

## SUBCHAPTER 52J - ANIMAL WELFARE SECTION

### SECTION .0100 - RECORD KEEPING AND LICENSING

#### 02 NCAC 52J .0101 RECORDS; ANIMAL SHELTERS, ETC.

Operators of all animal shelters, pet shops, public auctions, and dealers shall maintain records on all dogs and cats showing the following:

- (1) origin of animals (including names and addresses of consignors) and date animals were received;
- (2) description of animals including species, age, sex, breed, and color markings;
- (3) location of animal if not kept at the licensed or registered facility;
- (4) disposition of animals including name and address of person to whom animal is sold, traded or adopted and the date of such transaction; in the event of death, the record shall show the date, signs of illness, or cause of death if identified; if euthanized, the record shall show date and type of euthanasia; and
- (5) record of veterinary care including treatments, immunization and date, time, description of medication (including name and dosage), and initials of person administering any product or procedure.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005; April 1, 1985.*

#### 02 NCAC 52J .0102 RECORDS; BOARDING KENNELS

Operators of boarding kennels shall maintain records of all dogs and cats showing the following:

- (1) name and address of owner or person responsible for animal, the date of entry and signature and address of individual to whom animal is released and the date of release;
- (2) description of animal including breed, sex, age and color marking; and
- (3) veterinary care provided while boarded, which shall include date, times, description of medication (including name and dosage) and initials of person administering product or procedure.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005.*

#### 02 NCAC 52J .0103 INSPECTION OF RECORDS

All operators of animal shelters, pet shops, boarding kennels, public auctions, and persons operating as dealers shall make all required records available to the director or his authorized representative on request, during the business and cleaning hours listed on the license application. The operator must be able to match each animal to its record upon request. Records shall be maintained for a period of one year after the animal is released.

*History Note: Authority G.S. 19A-24; 19A-25; Eff. April 1, 1984; Amended Eff. January 1, 2005; April 1, 1985.*

#### 02 NCAC 52J .0104 DEFINITIONS

As used in this Subchapter:

- (1) "**Accessories**" means any objects used in cleaning and sanitizing primary enclosures, exercise areas, or objects to which an animal may have access, including, but not limited to toys, blankets, food and water utensils, and bedding.
- (2) "**Adequate**" means a condition which, when met, does not jeopardize an animal's comfort, safety or health.
- (3) "**Cage**" means a primary enclosure which is enclosed on all sides and also on the top and bottom.
- (4) "**Husbandry**" means the practice of daily care administered to animals.
- (5) "**Isolation**" means the setting apart of an animal from all other animals, food, and equipment in the facility for the sole purpose of preventing the spread of disease.
- (6) "**License period**" means July 1 through June 30.
- (7) "**Long term care**" means the housing of an animal for a period of more than 30 consecutive days.
- (8) "**Properly cleaned**" means the removal of carcasses, debris, food waste, excrement, or other organic material with adequate frequency.
- (9) "**Social interaction**" means friendly physical contact or play between animals of the same species or with a person.
- (10) "**Suitable method of drainage**" means drainage that allows for the elimination of water and waste products, prevents contamination of animals, allows animals to remain dry, and complies with applicable building codes and local ordinances.
- (11) "**Supervision of animals**" means one person (at least 16 years of age) present, at all times, able to directly view each enclosure or common area.

