement officers and police agencies as a safe and effective method of incapacitating violent or threatening subjects. There is, however, a lack of objective data on OC, its risks and its benefits.”

--National Institute of Justice¹

Few new law enforcement technologies have attracted as much attention, or created as much controversy, as Oleoresin Capsicum, a compound derived from the cayenne pepper plant that first gained recognition because it could ward off attacks by menacing bears.

Imported to the United States from Canada, where it first was developed in its bear repellant form, OC--popularly known as “pepper spray”--immediately attracted the attention of the U.S. Postal Service, which had been searching for a more effective way to keep dogs from biting its letter carriers.

By the late 1980s, however, police began using OC to control violent, combative suspects. OC has proven, in many cases, to be an effective alternative to more lethal weapons.

OC is also being widely sold in the civilian personal protection marketplace, where pepper spray has largely supplanted spray tear gas products--familiarily known as chemical Mace. Today, civilian pepper spray is legal for the market in nearly every state.

Increased use by law enforcement has resulted in serious concerns about whether police will use pepper spray to impose a painful chemical “street justice” without resort to criminal charges or the courts. Moreover, in California, a growing number of fatalities connected to OC use has raised concerns about whether pepper spray was properly reviewed for safety and effectiveness before it was legalized for use by law enforcement personnel and civilians.

The most recent pepper spray-related fatality occurred on June 4, 1995 in San Francisco. Witnesses allege that parolee Aaron Williams, 37, was savagely beaten, kicked, and repeatedly pepper sprayed by police officers. Williams may have been sprayed even after he was handcuffed, his feet were bound, and he was placed in a horizontal position on his side. As noted in Section 1 of the report, this is the position most often described in in-custody pepper spray related fatalities.

In the days following the Williams incident, San Francisco police commanders conceded that their own pepper spray policies had been violated.² The SFPD standards were developed with the assistance of the ACLU of Northern California after publication of the ACLU of Southern California’s two previous pepper spray reports.

In July, 1994, almost a year before the fatal incident, the SFPD prepared the following briefing for the city’s police commission: “What first aid steps have to be taken after OC exposure?” The department’s guideline specified: “Avoid transporting handcuffed prisoners laying face down. Monitor prisoners to avoid them assuming a position that may allow for positional asphyxia.”³

In addition, the San Francisco policy requires that special attention be paid to suspects who act in a bizarre or

irrational way. The policy also requires that an ambulance be summoned immediately if a person who has been pepper sprayed has difficulty breathing and requires medical evaluation if a person still exhibits symptoms of discomfort 45 minutes after being sprayed.⁴ San Francisco police are trained to fire pepper spray at a subject only once in the belief that if pepper spray is going to work in a given situation, only one hit with the spray is necessary. Officer Richard Lee, a SFPD trainer, was quoted as saying: "If you hit the target, and you see it's taken no effect, I'd resort to something else."⁵

In the Williams incident, all of the concerns voiced by critics of unrestricted, overly broad and ineffectively controlled use of pepper spray by police are raised.

This report is the third on pepper spray by the American Civil Liberties Union of Southern California. Earlier reports were issued in September, 1993, and March, 1994.

Research for this new report was begun in January, 1995, when there appeared to be 20 fatalities since Jan. 1, 1993, in cases in which pepper spray was used. As this report will show in Section 2, by May 31, 1995, a total of 26 people had died in pepper spray incidents, although OC has not been officially cited as the cause of death in any of them thus far.

This report also focuses on the results of the ACLU's review of hundreds of pages of documents obtained under the California Public Records Act and from pepper spray manufacturers. These documents raise disquieting questions about the lack of scientific knowledge about the human body's response to pepper spray--particularly among a handful of apparently high-risk groups including asthmatics and the mentally ill. Adequate post-mortem tests simply do not exist to determine if pepper spray is the cause of or contributed to the death of people who died after they were sprayed.

This report is intended to: 1) call on law enforcement agencies to reevaluate and narrow policies on the appropriate guidelines for use of pepper spray; and 2) urge state licensing authorities to require that basic science research on the effects of pepper spray be conducted immediately. This research would determine whether pepper spray can injure or kill, and on whom it can--and cannot--be used safely.

Although the ACLU of Southern California has serious concerns about the use of pepper spray, it does not seek to ban pepper spray outright for use by law enforcement and corrections personnel. In many situations, pepper spray may be an appropriate use of police force. Our inquiry establishes, however, that there is a pitiful lack of scientific data on pepper spray. The number of fatal incidents have become too numerous to rule out pepper spray as a contributing factor.

As Section 1 explains, the California Department of Justice and California Environmental Protection Agency issued a three-year "provisional certification" for pepper spray in August, 1992. That certification is about to expire, but without completion of any of the mandated scientific studies required as the major condition of issuing the certification in the first place. Within the Cal-EPA, cautionary voices have not been listened to, although questions and doubts about pepper spray have been voiced continuously since 1991.

These questions must be resolved immediately. Until they are, law enforcement agencies must enforce stringent standards governing the use of pepper spray. In addition, our research on the potential health risks of pepper spray leads us to counsel caution about the products being overpromoted, both to law enforcement and civilian users.

Pepper spray for the civilian market raises different questions. Police pepper spray is a use of force and, as such, falls squarely within constitutional standards, repeatedly enforced by the courts, that police may use only the minimal amount of force necessary to control a subject. Civilian use of pepper spray is not governed by the same

Notes

constitutional standards, and will not be addressed in this report in the same detail as police use.

¹ National Institute of Justice, Technology Assessment Program, "Oleoresin Capsicum: Pepper Spray as a Force Alternative," Washington, D.C., paper, March, 1994.

² "Did cops skirt rules in suspect's death?" by Rachel Gordon and Katherine Seligman, San Francisco Examiner, June 8, 1995, pages A-1 and A-18.

³ "Chiefs Report to the Police Commission: An Introduction to Pepper Mace (OC)," San Francisco Police Department, July, 1994, page 9.

⁴ San Francisco Police Department use-of-force policy: "I. Use of Liquid Chemical Agent (Mace/Oleoresin Capsicum) to Accomplish Custody," 8/24/94.

⁵ *ibid* Gordon-Seligman.

SECTION 1: Doubts and Promise

In October, 1992, the California Department of Justice authorized a three-year trial of Oleoresin Capsicum, familiarly called “OC” or “pepper spray.”

Two months before, in August, 1992, the California Environmental Protection Agency (Cal-EPA) issued an unusual three-year “provisional certification” for law enforcement to use OC in subduing violent subjects. On March 1, 1994, under terms of an order signed by Attorney General Dan Lungren, OC could be sold to California residents for personal protection. The provisional certification expires in August, 1995.

These dual authorizations by the Department of Justice were issued despite CAL-EPA’s clear recognition, as early as July 22, 1992, that while OC products “should not result in permanent impairment or damage of any normal physiological function in those individuals exposed to them,” data in the possession of state health officials at the time were “not adequate to evaluate whether an oleoresin capsicum-containing tear gas weapon is harmful, toxic or presents any [undesirable] health hazard to human beings.”¹

Moreover, Cal-EPA noted that, in their applications for provisional certification, pepper spray manufacturers submitted no data on whether OC can cause irreversible damage to the eyes or nervous system.² The agency stated that evaluations of OC’s potential for harm among “sensitive populations” was “inadequate,” and that manufacturer-supplied information suggested that “OC-containing agents may cause genetic damage.”³

The possible risk of using pepper spray was weighed against the known dangers of more conventional police weapons. In the Cal-EPA’s view, pepper spray certification was justified in terms of health risk management given the known probability of major or fatal injury from use of batons and firearms. The agency agreed to certification in the belief that, despite having insufficient information on the effects of OC, it was less likely to be harmful than these deadly weapons.⁴

Oleoresin Capsicum’s active ingredient is capsaicin, one of a family of chemicals called capsaicinoids that are common to pepper plants. In the body, capsaicinoids release a brain-signaling compound called Substance P, which helps govern pain recognition and sensitivity to heat. High capsaicin levels cause the body to release too much Substance P. The potency of the effect of pepper spray depends on how much Substance P reaches the brain and spinal cord.⁵ As a result of this chemical action, when a person is pepper sprayed, immediate, excruciatingly painful symptoms occur in the eyes, bronchial passages and other respiratory organs. Breathing becomes almost impossible and the eyes are forced closed.

In late September, 1993, the American Civil Liberties Union of Southern California published the first extensive study of pepper spray’s effectiveness when used by California law enforcement agencies. The report documented evidence that contradicted earlier claims that OC products had been effective virtually 100 percent of the time in subduing violent suspects and concluded that true effectiveness rates for OC were closer to 85 percent to 87 percent—about the same as other less-than-lethal weapons such as the Taser. The report also found that there had been seven fatalities among people who had been pepper sprayed by police and that the first-year fatality total for pepper spray in California exceeded those for the Taser and the carotid choke hold in a similar initial use period.⁶

In March, 1994, the ACLU issued a revised version of the report that identified 14 fatalities that occurred during the first full year in which police use of OC was authorized. Both versions of the ACLU report found that review of the fatal cases, as well as review of more than 600 reports of non-fatal pepper spray use incidents, suggested that OC may be of extremely limited effectiveness when used on people who are intoxicated on alcohol or stimulant drugs, including cocaine, PCP and methamphetamine and people in states of extreme mental distress or agitation.

The report recommended a cautious approach to the continuing introduction of pepper spray to California law enforcement agencies and urged delay in issuance of authorization for civilian personal protection use. These doubts were based on questions about effectiveness, the potential for harm to people with pre-existing health conditions such as cardiovascular or cardiorespiratory diseases and asthma and about uncertainties over OC's possible contributing role in fatalities.

The report also urged special restrictions on using the hobble restraint, or "hog tie," on people who have been pepper sprayed. Officers hog tie suspects by handcuffing them behind the back, tying or cuffing the ankles and connecting the bound ankles to the handcuffs with an elastic cord. Under certain circumstances, this can result in death from positional asphyxia.

In positional asphyxia, a person suffocates when placed face down or even on his/her side with the hands and feet bound. Suffocation can occur because a person will normally use his/her feet to support the body's weight when lying in that position. However, if the hands and feet are bound, and the person is lying face down, the body's full weight presses down on the lungs and chest cavity and can make it impossible to breathe. If a person is high on drugs, the risks of positional asphyxia can be increased when a person is hog tied.

In November, 1993, Attorney General Lungren responded formally to the ACLU report, concluding that "the Department's approach to the certification and introduction of 'pepper spray' products into the law enforcement community and the planned introduction for civilian use reflects a prudent and measured approach."⁷ The Department of Justice declined to implement the recommendations in the ACLU report.

The ACLU report also identified irregularities in pepper spray use by the Los Angeles Police Department and Los Angeles County Sheriff's Department. In response, the Los Angeles Police Commission ordered a nine-month review of OC use in the LAPD during which special reporting requirements were imposed for pepper spray incidents.

Results of the LAPD review, which was completed in September, 1994, appear in the table on the following page entitled **LAPD Pepper Spray Incidents**.

As a result of pepper spray related deaths in New York and North Carolina, as well as a series of other developments across the country, the National Institute of Justice, the research arm of the U.S. Department of Justice, began its own review of OC in 1993 through the Institute's Less-Than-Lethal Technology Program. The department contracted with the International Association of Chiefs of Police (IACP) to conduct a review of 30 in-custody fatalities in which pepper spray had been used on the victims shortly before they died. Results of this review are examined in Section 2.⁸

The NIJ also published a white paper that summarized the benefits and limitations of OC products in police use, along with questions of training, tactics, medical-legal issues and the little that was known about the pharmacology and chemical properties of OC when used in aerosol propellant in the strengths common among police pepper spray.⁹

Although the NIJ has been active on issues concerning pepper spray's use by law enforcement agencies, it lacks

Los Angeles Police Department Pepper Spray Incidents

November, 1993-July, 1994

Source:

Fact Sheet Summary on Oleoresin Capsicum,
office of the Chief of Police,
Los Angeles Police Department, Sept. 9, 1994.

Number of incidents 645

Gender of subjects

Male	595	(92.2%)
Female	45	(7%)
Animals	5	(.8%)

Race of subjects

Anglo	140	(21.7%)
African-American	258	(40%)
Latino	224	(34.7%)
Asian-Pacific Islander	4	(.6%)

OC was effective 552 (85.6%)

OC was ineffective 93 (14.4%)

If ineffective:

Subjects too close when sprayed	36	(38.7%)
Alcohol, drugs or mental illness	21	(22.6%)
Spray simply had no effect	27	(22.6%)
Other	9	(9.7%)

OC use by division

Central	18
Rampart	18
Southwest	23
Hollenbeck	27
Harbor	23
Hollywood	61
Wilshire	30
West Los Angeles	5
Van Nuys	22
West Valley	40
Northeast	21
77th Street	67
Newton	83
Pacific	30
North Hollywood	33
Foothill	78
Devonshire	16
Southeast	17
Other units	30

Officer discipline cases

filed as a result of OC use 4

**Incidents in which people were
sprayed other than those against
whom spray was intended for use** 38

statutory authority to regulate or license pepper spray—or any other less-than-lethal technology. It lacks any power to require pre-market clearance in the fashion of some other federal regulatory agencies, and it is powerless to order recalls or labeling standards on materials and devices sold for police use. In fact, pepper spray appears to have fallen through the cracks of the federal government's entire regulatory system, despite concerns about its potential toward health effects.

The U.S. Environmental Protection Agency has regulatory authority over pepper spray, but only for its use as an animal control substance. In that context, the EPA has developed a large bibliography of scientific data on oleoresin capsicum, all of it focused on maintaining the EPA's registration and re-registration authority over pepper spray products used primarily as dog repellents.

The EPA, however, has said unequivocally that it has no authority to inquire into OC's use on human beings or set standards for use by police or civilians. This position was summarized in a 1993 letter by an official of the EPA's Office of Pesticide Programs:

EPA does not regulate substances used against humans whether for purposes of law enforcement or personal protection.¹⁰

Neither the U.S. Food and Drug Administration nor the U.S. Consumer Product Safety Commission have regulated pepper spray. Because pepper spray is probably not a "food" or a "drug" within the meaning of FDA legislation, the Consumer Product Safety Commission may be the only federal agency with authority in this field.¹¹

In California, meanwhile, police use of OC products increased from 35 in January, 1993 to 459 in June, 1993, a 13-fold increase.¹² By the end of 1993, there were at least 5,000 sprayings a year.¹³ In late May, 1995, the DOJ said it had received police reports of 15,668 individual incidents in which OC was used since it was first approved in 1992.¹⁴

The DOJ has said it does not compute estimates of annual usage rates, although comparison of annual usage reports may permit calculation of the number of incidents in a 12-month period.¹⁵

The DOJ's annual summary total of pepper spray incidents for May 31, 1995, lists an increase of 8,837 pepper spray usages from May 31, 1994,¹⁶ suggesting that OC is being used in California more than 24 times a day statewide. There are no comparable figures on statewide use of other means of police force.

In September, 1993, an estimated 192 law enforcement agencies throughout California reported they were using OC.¹⁷ By May 31, 1994, 274 law enforcement agencies reported they were using pepper spray¹⁸; by late May, 1995, the figure was 489, indicating that virtually 100 percent of all California law enforcement agencies are currently using pepper spray.¹⁹

In its May, 1995, statistical summary, the DOJ claimed an overall effectiveness rating for pepper spray of 86.2 percent.²⁰ However, the rating was computed by including 182 incidents in which pepper spray was used to control dogs, an application in which OC enjoys a documented effectiveness rating approaching 100 percent.²¹ If animal incidents are subtracted from both the total number of usages (15,668) and from the total of claimed effective usages, OC's statewide effectiveness rate declines slightly, to 86 percent.²² Thus, reported effectiveness of OC in subduing subjects statewide is approximately the same as September, 1993, when the rate was 83.3 percent.²³

OC usage reports on file with the Department of Justice generally make it difficult to determine how many persons were struck by spray in each incident. This is especially true in incident reports that originate with jail divisions of county sheriffs' departments; these reports imply that, on a regular basis, dozens of inmates are sprayed during each incident.²⁴

This rapid increase in popularity and widespread use of OC has continued despite concerns within Cal-EPA and on the part of one of the two manufacturers of police pepper spray products that OC may pose significant health risks. Moreover, both Cal-EPA and the pepper spray industry agree that research mandated by the three-year provisional certification of OC either has not been or cannot be completed on schedule or has never been started.

On July 26, 1994, the Office of Environmental Health Hazard Assessment (OEHHA) prepared an internal report on the status of the department's pepper spray oversight program. The report closely tracked a draft evaluation prepared for Atty. Gen. Lungren late the previous year.²⁵ This internal report observed that:

To date, we have been working by redirection of staff and there have been no additional funds available to support these activities. As such, we are attempting to fulfill basic needs concerning the toxicology and human health implications of using OC tear gas but have not been able to provide the staff effort required to support a full health risk analysis program. Our preliminary examination revealed that very little hard data were available.

For general consumer use, our health concerns relate primarily to unintentional or unavoidable exposures to individuals such as infants and children, pregnant wom(e)n, asthmatics, and individuals with pre-existing disease or taking prescribed drugs who are likely to be more susceptible to the debilitating effects of [OC] tear gas products. [OC] tear gas weapons introduced into civilian use will inevitably be misused.²⁶

This memorandum went on to estimate that, despite the scheduled August 1, 1995 completion date for required studies of toxic and health effects, delivery to the Department of Justice of Cal-EPA's OEHHA final report on OC risks could not occur before July, 1997 because no additional funds or staff had been made available.²⁷ Thus, for almost a year, state regulatory officials have known that completion or even commencement of basic science research on pepper spray will be at least two years late.

