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IN THE UNITED STATES DISTRICT COURT

FOR THE NORTHERN DISTRICT OF CALIFORNIA

MICHAEL ANGELO MORALES, Plaintiff, v. JAMES E. TILTON, Acting Secretary of the California Department of Corrections and Rehabilitation; ROBERT L. AYERS, JR., Acting Warden, San Quentin State Prison, San Quentin, CA; and DOES 1-50, Defendants.	Case No. C 06 219 (JF) C 06 926 (JF) **POST-TRIAL DECLARATION OF DR. KEVIN CONCANNON**

I, Kevin Concannon, D.V.M., D.A.C.V.A., both depose and state as follows:

1. As a veterinary anesthesiologist and a practicing veterinarian, I have extensive experience euthanizing animals and am knowledgeable about the drugs commonly used during the euthanasia procedure. I have reviewed the questions asked by the judge in the Court's Request for Briefing, dated October 3, 2006. Counsel for Mr. Morales has asked me to address the standards of care that are observed in veterinary euthanasia and explain how these standards are relevant to the concerns expressed in the judge's questions. Portions of this affidavit refer to the Humane Society of the United States' Euthanasia Training Manual (Manual, attached as Exhibit 1). I want to stress that this manual was written for use in animal control facilities or shelters. The Manual should not be used as a detailed, step by step guide for lethal injection of humans. The Manual along with the AVMA Panel Report on euthanasia serve as examples of what can be achieved through expert review. These documents are the product of veterinary experts who have been and who are committed to the development, review, participation in, and revision of euthanasia protocols. They demonstrate what could be done for the lethal injection process, knowing that standards of care for humans will be different than those for animals.

2. In the veterinary clinical setting, as opposed to other settings such as a wildlife area or slaughter house, sodium pentobarbital, alone or in combination with a secondary drug, is the drug of choice for euthanasia. A concentrated solution of pentobarbital delivered intravenously will consistently lead to rapid achievement of an anesthetic state after which the animal will stop breathing. Brain and heart function will cease after breathing has ended. The AVMA report and the Stanford University School of Medicine, Animal Care Guidelines (Stanford ACG), attached as Exhibit 2, both list pentobarbital as the drug of choice for non-human primate euthanasia.

3. The AVMA Report reviews settings where animals are euthanized. The panel recognized that all circumstances where the need for euthanasia may arise could not be covered. The report recommends that a veterinarian experienced with the species in question should use

professional judgment and knowledge of clinically accepted techniques in selecting an appropriate euthanasia method. This line of thought should also be used when expected clinical signs are not observed during a euthanasia procedure. Based on my training and my clinical experience, I have full confidence that the majority of animals (greater than 95%) will succumb within a few minutes after injection of a euthanasia solution or an overdose of pentobarbital. I am in direct contact with the patient during the euthanasia procedure. If the patient is not showing clinical signs associated with a rapid progression to a deep anesthetic state, I would immediately search for the cause(s) and correct problems associated with differing patient physiology, intravenous (IV) access, the medical supplies used during the procedure, or drug dosage and administration method. It goes without saying that in performing this troubleshooting, I rely on my training and experience.

4. The state of North Carolina recognizes the training and skill needed to practice veterinary medicine and has defined standards for licensees. Only a veterinarian can practice veterinary medicine. Only a veterinarian can perform a procedure which causes an irreversible change in an animal, euthanasia being one such procedure. Exceptions to this rule are present in circumstances where economic or other societal factors come into play. The use of non-professionals, such as veterinary technicians, to euthanasia animals in shelters is a concession to economic constraints and the reality of large numbers of unwanted pets.

5. The American Veterinary Medical Association, AVMA, first convened a panel on euthanasia in 1963 and the findings have been evaluated and updated five times since then. Between the first and the last review (2000) understanding of animal physiology has increased and changes have occurred in society's concern for animals and the definition of humane treatment. Veterinary experts have devoted time and resources to determine the most humane methods of euthanasia, and this process will continue into the future. For veterinarians, the main example of the euthanasia review process is the 2000 report of the American Veterinary Medical Association Panel on Euthanasia (AVMA Report).

6. Another product of a review process is the Humane Society of the United States' Euthanasia Training Manual. The Manual differs from the AVMA Report as it is less technical and

deals more with the physical act of euthanasia in an animal control facility or shelter. This manual is produced for shelter managers, administrators, and technicians, and it grew out of previous attempts to improve the euthanasia process for both animals and shelter workers. The manual was written by a veterinarian with an advisory panel containing other veterinarians including a board certified veterinary anesthesiologist.