*History Note: Authority G.S. 19A-24; Eff. January 1, 2005.*

## **SECTION .0200 - FACILITIES AND OPERATING STANDARDS**

### **02 NCAC 52J .0201 GENERAL**

- (a) Housing facilities for dogs and cats shall be structurally sound and maintained in good repair to protect the animals from injury, contain the animals and restrict the entrance of other animals and people.
- (b) All light fixtures and electrical outlets in animal areas shall be in compliance with the State Building Code.
- (c) Facilities shall have reliable and safe electric power as necessary to comply with the Animal Welfare Act.
- (d) Supplies of food and bedding shall be stored in facilities which adequately protect such supplies against infestation or contamination by vermin and insects. All open bags of food shall be stored in airtight containers with lids. Refrigeration shall be provided for supplies of perishable food.
- (e) Provisions shall be made for the daily removal and disposal of animal and food waste, bedding and debris from the housing facility in accordance with local ordinances, to assure facility will be maintained in a clean and sanitary manner.
- (f) Hot and cold running, potable water must be available. Facilities such as washroom, basin or sink shall be provided to maintain cleanliness among animal caretakers, animals, and animal food and water receptacles.
- (g) Each facility shall have the ability to confirm ambient temperature.
- (h) A separate five-foot perimeter fence is required if any animals have access to an outdoor enclosure, including unsupervised exercise areas.
- (i) An adequate drainage system must be provided for the housing facility.
- (j) All areas of a facility are subject to review or inspection by North Carolina Department of Agriculture and Consumer Services employees during normal business hours (8:00 a.m. through 5:30 p.m. Monday through Friday).
- (k) All animals in a facility are subject to the requirements of the Animal Welfare Act, regardless of ownership.
- (l) A licensee or registrant shall comply with all federal, state and local laws, rules and ordinances relating to or affecting the welfare of dogs and cats in its facility.
- (m) No dog or cat shall be in a window display except during business hours and then only in compliance with standards set forth in this Section.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005.*

### **02 NCAC 52J .0202 INDOOR FACILITIES**

- (a) Indoor housing facilities for dogs and cats shall be adequately heated and cooled when necessary to protect the dogs and cats from cold and excessive heat and provide for their health and comfort. The ambient temperature shall not be allowed to fall below 50 degrees F. or exceed 85 degrees F.
- (b) Indoor housing facilities for dogs and cats shall be adequately ventilated to provide for the health and comfort of the animals at all times. The facilities shall be provided with fresh air either by means of windows, doors, vents or air conditioning and shall be ventilated so as to minimize drafts. Air flow shall be adequate to minimize odors and moisture condensation.
- (c) Indoor housing facilities for dogs and cats shall have adequate illumination to permit routine inspections, maintenance, cleaning and housekeeping of the facility and observation of the animals. Illumination shall provide regular diurnal lighting cycles of either natural or artificial light, uniformly diffused throughout the animal facilities.
- (d) Interior building surfaces of indoor facilities with which animals come in contact shall be constructed and maintained so that they are impervious to moisture, and can be readily sanitized.
- (e) A suitable method of drainage shall be provided to rapidly eliminate excess water from an indoor housing facility. If closed drain systems are used, they shall be equipped with traps and installed to prevent odors and backup of sewage. The drainage system shall be constructed to prevent cross-contamination among animals.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005.*

### **02 NCAC 52J .0203 OUTDOOR FACILITIES**

- (a) In outdoor facilities that are subject to the Animal Welfare Act, primary enclosures and walkways with which an animal comes in contact shall be constructed of sealed concrete or other surfaces impervious to moisture. Gravel may be used if maintained at a minimum depth of six inches and kept in a sanitary manner.
- (b) Dogs and cats kept outdoors shall be provided housing to allow them to remain dry and comfortable during inclement weather. Housing shall be constructed of material which is impervious to moisture and which can be disinfected. One house shall be available for each animal within each enclosure except for a mother and its unweaned offspring.
- (c) In addition to housing, the enclosure shall provide protection from excessive sun and inclement weather.
- (d) Animal owners shall be advised at the time of reservation and admission if the animal will be kept in outside facilities.
- (e) A suitable method of drainage shall be provided.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. March 23, 2009; January 1, 2005.*

## **02 NCAC 52J .0204 PRIMARY ENCLOSURES**

(a) Primary enclosures shall be constructed so as to prevent contamination from waste and wastewater from animals in other enclosures. All surfaces with which an animal comes in contact shall be impervious to moisture. For primary enclosures placed into service on or after January 1, 2005, no wood shall be within the animal's reach. For primary enclosures in use in a licensed or registered facility prior to January 1, 2005, any damaged wood must be replaced in a manner that does not permit contact with wood by the animal.