The state's largest pepper spray supplier, Defense Technology Corporation of America (Def-Tech), developed a research schedule for a series of toxicology studies on long-term risks and hazards of use of pepper spray on human beings in the strengths common to police and civilian-use OC sprays.²⁸ By early January, 1995, Def-Tech circulated an unpublished proposal that projected a research timetable of between seven and 13 months for completion of a series of basic toxicology experiments. Even if the studies had begun immediately, this timeline would have made completion of the manufacturer-funded research virtually impossible by the August 1, 1995 deadline mandated by the three-year provisional certification.²⁹ OEHHA's report was to have relied on this manufacturer-sponsored research.

Def-Tech's unpublished proposal included a warning to law enforcement officers that any use of OC on a subject be limited to a single burst of not more than one second.³⁰ It also detailed potential problems that closely tracked earlier reservations in other quarters about the safety of OC spray products.

The paper observed that:

Studies have been done on the effectiveness of OC as a 'less than lethal weapon.' However, little or nothing is known about the health risk or toxicity of pepper spray, OC and other ingredients. Police usually rank OC just after physical pain compliance and immediately before the use of impact weapons. The FBI Firearms Training Unit did research on OC in 1987 and approved its use by their special agents. FBI chemists concluded that they did not foresee any long-term health risks associated with the use of OC. **However, there is some question as to the actual scientific data to back these claims.**

Concerns on the safety and health risks associated with its use have arisen. OC sprays cause upper respiratory inflammation and may have detrimental effects on people with preexisting respiratory problems. Furthermore, it is known that capsaicin directly affects nerves that transmit pain. Excessive stimulation to those neurons causes them to stop functioning properly. With continued stimulation, nerve death can result. Lastly, repeated administration of capsaicin [the active ingredient in oleoresin capsicum] has also resulted in liver necrosis in laboratory animals.

Other concerns should also be addressed in the use of pepper spray. For instance, subjects who are extremely agitated, mentally ill, or under the influence of drugs or alcohol may not feel pain. It is important that officers do not develop an over-reliance on pepper spray. Rather than expecting the pepper spray to incapacitate the suspect by itself, many agencies suggest that OC spray should be used to distract the arrestee through discomfort, the sheer surprise of being sprayed in the face, and the accompanying reflex of shielding and closing the eyes. However, if the person is expecting to totally incapacitate the suspect, and that result is not observed, the officer may be inclined to keep spraying the individual until s/he stops, or at least longer than the one second burst that is recommended by manufacturers. **This obviously would be an overexposure, which may cause added health risks. This also raises the concern of excessive use of force, which is anything above the minimal amount of force needed to ensure the safety of the officer while subduing the individual.**³¹

Cal-EPA's OEHHA initially received regulatory jurisdiction over pepper spray in 1992 when the material was legalized for police use. When the DOJ approved civilian sales effective March 1, 1994, OEHHA's mandate expanded. The office's doubts about the safety, potential for fatal results and lack of scientific research about police pepper spray led the agency to lobby against civilian legalization.

In February, 1995, Assemblymember Jackie Speier introduced Assembly Bill 830, which would remove requirements for mandatory training and licensing for civilian pepper spray users and also repeal some restrictions on marketing of police pepper spray. The bill passed the Assembly in the Spring and was pending in the State Senate when this report was prepared.

OEHHA documents show that this legislation was introduced despite the office's repeated warnings about police pepper spray and its resulting recommendations against civilian legalization. The documents also show that pepper spray manufacturers sought the regulatory relief because of disappointing civilian sales.

An October, 1994, internal OEHHA memorandum reported on conversations between an OEHHA official and the DOJ, as well as with Defense Technology Corp. of America (Def-Tech), the largest maker of police and civilian pepper spray:

According to [Bob] Oliver [a Defense Technology official], Def-Tech sold 116,000 units to distributors in California since March 1, 94. This is the figure to distributors but it does not necessarily mean that all these units have gone to members of the public.

Regarding projection for the future, Oliver said that they started at a best projection of 1 million for the first yr and 1.5-2 million units for the second yr (and from then on). But sales figures have not been as high as they thought and they wish DOJ could make it simpler for people to get these products.³²

In April, 1995, the ACLU of Southern California obtained several hundred pages of OEHHA documents under the California Public Records Act. Among these documents were nearly 100 pages of printouts of electronic mail messages produced by PROFS, a State of California computer messaging system that links regulatory agencies in San Francisco, Berkeley and Sacramento.

These E-mail messages includes information that does not otherwise appear in department files. These and other documents from OEHHA show that Cal-EPA's scientists expressed acute concerns about the safety and efficacy of OC as early as 1991 and that these concerns continued to be communicated at least as recently as March, 1995.

There is also evidence that the nearly complete lack of scientific data addressing questions about safety and effectiveness of OC products is an issue about which Cal-EPA toxicologists warned the California Department of Justice at least as early as August, 1993, in an apparently confidential communication to Attorney General Dan

Lungren. In this letter, state toxicologists also conceded that Cal-EPA had insufficient staff and financial resources to complete the testing program required under the 1992 provisional certification.

In a letter to Attorney General Lungren dated August 26, 1993, Dr. Carol Henry, OEHHA's director at that time, observed:

The Office of Environmental Health Hazard Assessment is a small department with more mandated activities than there are professional staff to meet them. OEHHA does not have the resources to hire additional staff to work exclusively on health evaluations of tear gas. Since 1990, an estimated three person-years' of effort has been redirected to responding to DOJ requests for health evaluation reports. Over the past two years, our funding sources have changed from predominantly General Fund to fee-based support. Under these conditions, continuing redirection of staff is difficult given the level of scrutiny from the regulated community who pay these fees.

We recommend that your decisions about certification of tear gas weapons for civilian use (provisional or final) be based, as much as possible, on sound scientific evaluation. However, OEHHA cannot provide such an evaluation without adequate experimental data and resources to hire staff and to convene the necessary experts.³³

Nearly a year after this letter to Attorney General Lungren was written, OEHHA scientists continued to express concern that their ability to complete mandated research was hampered by scarce resources. OEHHA was particularly concerned about addressing possible adverse health effects in people with pre-existing heart or respiratory disease.

In a July 26, 1994, memorandum to OEHHA's chief deputy director, a toxicologist raised questions about whether the mandated pepper spray safety research would ever be completed. His memorandum concluded:

If and when experimental studies are completed, we hope to be able to provide a more in-depth analysis of the safety of these products. We will also rely on the use reports and the coroners' reports to substantiate the experimental results. In addition to the need for staff to review and analyze numerous toxicological protocols and results, an adequate health evaluation will necessarily include a review of the use reports and coroners' report, requiring additional contract funds for outside expertise. We have estimated that the resulting workload due to this unfunded mandated activity will continue to burden other programmatic activities....³⁴

Nevertheless, despite these repeated CAL-EPA warnings, Attorney General Lungren assured the public that OC would undergo sufficient tests to ensure its reliability and safety. The press release announcing the decision to certify pepper spray products for use by civilians stated:

Lungren certified pepper spray for use by peace officers on a three-year provisional basis in August 1992. The California Department of Justice and Cal-EPA are conducting a three-year test period, during which time additional incident reports will be analyzed along with other scientific tests to further determine oleoresin capsicum's toxicity and other human health factors.

Today Lungren explained that under provisions of the California Penal Code, he consulted with state health officials regarding new tear gas products. The Attorney General has broad authority to certify (or de-certify) new tear gas products for use by police or the general public.

"After reviewing the first 2,000 incidence reports from California peace officers, I have come to the conclusion that pepper spray should be available to the public for self-protection. And I believe that we know enough about the effects of this product—especially when compared to other alternatives—to make this decision now, rather than two years from now," said Lungren.

"Prior to making them available, these products will have undergone an extensive battery of tests within my

department,” said Lungren.³⁵

The PROFS E-mail communications appear to be substantially at odds with Attorney General Lungren’s press release on the status of research on pepper spray’s safety and effectiveness. For instance:³⁶

01/10/91 11:12:49

Subject: oleoresin capsicum

I am receiving phone calls and being pressured by California police departments in major cities (LAPD called me this morning) to reconsider our decision to disapprove the use of oleoresin capsicum tear gas in California. I am telling them that I have contacted my superiors and am awaiting a decision on how to proceed. It is clear to me that we should sit on this. I will be receiving numerous phone calls. The major problem is that adequate tox[icology] studies do not exist. The second problem is we have limited resources to conduct a risk assessment. The police were saying what is currently being used is too toxic to themselves and they are already using oleoresin capsicum on dogs (and I suspect humans are also being exposed).

06/22/92 10:45:42

Subject: Wed morning communications meetings

Tear gas- we reviewed data packages from two companies that submitted applications to DOJ. Although the packages are not complete and we cannot determine health hazards from exposure to these compounds, we agreed that tear gas products containing oleoresin capsicum may be safe enough to use on a restricted and controlled basis with the following stipulations:

1. Only for use by trained officers in emergency situations. Not for crowd control or personal use.
2. Complete medical and use documentation must follow every application (New York has a similar use restriction)
3. Follow-up experimental studies must be sponsored by applicants to address the potential for irreversible effects on sensory nerves and the eye.
4. The use would be reevaluated after a predetermined length of time (say about two years).

10/15/93 18:41:00

Subject: Oleoresin Capsicum tear gas products

The New York diabetic with heart trouble is typical of the kind of persons who would be esp. vulnerable to the rigors of OC exposure. DOJ should consider disseminating the information they are collecting to local law enforcement so that they can review their guidelines for when use is warranted.

10/19/93 17:53 ***

Subject: OC—In-custody deaths

Anna—Let’s discuss this issue at senior staff meeting on Thursday. It is not acceptable to me that OEHHA is not working on a potentially important public health problem because we do not have resources budgeted. Please come with some suggestions for addressing this issue. Thank you.

11/09/93 07:46:46

Subject: OC/DOJ

Before we talk with the manufacturers, we need to be absolutely clear as to what level of priority these

activities are for OEHHA, what level of effort we are expected to devote to this, and from where the additional resources will come to perform some of these duties.

11/12/93

Subject: O-C Spray: Potential Forensic Pathology Consultation

Incidentally, a special “security” program on Nightline touted pepper sprays as being “more effective against people who are high on drugs or alcohol.” With that kind of build-up, I would have to concur with the ACLU’s recommendation that the issue of interactive effects between O-C spray and drugs of abuse be investigated. I hope we are making headway with getting resources freed up for this.

01/04/94 11:13:19

Subject: Standards for the Certification of Personal Self-Defense Tear Gas Products Containing Oleoresin Capsicum (OC)

Standards for certification should include a requirement for a comprehensive health risk assessment which should be approved by OEHHA (or another state health agency). As far as I know, there is currently no adequate health risk assessment performed for oleoresin capsicum containing products. Besides, there are serious health concerns related to the use of OC in tear-gas formulations. Our office communicated these concerns to the DOJ in at least a few detailed reports and during a few meetings.

Any new tear-gas products (including products based on the OC) should be assessed for their health risk before they are allowed on the market. Older products should be reevaluated (or evaluated) in an expedited manner.

11/04/94

Subject: Meeting with DEF TECH

After lunch I suggest a conference call with Shulock and Broderick³⁷ joining in from Sacto to discuss larger issues, including “due diligence” in undertaking toxicity studies to maintain product registration past Aug. 1995, and the use of proprietary information obtained by one manufacturer to apply to other products.

02/22/95 14:37:28

Subject: tear gas leg[islation] proposal meeting—any update

There is also the issue of having the autopsy reports/slides reviewed by outside consultants. We have some \$\$, not sure if enough. I have really, but the burden on Bob to follow up with all of this. He is almost up to full time as it is, and this is expected to increase when we start analyzing some of this paperwork. I think the sentiment down here in the trenches is that we cannot move more forward without the heavy artillery. In other words, although the end product is worth the work, we cannot gain ground without funding.

Warnings about the potential adverse effects of pepper spray have been voiced by others in the scientific community. Because so little is known about the health risks associated with pepper spray, there is special concern about the risks of inadvertant spraying by civilian users on themselves or innocent bystanders.

In early June, 1995, the Los Angeles Police Department sought City Council approval (which was still pending as this report was written) to apply for a \$217,000 National Institute of Justice grant to study how use-of-force patterns had changed as a result of introduction of pepper spray. The department, however, sought to compare baton use by officers to pepper spray use. It proposes to compare baton-use data beginning in 1989 with baton-use

in 1995. The decline in baton use will be attributed to the department's use of pepper spray as an alternative weapon. In fact, baton use dropped dramatically in the wake of the beating of motorist Rodney King in 1991, and pepper spray was not introduced throughout the department until 1993.

The LAPD's grant application acknowledged uncertainties about pepper spray, as well:

Messina [a former New York police officer] maintains that OC is not a "magic bullet" and that there is evidence from encounters with both suspects and animals, such as attack dogs, that over-reliance on its use can place officers at high risk. Other researchers support this position, suggesting that the key to officer and citizen safety and effectiveness of the agent lies in the training protocol. "Exaggerated or misleading claims for its effectiveness" will lead to indiscriminate use of the product and unfortunate consequences for both officers and citizens. In addition, it is not enough to say that the spray is not effective 100% of the time; rather training needs to be comprehensive and detailed enough to fully identify when and in what situations it can or should not be used. Randall [another researcher] is concerned that lack of such training will result in inappropriate (and therefore ineffective) use of OC and that, in time, this agent too will become as problematic as CS or CN [chemical names for Mace tear gas products].³⁸

Pepper spray in correctional settings is also of particular concern. Use of pepper spray in jails and prisons is becoming more common. OC is now used throughout the California Department of Corrections.³⁹ Currently, a judge overseeing court-ordered reforms at the Pelican Bay State Prison is considering specific policies and procedures to regulate pepper spray use in the aftermath of inmate-abuse litigation.

Use of OC in correctional settings among county sheriff's departments has become especially prevalent, and is likely to affect large numbers of inmates.

For example, between June, 1993 and February, 1994, the L.A. County Sheriffs' Department reported 78 uses of pepper spray in jails—nearly a quarter of the 321 OC incidents reported by the Sheriff to the DOJ.⁴⁰

In two recent court cases involving OC use in a county jail and a state juvenile detention facility, medical experts filed sworn statements evaluating pepper spray's potential for inflicting serious harm. Because there have been few, if any, scientific or medical journal publications on OC's potential risks and benefits when used in police-strength formulations on humans, these recent expert evaluations are among the first critical reviews of OC.

In October, 1994, and again in April, 1995, Dr. Michael D. Cohen, a nationally known expert in pediatric medicine, submitted declarations in a lawsuit in U.S. District Court in Tacoma, Wash., concerning conditions of confinement and pepper spray use in the Green Hill School in Chehalis, Wash. The lawsuit, *James Horton et al v. Bob Williams, et al*, among other things challenges the alleged use of OC on juvenile inmates of Green Hill School for purposes of inflicting punishment for misbehavior.

In his declarations, Dr. Cohen concluded that:

As a result of this review, as well as my own experience in pediatric medicine, it is my opinion that aerosol oleoresin capsicum is harmful to youth with chronic lung disease. It is also my opinion that the spray is likely harmful to other youth because of the increased risk of injury to eyes, airways and skin.

Because the spray poses real and potential dangers to youth who are exposed to it, because the spray is used to punish youth and not to protect the safety of other youth or staff at Green Hill, and because the medical and clean-up procedures are inadequate to protect youth from further injury, it is my opinion that the use of pepper spray at Green Hill does not comport with sound professional judgment.⁴¹

Because it is a potent airway irritant, 5% oleoresin capsicum spray is likely to precipitate asthma attacks in susceptible individuals. Because asthma is a heterogeneous disease with much variation among patients not every asthmatic would suffer a severe asthma attack after exposure. However, it is very likely that some asthmatics will.

There are two conflicting approaches to management of human risks associated with industrial and medical products. The public health approach is to define a level of acceptable risk, and test products carefully before they are released for human use to be certain that they do not exceed the acceptable risk. This is the approach of the federal Food and Drug Administration regarding the release of new drugs. In contrast, the use of potentially toxic substances in industry has been characterized by a different approach, which allows substances to be used, sometimes with widespread human exposure, until evidence has accumulated that there is a definite harmful effect. I believe it is prudent to follow the public health approach when considering products whose intended use involves repeated human exposures.

Although oleoresin capsicum spray is marketed explicitly for use on humans, it was not subject to FDA scrutiny prior to release because it is not considered to be a drug or a therapeutic agent. There have been no extensive clinical studies to fully characterize the short and long term effects on humans in general and asthmatics in particular. I believe enough is known, however, to conclude that the risk of exposing asthmatics to this substance is not acceptable.⁴²

Another critical evaluation of OC in a corrections setting involved an inmate in Humboldt County Jail who was charged with assault after he allegedly threw a television at deputies after being pepper sprayed. The inmate, according to medical reviews of his condition, had been recovering from a "binge" of alcohol and heroin use when the incident occurred. The inmate also had a long history of methamphetamine abuse.⁴³

In a court-sanctioned medical examination, the inmate was evaluated by Dr. David E. Smith, an internationally known expert on substance abuse based in San Francisco. In a report filed with the court, Dr. Smith observed that:

Pepper spray has been implicated in the deaths of a number of inmates, especially those who suffer from respiratory diseases such as asthma, as well as those who are intoxicated or suffering a mental health crisis.... In this case the inmate did not die, but he apparently had a seizure in the shower and difficulty breathing, both of which would also increase his interpretation that he was in a life-threatening situation. Beyond the issue of his perceptions and interpretations, his life was also **in fact** threatened by the actions of the officers; had he gone into status epilepticus instead of having a single seizure, the incident could have been fatal due to cerebral anoxia. In essence, by using pepper spray repeatedly in his eyes while he was in acute withdrawal and delirium, the officers created a medical emergency that could have killed him, which they were in no position to recognize or counteract.

In such a condition, being repeatedly sprayed in the eyes with pepper spray would only have been able to be interpreted by him as a threat to his life, since his ability to make judgments and perceive accurately what was happening were impaired by his acute withdrawal, which was improperly treated by jail personnel, and by the pepper spray itself, which caused a noradrenergic surge that further incapacitated his cognitive abilities. Furthermore, his perception that his life was in danger was in fact correct, due to the failure of jail personnel to identify his risk factors, and by their improper use of pepper spray on an inmate in acute withdrawal.⁴⁴

In Section 2 of this report, we will focus on CAL-EPA E-mail messages that refer specifically to fatalities related to pepper spray use.