7. The AVMA report lists twelve different criteria that were used to evaluate methods of euthanasia. The foremost criteria is the "ability to induce loss of consciousness and death without causing pain, distress, anxiety, or apprehension." The report mentions that even in slaughter houses, "Animals intended for food should be slaughtered humanely..." The report further suggests that animals used for food must be handled so as to reduce their stress and must not be restrained in a painful manner prior to death. The Manual reiterates the twelve criteria for euthanasia listed in the AVMA report and says that "The primary concern of those performing euthanasia should be ending an animal's life with the least amount of pain and stress possible." Both of these documents use humane death as the primary goal of the euthanasia process and as a guiding principle for designing appropriate euthanasia protocols.

8. Even though a different standard exists for animal shelters as compared to veterinary hospitals, shelter workers (who may have little or no veterinary training) still need training on provision of humane care, drug action, IV injection, vital sign monitoring, record keeping, safety concerns, emotional stress, and any issues specific to the physical layout of the euthanasia room. The breadth of recommendations available in the Manual contrasts with the more narrow focus of the lethal injection process in the CDCR's execution protocol. The Manual creates a minimum standard of care that should be observed by shelters to ensure that euthanasia is humane, efficient, and as stress free as possible on the animal and shelter personnel.

9. The authors of the Manual clearly state that "This manual is not meant to be a substitute for supervised training, and no one should attempt any of the techniques explained except under the guidance of a properly qualified individual experienced and proficient in euthanasia." (page iv, page 8). Whether for a veterinarian or a shelter worker, initial and ongoing training is important

so that humane euthanasia can be achieved and participants feel comfortable that they are providing the optimum level of care.

10. In addition to ongoing training, screening euthanasia personnel is important. "Euthanasia should be entrusted to the most conscientious and qualified personnel only -- never to a person who is careless, indifferent to animal suffering, or untrained in animal behavior or euthanasia techniques." (Humane Society of the United States, General Statement Regarding Euthanasia Methods for Dogs and Cats, attached as Exhibit 3.)

11. I rely upon my knowledge of pentobarbital and of the patient to predict the desired effect of the drug within a patient. Pentobarbital, or a pentobarbital containing euthanasia solution, will cause unconsciousness within seconds of intravenous injection and this is accompanied by relaxation of the animal. Unconsciousness rapidly progresses to a deep level of anesthesia with reductions in blood pressure. Breathing will stop shortly after the drop in blood pressure due to the depressant effect of pentobarbital on the respiratory centers of the brain. Without continuous uptake of oxygen from the lungs and delivery of oxygen to the brain through the cardiovascular system, brain function stops and death occurs.

12. I use direct, physical assessment of the patient to definitively determine the effect of my injection. Circumstances in a shelter environment dictate that a veterinarian can't be present during most euthanasia procedures. The concept of direct monitoring is so important to the provision of humane euthanasia that the Manual recommends that shelter workers be taught about the clinical signs they will see during euthanasia. The Manual recommends that shelter workers be trained to listen for a heartbeat with a stethoscope, visually assess the patient, touch the patient to check reflexes, and corroborate that the heart has stopped by placing a needle through the heart and observing for motion associated with a heart beat. Although shelter workers won't have a veterinarian's level of understanding, training them to recognize the physical changes associated with euthanasia is far better than having untrained workers perform euthanasia.

13. The Manual recommends pentobarbital as the drug of choice for euthanasia in a shelter setting. The document also makes a valid point when it notes that no method of euthanasia is

perfect. Pentobarbital requires close contact with the animal to monitor vital signs and to deliver the drug intravenously. Use of this drug also "requires adequate restraint and mastery of appropriate injection technique." (Stanford University School of Medicine, Animal Care Guidelines) These points can be perceived as disadvantages for the people involved in the euthanasia procedure as close contact with the animals will frequently lead to emotional stress and secondary physical problems. Training of workers by experienced staff and monitoring to ensure procedures are followed can be lengthy, costly, and time consuming. Achieving a humane death outweighs these potential disadvantages. Dealing directly and appropriately with these issues will make workers feel that they are acting humanely and in the most appropriate manner possible.