(b) Primary enclosures for dogs and cats shall be structurally sound and maintained in good repair and in a manner to prevent injury to animals and keep other animals out. Primary enclosures shall be constructed so as to provide space to allow each dog or cat to walk, run about freely, and to easily stand, sit, or lie in a natural position. The height of a primary enclosure other than a cage shall be no less than five feet. All enclosures shall be constructed to prevent the escape of animals.

(c) Each primary enclosure shall be provided with a solid resting surface or surfaces adequate to comfortably hold all occupants of the primary enclosure at the same time. All resting surfaces must be of a non-porous or easily sanitized material, such as a towel, or a disposable material such as newspaper. The resting surface or surfaces shall be elevated in primary enclosures housing two or more cats.

(d) In addition to Paragraph (b) of this Rule, each dog shall be provided a minimum square footage of floor space equal to the mathematical square of the sum of the length of the dog in inches, as measured from the tip of its nose to the base of its tail, plus six inches, then divide the product by 144. The calculation is:  $(\text{length of dog in inches} + 6) \times (\text{length of dog in inches} + 6) = \text{required floor space in square inches}$ .  $\text{Required floor space in square inches} \div 144 = \text{required floor space in square feet}$ . The calculation shall be expressed in square feet. Not more than four adult dogs shall be housed in the same primary enclosure without supervision.

(e) If more than four dogs are housed in a common area or enclosure, then there must be at least one person supervising each 10 dogs housed within each enclosure or common area.

(f) In addition to Paragraph (b) of this Rule, each feline older than six months housed in any primary enclosure shall be provided a minimum of four square feet of floor space which may include elevated resting surfaces. Each feline younger than six months shall be provided 1.5 square feet. Not more than 12 cats shall be housed in the same primary enclosure.

(g) In all cat enclosures, a receptacle containing clean litter shall be provided for waste. A minimum of one receptacle per three cats is required.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005; April 1, 1985.*

## **02 NCAC 52J .0205 FEEDING**

(a) Dogs and cats shall be fed at least once each 24-hour period except as otherwise might be required to provide adequate veterinary care. Food shall be commercially prepared food which complies with laws applicable to animal feed or the food shall be provided by the owner. The food shall be free from contamination, wholesome, palatable, and of adequate quality and quantity appropriate for the given size, age, and condition of an animal to meet the daily requirements for nutritional value. Puppies and kittens less than six months of age shall be fed at least twice in each 24-hour period. An eight-hour interval between feedings is required if only two feedings are offered in a 24-hour period.

(b) Food receptacles shall be accessible to all dogs or cats and shall be located so as to minimize contamination by waste. For every adult animal, there must be at least one food receptacle offered. Food receptacles shall be durable and shall be kept clean and sanitized. Damaged receptacles shall be replaced. Disposable food receptacles may be used but must be discarded after each feeding.

(c) Food and water receptacles in outdoor facilities shall be protected from the elements.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005; April 1, 1985.*

## **02 NCAC 52J .0206 WATERING**

Animals shall have continuous access to fresh water, except as might otherwise be required to provide adequate veterinary care. Watering receptacles shall be durable and kept clean and sanitized. Damaged receptacles shall be replaced.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005.*

## **02 NCAC 52J .0207 SANITATION**

(a) Waste shall be removed from primary enclosures and exercise areas to prevent contamination of the dogs or cats contained therein and to reduce disease hazards and odors. Enclosures and exercise areas for dogs and cats must be properly cleaned a minimum of two times per day. The animal must be able to walk or lie down without coming in contact with any waste or debris. When a hosing or flushing method is used for cleaning an enclosure, dogs or cats contained therein shall be removed during the cleaning process, and adequate measures shall be taken to protect the animals in other such enclosures from being contaminated with water and other wastes.