NOTES

¹ Memorandum from Steven A. Book, interim director, Office of Environmental Health Hazard Assessment, Cal-EPA, to Fred Wynbrandt, chief, Bureau of Criminal Investigation and Analysis, Department of Justice, July 21, 1992, pages 1 and 2.

² *ibid.*

³ *ibid.*

⁴ *ibid.*

⁵ California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, “Deaths in Police Custody in Temporal Association with Hot Pepper Tear Gas Exposure,” by Robert A. Howd *et al.*, June, 1994.

⁶ ACLU of Southern California, “Pepper Spray: A Magic Bullet Under Scrutiny,” September, 1993, page 8.

⁷ Letter from Atty. Gen. Dan Lungren to Ramona Ripston, executive director of the ACLU of Southern California, Nov. 8, 1993.

⁸ “Pepper Spray and In-Custody Deaths,” executive brief, International Assn. of Chiefs of Police, Alexandria, Va., March, 1994.

⁹ “Oleoresin Capsicum: Pepper Spray as a Force Alternative,” National Institute of Justice Technology Assessment Program, Washington, D.C., March, 1994.

¹⁰ Letter to Allan Parachini from Calvin B. Furlow, Public Response and Program Resources Branch, Office of Pesticide Programs, U.S. EPA, Feb. 10, 1993. This letter was in response to an ACLU Foundation of Southern California Freedom of Information Act request: RIN-0436-93.

¹¹ Telephone conversation between Allan Parachini and Dr. Sidney Wolfe, director, Public Citizen Health Research Group, June 11, 1995. The Health Research Group and Wolfe have extensive experience in determining potential regulatory authority within the federal government pertaining to FDA, CPSC and EPA regulatory mandates.

¹² “Monthly Distribution of OC Use Reports (as of 3/1/94)” chart included in files of California Environmental Protection Agency. This and accompanying charts and tables were apparently derived from required filings of pepper spray usage reports with the Firearms Division, California Department of Justice. These documents were recovered from the agency under the California Public Records Act. As indicated hereafter, any document in which the notation “PRA Document” appears in a citation was obtained by the ACLU under the Public Records Act in April, 1995.

¹³ Extrapolation based on mean number of incidents reflected in Cal-EPA files, charts and tables for the period May through November, 1993.

¹⁴ California Department of Justice fact sheet, “Oleoresin Capsicum (OC) Usage Reports Summary Information May 31, 1995.

¹⁵ Telephone interview by Allan Parachini with Mike Broderick, manager, Firearms Division, California Department of Justice, June 8, 1995.

¹⁶ *ibid.*

¹⁷ American Civil Liberties Union of Southern California, “Pepper Spray: A Magic Bullet Under Scrutiny,” Fall, 1993, page 7.

¹⁸ California Department of Justice “Oleoresin Capsicum (OC) Usage Reports Summary Information, May 31, 1994.”

¹⁹ DOJ OC Usage reports.

²⁰ *ibid.*

²¹ “Pepper Spray: A Magic Bullet Under Scrutiny,” page 24.

²² Extrapolations from DOJ figures footnoted above.

²³ “Pepper Spray: A Magic Bullet Under Scrutiny,” page 15.

²⁴ This observation is based on a review of OC usage reports by the Los Angeles County Sheriff’s Department for the period June, 1993-February, 1994.

²⁵ Letter to Honorable Dan Lungren from Dr. Carol J. Henry, Aug. 26, 1993. This document, provided by OEHHA under the California Public Records Act, includes a hand-written notation at the top: “Do not cite, quote or distribute,” and appears intended as a private communication with Lungren. PRA document.

²⁶ Memorandum from Michael J. DiBartolomeis, chief, Pesticide and Food Toxicology Unit, to Charles M. Shulock, chief deputy director, OEHHA, July 26, 1994. PRA document.

²⁷ *ibid.*

²⁸ The issue of the “strength” of pepper spray products and whether police versions are stronger than or the same as civilian personal protection products has become the subject of great confusion. Marketing materials generally rely on a percentage rating—for police products, the range is 5% to 10%—to describe a product’s “strength,” and some civilian products claim an identical “strength.” However, the National Institute of Justice has cautioned that the percentage is largely irrelevant since the actual “strength” of a pepper spray product depends on the Scoville Heat Units (SHUs) in the particular variety of pepper plant from which OC’s active ingredient is derived. The NIJ has also cautioned that because the peppery raw material is produced from the plant as an oil, concentrations higher than 5% may not form into an aerosol stream as effectively as lower concentrations. See note 8.

²⁹ “Toxicity of Tear Gas Containing Oleoresin Capsicum (OC),” unpublished research study proposal by David K. DuBay for Defense Technology Corp. of America. This document was made available to the ACLU of Southern California by DuBay on Jan. 30, 1995. It is understood that Defense Technology has not obtained the necessary funds to undertake this research and that, as of this writing, the studies outlined in this paper have not been started.

³⁰ *ibid.*

³¹ *ibid.* Emphasis added.

³² E-mail memorandum from Dr. Anna Fan, OEHHA, to other members of the OEHHA staff, Oct. 20, 1994. This memorandum is a slightly different type of E-mail message from other such communications mentioned elsewhere in this report.

³³ Letter from Henry to Lungren, Aug. 26, 1993. PRA Document. This document, as maintained in OEHHA files, has the handwritten notation, “Do not cite, quote or distribute,” written at the top of its first page, suggesting it was a communication intended to remain highly confidential.

³⁴ Memorandum from Dr. Michael J. DiBartolomeis, Chief, Pesticide and Food Toxicology Unit, to Charles M. Shulock, Chief Deputy Director OEHHA, July 26, 1994. PRA Document.

³⁵ News release: “LUNGREN TO CERTIFY NEW SELF-PROTECTION TEAR GAS FOR USE BY PUBLIC; ORDERS ‘PEPPER SPRAY’ TO BECOME

AVAILABLE IN MARCH 1994,” issued by Dave Puglia, press secretary, Sept. 10, 1993, page 2.

³⁶ All of the E-mail messages referenced in this portion of Section 1 are PRA documents found in printout form in OEHHA files in Berkeley. In most cases, quotations included here are excerpted from the message in question, though in a few instances, the sections included here are the full messages.

³⁷ This message apparently refers to Mike Broderick, manager of the Firearms Program of the California Department of Justice and the person designated by Atty. Gen. Dan Lungren as the top official of the DOJ’s component of the state pepper spray monitoring and certification program.

³⁸ Los Angeles Police Department draft grant application to the National Institute of Justice, “A Pre-Post Study of the Use of Oleoresin Capsicum (OC) Spray in the Los Angeles Police Department,” by Kathleen O’Leary, Morgan Lyons and Officer Diane Tieman, June 7, 1995, page 17.

³⁹ Findings and conclusions of the court, *Madrid v. Gomez*, Jan. 10, 1995. Information on this case was supplied by the Prison Law Office, San Quentin, Calif., and the U.S. District Court, San Francisco.

⁴⁰ Statistics developed from California Department of Justice Oleoresin Capsicum (OC) Application Reports filed by the Los Angeles County Sheriff’s Department. PRA documents.

⁴¹ Declaration of Dr. Michael D. Cohen, Oct. 10, 1994. United States District Court, Tacoma, Wash., *James Horton et al v. Bob Williams et al.* On Dec. 6, 1994, U.S. Dist. Court Judge Robert J. Ryan issued a preliminary injunction barring use of pepper spray on Green Hill School residents unless it is “in situations which are reasonably likely to result in injury to persons or injury to a substantial amount of valuable property.” Judge Bryan ordered that “the only legitimate intended result of a pepper spray use is the incapacitation of a dangerous person and **not** the infliction of pain” and that “pepper spray shall not be used for punishment and shall be used only in furtherance of legitimate institutional interest which, in this situation, means the incapacitation of a dangerous person.” The order also declared that “pepper spray should only be used when absolutely necessary, which means that it should be used only if there is a threat of equal or greater harm to others or to a substantial amount of valuable property than the pain and danger of harm that the pepper spray presents.”

⁴² Declaration of Dr. Michael D. Cohen in *Horton v. Williams*, April 15, 1995. OC sprays in 5% concentration, as alluded to by Dr. Cohen, are the norm for products certified in California for law enforcement use.

⁴³ Evaluation prepared under the aegis of Humboldt County Superior Court, April 14, 1995.

⁴⁴ Letter to Kevin Robinson, esq., Humboldt County Conflict Counsel, from Dr. David E. Smith, April 14, 1995. Emphasis in original.

SECTION 2: Death After Pepper Spray in California

OC spray products were legalized in California in August, 1992, prior to completion or initiation of any long-term studies of toxic effects. There are no studies on long-term health risks or special risks among sub-populations (such as asthmatics, heart patients and the mentally ill). Nor are there studies on dose-response rates for pepper spray, including data on maximum and minimum effective doses.

Almost immediately after OC sprays became legal in California, police agencies began reporting in-custody fatalities after their use.

This phenomenon was first examined in detail by the ACLU of Southern California in September, 1993, in the first version of the report, "Pepper Spray: A Magic Bullet Under Scrutiny," which identified seven fatalities between Jan. 5 and Sept. 9, 1993.¹ In March, 1994, the ACLU re-released this report with updated information on a total of 14 fatalities between Jan. 7 and Sept. 28, 1993.²

By the beginning of 1994, fatalities connected to pepper spray incidents were the subject of national controversy. The National Institute of Justice (NIJ) commissioned several research projects on pepper spray, including two reports published in March, 1994. The first, "Pepper Spray and In-Custody Deaths," was published by the International Association of Chiefs of Police (IACP); the second was an NIJ paper, "Oleoresin Capsicum: Pepper Spray as a Force Alternative."

Both of these documents discounted the role OC played in any of 30 in-custody deaths reported nationwide up to that time. The IACP study assembled sufficient information in 22 of the cases for review by a panel of pathology consultants. The IACP study concluded that:

Sudden death in custody is neither a new phenomenon nor attributable to the use of OC spray. Rather, sudden custody death can occur at any time for a variety of reasons. Any law enforcement agency may experience a sudden custody death, regardless of OC involvement. Consequently, officer awareness and recognition of risk indicators are necessary to ensure subject safety and minimize the risk of sudden custody death. These indicators generally include:

- bizarre/violent activity
- obesity—especially "big bellies"
- drug and/or alcohol involvement
- apparent ineffectiveness of spray

Diligent observation and constant monitoring of subjects displaying any one or a combination of the indicators are procedurally warranted. Furthermore, the use of maximal, prone restraint techniques should be avoided. If prone positioning is required, subjects should be closely monitored. By implementing such procedural protocols, the potential for custody deaths may be lessened.³

The NIJ's white paper also minimized the role of OC in causing serious injury or death. However, the agency's research noted that OC may cause fatalities in a small number of subjects on whom it is used. It observed:

Oleoresin capsicum (OC), or "pepper spray," is gaining acceptance and popularity among law enforcement

officers and police agencies as a safe and effective method of incapacitating violent or threatening subjects. There is, however, a lack of objective data on OC, its risks and its benefits.

OC sprays cause upper respiratory inflammation; therefore, they may have detrimental effects on people with pre-existing respiratory conditions.

The Federal Bureau of Investigation Firearms Training Unit (FTU) conducted research to determine the most effective chemical agent product to be carried by their Special Agents. Based on that research and testing, along with information provided by the U.S. Army Chemical Research and Development Center, FTU approved the use of oleoresin capsicum. FBI chemists who were consulted during the study did not foresee any long-term health risks associated with the use of OC.

Furthermore, police agencies responding to an FTU questionnaire did not report any medical problems. Nevertheless, Occupational Health Services, Inc. (a private research facility in Kansas City, Missouri), reported that because OC caused the subject's breathing passages to swell and constrict, the use of OC on persons with pre-existing respiratory conditions such as asthma could, in rare instances, cause death.⁴

Despite some evidence of health problems associated with pepper spray, the NIJ noted that it had little potential to precipitate litigation, unlike police use of firearms and nightsticks.⁵ Moreover, according to IACP pepper spray expert John Granfield:

Most of the information on OC has come from officers who used it during training and on subject. This information has been basically anecdotal. A number of manufacturers, in order to protect themselves from liability, did contract with private labs to do tests.... However, no government or consumer agencies have done any tests.⁶

The question of whether fatalities can be attributed to pepper spray is the subject of spirited controversy. In 1993, Cal-EPA's OEHHA conducted a review of in-custody deaths in California from 1988 to 1992. In that period, a total of 1,533 people died in custody. However, only 178 deaths were under circumstances similar to fatalities after use of pepper spray.⁷ Although the OEHHA review did not compare deaths in years in which pepper spray was legal in California and those in which it was not, the OEHHA paper concluded that: "Deaths may or may not have increased since the introduction of OC sprays, depending on how OC-associated in-custody deaths may be categorized."⁸

These figures appear in the chart on the following page, **In-Custody Deaths in California**.

The paper also concluded that:

- The toxicology database is inadequate to perform a standard hazard assessment for OC-containing teargas weapons.
- Can OC-containing tear gas products irreversibly damage the eye, lungs or nervous system or cause adverse effects on the developing embryo?
- There are no studies on the acute effects of inhaled OC tear gas mists or sprays on the respiratory and cardiovascular system, to determine the potential for severe adverse reactions.⁹

In March, 1993, OEHHA researchers from Berkeley and Sacramento presented a paper at a toxicology conference. They concluded that:

Following our review, we concluded that the use of OC-based tear gas products offers a reasonable alternative

In-Custody Deaths in California, 1988 to 1992

I. Deaths Classified by Cause

Cause of Death	1988	1989	1990	1991	1992	Five-year total
Accidental	30	40	29	28	31	158
Unknown / Pending	4	4	2	5	3	18
Unclassified	1	0	0	1	0	2
Totals	35	44	31	34	34	178

II. Deaths Classified by Custody Status

Custody Status	1988	1989	1990	1991	1992	Five-year total
In Transit	10	11	3	5	6	35
Awaiting Booking	7	5	3	5	5	25
Unknown	0	0	1	3	0	4
Totals	17	16	6	10	11	60

Total in-custody deaths
from all causes

270	305	312	315	331	1533
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Source: California Department of Justice and California Environmental Protection Agency

to a greater level of force (e.g. police baton) or to other available tear gas weapons. However, we have several concerns:

- In general, the existing database is not adequate to perform an analysis of the health hazards of OC-containing tear gas weapons.

- There are no studies to determine whether OC-containing products cause irreversible damage to the eye or nervous system, or cause adverse effects on the developing embryo.

- From the existing data, it is not currently possible to distinguish the intended effect from any unintended, irreversible effects.

- Some data suggest that capsaicinoids, key ingredients in OC-containing tear gas products, may cause genetic damage.

- Individuals with pre-existing pulmonary or cardiovascular disease are likely to be more sensitive to the adverse effects of OC-containing tear gas products. There is no information on how drug interactions may potentiate the effects of capsaicinoids.¹⁰

In August, 1993, the director of OEHHA prepared a letter to Atty. Gen. Dan Lungren reviewing the feasibility of legalization of OC spray products for use by the public. The OEHHA opposed such legalization on grounds that OC products had not been adequately tested to identify potential risks, including the risk of deaths among people who might be struck by pepper spray.

In that letter, the OEHHA observed that:

Very little is known about the toxicity of OC in its intended use as a tear gas weapon. Three deaths have occurred in California in which the use of such products by highly trained law enforcement personnel was involved, and one recent legal use in North Carolina resulted in the death of an apparent asthmatic. While coroners' reports may not prove a direct correlation between the use of OC-containing tear gas and the exact cause of death, OEHHA is concerned that in each incident that untoward reactions to OC may have been a contributing cause of death or exacerbated underlying conditions such as asthma or drug use to cause cardiac or respiratory failure.

These incidents notwithstanding, OEHHA has some very basic concerns about the risk of adverse effects in individuals who are exposed, intentionally or not, to OC-containing tear gas. Experimental data is needed to address health questions relating to breathing or contacting OC-containing aerosols or streams, such as effects on the heart, lungs and airways, or irreversible effects on the eye, or an unborn fetus. In addition, basic information on chemistry and exposure are not available for these products. These types of studies are not unusual examples of the requirements for common household products such as pesticides, cleaners or pharmaceuticals and are the minimum data OEHHA needs to conduct an adequate health evaluation of any tear gas weapon made available to the general consumer.¹¹

A month later, the deputy director of OEHHA, in a memorandum to the assistant secretary of Cal-EPA, recommended against making OC available to consumers in part because of concerns about OC's possible role in in-custody fatalities. This memorandum also noted that these concerns had been shared repeatedly in meetings with staff members in the Attorney General's office. It observed that:

Over the past year, OC-containing tear gas products have been used in California under a three-year provisional certification, issued in August, 1992, which allowed use by law enforcement officers only. During this period, use reports were to be filed to document any adverse public health effects from exposure to these products. The provisional certification was issued under recommendation by the Office of Environmental Health Hazard Assessment (OEHHA), which found insufficient data available to assess public health risks from the products, as required by Penal Code Section 12599.

In several meetings with the AG's staff, OEHHA shared its views on the potential acute effects which the OC-containing products may have on certain populations—such as asthmatics, pregnant women and children—which were highlighted with the August 30 release of a medical examiner's report that the use of an OC-containing spray contributed to the July 11, 1993, death of an apparent asthmatic in the custody of the Concord (North Carolina) City Police Department¹². OC-containing products have been associated with three recent deaths in California; however, the North Carolina incident is the first where OC has been medically linked to the cause of death.