14. Pentobarbital is classified as a schedule II controlled substance under the Controlled Substances Act. The classification scale runs from I to V with schedule I drugs carrying the greatest risks of physical or psychological addiction and schedule V drugs having the least risk. Addition of a secondary drug to pentobarbital as is done with commercially available euthanasia solutions will result in a change from schedule II to schedule III. Federal law requires documentation of the purchase, administration, dosing, and disposal of all controlled drugs.

15. The AVMA report leaves the details of euthanasia to the professional judgment of the veterinarian. The Manual makes few assumptions about the knowledge level of the reader and covers details including the physical environment where euthanasia occurs. "The ideal euthanasia area is a clean, well-ventilated, and readily accessible room … and is used only for euthanasia." (p. 21). "Some shelters, especially those that previously used another euthanasia method, have designated rooms for injection euthanasia that were not designed for this purpose. …inappropriate spaces have been transformed into euthanasia rooms without adequate consideration for how the people who must use them and the animals to be euthanized will affected by the space." Page 22. The Manual recommends that lighting "bright enough to provide clear visibility in all areas is very important," page 23. A well designed room for euthanasia will help facilitate a humane procedure while poor lighting, inadequate access to the animal, or lack of immediate access to supplies will increase the chances for an improperly performed procedure.

16. Each shelter should have an individualized, written manual that describes in detail the euthanasia procedures for that shelter. A checklist of items is helpful to promote consistency in the euthanasia procedure particularly when more than one individual performs this task. In a veterinary clinical setting, this Manual or one like it will never replace the expertise of a veterinarian. A manual is necessary as a helpful aid only when the economic and pragmatic constraints of a shelter setting preclude a veterinarian being present.

17. During my training and in my practice I have been involved in many clinical situations where my initial plan did not work, and I had to resort to alternate plans. The Manual echoes this point. "Because of the many variables involved, it will never be possible to prevent all problems that may occur during the injection (euthanasia) process. ... The true test of a good technician is not the number of problems that occur but how those problems are handled." (Page 105.) For this reason, a carefully trained shelter worker is much more able to react to problems effectively than an untrained one. Even so, a shelter worker is much better prepared to troubleshoot problems associated with the mechanical delivery of the drug during euthanasia than in understanding differences in patient physiology or drug action that could result in unexpected problems during the procedure. The optimal setting for a euthanasia will continue to be in a controlled environment with a veterinarian present such as happens in a veterinary hospital.

18. Standards of care require that accurate records are kept so that problems with drug dosage or administration can be easily noted and corrected. Records should be followed over days to weeks to note trends. Consistent discrepancies between amount of drug administered and the effects in the patient may suggest that drugs are being diverted. Any deviations from expectations during the euthanasia procedure should be noted in the record, corrected if necessary, and then discussed with knowledgeable individuals after the fact. The shelter worker must have confidence that they are doing their best to ensure a humane euthanasia and unexplained problems will cause them to harbor doubts about their role in the euthanasia process.

19. Communication between shelter workers and professional staff is important to prevent, evaluate and correct problems. Clear written instructions are the first step in

communications and the establishment of a training program is the second. Training must be monitored to ensure consistency between different staff members and adherence to policies. Shelter workers must be encouraged to speak up when problems arise with the goal of solving the problem rather than assigning blame. Professional, veterinary staff must listen to feedback from those entrusted to perform euthanasias. Improvements may be made based on this feedback, but veterinary staff must have the final decision. Veterinarians should participate in the euthanasia process as necessary as part of any improvement process.

20. Shelters and animal care facilities must recognize the "widespread and strong negative influence" that euthanasia has on euthanasia technicians. (Manual, p 8) Shelter workers should focus on successful provision of a human procedure rather than the outcome of the procedure, i.e. the death of an animal. The negative influence of euthanasia can lead to stress on workers directly and indirectly involved with the procedure. Stress can be manifest as disruption of daily activities, lack of concentration, sleep problems, feelings of inadequacy, lack of self-worth, family conflict, substance abuse, depression, burn-out, and negative job satisfaction. The management team at animal shelters should watch for signs of stress and have internal protocols to proactively deal with the inevitable negative feelings that come with performing euthanasias.

21. In summary, these are some examples of the issues that need to be considered when designing a veterinary euthanasia procedure. Medical experts would do well to address these issues in order to answer current or any future questions about the lethal injection protocol employed by the state of California.

I declare under penalty of perjury of the laws of the United States that the foregoing is true and correct.

Executed on this 9th day of November, 2006.

By: Kevin T Concannon

Dr. Kevin Concannon