(b) Sanitation shall be as follows:

(1) Prior to the introduction of dogs or cats into empty primary enclosures previously occupied, enclosures and accessories shall be sanitized in the manner provided in Subparagraph (b)(3) of this Rule.

(2) In addition to primary enclosures being properly cleaned a minimum of two times per day, enclosures and accessories shall be sanitized a minimum of once every seven days in the manner provided in Subparagraph (b)(3) of this Rule if the same animal is housed in the same enclosure more than seven days.

(3) Cages, rooms and hard-surfaced pens or runs shall be sanitized by:

(A) washing them with hot water (180 degrees F.) and soap or detergent as in a mechanical cage washer; or

(B) washing all soiled surfaces with a detergent solution to remove all organic matter followed by application of a safe and effective disinfectant; or

(C) cleaning all soiled surfaces with live steam.

(4) Food and water receptacles shall be sanitized daily with hot water, detergent, and disinfectant.

(5) Soiled linens and cloth products shall be mechanically washed with detergent and sanitized.

(6) Any area accessible to multiple animals shall be kept clean and sanitary.

(c) Premises (buildings and grounds) shall be kept clean and in good repair in order to protect the animals from injury and to facilitate the prescribed husbandry practices set forth in this Rule. Premises shall remain free of accumulations of trash, junk, waste products, and discarded matter. Weeds, grasses, and bushes must be controlled so as to facilitate cleaning of the premises and to improve pest control, and to protect the health and well-being of the animals.

(d) An effective program for the control of insects, ectoparasites, and avian and mammalian pests shall be established and maintained.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005; April 1, 1985.*

## **02 NCAC 52J .0208 EMPLOYEES**

A sufficient number of employees shall be utilized to maintain the prescribed level of husbandry practices set forth in this Rule. Such practices shall be under the supervision of an animal caretaker who has a background in animal husbandry or care.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984.*

## **02 NCAC 52J .0209 CLASSIFICATION AND SEPARATION**

Animals housed in the same primary enclosure shall be maintained in compatible groups, with the following additional restrictions:

(1) Females in season (estrus) shall not be housed in the same primary enclosure with males, except for planned breeding purposes. Breeding shall not be allowed in animal shelters.

(2) In boarding kennels, animals of different owners shall not have contact with other animals, unless written permission is obtained from the animal's owner. Any dog or cat exhibiting an aggressive disposition shall be housed individually in a primary enclosure.

(3) Puppies or kittens less than four months of age shall not be housed in the same primary enclosure with adult dogs or cats other than their dams, except when permanently maintained in breeding colonies, or if requested in writing, by the animals' owner, as in a boarding kennel. Puppies or kittens between 4 and 16 weeks of age shall have daily access to human social interaction, excluding animals which pose a danger to humans or other animals.

(4) Dogs shall not be housed in the same primary enclosure with cats, nor shall dogs or cats be housed in the same primary enclosure with any other species of animals. Exceptions are allowed at boarding kennels, if requested in writing by the animals' owner.

(5) All facilities shall designate an isolation area for animals being treated or observed for communicable diseases. Dogs or cats in isolation that are being treated for a communicable disease shall be separated from other dogs or cats and other susceptible species of animals in such a manner as to minimize dissemination of such disease. A sign shall be posted at the cage or isolation area when in use, giving notice of a communicable disease.

(6) Animals in long term care which are intended for adoption or sale must be provided the following:

(a) Daily access to both human and same species social interaction.

(b) Daily access to space other than the primary enclosure.

(c) A species and size-appropriate toy, unless it poses a health threat.

(7) All animals shall be confined in primary enclosures or exercise areas.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. January 1, 2005.*

## **02 NCAC 52J .0210 VETERINARY CARE**

(a) A written program of veterinary care to include disease control and prevention, vaccination, euthanasia, and adequate veterinary care shall be established with the assistance of a licensed veterinarian by any person who is required to be licensed or registered under the Animal Welfare Act, Article 3 of Chapter 19A of the General Statutes.