OEHHA continues to hold that additional testing of OC-containing tear gas products is needed before a thorough health assessment can be conducted. We are not enthusiastic about civilian use, given the general lack of data on these products, but we recognize the Attorney General's obligation under statute to balance the uncertainty of risk for OC products against the risks of other tear gas products and weapons, and do not want to second-guess his risk-management decision.¹³

In late 1993, a team of U.S. Army researchers at the Aberdeen Proving Ground in Maryland circulated a paper apparently precipitated by the promotion and marketing claims for the safety of police OC products by the manufacturers of Cap-Stun, one of two brands of OC spray currently legal for police use in California.¹⁴ The paper took issue with these marketing claims by Zarc International, Inc., that the Cap-Stun brand of pepper spray is virtually 100 percent effective and has no significant risks of adverse reaction. The U.S. Army study observed that:

Although there is an extensive data base on the active ingredient, capsaicin, there is very little safety data for the OC product, Cap-Stun.

Studies reported on the active ingredient capsaicin indicate that it is capable of producing mutagenic and carcinogenic effects, sensitization, cardiovascular and pulmonary toxicity, neurotoxicity, **as well as possible human fatalities**¹⁵

There is a risk in using this product on a large and varied population. This is because of the limited safety studies conducted on the OC spray, Cap-Stun. There is also a variety of adverse effects reported in the literature on the active ingredients. In addition, information has been made available referring to 14 fatalities in humans in police custody following exposure to OC sprays.¹⁶

In mid-December, 1993, a senior OEHHA toxicologist, in correspondence with an Aberdeen Proving Ground scientist, observed that:

...The deaths in California involve interactions with stimulant drugs, and in 6 out of 7 cases, the collapse occurred in close proximity to repeated, generally ineffective, treatments with OC sprays. Deaths after overdose with stimulants are well known, but for these cases it looks like there could be a toxic interaction involving cardiovascular or respiratory sensitization caused by catecholamine releasing agents, high stress, and a very high capsicum dose.¹⁷

A study underwritten by the NIJ and conducted by the IACP, as well as an internal OEHHA panel convened by teleconference in June, 1994, reviewed in-custody deaths involving people who were pepper sprayed and subsequently died.

The IACP study, reviewed above, concluded that OC played no direct role in any of 30 fatalities nationwide in 1993.

The OEHHA teleconference reviewed data on seven California deaths after use of pepper spray. Participants included medical examiner personnel from Los Angeles, San Diego and Fresno Counties, along with a representative of the California Department of Justice Firearms Program and a representative from a private research firm retained by Def-Tech, one of the two companies licensed to sell OC products for police use in California. With the

exception of this pepper spray manufacturer, no non-governmental agencies were invited to participate in, or informed in advance of, the OEHHA teleconference.¹⁸

The teleconference occurred nearly two years after the California Department of Justice and OEHHA issued a “provisional certification” for use of OC by law enforcement agencies. This certification, issued on Aug. 14, 1992, and subject to expire in August, 1995, was designed to provide pepper spray manufacturers time to develop reliable research on the long-term and short-term health risks associated with police and civilian use of pepper spray products.

When it circulated invitations to the teleconference, OEHHA included several documents for review by potential participants. One of these was an undated, unpublished white paper titled “Hot Pepper ‘Tear Gas’ Sprays.” It found:

In the throat and lungs, the strong, sharp pain produced by OCs causes choking and gasping for breath. Breathing can stop completely for a time. This is a desirable effect in somebody who is trying to attack you. But the person should start to breathe again very soon, or they could suffer brain damage or die. OEHHA concluded that the chance of prolonged effects on breathing could not be determined because: a) the potential OC dose was not known, b) inhalation toxicity studies in animals are too limited, and c) inadequate records were available on the prior use of this chemical on people. In addition, the effect of OC sprays in people with respiratory problems such as asthma or emphysema is not clear.¹⁹

Hot pepper tear gas products have not been determined to be safe, but merely to be acceptable for limited use while better safety data is collected.²⁰

In its internal account of the meeting circulated to participants, the OEHHA emphasized that records of the discussion would be carefully controlled:

He [OEHHA Deputy Director Charles Shulock] noted that contrary to what had been announced in the invitation, the meeting would not be taped, as that might be counterproductive to free discussion. These summary notes would be the only official record of the meeting.²¹

A consensus was reached that, in the seven fatal cases reviewed, “None of the coroners saw evidence of effects that would clearly be attributed to the OC spray.”²² However, two of the participants, the chief forensic pathologist for the San Diego County Medical Examiner’s Office and a deputy medical examiner from Los Angeles County, questioned whether enough was known about pepper spray’s possible post-mortem signs accurately to rule out OC in the cases. An OEHHA toxicologist observed that no manufacturer of OC products had developed a reliable method of determining the presence of trace elements of pepper spray in a body and a pathologist from the Fresno County Coroner’s Office observed that it is difficult to differentiate the effects of chemical artifacts of OC because of the lack of research and reliable methodology.²³

A month after the teleconference, a somewhat different account of the proceedings was included in an internal memorandum on the status of the OEHHA pepper spray research program. In it, the chief of the agency’s pesticide and food toxicology unit reported that:

To date, approximately 19 deaths have occurred in California after the legal use of these products. All reports are from trained law enforcement uses. We have not yet received the full reports on each of the California deaths. Although it is clear that the medical examiners have thus far **not** made an association between OC use and these deaths, we are still concerned that in each incident, untoward reactions to OC may have been a contributing cause of death or exacerbated underlying conditions such as pre-existing disease or drug use, to cause cardiac or respiratory failure. From the coroners’ teleconference, it is clear that OC as a contributing cause of death had not

been seriously considered in each case discussed.²⁴

Of the 26 California fatalities presented in this report, 10 include no mention of OC in the coroner's file, implying that in many cases autopsy pathologists are either not informed that pepper spray was used on the decedent or that they found no indication in the body that pepper spray had been used. In some autopsy reports, medical examiners have specifically discounted OC as playing a role in the case.

In the autopsy report on Charles Ernest Mann, who died July 15, 1994, for example, the Nevada County Coroner observed:

Although there has been an attempt (on the part of the media and some others) to blame this individual's death on the administration of pepper spray, the findings at autopsy do not support that conclusion as the underlying cause of death.

Moreover, the experience of other death investigative agencies seems to show that pepper spray does not cause death.²⁵

However, OEHHA file documents include repeated conclusions that so little is known about how to identify the residue or artifacts of pepper spray that autopsy reports discounting it may do so without any basis. OEHHA's deputy director observed that testing methods that could identify pepper spray residue and establish a role in cause of death may not even exist. In a letter to the Sacramento County Coroner's Department, in the summer of 1994, the OEHHA official said:

The overall purpose of our discussion with coroners during this meeting [held in July, 1994] and at other times has been two-fold: first, to obtain information from coroners about their procedures and findings in deaths which occurred shortly after subjects were sprayed with OC tear gas products; and second, to acquaint coroners with the basic toxicology of high-concentration hot pepper oils, so that they might consider these specific effects in conducting future autopsies that might be OC-related. In the dozen or so cases for which we have coroner's reports, no hot pepper effects which might have contributed to the deaths have been identified. Often, no special attention was given to the upper airways (one area which might be affected by OC sprays) but it is not clear whether any post-mortem effects would be visible if, for example, broncho- or laryngospasm contributed to the deaths.²⁶

Additional information on fatalities can be found in E-mail messages entered in the state computer system called PROFS. These messages establish that, since at least 1993, state scientists have been concerned about the growing number of fatalities and have expressed concerns markedly different from the public positions taken on the issue by the California Department of Justice. For example:²⁷

10/15/93 17:01 ***

Subject: Oleoresin Capsicum tear gas products

Thus there are at least 13 deaths with some association with OCs.

This is an alarming number of deaths, all in about 1 year. We will be looking further into this as soon as we receive the additional information. Please notify anyone else that you think should be made aware of this disturbing news, or let us know if you think we should be doing something more.

10/19/93 17:08 ***

Subject: OC — In-custody deaths

We have received the summary of OC deaths from DOJ. These represent 12 deaths in California associated with OC's since the sprays were approved for law enforcement personnel last fall. Two deaths have been reported in New York and North Carolina, bringing the total to 14. Most of the California deaths occurred in the last few months, as the sprays became more prevalent, including 2 in January, 1 in April, 3 in June, 4 in August and 2 in September. This appears to me to be an alarming incidence, but we do not yet know the details of the relationship of the OC's to the deaths.

10/19/93 18:04 ***

Subject: OC—In-custody deaths

Carol has asked in our 5-yr plan to identify which activity we would like to do less of. Scratching our heads hard and long, we could only identify OC and Comp Risk. With reduced and no decrease in our workload, that is an interesting exercise. We will still do OC evaluation for the coming year. When we start counting bodies, we cannot drop the issue.

11/24/93 10:13 ***

Subject: OC autopsy reports/in-custody deaths

The files on the deaths are a total of over 1 inch thick with multiple police reports, etc. I looked through two and have already spent over 1 hour. Of the two, one was a probably-directly related to OCs (i.e. death within a few minutes), and the other was probably not related (death a few hours later).

06/16/94 13:56:36

Subject: OC conference call

This sounds OK, but I would probably want to precede it with something like, "We are concerned that the possibility of OC involvement in these cases might have been overlooked because this is relatively new, and because, if it were involved, it might not result in any obvious signs."

06/21/94 07:59:44

Bev—this is a good question and concern. I agree. I agree we are not here to point fingers, but rather learn and inquire about methodological limitations. In past discussions with Dennis and Jim Stratton, we have agreed that OC may have been indirectly, and possibly even directly been the cause of some of these deaths. But, we do not have support for this.

We are ultimately concerned about innocent victims (children, pregnant women, individuals with asthma, for example) and want to gather as much information as we can about human and animal toxicology.

03/22/95 14:01:08

Subject: Another OC death

Another death in police custody after OC spraying occurred recently in Antioch²⁸ Capt. Ed Keller of the Antioch Police Dept. called me to discuss the case. It appears to be the classic sequence: Agitated person high on methamphetamine, subdued by police, held down, stopped breathing, revived temporarily, died in hospital a short time later. Capt. Keller's concern was that his men were going to be blamed for the death, by a coroner labelling it as caused by 'positional asphyxia.' I discussed with him several interrelated, potentially contributing causes (extreme agitation and struggle, drugs, a position or situation which restricts breathing and a spray agent which affects breathing and may increase agitation).

Statistical Profile of Deaths After Pepper Spray

This table summarizes the statistical profile of in-custody deaths involving subjects who had been pepper sprayed by California law enforcement agencies between Jan. 1, 1993, and May 1, 1995. Where possible, the table compares the California cases with a series of 30 fatalities studied in 1993 by the International Assn. of Chiefs of Police. The IACP review included some California incidents that also appear in the new ACLU series.

ACLU 1995 California		ACLU 1994 Nationwide		ATTRIBUTE	ACLU 1995 California		ACLU 1994 Nationwide		ATTRIBUTE	ACLU 1995 California		ACLU 1994 Nationwide	
Total number		26		30									
Caucasian		14 (53.8%)		12 (40%)									
African-American		5 (19.2%)		13 (43.3%)									
Latino		7 (26.9%)		5 (16.7%)									
Male		26 (100%)		30 (100%)									
Age range		21-47		24-53									
Average age		34.9		not presented									
OC effective		0 (0%)		4 (13.3%)									
OC ineffective		26 (100%)		18 (60%)									
Effectiveness unknown		0 (0%)		4 (13.3%)									
Hogtie		13 (50%)		5 (16.7%)									
Other cuff-leg restraint technique		1 (3.9%)		15 (50%)									
Handcuffs		6 (23%)		6 (20%)									
Taser		2 (7.7%)		not presented									
Baton		6 (23%)		not presented									
Subject struggled with officer(s)		25 (96.1%)		28 (93.3%)									
Irrational/combatve behavior		26 (100%)		30 (100%)									
Drugs/alcohol involved													
Yes		22 (84.6%)		23 (76.5%)									
No		2 (7.7%)		5 (16.7%)									
Unknown		2 (7.7%)		2 (7.7%)									

ACLU 1995 California		ACLU 1994 Nationwide		ATTRIBUTE	ACLU 1995 California		ACLU 1994 Nationwide		ATTRIBUTE	ACLU 1995 California		ACLU 1994 Nationwide	
Blood drug level(s) reported by medical examiner within lethal range		6 (23%)		not presented									
Significant underlying disease present													
Yes		16 (61.5%)		12 (40%)									
No		2 (7.7%)		18 (60%)									
Unknown		8 (30.8%)		0 (0%)									
Medical examiner s file includes no mention of OC*		10/24 (41.7%)		not presented									
Cause of death is suicide due to gunshot or stab wounds inflicted in close time proximity to OC use		2 (7.7%)		not presented									
Cause of death is officer-involved shooting in close time proximity to OC use		1 (3.9%)		not presented									
Time from spray to death 60 minutes or less		11/14 (78.6%)		not presented									

Restraint techniques identified in medical examiner report as materially involved in the case		12/24 (50%)		not presented	
Positional asphyxia or struggle mentioned in Cause of Death		6/24 (25%)		not presented	
Cases in which legal counsel have been retained, litigation is pending or a wrongful death out-of-court settlement has been reached involving money payment by pepper spray manufacturers		8 (30.8%)		not presented	
* In California cases in which autopsy and other medical examiner records do not mention OC and in which OC was apparently not considered in development of the cause of death, involvement of OC was verified by interviews with witnesses, family members and/or investigating police officers; news accounts and/or interviews with journalists covering these incidents; California Department of Justice Firearms Division OC reporting forms; case reviews by the Special Investigations Division of the Los Angeles County District Attorney s office; police reports, or a combination of two or more of these sources. Determination of whether medical examiners considered OC cannot be made in two cases whose coroner files have not been released to the public as of June 6, 1995.					

Since the publication of the ACLU's first report, "Pepper Spray: A Magic Bullet Under Scrutiny," extensive new files of memoranda, studies and other literature have become available. In January, 1995, the ACLU began a new review of fatalities involving people sprayed with OC in California.

The review covers fatalities from Jan. 1, 1993, through May 1, 1995—a total of 26 incidents. This total represents one fatality for every 602 reported uses of pepper spray by California law enforcement personnel since OC was authorized for police use in Oct., 1992. No fatalities were reported prior to Jan. 7, 1993.

These cases are summarized in the chart on the following page, **Statistical Profile of Deaths After Pepper Spray**.

Of the 26 cases examined, two involve incidents that occurred after April 1, 1995, and for which coroners' files and relevant supporting documents—including toxicology reports—have not yet been made public. For the remaining 24 cases, the ACLU of Southern California obtained complete coroner/medical examiners' files, which in all cases included toxicology reports. These data were supplemented, in turn, by comparison with a chart detailing 15 of the cases developed by the OEHHA. The OEHHA comparison included additional medical history and police report details on these 15 incidents—mostly from sources unavailable to the ACLU.²⁹

Information gleaned from the coroner files was supplemented, on a case-by-case basis, by other documents, including police reports, news accounts, correspondence and, in one case, a press release. Between January 1 and April 1, 1995, ACLU research interns conducted telephone interviews with investigating officers and detectives in some of the cases and with family members and witnesses to the incidents in other cases.

Individual characteristics of these 26 incidents are presented in the fold-out master table, **Deaths After Pepper Spray**, after page 27. Narrative summaries of all cases appear in Appendix A.

The fatality total presented here differs from the number of in-custody deaths where OC was used as calculated by the Bureau of Criminal Identification and Information of the California Department of Justice. As of May 31, 1995, the DOJ fatality listing included 21 cases,³⁰ including one for which the ACLU was unable to find documentation.

The ACLU table lists six cases that do not appear on the DOJ roster. Of these six, three involve occurrences so recent the DOJ apparently has not yet received records on them. Three others involved cases where the cause of death was attributed to gunshot wounds or stab wounds; the DOJ discounted pepper spray as a contributing factor in the death.³¹ The ACLU includes these three cases: in at least two of them the decedents exhibited behavior prior to their fatal shootings that may have been materially influenced by OC. In one case the cause of death officially is attributed to stab wounds but involves highly unusual circumstances.

NOTES

¹ "Pepper Spray: A Magic Bullet Under Scrutiny," a report of the American Civil Liberties Union of Southern California, Los Angeles, Calif., September, 1993, page 27.

² "Pepper Spray: A Magic Bullet Under Scrutiny," revised version including March, 1994, fatality chart and correspondence to Atty. Gen. Dan Lungren and the Los Angeles Board of Police Commissioners.

³ "Pepper Spray and In-Custody Deaths," by John Granfield, Jami Onnen and Charles S. Petty, M.D., Alexandria, Va., International Assn. of Chiefs of Police, March, 1994, pages 5 and 6.

⁴ National Institute of Justice Technology Assessment Program, "Oleoresin Capsicum: Pepper Spray as a Force Alternative," Washington, D.C., U.S. Department of Justice, Office of Justice Programs, March, 1994.

⁵ *ibid*, page 5.

⁶ *ibid*, page 5. Ellipsis in original.

⁷ "Deaths in Police Custody in Temporal Association with Hot Pepper Tear Gas Exposure," unpublished conference paper prepared by Robert A. Howd with Michael J. DiBartolomeis, Anna M. Fan and Charles M. Shulock, Office of Environmental Health Hazard Assessment, Cal/EPA, Berkeley, 1993.

⁸ *ibid*.

⁹ *ibid.*

¹⁰ "Health Risk Evaluation of Tear Gas Products Containing Oleoresin Capsicum," M.J. DiBartolomeis, *et al*, Office of Environmental Health Hazard Assessment, presented at the 32nd annual meeting of the Society of Toxicology, March 14-19, 1993, pages 6 and 7.

¹¹ Letter to Honorable Dan Lungren from Dr. Carol J. Henry, Aug. 26, 1993. This document, provided by OEHHA under the California Public Records Act, includes a hand-written notation at the top: "Do not cite, quote or distribute," and appears intended as a private communication with Lungren. The North Carolina fatality to which the letter refers was that of Angelo Darcel Robinson, 24, who died on July 11, 1993, in Concord City, N.C. His was the first case in which cause of death was attributed directly to pepper spray. Since then, a second case, in Westchester County, N.Y., has been attributed in part to OC spray.