(b) If there is a disease problem that persists for more than 30 days at the facility, the facility operator shall obtain and follow a veterinarian's written recommendations for correcting the problem.

(c) Each dog and cat shall be observed daily by the animal caretaker in charge, or by someone under his direct supervision. Sick or diseased, injured, lame, or blind dogs or cats shall be provided with veterinary care or be euthanized, provided that this shall not affect compliance with any state or local law requiring the holding, for a specified period, of animals suspected of being diseased. If euthanasia is performed at a certified facility, a list of personnel approved to perform euthanasia shall be maintained in a Policy and

Procedure Manual as described in 02 NCAC 52J .0800. Diseased or deformed animals shall be sold or adopted only under the policy set forth in the "Program of Veterinary Care." Full written disclosure of the medical condition of the animal shall be provided to the new owner.

(d) All animals in a licensed or registered facility shall be in compliance with the North Carolina rabies law, G.S. 130A, Article 6, Part 6. However, no shelter shall be disapproved following inspection or otherwise cited for failure to inoculate any dog or cat known to be less than 12 weeks old or until such animals have been in the shelter at least 15 days.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. March 23, 2009; January 1, 2005.*

## **SECTION .0300 - TRANSPORTATION STANDARDS**

### **02 NCAC 52J .0301 VEHICLES**

(a) Vehicles used in transporting dogs and cats shall be mechanically sound and equipped to provide fresh air to all animals transported without harmful drafts.

(b) The animal cargo space shall be constructed and maintained so as to prevent engine exhaust fumes from getting to the animals.

(c) The interior of the animal cargo space shall be kept clean. It shall be sanitized as deemed necessary.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984.*

### **02 NCAC 52J .0302 PRIMARY ENCLOSURES USED IN TRANSPORTING DOGS AND CATS**

(a) Primary enclosures such as compartments or transport cages, cartons, or crates used by persons subject to the Animal Welfare Act to transport cats and dogs shall be constructed, ventilated and designed to protect the health and insure the safety of the animals. Such enclosures shall be constructed or positioned in the vehicle in such a manner that:

(1) Each animal in the vehicle has sufficient fresh air for normal breathing.

(2) The openings of such enclosures are easily accessible for emergency removals at all times.

(3) The animals are adequately protected from the elements.

The ambient temperature shall be maintained between 50 degrees F and 85 degrees F. A shelter shall be deemed as being in compliance if its vehicles' animal containment units are equipped with operable air-conditioning, forced-air cooling and heating or other temperature control mechanisms.

(b) Animals transported in the same primary enclosure shall be of the same species. Puppies or kittens less than four months of age shall not be transported in the same primary enclosure with adult dogs and cats other than their dams.

(c) Primary enclosures used to transport dogs and cats shall be large enough for each animal to turn about freely, and to easily stand, sit, or lie down in a natural position. Primary enclosures used to transport dogs and cats shall be secured to the vehicle to prevent sliding or tipping of the enclosure during transit.

(d) Animals shall not be placed in primary enclosures over other animals in transit unless such enclosure is constructed so as to prevent animal excreta from entering lower enclosures.

(e) All primary enclosures used to transport dogs and cats shall be sanitized between use for shipments.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984; Amended Eff. March 23, 2009; January 1, 2005.*

### **02 NCAC 52J .0303 FOOD AND WATER REQUIREMENTS**

If dogs and cats are transported for a period of more than 12 hours:

(1) The vehicle shall stop at least once every 12 hours for a period of one hour. During the one hour stop, potable water shall be continuously provided for dogs and cats.

(2) Adult dogs and cats shall be fed at least once during each 24 hour period. Puppies and kittens less than six months of age shall be fed every six hours.

(3) Dogs shall be removed from the vehicle, given fresh water and given the opportunity for exercise if they have been confined in the vehicle for 36 hours.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984.*

### **02 NCAC 52J .0304 CARE IN TRANSIT**

It shall be the responsibility of the attendant or driver to inspect animals frequently enough to assure health and comfort and to determine if they need emergency care and to obtain it if needed.

*History Note: Authority G.S. 19A-24; Eff. April 1, 1984.*

## **SECTION .0400 - EUTHANASIA STANDARDS**

### **02 NCAC 52J .0401 ADOPTION BY REFERENCE**

A person required to obtain a certificate of registration pursuant to G.S. 19A, Article 3 may use any method of euthanasia approved by the American Veterinary Medical Association (AVMA), the Humane Society of the United States (HSUS), or the American Humane Association (AHA) which are hereby incorporated by reference, including subsequent amendments and editions. Copies of these documents may be obtained as follows:

- (1) AVMA Guidelines on Euthanasia may be accessed at no cost on their website at [www.avma.org](http://www.avma.org).
- (2) The HSUS Euthanasia Training Manual can be purchased through their website at [www.hsus.org](http://www.hsus.org) at a cost of nineteen dollars and ninety-five cents (\$19.95).
- (3) The AHA publication, Euthanasia by Injection, can be purchased through their website at [www.americanhumane.org](http://www.americanhumane.org) at a cost of ten dollars (\$10.00).

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0402 AUTHORIZED PERSONS**

Only a Certified Euthanasia Technician, Probationary Euthanasia Technician, or a veterinarian licensed to practice veterinary medicine in North Carolina may euthanize an animal in a certified animal shelter. A Certified Euthanasia Technician shall not euthanize animals using a method for which he or she is not currently certified except as specified in 02 NCAC 52J .0700.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0403 DEFINITIONS**

As used in this Subchapter:

- (1) "Certified Euthanasia Technician" means a person employed by a certified facility who has been instructed in the proper methods of humane euthanasia, security and record keeping.
- (2) "Certified facility" means a certified animal shelter, kennel or pet shop that employs at least one Certified Euthanasia Technician or licensed veterinarian to perform euthanasia on animals at that certified facility.
- (3) "Approved Certified Euthanasia Technician trainer" means a person or organization that received permission from the Animal Welfare Section to provide training to applicants or individuals seeking to be Certified Euthanasia Technicians.
- (4) "Chemical Agent" means any chemical approved by the American Veterinary Medical Association, the Humane Society of the United States or the American Humane Association which is used to induce death.
- (5) "Applicant" means a person seeking certification as a Euthanasia Technician.
- (6) "Commercially manufactured chamber" means a chamber built with the intention for sale with the purpose of euthanizing animals, and which meets the requirements of 02 NCAC 52J .0600.
- (7) "Conviction of a criminal offense" means being found guilty, convicted, placed on probation or entering a guilty plea that is accepted by the court, forfeiture of bail, bond or collateral deposited to secure one's own appearance in a criminal proceeding or having received a withheld judgment, prayer for judgment continued or suspended sentence by a court of competent jurisdiction in this state, in a federal court or another state of any felony, as described by federal or state law, or any criminal act that in any way is related to practicing as a Certified Euthanasia Technician.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0404 CERTIFICATION REQUIREMENTS FOR EUTHANASIA TECHNICIANS**

- (a) Individuals who perform euthanasia must be trained and qualified as a Certified Euthanasia Technician as set forth in this Section.
- (b) Individuals seeking certification as a Euthanasia Technician shall submit a written application documenting their qualifications to the Animal Welfare Section, North Carolina Department of Agriculture and Consumer Services, 1030 Mail Service Center, Raleigh, NC 27699-1030, on the form provided by the Animal Welfare Section.
- (c) The Animal Welfare Section shall receive and review all applications for Euthanasia Technician certification and determine whether or not to issue the individual applicant proof of certification in the form of a printed certificate.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0405 CERTIFICATION STANDARDS**