¹² This fatality involved Angelo Darcel Robinson, 24, an African-American man who was fatally pepper sprayed on July 11, 1993, in the first—and thus far, only—case in which OC has been cited specifically as a principal cause of death. At autopsy, Robinson was found to have an enlarged heart—a condition common to people who have died after being pepper sprayed in California. Robinson's body also showed evidence that he suffered from acute bronchitis. His bloodstream contained levels of alcohol consistent with intoxication, but no illicit drugs were found in his system and the alcohol was not implicated as a contributory cause of his death.

¹³ Memorandum to Michael Kahoe, Assistant Secretary, Cal-EPA, from James W. Stratton, Chief Deputy Director, OEHHA, Sept. 14, 1993. PRA document. The memorandum appears to contain an erroneous Penal Code citation since there is no Section 12599. OC regulatory authority is spelled out in Section 12450 *et seq.*, particularly sections 12451 and 12455.

¹⁴ "Capsaicin Toxicology Review," Harry Salem, E.J. Olajos, L.M. Miller and S.A. Thomson, U.S. Army ERDEC, Life Sciences Department. The paper is undated but was apparently completed in the late fall of 1993.

¹⁵ *ibid.*, page 1, emphasis added.

¹⁶ *ibid.*, page 10.

¹⁷ Letter dated Dec. 16, 1993 to Harry Salem, Ph.D., U.S. Army, Aberdeen Proving Ground, from Robert Howd, Ph.D., Pesticide and Environmental Toxicology Section, OEHHA. PRA document.

¹⁸ California Environmental Protection Agency, "OEHHA Teleconference on Hot Pepper Spray: June 23, 1994, unpublished draft notes dated July 25, 1994. This document was obtained from OEHHA by the ACLU under the California Public Records Act.

¹⁹ Office of Environmental Health Hazard Assessment, Pesticide and Environmental Toxicology Section, California Environmental Protection Agency, "Hot Pepper 'Tear Gas' Sprays," undated white paper circulated June 7, 1994. Page 2.

²⁰ *ibid.*, page 3.

²¹ *ibid.*, page 1.

²² *ibid.*, page 2.

²³ *ibid.*

²⁴ Memorandum to Charles M. Shulock, Chief Deputy Director, OEHHA, from Michael J. DiBartolomeis, Chief, Pesticide and Food Toxicology Unit, July 26, 1994, Subject: Action Items and Resource Needs for OC Health Evaluations, page 2. Emphasis in original.

²⁵ Autopsy report, Charles Ernest Mann, Nevada County Sheriff-Corner, Aug. 26, 1994, page 12.

²⁶ Letter to Robert Bowers, Sacramento County Supervising Deputy Coroner from Charles M. Shulock. PRA document. This copy, taken from the OEHHA files, does not show a date stamp, but it apparently was sent shortly after Bowers visited OEHHA's offices on July 26, 1994. A copy of this communication was sent to the Firearms Program of the California Department of Justice.

²⁷ PROFS E-mail messages obtained under the California Public Records Act from the California Environmental Protection Agency, Berkeley. PROFS links the Office of Environmental Health Hazard Assessment (OEHHA) and other offices of Cal-EPA with other state scientifically-focused regulatory agencies, most notably the California Department of Health Services. PROFS is not connected to the California Department of Justice. Messages cited here were recovered in printout form from document files maintained by OEHHA. The messages are reproduced here in excerpt form, for the most part, although some of what appears in this report are full texts of shorter messages.

²⁸ This is a reference to the Jan. 18, 1995, death of Derek Wallace, 29. The Wallace case is included in the series of 26 fatalities examined in this report and is summarized in Appendix A. The cause of death for Wallace, as asthmatic, was found to be positional asphyxia and methamphetamine intoxication.

²⁹ This chart, "IN-CUSTODY DEATHS ASSOCIATED WITH PEPPER SPRAY APPLICATION," is an attachment to an internal OEHHA paper, "Deaths in Police Custody in Temporal Association with Hot Pepper Tear Gas Exposure." PRA document. Decedents included in this review were Domingue, Poole, Coleman, Morrison, Hodgson, Frix, Sanford, Garcia, Ballard, West, Silva, Herrera, Martinez, Leija and Jaurequi. Full references are on the master fatality chart included with this report.

³⁰ "In-Custody Deaths Where Oleoresin Capsicum Was Used (California) May 31, 1995," unpublished table prepared by the Bureau of Criminal Identification and Information, California Department of Justice.

³¹ Telephone interview by Allan Parachini with Mike Broderick, June 8, 1995.

SECTION 3: Conclusions and Recommendations

California law enforcement agencies have used Oleoresin Capsicum sprays for nearly three years. California police, sheriffs and correction departments used pepper spray nearly 9,000 times in the 12 months that ended May 31, 1995, a rate of more than 24 spraying incidents each day statewide. In slightly fewer than one of every 600 incidents, the suspect died after being pepper sprayed. Nearly 500 California police and county sheriff's departments currently use pepper spray.

This widespread use has been repeatedly facilitated by the California Department of Justice (DOJ), despite unequivocal warnings issued over at least two years by Cal-EPA's Office of Environmental Health Hazard Assessment that little is known about pepper spray's chemical actions and dangers when used on humans.

When pepper spray was authorized by the Department of Justice for police use in October, 1992, manufacturers were given three years, working under the supervision of Cal-EPA, to complete basic toxicology research to verify pepper spray's safety when used on people. This critical research, which was mandated to be completed by August 1, 1995, has not even begun.

Internal evaluations contained in Cal-EPA documents obtained under the California Public Records Act show that state scientists do not believe the required pepper spray research can be completed before July, 1997—two years behind schedule. Defense Technology Corporation of America, the largest distributor of police pepper spray in California, circulated a research proposal that projects a minimum 18 month delay in completion of the mandatory pepper spray toxicology studies.

Although Cal-EPA scientists have repeatedly sent memoranda to DOJ, and briefed DOJ personnel on these delays, DOJ and Attorney General Dan Lungren have failed to make the delay public and have taken no regulatory action to enforce compliance. The DOJ is required by Penal Code 12450 *et seq* to certify and find acceptable, based on "reasonable safety, availability and effectiveness," tear gas products used in California, including pepper spray. The agency is empowered to deny certification if it finds that "the tear gas or tear gas weapon creates a risk of unreasonable danger to the life or health of human beings which outweighs the social utility of the use of such tear gas or tear gas weapon."¹

In-custody death cases involving pepper spray fit a strikingly consistent pattern. None involve people who posed a serious threat of violence to civilian bystanders when they were sprayed or who were engaged in serious violent criminal activity when or shortly before police arrived. All involved people who were combative or irrational when officers arrived.

Of 26 incidents examined in this report, the 24 in which cause of death has been determined all involve people who were either high on drugs or suffering from a serious psychiatric disorder. Yet autopsies found lethal levels of drugs—either methamphetamine or cocaine—in only a quarter of the victims. Two victims with histories of serious mental illness had no drugs in their bodies at all and died of the frightening effects of schizophrenia or because their hearts failed as they fought with police after being pepper sprayed.

Moreover, while medical examiners did not directly attribute the cause of death to pepper spray in any of the

cases, they identified a number of police restraint techniques, including use of the controversial hobble restraint—or “hog tie”—as the primary or secondary cause of death in 10 of the fatalities. And while pepper spray has not been identified as a cause of death in any case in California, internal memoranda and other documents from the Cal-EPA indicate that state scientists are seriously concerned that pepper spray’s role in fatalities may be missed by autopsy pathologists because too little is known about what residues or other signs remain in a body after pepper spray has been used.

Ten of these 26 cases autopsy reports are silent on the issue of pepper spray, implying that either police never told medical examiner personnel that pepper spray had been used on the suspect or pathologists did not consider or had no reliable tests for pepper spray when determining cause of death. Ironically, pepper spray failed to work when police used it to try to control these irrational and combative victims in 100 percent of the 26 cases examined here.

Although California police authorities initially predicted that pepper spray would reduce police abuse litigation, a third of the pepper spray related fatalities have either resulted in pending or imminent wrongful death litigation or in out-of-court settlements. This proportion is likely to increase.

In brief, with scarcely any scientific data to verify its safety—and in the face of serious reservations about profound dangers to high-risk populations like asthmatics and the mentally ill—pepper spray has become one of the most widely used weapons in California.

It is in this context that the American Civil Liberties Union of Southern California completed this report, its third major assessment of pepper spray as a use of police force in California. The ACLU’s review of pepper spray began in the Fall of 1993. It identified seven fatalities among people who had been pepper sprayed, a figure that increased to 14 by the following March, when the ACLU released a follow-up to its original report.

This report has been completed after more than six months of research in which 26 fatalities have been investigated and hundreds of pages of internal Cal-EPA documents and internal manufacturers’ memoranda and research evaluations have been obtained and reviewed under the Public Records Act or by other means. In this research, the ACLU questioned investigating police officers as well as witnesses to fatal incidents, and friends, relatives and attorneys for the deceased.

Conclusions

We conclude that:

- 1) There is clear evidence that pepper spray is unlikely to achieve its intended purpose of subduing a suspect when it is used on people who are high on stimulant drugs or in psychiatric crisis.
In the face of such large volumes of accumulated evidence from both this series of 26 fatal cases and police statistics on circumstances under which pepper spray fails to work in the field, no California law enforcement agency can credibly maintain that it is unaware of this reality.
- 2) There is a clear statistical association between pepper spray use, employment of the hog-tie or similar restraint techniques by police, and evidence of drug intoxication and/or psychiatric disorder in in-custody deaths.
- 3) There is equally clear evidence that pepper spray may pose special risks when it is used on people

with respiratory disease—especially asthmatics. There is also a statistical association between pre-existing heart, liver and respiratory disease and death after pepper spray.

- 4) The California Department of Justice and Attorney General Dan Lungren have ignored warnings from the California Environmental Protection Agency of potential health risks of pepper spray. Cal-EPA administrators, who have been aware or should have been aware of these concerns among their own staff toxicologists and researchers have failed to obtain necessary supplementary money and personnel resources to increase the effectiveness of the agency's pepper spray oversight program. They have failed to make the public aware of these concerns, as well.
- 5) DOJ and the Attorney General have ignored repeated observations and warnings by Cal-EPA scientists, who have suggested a link between pepper spray and in-custody deaths and pleaded for additional resources to permit accelerated research to identify pepper spray's exact role in such cases—if there is one.
- 6) The Department of Justice and—to a lesser extent—Cal-EPA have failed to adhere to deadlines for completing mandated pepper spray toxicology research by August 1, 1995. Although this due date was expressly spelled out in the three-year provisional certification issued by DOJ to permit legal use of pepper spray, Cal-EPA has failed to enforce this deadline, or been prevented from enforcing it by a lack of financial and personnel resources. Most of the mandated research has not yet begun and Cal-EPA's own projections indicate the program may be at least two years behind schedule.
- 7) Despite this failure to complete toxicology and health effects research mandated by the provisional certification, the DOJ has taken no action to extend a monitoring program governing police use of pepper spray in which law enforcement agencies are required to report each pepper spray incident to the DOJ's Firearms Division in Sacramento. This requirement and the monitoring program are scheduled to expire on Sept. 1, 1995. The expiration will make it substantially more difficult to monitor pepper spray's effects and to identify in-custody fatalities in which pepper spray has been used.
- 8) The DOJ and the California Commission on Peace Officer Standards and Training (POST) have failed to promulgate revised pepper spray training standards for California police and sheriffs departments that take account of manufacturer recommendations that pepper spray be used on a person only one time, in a burst of one second duration, because more extensive use may be hazardous to the subject. DOJ and POST have also failed adequately to inform law enforcement agencies of the possible fatal dangers of use of the hobble restraint, either alone or in concert with pepper spray.
- 9) Although pepper spray comes under the regulatory authority of the U.S. Environmental Protection Agency as a pesticide, no agency of the federal government has assumed direct regulatory control over pepper spray used on human beings. EPA has said explicitly that it lacks regulatory authority in the area, even though it regulates OC products intended for use as animal repellents. However, the U.S. Consumer Product Safety Commission may have statutory authority to regulate at least personal protection pepper spray products. This regulatory void has not been filled by individual states, either.

Recommendations

Even California, which has the most extensive pepper spray monitoring apparatus in the United States, has fallen far short of minimally adequate oversight of pepper spray.

In 1993 and 1994, the ACLU issued a series of specific recommendations on pepper spray, most of which have not been implemented.

ACLU recommendations in this report fall in two groups. The first group of recommendations represent new findings that have emerged in the most recent research conducted by the ACLU. The second group consists of previous recommendations that have been modified as appropriate and which should be implemented immediately.

Group One Recommendations

- 1) The California Department of Justice and California Environmental Protection Agency should act immediately to set and enforce deadlines for completion of pepper spray health risk research, originally required to be finished by August, 1995.

These deadlines should require substantial completion of this work on or before September 1, 1996.

- 2) As an interim step, Cal-EPA and POST should be directed to develop emergency restrictions that will have the effect of minimizing use on people known to be at increased risk when pepper sprayed.

These emergency restrictions should apply, at a minimum, to these people: asthmatics; individuals with other heart or respiratory disease; individuals under the influence of drugs, especially methamphetamine and cocaine; individuals who police have any reason to believe may be in psychiatric crisis, and individuals who may be placed in prone restraint by any means, including handcuffs.

- 3) California police and sheriff's departments should adopt model policies governing pepper spray use developed by the ACLU and based in large part on existing provisions already included in the pepper spray practices of various police departments.

In adopting model policies, the goal should be to set forth appropriate less-than-lethal use of force guidelines.

- 4) The California Department of Corrections should introduce the Model Policy for Corrections Agencies throughout the state prison system.

- 5) The Legislature should defeat Assembly Bill 830 (Speier), which would modify regulatory standards for law enforcement use of pepper spray. This bill also repeals civilian training standards.

- 6) The Department of Justice and Cal-EPA should work collaboratively to develop mandatory product labelling for pepper spray.

At minimum, subject to revision or conclusion of toxicology research required under the August, 1992, provisional certification, all containers of pepper spray sold in California, including those

sold to law enforcement agencies, should carry a label with warnings about potential health risks, especially on people noted in Recommendation 2, above; risks to innocent bystanders and the pepper spray operator from inadvertent spraying; and a warning not to rely on pepper spray alone to incapacitate a person.

- 7) The U.S. Consumer Product Safety Commission (CPSC) and the National Institute of Justice should immediately begin a collaborative review of the scientific literature on pepper spray, as well as all relevant documents from the California Environmental Protection Agency.

This review should result in CPSC assuming regulatory authority for pepper spray products intended for use on humans.

- 8) The California Department of Justice should issue an immediate order extending indefinitely the mandatory pepper spray reporting program scheduled to expire on September 1, 1995.

This program should be revised and expanded to capture a greater range of data pertaining to pepper spray incidents.

- 9) The California Environmental Protection Agency and the Department of Justice should extend the three-year provisional certification of pepper spray scheduled to expire in August, 1995, and set enforceable deadlines for completion of required toxicology and other scientific research on pepper spray.

These deadlines should require substantial completion of this work by not later than Sept. 1, 1996. All existing regulatory oversight powers provided by the provisional certification should be retained in full force until all required research is completed to the satisfaction of Cal-EPA scientists.

Group Two Recommendations

- 1) The California Department of Justice should launch an immediate investigation of the circumstances surrounding the 26 deaths of people who had been pepper sprayed that have occurred in California since January 1, 1993.
- 2) DOJ and Cal-EPA should convene a task force of pathologists and researchers to identify ways of tracking through autopsy protocols any effects of pepper spray in the body.
- 3) The DOJ should require that any incident involving someone who has been pepper sprayed and is subsequently admitted to a hospital or dies be reported to the Department in Sacramento within 24 hours of its occurrence.
- 4) The Los Angeles Police Department and Los Angeles County Sheriff's Department should re-evaluate their existing programs for law enforcement response in cases in which people are acting in an irrational and combative manner, but have not committed a crime and show clear evidence of being under the influence of drugs or

in psychiatric crisis.

These programs should place particular emphasis on enhancing verbal conflict resolution skills among police officers and deputies.

- 5) DOJ and POST should issue immediately training standards and relevant notices that require law enforcement personnel to call for paramedic or similar backup as soon as they realize a person they have encountered in the field is either intoxicated on drugs or in psychiatric crisis and who is combative and irrational.

Medical aid personnel should stand by until the subject is safely in custody. If pepper spray is used on the subject, s/he should be immediately turned over to medical aid personnel for appropriate treatment, subject to appropriate concerns of officer and bystander safety.

In jurisdictions where medical aid resources do not exist or are insufficient to provide backup as described above, officers should transport any person who has been pepper sprayed to the nearest hospital emergency room. Between the time pepper spray is applied to a subject and his/her arrival at a hospital, at least one police officer or deputy sheriff should monitor continuously the subject's respiration and heartbeat. There should be no exceptions to this policy.

Individuals who have been pepper sprayed **should not** be placed in restraint on their stomachs or sides except momentarily if such actions are necessary to achieve physical control of the subject by officers.

¹ California Penal Code § 12451 (a) and § 12455 (a) (1).

APPENDIX A: Fatality Case Descriptions

The master chart titled “Deaths After Pepper Spray,” which appears in Section 2 of this report, identifies characteristics of 26 in-custody fatalities in California in which the victims are known to have been pepper-sprayed. The narrative summaries of these cases included in this Appendix add descriptive detail to the data presented in “Deaths After Pepper Spray.” These narratives are based on the same materials used to prepare the chart.

These sources include autopsy reports and coroners’ files; documents and tables prepared by the Office of Environmental Health Hazard Assessment of the California Environmental Protection Agency; published news accounts; interviews with witnesses and family members of the deceased; interviews with investigating law enforcement officers; oleoresin capsicum spray use reports filed with the California Department of Justice, and reports prepared by the Special Investigations Division of the Los Angeles County District Attorney’s Office. These narrative summaries do not replicate all statistical and pathology detail included in “Deaths After Pepper Spray.”