Applicants for certification as a Certified Euthanasia Technician shall be at least 18 years of age at the date they receive certification. Applicants are not eligible for certification if they have been convicted of a felony offense or a crime or infraction involving animal abuse or neglect and shall demonstrate compliance with this Section.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0406 APPLICATION REQUIREMENTS**

An applicant for certification shall:

- (1) submit a completed and signed application form;
- (2) provide a document from an approved Certified Euthanasia Technician trainer establishing that the applicant has completed an approved course, passed the course written examination and passed a practical examination in the specific euthanasia techniques for which the applicant is seeking certification, or provide separate documentation of having taken an approved course and passed the written examination and having passed a practical examination given by a different approved Certified Euthanasia Technician trainer; and
- (3) specify in the application form the specific euthanasia techniques the applicant is requesting certification.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0407 TRAINING AND EXAMINATIONS**

(a) Training and examinations for euthanasia certification shall consist of:

- (1) Classroom lecture covering the entire list of subjects in Paragraph (b) of this Rule;
- (2) Earning a score of 80 percent correct on a written test provided by the Animal Welfare Section, demonstrating knowledge of the subjects listed in Paragraph (b) of this Rule; and
- (3) Passing a practical examination in each of the euthanasia methods for which the applicant is seeking certification.

(b) The Animal Welfare Section shall develop Certified Euthanasia Technician training programs and materials or accredit training programs and materials to be offered by other individuals, schools, agencies or veterinary practices. The programs and materials shall conform to the processes set forth by the American Veterinary Medical Association, the Humane Society of the United States or the American Humane Association and shall include the following topics:

- (1) The theory and history of euthanasia methods and practice;
- (2) Animal anatomy;
- (3) Proper animal restraint, handling and methods for controlling animal stress;
- (4) Proper chemical agent dosages, record keeping and usage documentation, chemical agent, instrument and equipment storage, handling and disposal in accordance with rules and the Code of Federal Regulations;
- (5) Proper injection techniques;
- (6) Proper euthanasia techniques not utilizing injected chemical agents;
- (7) Proper and accurate verification of animal death;
- (8) Proper record keeping;
- (9) Proper disposal of euthanized animals;
- (10) Stress management for euthanasia personnel;
- (11) Proper methods and techniques of euthanasia under extraordinary circumstances;
- (12) Proper methods, techniques and chemicals inducing anesthesia and sedation in animals prior to euthanasia; and
- (13) Proper methods, techniques and chemicals used in the practical examination section for Certified Euthanasia Technician.

(c) The Animal Welfare Section shall prepare written examinations to be given to applicants. Following the classroom training detailed in Paragraph (b) of this Rule, the applicant shall take a written examination provided by the Animal Welfare Section that will be used by the approved trainer. Those passing the written examination are eligible for the practical examination of the methods of euthanasia for which the applicant seeks certification.

(d) The applicant must pass a practical examination on each method of euthanasia for which he or she seeks certification.

(e) Applicants for certification in Euthanasia by Injection shall demonstrate the following knowledge and competencies:

- (1) Correctly calculate chemical agent dosage based upon the species, age, weight and condition of the animal;
- (2) Correctly complete all required documentation;
- (3) Correctly draw the properly calculated chemical dosage into a syringe and needle of a type and size appropriate for the animal;
- (4) Correctly administer the chemical agent to the animal;
- (5) Properly perform intravenous and intraperitoneal injections on dogs and intravenous or intraperitoneal injections on cats;
- (6) Knowledge of the medical procedures and drugs necessary for an animal to be euthanized by cardiac injection;
- (7) Demonstrate ability to verify death by:
  - (A) lack of respiration;
  - (B) lack of ocular reflexes;
  - (C) lack of a heartbeat;
- (8) Knowledge about the human health risks associated with the use of chemical agents used for euthanasia including signs and symptoms associated with accidental exposure of the Certified Euthanasia Technician;
- (9) Proper first aid for a person accidentally exposed to chemical agents used for euthanasia.