April 27, 1995, Leo Dawson, Age 27 Long Beach Police Department

In the early morning hours of April 27, Long Beach police found burglary suspect Leo Dawson inside a closed restaurant. Officers ordered Dawson to come out, but he refused. Dawson began to violently swing a fire extinguisher at the restaurant’s glass doors and then at the officers. The suspect ran into an alley, where the officers sprayed him two or three times with pepper spray (OC).¹ Dawson continued to struggle with the officers as they handcuffed him and tied his ankles together.

While Dawson sat in the back seat of a police car, officers noticed that he was having difficulty breathing. Dawson was rushed to the hospital, where he was pronounced dead. The autopsy has not been concluded, as of early June, but the Los Angeles County Coroner’s Office said drug paraphernalia was found in Dawson’s clothing.²

April 23, 1995, Javier Sandoval Trejo, Age 43 Orange County Sheriff’s Department

On April 23, deputies responding to a domestic assault call asked Trejo to step outside the house. Trejo, who initially seemed cooperative, “became assaultive”³ and attempted to escape. The deputies pepper-sprayed Trejo without effect and finally handcuffed him and transported him to jail. He became combative when the deputy removed the left cuff and the handcuffs were put back on. Trejo stopped resisting and was found to have no pulse. Resuscitation was unsuccessful.

The autopsy report has not been released. As of early June, investigators from the Orange County District Attorney’s Office were conducting an inquiry.

Jan. 18, 1995, Derek Wallace, Age 29 Antioch Police Department

On the evening of Jan. 18, Antioch police responding to a call of “a male subject acting in an erratic manner”, found Wallace standing in the middle of a street.⁴ Wallace, reportedly delusional, struggled while the police attempted to take him into custody. During the struggle officers pepper-sprayed Wallace and were then able to handcuff him.⁵

The police held down a struggling Wallace until they noticed that the subject had become unresponsive. Wallace arrived at the hospital in full cardiac arrest and could not be resuscitated.⁶

The coroner attributed Wallace’s death to “positional asphyxia with excited delirium, due to methamphetamine intoxication”.⁷ The coroner’s findings neglect to mention that pepper spray was used on the decedent and deny the possibility that he was asthmatic. However, news reports indicated that Wallace did suffer from asthma. The decedent’s family has retained counsel.

December 11, 1994, Gregory Jensen, Age 37 Huntington Beach Police Department

On the afternoon of Dec. 11, Huntington Beach police responded to a robbery alarm at a local motel. At the scene, the officers found Jensen standing naked on a balcony.⁸ As officers tried to corner Jensen, he jumped off the balcony and ran. The officers pepper-sprayed him, but Jensen continued to run.⁹

Finally, Jensen stopped and was handcuffed. Officers noticed that Jensen was having difficulty breathing and rushed him to the hospital, where he was pronounced dead.¹⁰

The coroner’s report made no mention of pepper spray use on the decedent. The coroner found the cause of death to be acute pulmonary edema, due to cocaine and methamphetamine intoxication.¹¹ However, the levels of cocaine and methamphetamine present in Jensen’s blood were not toxic. The coroner also failed to address whether a corollary relationship existed between Jensen’s pre-existing health conditions (enlarged heart, liver disease, possible asthma) and his death after an intense struggle. Counsel has been retained.

July 14, 1994. Charles Earnest Mann, Age 43 Placer County Sheriff s Department

On the night of July 14, a Placer County Sheriff’s deputy responded to reports of a person with a gun. At the scene, suspect Mann became combative and physically resisted deputies’ attempts to handcuff him. In order to restrain him, deputies struck Mann two or three times with a baton.¹² Mann failed to respond to the deputies’ verbal commands, at which point they sprayed him in the face with OC. Mann continued to struggle and it was 15 more minutes before deputies were then able to handcuff Mann.¹³

Once Mann was subdued, he became calm and a deputy checked the suspect’s breathing and pulse, both of which appeared to be strong. Less than five minutes later, Mann stopped breathing and exhibited no pulse.¹⁴ He was rushed to the hospital, where he died.

The coroner's findings asserted that pepper spray did not play a role in Mann's death. The coroner ruled out "restraint asphyxiation" as a possible cause of death because of the absence of the usual concomitants of positional asphyxia (hogties and cocaine/methamphetamine use).¹⁵ Instead, the coroner found that the decedent's "bizarre behavior" was indicative of acute ethanol withdrawal or delirium tremens (DTs), and attributed Mann's death to this syndrome, coupled with cardiac hypertension, liver disease and overuse of nasal decongestants and antihistamines.¹⁶

June 28, 1994, Daniel Lee Price, Age 35 San Diego County Sheriff's Department

On the afternoon of June 28, San Diego County sheriff's deputies approached Price, who had allegedly been throwing rocks at a residence. Price was combative and apparently grabbed the primary deputy's weapon. Deputies forced Price to the ground and squirted him with OC.¹⁷ Price seemed unaffected by the spray, so the deputies handcuffed and hogtied him, leaving him in a prone position.¹⁸

Several minutes later, Price became unresponsive and exhibited a faint pulse. Paramedics arrived, finding the subject in full cardiac arrest. Emergency efforts were made to revive Price, who was transported to the hospital but never regained consciousness.¹⁹

The coroner's report detailed the deputies' use of pepper spray in this incident and attributed Price's death to positional asphyxia. The cause of death was hypoxic encephalopathy (cerebral edema), due to restrictive asphyxia with cardiopulmonary arrest.²⁰ Although the toxicology report confirmed that the decedent had low levels of methamphetamine in his blood, the coroner isolates the use of "maximum restraint in prone position by law enforcement" as the primary cause for the asphyxia and cardiac arrest.²¹

Legal action is pending against the San Diego County Sheriff's Department.

April 19, 1994, Craig E. Denault, Age 47 Los Angeles Police Department

In the early evening of April 15, Denault crashed his vehicle into several parked cars.²² Denault emerged from the vehicle with a duffle bag and began swallowing a handful of pills.²³ Several civilians approached Denault to see if he needed an ambulance.

A police motorcycle officer arrived and tried to speak to Denault, who seemed oblivious to the officer's presence. In an effort to subdue Denault for his own safety, the officer squirted him in the face with pepper spray.²⁴ Denault turned his back to the officer, dropped to his knees and removed a gun from his duffle bag. Before the officer could act, Denault shot himself in the head.²⁵

The autopsy report failed to mention the use of pepper spray in this incident.²⁶ The toxicology report revealed that the decedent's blood ethanol level was 0.09 G% and his blood cocaine level was 1.50 UG/ML.²⁷ The coroner states that Denault, "...died as a result of a self-inflicted contact gunshot wound to the forehead."²⁸

April 18, 1994, Tony Steven Johnson, Age 28 Sacramento County Sheriff s Department

In the early morning hours of April 18, Johnson called 911 and advised them that he had injected himself with 200 units of “crank”.²⁹ Emergency personnel transported the subject to the hospital, where he jumped out of the ambulance, ran across the parking lot and began beating an office door with a garbage can.

Sacramento County deputies sprayed Johnson with pepper mace (OC), wrestled him to the ground and handcuffed him, at which point he became unresponsive.³⁰ A doctor was summoned, but was unable to resuscitate the decedent.

Johnson, who was 6-feet-6 and weighed 230 pounds, had an enlarged heart and was suffering from atherosclerosis. Despite the existence of these conditions, the coroner found acute methamphetamine toxicity to be the sole cause of death, ruling out the possibility of any other contributing factors.³¹

April 8, 1994, David Barrera Del Real, Age 21 Solano County Sheriff s Department

Shortly after midnight on April 8, Fairfield police arrested Del Real on three outstanding warrants. While handcuffed in the backseat of the patrol car, Del Real asked the officers to loosen his handcuffs. When an officer complied with his request, Del Real tried to escape. The officer and the subject began to struggle, at which point the officer pepper-sprayed Del Real.³¹ The subject continued to verbally and physically resist, after which he was hogtied and placed back in the car.³²

At the jail, Del Real struggled with the officers and was placed in a cell. Minutes later, Del Real stopped breathing and was unresponsive to CPR.³³ The decedent was taken to the hospital, where he was pronounced dead.

Del Real, who was 5-foot-8 and weighed 188 pounds, was found to have alcohol and toxic levels of methamphetamine in his blood.³⁴ The coroner mentioned the police use of (OC), but concluded that the, “deceased ingested a fatal level of methamphetamine”.³⁵ Del Real’s family has filed a claim with the City Attorney’s office.³⁶

March 27, 1994, Frank Hernandez, Age 47 Ontario Police Department

In the late evening of March 27, Ontario police pulled over a vehicle with expired tags. Hernandez, who was riding in the car as a passenger, became belligerent and was pepper-sprayed by all three officers. Hernandez then threw a tire iron at an officer. Police responding by shooting Hernandez with a Taser.³⁷ Hernandez picked up a brick and approached the officer who had tased him. The officer, while backing up, fell to the ground. During the fall, the officer allegedly pulled out his revolver and fired one round into Hernandez’s chest.³⁸ Emergency personnel found Hernandez dead at the scene.

The autopsy revealed that Hernandez, who was 5-foot-8 1/2 and weighed 195 pounds, was suffering from cirrhosis of the liver. The toxicology report showed that the decedent's blood ethanol level was high enough to render him very intoxicated, but well below the lethal range. The coroner's report mentioned the use of OC and found the cause of death to be a gunshot wound to the chest.³⁹ According to an eyewitness account, a female officer may have initiated or exacerbated the incident through contentious behavior toward the decedent and his son.⁴⁰

Dec. 8, 1993, Gerardo Jaurequi, Age 33 Napa County Sheriff's Department

On the morning of Dec. 8, Napa County Sheriff's deputies were advised that a pedestrian was creating a traffic hazard on a local highway. The deputies found Jaurequi attempting to stop traffic by standing in the roadway, waving his arms, and yelling incoherently. Jaurequi ignored the deputies' request to stop.⁴¹ A vehicle stopped and Jaurequi jumped into the passenger seat, causing the driver of the vehicle to exit quickly.⁴²

"Additional deputies arrived along with California Highway Patrol officers and were able to subdue Jaurequi after a struggle and place handcuffs on him," a report read. Sometime during the struggle, Jaurequi was pepper-sprayed, without effect. Shortly thereafter, the subject turned blue and no pulse could be detected. CPR was initiated and Jaurequi was taken to the hospital, where he could not be revived.⁴³

The coroner's report indicates that Jaurequi, who was 5-foot-6 and 250 pounds, suffered from obesity. The coroner fails to mention the use of OC in this incident and concludes that the cause of death was a "sequelae of methamphetamine intoxication with excited delirium".⁴⁴ The toxicology report revealed that the decedent had a mid-level amount of methamphetamine present in his bloodstream at the time of death.⁴⁵

Dec. 7, 1993, Jeffrey Thomas Scott, Age 34 Madera Police Department

In the early morning hours of Dec. 7, Madera police officers observed Scott driving his tractor trailer at high speed. Scott parked his vehicle and entered a restaurant, where he began acting in an aggressive and agitated manner. Scott was delusional and expressed suicidal intentions, stating, "I want to take my life".⁴⁶ Scott was then placed in a police vehicle, where he attempted to grab the shotgun from the front seat. Scott was ordered to vacate the police car and told to lie down on the ground. Instead, Scott charged the officers shouting, "Shoot me! Go ahead and shoot me!"⁴⁷ The officers struck Scott in the back of his legs with batons to no effect. During the struggle, Scott was apparently pepper sprayed, without effect. Witness accounts conflict about the sequence of some of the police restraint techniques utilized in a very confused struggle with Scott.

He was finally wrestled to the ground by four or five officers and hogtied.⁴⁸ Shortly thereafter, Scott stopped breathing and the officers began CPR. Scott was rushed to a hospital, where he died. The coroner found "acute cardiorespiratory failure due to severe stress as a result of physical restraint and probable acute psychotic episode" as the cause of death. The autopsy also revealed that the Scott suffered from schizophrenia and myocardial hypertrophy. During his altercation with the police Scott sustained multiple blunt force injuries.⁴⁹ No drugs were

found in the decedent's bloodstream.

There is no mention in the coroner's report of OC being administered to Scott.⁵⁰

Sept. 28, 1993, Luis Enrique Leija, Age 30
Santa Barbara Police Department

In the early morning hours of September 28, Santa Barbara Police found Leija lying in an apartment hallway and transported him to the hospital to treat him for a cocaine overdose. Three men were arrested for involvement in the sale of cocaine.⁵¹

Leija, who weighed 180 pounds and stood 5-feet-9, was found to have both cocaine and cannabinoids in his bloodstream, the cause of death being "acute cocaine toxicity".⁵²

There is no mention of OC in the coroner's case report. Information in the official coroner's files is extremely sketchy. However, the Office of Environmental Health Hazard Assessment included the Leija case in a series of 15 fatalities it studied in June, 1994.

OEHHA's review found that Leija attracted officers' attention because he was "acting strange" and that he ultimately struggled with six officers and was apparently sprayed before, still struggling, he was placed in handcuffs and leg restraints. Unlike many other fatalities in this series, Leija survived in the hospital for 18 hours after the incident.⁵³

Sept. 15, 1993, Jose R. Martinez, Age 26
Fresno Police Department

On the late afternoon of Sept. 15, Martinez's mother-in-law called the police because he was using drugs in the house. The police arrived 45 minutes later and determined that Martinez was under the influence of cocaine and attempted take him into custody.

Martinez reportedly resisted the police attempts to cuff him, and was pepper sprayed in the face.⁵⁴ Martinez continued to resist the officers, who began to strike him with batons and flashlights. Officers escalated the use of force, using stun-guns and pepper spray, until they were able to handcuff and hog-tie Martinez.⁵⁵

While five officers were pinning Martinez to the ground, they noticed that he was not breathing and had gone into full cardiac arrest. He was transported to the hospital, where he could not be resuscitated.

The coroner's report, which made no mention of pepper spray, attributed Martinez's death to, "acute cocaine toxicity, probably resulting in terminal cardiac arrhythmia".⁵⁶ However, an independent autopsy revealed that the level of cocaine in Martinez's blood was at "...the bottom of the toxic range, and much lower than it had been several hours earlier."⁵⁷ These findings suggest that cocaine toxicity may not be the cause of death.

The Martinez family has filed a wrongful death claim against the Fresno Police Department.

Sept. 10, 1993, Candalario Lopez Herrera, Age 35
Los Angeles County Sheriff's Department

Lopez Herrera, who was 5-foot-9 and weighed 140 pounds, died about nine hours after he was pepper sprayed by deputies in a lockup at the Lakewood sheriff's station.⁵⁸ News accounts indicate the LASD said Lopez was "behaving irrationally" and became combative at the station after he was taken into custody on a warrant for drug possession.⁵⁹

Quoting an unreleased LASD report, the Los Angeles Times reported that when Lopez Herrera was sprayed with OC as deputies tried to control him, "he initially showed no reaction," but that "soon after being restrained, he began to exhibit difficulty breathing."⁶⁰

The autopsy report said Lopez Herrera exhibited "wild and bizarre psychotic type behavior" and that he continued to struggle after he was pepper sprayed and was placed in a hobble restraint and placed on his side in a police car.⁶¹

Lopez Herrera started to have trouble breathing about 10 seconds after he was placed in the police vehicle. The restraints were removed and paramedics were called, but Lopez Herrera went into cardiac arrest. He was successfully resuscitated, but died in a hospital about eight hours later.⁶²

Aug. 24, 1993, Michael Alan West, Age 44 San Bernardino Police Department

On August 24, an officer observed the subject attempting a robbery and assault. The officer was injured in the ensuing altercation, but West was subdued and handcuffed, being pepper sprayed in the process. While an ambulance was called for the assault victim, a second officer noticed West "breathing in a labored and shallow manner."⁶³ West soon stopped breathing entirely and was transported to a hospital.

The coroner's report stated that "In this case, no single cause of death is evident."⁶⁴ Contributing factors included a history of drug abuse, including methamphetamine and cocaine, the physical struggle and restraint, possibly leading to asphyxia and cardiopulmonary arrest, and a "single coronary ostia with dominant right coronary artery,"⁶⁵ a defect "which, particularly under these circumstances, likely would result in further demands on the heart and possible cardiac irregularities."⁶⁶

The report ruled out the possibility of the OC as a contributing factor to the subject's death due to the lack of "historical or anatomical evidence."⁶⁷

Aug. 24, 1993, Mario Silva, Age 40 San Diego Police Department

On Aug. 24, police responded to a call to evaluate subject, who was in the street and behaving irrationally.⁶⁸ Silva resisted when officers attempted to handcuff him and was pepper sprayed. Silva ran away, but was recaptured and hogtied.

No chokehold was used, purportedly. Officers then noticed he was not moving and summoned an ambulance. Silva was transported to the hospital and died shortly after arrival.

The report states the cause of death to be cardiopulmonary arrest, brought on by "acute methamphetamine

intoxication.”⁶⁹ The heart was of normal size, but with occasional plaque deposits. The subject, who was 6 feet tall and weighed 194 pounds, had suffered a head injury several years ago, and “since that time...never appeared the same mentally.”⁷⁰

Aug. 18, 1993, Frank Ballard (a.k. a. Frank Ballardo), Age 40 Los Angeles Police Department

On August 18, the Ballard, who was naked, slid down to balcony below his and ran into a neighbor’s apartment. He barricaded himself in the bathroom and broke the mirror. When police forced open the door, they saw Ballard stabbing himself with needles and syringes he found in the bathroom.

He then stabbed himself in the throat with a shard of broken glass. Officers attempted to knock the shard out of his hand, then tear gassed the bathroom and at some point used pepper spray, all without effect. Officers used a taser gun to subdue the subject and paramedics transported the subject to a hospital, where he was pronounced dead.⁷¹

The coroner’s report determined the cause of death to be multiple stab wounds, with cocaine use a contributing factor.⁷² The report fails to mention the subject had been pepper sprayed and this information was only disclosed through other sources. The District Attorney’s Office found no evidence of wrongdoing and declined to prosecute the officers.⁷³

Aug. 5, 1993, Richard Garcia, Age 28 Sacramento County Sheriff’s Department

On Aug. 5, deputies responding to a 911 call arrived to find Garcia had locked himself in a bathroom. Deputies attempted to speak with the subject, but he crawled out the window, into the kitchen, and out the door.

Garcia, who was nude, became violent when deputies attempted to handcuff him. He eluded capture and was only subdued when additional back-up arrived. Deputies then observed the subject to be in distress and an ambulance transported subject to hospital.⁷⁴

The coroner’s report found that Garcia, who was 5-foot-2 1/2 and weighed 132 pounds, had a normal heart and internal organs and attributed the cause of death to “acute methamphetamine toxicity combined with intensive physical activity.”⁷⁵ The report mentions various abrasions and contusions the subject suffered as a result of being subdued and handcuffed, but makes no reference to the subject being sprayed with OC.

The independent review by the Office of Environmental Health Hazard Assessment, however, found that Garcia had been hog-tied and had struggled with three officers after he was pepper-sprayed.⁷⁶

Aug. 2, 1993, Danny Sanford, Age 32 San Bernardino Police Department

Officers responded to a call at the decedent's residence and arrived to find the subject eating dirt. Officers determined subject to be "affected by an altered mental status"⁷⁷ and handcuffed Sanford. The officers unsuccessfully attempted to load the resisting subject into their car, then pepper-sprayed him without effect. They then struck him on the legs with their batons. An ambulance was called and Sanford was loaded into it, resisting all the while. Sanford went into respiratory arrest and arrived at the hospital in full cardiac arrest.⁷⁸

Sanford, who was 5-foot-8 and weighed 202 pounds, suffered from acute psoriasis and chronic bronchitis. He also had a moderately fatty liver, internal hemorrhaging and external injuries. The cause of death was determined to be "cardiorespiratory arrest," caused by "multiple drug toxicity," a combination of phencyclidine, methamphetamine and alcohol.

June 23, 1993, Raymond Frix, Age 27 El Centro Police Department

Late in the evening of June 23, police responded to a fast food restaurant to investigate a complaint that a man was burning a cardboard box on the median of the street in front of the restaurant.

Frix had left the scene by the time police arrived, but officers caught up to him nearby. Officers quickly left, however, to investigate another reported crime.⁷⁹

Subsequently, Frix, who was 5-feet-11 and weighed 165, went to a nearby convenience store whose employees had called to complain about a suspicious person on the premises. One officer approached Frix, who said: "If you are here to arrest me, you better have backup."⁸⁰

A struggle ensued in which police initially used a baton and wrestled him to the ground. Before he could be handcuffed, however, Frix began struggling again. Police hit him with batons and sprayed him with OC, but "Frix showed no signs of being effected by either the baton or the [OC]."⁸¹ Additional officers arrived and controlled Frix by handcuffing him, binding his ankles and tying his ankles to the handcuffs in the technique commonly known as hog-tying.⁸²

Police noticed Frix had vomited and he was placed in a patrol car on his side. Police started in the direction of a local hospital but were advised by their dispatch center that the emergency room was extremely busy. Although officers asked their dispatch center to advise the hospital they were transporting a combative patient who was possibly under the influence of drugs, dispatchers told them the hospital was extremely busy and the officers elected to transport Frix, instead, to the police station to wash his face with water as first aid for the OC spray.⁸³

On arrival at the police station, officers parked the patrol car near a wash rack, opened a rear door and sprayed Frix with a hose. While this hosing was occurring, an officers noticed Frix was not breathing. Paramedics were called and officers initiated CPR. Frix was pronounced dead shortly after he arrived at the hospital.⁸⁴ About 34 minutes elapsed between police response to the convenience store and Frix's arrival at the emergency room in full cardiac arrest.⁸⁵

After autopsy, the cause of death was listed as: "Cardiac arrest following struggle and law enforcement restraint, due to drug induced psychosis and acute methamphetamine intoxication."⁸⁶

June 13, 1993, Scott Hodgson, Age 38

San Jose Police Department

Police responded to numerous 911 calls of a man “running berserk” near a San Jose intersection. They encountered Hodgson, an Anglo, who was described as “belligerent and uncooperative.”⁸⁷

Police struggled with Hodgson, during which he was sprayed with OC. Hodgson apparently continued to struggle after he was sprayed. News accounts reported the OC had “no noticeable effect.”⁸⁸ After police got Hodgson to the ground and handcuffed him, “the defendant stopped breathing.”⁸⁹ Cardiopulmonary resuscitation was initiated, but Hodgson was dead when he arrived at a hospital.

At autopsy, Hodgson, who was 6-feet-2 and weighed 212 pounds, was found to have a moderately enlarged heart, with mild formation of plaque in his coronary arteries but no evidence of closure of these vessels.⁹⁰ He was found to have of methamphetamine in his bloodstream. His death was attributed to acute methamphetamine intoxication.⁹¹

June 7, 1993, Maurice Morrison, Age 43 Fresno Police Department

In the predawn hours of June 7, Fresno police responded to a call reporting a subject “talking to himself and hitting things with his fist.”⁹² Upon being questioned by the officers, he threw his wallet at them and fled the scene. The officers pursued and sprayed the subject with OC, which had no apparent effect. “He was then struck several times with a baton,”⁹³ wrestled to the ground, and handcuffed. He stopped breathing soon after and CPR was administered. Paramedics transported him to a hospital, where he died shortly after arrival.

The coroner’s report stated that Morrison, who was 6-feet-2 and weighed 192 pounds, had normal internal organs, including a normally sized heart. His blood contained no trace of drugs or alcohol, and the coroner determined the cause of death to be excited delirium and paranoid schizophrenia.⁹⁴

Morrison is one of two cases in this series in which drugs were not found in the subject’s body and the only instance where the cause of death was exclusively psychiatric. Earlier this year, the OC manufacturer settled a wrongful death suit brought against them by Morrison’s family in the amount of \$50,000.

April 28, 1993, Michael Coleman, Age 26 Tulare Police Department

Late in the afternoon of April 28, Tulare police responded to a location to attempt to arrest Coleman, an African-American, on burglary charges. A foot pursuit ensued, during which Coleman ran into a house. Police followed and a fight resulted when officers tried to take Coleman into custody.⁹⁵

The coroner’s investigation found that: “The decedent was struck with police batons, sprayed with pepper mace [OC], which had no effect on decedent, and was placed in a chokehold.”⁹⁶ Despite this sequence of events, Coleman was able to walk, handcuffed, to a patrol car. By the time he arrived at a hospital for treatment of a cut to his hand, he had become unresponsive. He died minutes later.⁹⁷

Coleman, who was 6-feet-4 and weighed 181 pounds, was found at autopsy to have normal internal organs, including a normally sized heart. His blood contained high levels of cocaine. Decedent also had a history of mental illness and had been prescribed medications for it.

The coroner concluded that: “Deceased expired due to the combination of the physical altercation, flight and the cocaine intoxication. Thus, his death is determined to be due to accidental cause.”⁹⁸

The decedent’s family reached an out of court settlement with the OC manufacturer for an undisclosed amount earlier this year.

Feb. 2, 1993, Theodore Poole, Age 34 Los Angeles Police Department

Late in the morning of Jan. 30, LAPD officers responded to a 911 unknown trouble call at a Van Nuys motel. They found three people inside a room at the motel and ordered them to come outside. One person failed to comply and kicked the door shut. One of the people who left the room told officers the person remaining inside had swallowed rock cocaine.⁹⁹

Police kicked down the door and found Poole, an African-American, violent and combative. Poole was taken into custody, handcuffed and laid on his side. Subsequently, he went into cardiac arrest. Paramedics took him to a nearby hospital, where he was dead on arrival.¹⁰⁰ Witnesses later told police that Poole, who was 5-feet-7 and weighed 178 pounds, had swallowed a bag of rock cocaine about 45 minutes before officers arrived at the motel.¹⁰¹

At autopsy, Poole’s heart was found to be slightly enlarged with very mild blockage of the coronary arteries.¹⁰² In Poole’s gastrointestinal tract, an apparently ruptured plastic bag was discovered. Lethal levels of cocaine were found in Poole’s system.¹⁰³

Coroner’s records indicate Poole was sprayed twice with OC, without effect.¹⁰⁴ However, police apparently never reported the Poole incident to the DOJ. The Special Investigations Division of the Los Angeles County District Attorney’s Office completed a review of the case, which mentioned the decedent had been pepper sprayed, but concluded that the death had been an accident caused by the “lethal dose of cocaine and cocaine metabolite present in his [decedent’s] bloodstream and stomach.”¹⁰⁵

Jan. 7, 1993, Carrol Domingue, Age 40 Long Beach Police Department

At about 8 p.m. on January 5, Long Beach police were called to a residence where occupants complained that Domingue, an African-American, had entered the home of strangers and was “acting bizarre.”¹⁰⁶ Police handcuffed Domingue and escorted him outside, where he asserted that people were trying to kill him. When officers removed the handcuffs in the belief that Domingue was a crime victim, he bolted and ran away.¹⁰⁷

Shortly afterward, police responding to an unrelated call of a man acting strangely encountered Domingue a block away, after he had apparently jumped into the bed of a pickup truck.¹⁰⁸ The coroner’s report relates that Domingue was handcuffed and placed in leg restraints, lying face down, when he “suddenly became unresponsive.”¹⁰⁹

The coroner's file includes no mention of the fact that Domingue had been subjected to pepper spray. Because no reference is made to the matter anywhere in the coroner's report, it is possible the coroner's office was never informed of the use of pepper spray. News accounts published shortly after the incident mention pepper spray.

A Long Beach Police Department report on OC application, filed routinely with the DOJ, described the incident. The report concludes that OC was "used after all attempts failed to take the suspect into custody during an extremely violent fight with police."

"Suspect continued to fight after the Cap-Stun [brand of OC spray] was applied for a short time then lost some of his strength and was handcuffed. Suspect went into cardiac arrest and paramedics were called."¹¹⁰

At autopsy, Domingue, who was 5-feet-11 and weighed 278 pounds, was found to have severe enlargement of one chamber of his heart, as well as severe blockage of a left anterior descending artery, one of the key vessels supplying blood to his heart.¹¹¹

Although it included no mention of the pepper spray or the potential for any reaction to stress from the sudden application of the spray, the autopsy report concluded that the deterioration of Domingue's heart and damage to his liver were the result of a long history of drug abuse. Toxicological examination found high levels of cocaine in Domingue's bloodstream. The autopsy report concluded he had been under the influence of cocaine, although the levels found in the blood were below those generally recognized as lethal.¹¹²

The report concluded: "The pre-existing disease of his heart and liver was such that he would be subject to a fatal cardiac arrhythmia when stressed or excited. He apparently began to behave bizarrely as a result of his drug abuse and old head injury.

"The combination of these events apparently resulted in a fatal cardiac arrhythmia."¹¹³

NOTES

¹ CNS, April 27, 1995.

² Los Angeles Times, May 22, 1995, page B1.

³ Sheriff-Coroner Department, County of Orange, Case No. 95- 21803

⁴ Derek Wallace case report, Contra Costa County Office of the Sheriff-Coroner, #95-0091.

⁵ Ledger Dispatch, January 19, 1995.

⁶ Wallace case report, #95-0091, page 3.

⁷ Wallace autopsy report, #95-0091, page 4.

⁸ Los Angeles Times, December 12, 1994, page B5.

⁹ *ibid.*

¹⁰ *ibid.*

¹¹ Gregory Lee Jenson case report, Orange County Sheriff-Coroner, #94-07657-LO.

¹² Charles Earnest Mann Coroner's Report, County of Nevada Coroner's Office, #94-1409.

¹³ *ibid.*

¹⁴ *ibid.*

¹⁵ Mann autopsy report, page 12-13.

¹⁶ *ibid.*, pages 13-14.

¹⁷ Daniel Lee Price case report, County of San Diego Office of the Medical Examiner, #94-1204.

¹⁸ *ibid.*, page 3.

¹⁹ *ibid.*

²⁰ Price autopsy report, page 1.

²¹ *ibid.*, pages 1-2.

²² Telephone interview with Lieutenant Bill Hall (LAPD/RHD) conducted on May 26, 1995 by Rachel O'Connor.

²³ *ibid.*

²⁴ *ibid.*

- ²⁵ *ibid.*
- ²⁶ Craig E. Denault autopsy report, Los Angeles County Department of the Coroner, #94-03472.
- ²⁷ Denault Toxicology Report, Los Angeles County Department of the Coroner, #94-03472.
- ²⁸ Denault autopsy report, page 4.
- ²⁹ Coroner's Report of Investigation of case of Tony Steven Johnson, Sacramento County Coroner's Office, #94-1534.
- ³⁰ *ibid.*
- ³¹ *ibid.*
- ³² David Barrera Del Real case report, County of Solano Office of the Coroner, 494-589-CCI-121.
- ³³ *ibid.*
- ³⁴ *ibid.*
- ³⁵ David Del Real autopsy report, Solano County Coroner, #494-589-CCI-121.
- ³⁶ *ibid.*
- ³⁷ Telephone conversation with the City's Attorney's office by Rachel O'Connor in February, 1995.
- ³⁸ Coroner's Report of Investigation of case of Frank Hernandez, Jr., San Bernardino County Coroner's Office, #94-1809.
- ³⁹ *ibid.*
- ⁴⁰ *ibid.*
- ⁴¹ *ibid.*
- ⁴² Coroner's Report of Investigation of case of Gerardo Jaurequi, Napa County Coroner's Office, #93-004375.
- ⁴³ *ibid.*
- ⁴⁴ *ibid.*
- ⁴⁵ Gerardo Jaurequi autopsy report, Napa County Coroner, 93-004375.
- ⁴⁶ *ibid.*
- ⁴⁷ Jeffrey Thomas Scott case report, Madera County Coroner, #CC8108.
- ⁴⁸ *ibid.*
- ⁴⁹ *ibid.*
- ⁵⁰ *ibid.*
- ⁵¹ Coroner's case report for Luis Enrique Leija, Santa Barbara County Coroner, #C-93-365.
- ⁵² *ibid.*
- ⁵³ "In-Custody Deaths Associated with Pepper Spray Application," series of tables produced by the Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, June, 1994.
- ⁵⁴ Jose Martinez press release, Patience Milrod Attorney at Law. March 14, 1994
- ⁵⁵ *ibid.*
- ⁵⁶ Jose Martinez autopsy report, Fresno County Coroner, #93-09047.
- ⁵⁷ Jose Martinez press release.
- ⁵⁸ Los Angeles Times. Sept. 10, 1993, p. B3
- ⁵⁹ *Ibid.*
- ⁶⁰ *Ibid.*
- ⁶¹ Autopsy report, Candalario Lopez Herrera, file 93-08409, Los Angeles County Medical Examiner.
- ⁶² *ibid.*
- ⁶³ Coroner's Investigation, County of San Bernardino. Case No. 93-4591VN
- ⁶⁴ *Ibid.*
- ⁶⁵ *Ibid.*
- ⁶⁶ *Ibid.*
- ⁶⁷ *Ibid.*
- ⁶⁸ County of San Diego, Office of the Medical Examiner, Investigative Report. Case No. 93-1662
- ⁶⁹ County of San Diego, Office of the Medical Examiner, Autopsy Report, Case No. 93-1662
- ⁷⁰ County of San Diego, Office of the Medical Examiner, Investigative Report, Case No. 93-1662
- ⁷¹ County of Los Angeles, Department of Coroner, Investigator's Report, Case No. 93-07736
- ⁷² Los Angeles District Attorney's Office, Special Investigations Division, Report to the Board of Police Commissioners
- ⁷³ *Ibid.*
- ⁷⁴ Coroner of Sacramento County, Coroner's Investigation, Case No. 93-2734
- ⁷⁵ Office of the Coroner — Sacramento County, Report of Autopsy, Case No. 93-2734

⁷⁶ OEHHA report *supra*.

⁷⁷ Coroner's Investigation, County of San Bernardino, Case No. 93- 4114 SF

⁷⁸ Ibid.

⁷⁹ Coroner's Report of Investigation of Case of Ray Frix, Imperial County Coroner's Office, Case No. 93-12679

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Scott Hodgson autopsy report, Santa Clara County Medical Examiner-Coroner, Case No. 93-164-009

⁸⁸ San Jose Mercury News, June 14, 1993

⁸⁹ Hodgson autopsy report

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Fresno County Coroner's Office, Investigation Report, A93-06- 021

⁹³ Ibid.

⁹⁴ Fresno County Coroner — Autopsy Report

⁹⁵ Michael Coleman case report, County of Tulare, Office of the Coroner, Case No. 93-4-372-80

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Ibid.

⁹⁹ Theodore Poole coroner file and autopsy report. Case No. 93- 1107. Feb 1, 1993.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

¹⁰² Ibid.

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Los Angeles County District Attorney's Office, Special Investigations Division, Report to the Board of Police Commissioners

¹⁰⁶ Los Angeles County Coroner. File No. 93-00196

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ OC Application Report, California Department of Justice. Jan 5, 1993

¹¹¹ Domingue autopsy report, p. 5

¹¹² Domingue autopsy report, p. 8

¹¹³ Domingue autopsy report, p. 9. Emphasis added.

Notes [continued]

APPENDIX B:

Model policies governing use of Oleoresin Capsicum spray products by police and corrections agencies

Use of OC should be governed by relevant case law, sound law enforcement or corrections strategy and common sense. Many large law enforcement agencies have developed use-of-force policies that directly govern pepper spray.

A policy that specifically establishes standards for justification and use of OC is essential for any department that uses it. Simply adding pepper spray use to a broad, general use-of-force policy is an inadequate approach to ensuring safe, legally justified use of OC by police officers and corrections personnel.

Police and corrections agencies should make certain that OC is integrated into their overall use-of-force policies and that pepper spray is carefully assigned to their individual scales of force.

Such circumstances may be different in police field settings and correctional facilities. Accordingly, while model OC policies for police and corrections agencies may be largely similar, the unique requirements of police and custody work require development of separate policies.

In developing the proposed model OC policies for police and corrections agencies presented here, the ACLU of Southern California has drawn heavily on policies already formulated by law enforcement agencies and the National Institute of Justice. Most provisions of these ACLU models appear in policies already in use by large urban police departments. Specifically, the ACLU has drawn on five existing law enforcement agency or NIJ sources:

- Interim Order No. 92, New York Police Department, 10/6/94: "Use of Pepper Spray Devices."
- "Less Than Lethal Force Technologies in Law Enforcement and Corrections Agencies," January, 1994, a report by Tom McEwen and Frank Leahy, Institute for Law and Justice, Alexandria, Va. This document was prepared for the National Institute of Justice.
- "An Introduction to Pepper Mace: Chief's Report to the San Francisco Police Commission," July 1994.
- San Francisco Police Department, Department General Order 5.01, use-of-force policy: "I. Use of Liquid Chemical Agent (Mace/Oleoresin Capsicum) to Accomplish Custody," August, 1994.
- OC training video, California Commission on Peace Officer Standards and Training (POST), November, 1992, and POST "Training/Orientation Outline for Oleoresin Capsicum," revised March 30, 1993.

In addition to the two model policies presented with this report, both Interim Order No. 92 and "Less Than Lethal Force Technologies in Law Enforcement and Correctional Agencies" should be reviewed in detail by any agency developing an OC policy.

Agencies should also be mindful of the fact that written policies, alone, cannot guarantee safe and appropriate use of any means of force, especially one like pepper spray. Development of strong, competent pepper spray use-of-force standards must be supplemented by adequate and ongoing training in OC use for all personnel, as well as aggressive enforcement in field settings of all aspects of the written policy.

Model Oleoresin Capsicum Policy Police Departments

To: All commands, divisions and/or precincts

Subject: Use of Oleoresin Capsicum (pepper spray) products

Section 1

Use of Oleoresin Capsicum (OC) shall be considered a use of force in accordance with state law. Courts have held consistently that officers may use only the minimum level of force necessary to control a situation in which use of force is justified. They have held that any level of force above the minimum necessary is improper and illegal.

Under most circumstances, OC shall be considered a less-than-lethal means of force, as opposed to a lethal means of force. Lethal force means force for the purpose of causing, or which will create a substantial risk of causing, death or serious bodily harm. Firearms are the ultimate and most obvious means of lethal force. However, lethal force can be expanded to include the use of less-than-lethal weapons and force if the intent of their use is to cause serious physical injury.

When use of force is necessary and appropriate, officers shall, to the greatest extent possible, utilize an escalating scale of options and not employ more forceful measures unless it is determined that a lower level of force would not be adequate, or such a level of force is attempted and actually found to be inadequate. It is not the intent of this policy to require officers to try each of the options before escalating to the next. Clearly, good judgment and the circumstances of each situation will dictate the level at which an officer will start. Officers using any type of force are accountable for its use.

OC should be used only against violent or hostile subjects. It is a defensive weapon intended for use when attempting to subdue an unarmed attacker or to overcome resistance likely to result in injury to either the suspect, officer or bystander.

The amount and degree of force that may be employed will be determined by the surrounding circumstances including, but not limited to: a) the nature of the offense; b) the behavior of the subject against whom force is to be used; c) actions by third parties who may be present; d) physical odds against the officer; and e) the feasibility or availability of alternative actions.

OC spray may be used when an officer reasonably believes it is necessary to effect an arrest of a violently resisting suspect, for self-defense or defense of another from unlawful force. In many if not most cases involving subjects who are not under the influence of drugs and/or exhibiting acute psychiatric symptoms, OC may reduce or eliminate the need for substantial physical force to effect an arrest or gain custody.

OC may also reduce the potential for injuries to officers, suspects or bystanders that may result from physical restraint. However, under no circumstances should OC spray be used in situations or under circumstances that do not otherwise justify the use of physical force as described above.

Section 2

OC may be used in arrest or custodial restraint situations where physical presence and/or verbal commands have been ineffective in overcoming violent physical resistance, but officers should not automatically escalate from verbal techniques to OC use without attempting physical control techniques that fall below OC on the scale of force.

Section 3

OC shall **not** be used on suspects who passively resist arrest i.e. going limp or offering no physical resistance. Do not use OC on the elderly, young children, women who known to be pregnant or individuals the officer knows or has reason to believe may suffer from heart or respiratory conditions (including asthma) or who the officers knows or has reason to suspect may be under the influence of stimulant drugs including cocaine or methamphetamine derivatives. OC should also not be used on a suspect the officer knows or suspects may be mentally disturbed unless the suspect poses an immediate threat of grave physical harm to the officer, the subject him/herself or others.

Officers should be mindful that the effectiveness of OC sprays has been documented to be substantially lower when used on drug-

intoxicated or mentally disturbed subjects. Officers should also be mindful of the fact that OC sprays may cause serious physical harm to subjects with pre-existing respiratory or cardiorespiratory disease.

Section 4

Officers are reminded that if OC is going to be successful in subduing a suspect, its success will be achieved by a single, approximately one-second burst that strikes the suspect on the face. If a single burst of approximately one second duration does not achieve the desired control effect, OC should be abandoned in favor of other means of control. However, failure of OC to subdue a suspect should not be construed automatically as a justification for **escalation** of force, as opposed to justification for an **alternative** tactical approach.

For optimal effect, the spray should be used from a distance of not less than three feet nor more than 10 feet from the subject.

Section 5

Whenever possible, first attempt to de-escalate the situation by using calming language and by trying to reason with the subject. Unless the subject poses an immediate threat of physical harm to officers or others, officers should continue to utilize verbal calming tactics until the subject can be taken into custody safely. The mere fact that verbal techniques may have the potential to be time-consuming does not, of itself, justify resorting to OC.

The following techniques should be employed:

- A. Act and speak in a calm, deliberate manner.
- B. Maintain a safe distance from the subject.
- C. Listen to the subject and request his/her cooperation.
- D. Under appropriate circumstances, explain the consequences (e.g. additional charges or use of a spray chemical that will cause extreme pain and inhibit breathing) of the subject's behavior if he/she does not cooperate.
- E. Request assistance of supervisor or other officers, if available.

Section 6

OC will **not, under any circumstances**, be used for the following:

- A. As a threat to make a person comply with an officer's verbal order when no physical violence is imminent.
- B. To elicit information from a person.
- C. As retaliation for verbal or physical abuse.

Section 7

A subject who has been sprayed with OC and continues to resist shall be restrained by the most minimal possible additional force. Officers shall be mindful that a person who has been sprayed with OC will remain in intense pain and have acute difficulty breathing after being sprayed.

Officers **shall not** place a person who has been sprayed with OC in a hobble restraint (a.k.a. hogtie). If a hobble restraint is used for any other purpose, the subject will be moved to an upright sitting position as soon as circumstances permit. **At no time and under no circumstances will a person who has been sprayed with OC be left lying on his/her stomach or side for a period longer than required to put the restraints in place.**

Section 8

If all of the justifications for use of force are met and officers utilize OC spray on a person they suspect may be under the influence of drugs, in psychiatric crisis or to have an underlying heart or respiratory condition, paramedic or EMT personnel shall be called to the scene to monitor the subject's medical condition as soon as is practically possible. Paramedics or EMTs will also be called if any person sprayed with OC is placed in a hobble restraint or any other restraint that simultaneously binds both the wrists and the ankles, regardless of whether the bound wrists and ankles are subsequently connected by any means.

Regardless of whether paramedic or EMT personnel are present, officers shall ensure that any person sprayed with OC undergoes a thorough rinsing of his/her face with water as soon as possible after being sprayed. This may be accomplished in the field if satisfactory facilities are available; the subject may be transported to the closest available hospital emergency room, or officers may call medical aid personnel to the scene for this purpose.

In addition to flushing the eyes with water, other first aid steps to be taken with **anyone** who has been sprayed include:

- Instruct the person to calm down and breathe normally.
- Remove the person from surroundings that have been contaminated by OC.

Monitor the person closely and seek immediate medical assistance if the individual exhibits symptoms of drug-induced excited delirium, asthmatic attack or neuroleptic malignant syndrome.

Section 9

All incidents in which OC spray is used shall result in preparation of a written use-of-force report that captures information on the identity of the subject, the circumstances and justification for use of force, the amount of OC used on the subject, the observed results, medical precautions that were taken and an account of other levels of force utilized during the same incident. Use-of-force reporting standards for OC shall be at least as complete as those required for firearm and baton use.

Model Oleoresin Capsicum Policy Corrections Agencies

To: All custody divisions and personnel

Subject: Use of Oleoresin Capsicum (pepper spray) products

Section 1

Use of Oleoresin Capsicum (OC) shall be considered a use-of-force in accordance with state law. Courts have held consistently that officers may use only the minimum level of force necessary to control a situation in which use of force is justified. They have held that any level of force above the minimum necessary is improper and illegal.

Under most circumstances, OC shall be considered a less-than-lethal means of force, as opposed to a lethal means of force. Lethal force means force for the purpose of causing, or which will create a substantial risk of causing, death or serious bodily harm. Firearms are the ultimate and most obvious means of lethal force. However, lethal force can be expanded to include the use of less-than-lethal weapons and force if the intent of their use is to cause serious physical injury.

When use of force is necessary and appropriate, officers shall, to the greatest extent possible, utilize an escalating scale of options and not employ more forceful measures unless it is determined that a lower level of force would not be adequate, or such a level of force is attempted and actually found to be inadequate. It is not the intent of this policy to require officers to try each of the options before escalating to the next. Clearly, good judgment and the circumstances of each situation will dictate the level at which an officer will start. Officers using any type of force are accountable for its use.

OC should be used only against violent or hostile subjects. It is a defensive weapon intended for use when attempting to subdue an unarmed attacker or to overcome resistance likely to result in injury to either the suspect, officer or bystander.

The amount and degree of force that may be employed will be determined by the surrounding circumstances including, but not limited to: a) the nature of the offense; b) the behavior of the inmate against whom force is to be used; c) actions by third parties who may be present; d) physical odds against the officer; and e) the feasibility or availability of alternative actions.

OC spray may be used when an officer reasonably believes it is necessary to counteract threatened or actual physical violence between inmates or between an inmate or inmates and officers or to compel compliance with lawful commands by officers to inmates if the inmate engages in physically threatening conduct in defiance of such an order. This includes any and all incidents in which an inmate is discovered in possession of a weapon capable of inflicting grave bodily injury. In such circumstances, OC may be a successful alternative to other physical force, including firearms, nightsticks, control holds or tactics such as the swarm technique.

In many if not most cases involving inmates not under the influence of drugs and/or exhibiting acute psychiatric symptoms, OC may reduce or eliminate the need for substantial physical force to affect compliance with lawful orders or to neutralize violent behavior.

OC may also reduce the potential for injuries to officers, staff or bystander inmates that may result from physical restraint. However, under no circumstances should OC spray be used in situations or under circumstances that do not otherwise justify the use of physical force as described above.

Section 2

OC may be used in custodial restraint situations where physical presence and/or verbal commands have been ineffective in overcoming physical resistance, or in compelling compliance by a non-responding inmate after all other means of compulsion, including protracted standoff, have been exhausted, but officers should not automatically escalate from verbal techniques to OC use without attempting physical control techniques that fall below OC on the scale of force. Unless circumstances do not permit, a verbal warning should be issued before use of OC.

Section 3

OC shall **not** be used on inmates that an officer knows or has reason to believe may suffer from heart or respiratory conditions (including asthma) or who the officers knows or has reason to suspect may be under the influence of stimulant drugs including cocaine or methamphetamine derivatives unless such an inmate poses an immediate threat of grave physical harm to an officer, another staff member or other

inmates.

OC should also not be used on an inmate the officer knows or suspects may be mentally disturbed unless the inmate poses an immediate threat of grave physical harm to the officer, the subject him/herself or others.

Officers should be mindful that the effectiveness of OC sprays has been documented to be substantially lower when used on drug-intoxicated or mentally disturbed subjects. Officers should also be mindful of the fact that OC sprays may cause serious physical harm to subjects with preexisting respiratory or cardiorespiratory disease.

Section 4

Officers are reminded that if OC is going to be successful in subduing an inmate, its success will be achieved by a single, approximately one-second burst that strikes the inmate on the face. If a single burst of approximately one second duration does not achieve the desired control effect, OC should be abandoned in favor of other means of control. Repeat spraying of an inmate after he/she has been struck by one burst of OC in the face is not permitted. However, failure of OC to subdue an inmate should not be construed automatically as a justification for **escalation** of force, as opposed to justification for an **alternative** tactical approach.

For optimal effect, the spray should be used from a distance of not less than three feet nor more than 10 feet from the subject.

OC spray should not be used in close proximity to ventilation intake or outflow ducts unless ventilation systems have been shut down prior to employment of OC to avoid unintended effects on uninvolved units.

Section 5

Whenever possible, first attempt to de-escalate the situation by using calming language and by trying to reason with the inmate. Unless the inmate poses an immediate threat of physical harm to officers or others, officers should continue to utilize verbal calming tactics until the inmate can be taken into custody safely. The mere fact that verbal techniques may have the potential to be time-consuming does not, of itself, justify resorting to OC.

The following techniques should be employed:

- A. Act and speak in a calm, deliberate manner.
- B. Maintain a safe distance from the inmate.
- C. Listen to the inmate and request his/her cooperation.
- D. Under appropriate circumstances, explain the consequences (e.g. additional charges or use of a spray chemical that will cause extreme pain and inhibit breathing) of the inmate's behavior if he/she does not cooperate.
- E. Request assistance of supervisor or other officers, if available.

Section 6

OC devices may be used in the following situations **that would otherwise justify the use of physical force, as described above.**

- A. Assault on an officer, a staff member or another inmate or inmates.
- B. Resisting control or arrest by using physical force to prevent an officer from effecting custody.
- C. Fleeing or attempting to flee from apprehension. **However, great care should be taken in use of OC on a fleeing subject to avoid inadvertent overspray of bystander inmates, staff or other officers. Unintended spraying of other officers has the potential to seriously escalate the level of danger to officers and others in a physical confrontation with a violent inmate by reducing the availability of backup personnel. Any use of OC against a fleeing subject should be contingent on assessment of the risk of overspray contamination of officers and other bystanders. Inadvertent overspray of bystanders has the potential of inflicting serious physical harm, especially in persons with preexisting cardiac or respiratory health problems. Overspray of officers has the potential to result in incapacitation of law enforcement personnel, resulting in grave danger to other officers.**
- D. Adamant, protracted refusal of an inmate to leave his/her cell or housing unit or to surrender such items as eating utensils, **but use of OC in such situations is justified only if such continued refusal will have a direct, documentable and immediate compromising effect on institutional safety.**
- E. Participation in a mass disturbance. **However, officers should generally refrain from using spray stream OC products on crowds of inmates due to inherent risks of overspray. In extremely serious mass disturbance situations, OC ordnance capable of projecting clouds of OC in a closed room may be justified if the situation is so critical that such tactics are justified to neutralize large-scale actual violence.**

Section 7

OC will **not, under any circumstances,** be used for the following:

- A. As a threat to make an inmate comply with an officer's verbal order when no physical violence is imminent, unless the officer can document in a use-of-force report a specific threat to institutional safety posed by the inmate's simple refusal to comply.
- B. To elicit information from a person.
- C. As retaliation for verbal or physical abuse.

Section 8

An inmate who has been sprayed with OC and continues to resist shall be restrained by the most minimal possible additional force. Officers shall remain mindful that a person who has been sprayed with OC will remain in intense pain and have acute difficulty breathing for a period of as long as 45 minutes and in some cases for periods substantially longer than that after being sprayed.

Officers **shall not** place a person who has been sprayed with OC in a hobble restraint (a.k.a hogtie). If the hobble restraint is utilized for some other purpose, the subject will be moved to an upright sitting position as soon as circumstances permit. **At no time and under no circumstances will a person who has been sprayed with OC be left lying on his/her stomach or side for a period longer than required to put the restraints in place.**

Section 9

Whenever officers find it necessary to use OC spray on a person they suspect may be under the influence of drugs, in psychiatric crisis or to have an underlying heart or respiratory condition, paramedic or EMT personnel shall be called to the scene to monitor the subject's medical condition as soon as is practically possible. Paramedics or EMTs will also be called if any person sprayed with OC is placed in a hobble restraint or any other restraint that simultaneously binds both the wrists and the ankles, regardless of whether the bound wrists and ankles are subsequently connected by any means.

Regardless of whether paramedic or EMT personnel are present, officers shall ensure that any person sprayed with OC undergoes a thorough rinsing of his/her face with water immediately after being sprayed. This may be accomplished in the unit or area in question if satisfactory facilities are available; the subject may be transported to the institution medical facility.

In addition to flushing the eyes with water, other first aid steps to be taken with anyone who has been sprayed include:

Instruct the person to calm down and breathe normally.

Remove the person from surroundings that have been contaminated by OC.

Monitor the person closely and seek immediate medical assistance if the individual exhibits symptoms of drug-induced excited delirium, asthmatic attack or neuroleptic malignant syndrome.

Whenever it is practically possible, officers will verify the known health conditions of an inmate prior to initiating use of OC to exercise the greatest care in attempting to avoid spraying individuals with preexisting heart or respiratory conditions or psychiatric disorders.

Section 10

All incidents in which OC spray is used shall result in preparation of a written use-of-force report that captures information on the identity of the inmate, the circumstances and justification for use of force, the amount of OC used on the inmate, the observed results, medical precautions that were taken and an account of other levels of force utilized during the same incident. Use-of-force reporting standards for OC shall be at least as complete as those required for firearm and baton use.

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