(f) Applicants for certification in Euthanasia by Gas Inhalation shall meet the standards set forth in this Paragraph:

- (1) Demonstrate knowledge of the dangers and human health effects of exposure to carbon monoxide gas;

- (2) Demonstrate knowledge about which animals Euthanasia by Gas Inhalation is approved and which species, age, medical or physical conditions make it improper to use Euthanasia by Gas Inhalation;
- (3) Demonstrate proper techniques in placing animals into the chamber;
- (4) Demonstrate knowledge about the maintenance, operation and cleaning of the chamber, fittings, gas cylinder, valves, and other parts of the equipment;
- (5) Demonstrate proper operation of the chamber;
- (6) Demonstrate ability to verify death by:
  - (A) lack of respiration;
  - (B) lack of ocular reflexes;
  - (C) lack of a heartbeat;
- (7) Demonstrate knowledge about the human health risks associated with the use of carbon monoxide when used for euthanasia. Such knowledge shall also include signs and symptoms associated with accidental exposure of the Certified Euthanasia Technician;
- (8) Demonstrate knowledge of proper first aid for a person accidentally exposed to carbon monoxide used for euthanasia.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0408 TRAINERS**

- (a) Certified Euthanasia Technician training shall be provided by the Animal Welfare Section or by companies or individuals meeting the following criteria:
- (1) Possess working knowledge of euthanasia conducted according to this Section;
  - (2) Have actual experience in euthanasia of animals;
  - (3) Have experience training staff in euthanasia; and
  - (4) Provide references from individuals or organizations previously trained.
- (b) Information taught shall conform to this Section and the guidelines set forth by the American Veterinary Medical Association, the Humane Society of the United States or the American Humane Association.
- (c) Trainers shall disclose to their students and the Animal Welfare Section any affiliations with suppliers of equipment or supplies used in euthanasia.
- (d) The Animal Welfare Section may make unannounced audit of instruction and testing by trainers.
- (e) Prior to providing euthanasia training leading to certification as a Euthanasia Technician, the person or company shall obtain approval before each class for its training program from the Animal Welfare Section.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0409 PROBATIONARY EUTHANASIA TECHNICIANS**

An individual who has passed the written exam, but has not taken and passed the practical examination may serve as a Probationary Euthanasia Technician under the direct supervision of:

- (1) a licensed veterinarian; or
- (2) a Certified Euthanasia Technician

for up to three consecutive months or until such time as the next practical euthanasia exam is conducted, whichever is longer.

Certified animal shelters employing probationary euthanasia technicians must notify the Animal Welfare Section no later than five days prior to the probationary euthanasia technician's first day serving in that capacity.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0410 EXAM REQUIRED**

An individual who has not passed the written exam may not serve as a Certified Euthanasia Technician or Probationary Euthanasia Technician.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0411 NEW APPLICATION**

If the individual or applicant fails to pass the practical exam a second time and wishes to apply for certification again, the individual shall submit a new application to the Animal Welfare Section, attend a training program, pass the written exam and take and pass a practical examination on euthanasia. The Animal Welfare Section shall cancel the application of any applicant who fails the written examination twice.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0412 ISSUANCE OF CERTIFICATION**

Upon the receipt of materials specified in this Section the Animal Welfare Section shall issue a Certificate.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0413 LENGTH OF CERTIFICATION**

A Certificate issued by the Animal Welfare Section is valid for five years from the date of issuance unless it is revoked pursuant to this Section or upon termination of employment or volunteer status as described in this Section.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0414 TERMINATION OF EMPLOYMENT**

Upon termination of employment or volunteer status from a certified facility, a Certified Euthanasia Technician shall not perform animal euthanasia in a certified facility until recertified by the Animal Welfare Section. The Certified Euthanasia Technician's certification shall be canceled effectively upon termination of employment or volunteer status. No later than 10 days from the date of the termination of a Certified Euthanasia Technician's employment or volunteer status at that certified facility the Certified Euthanasia Technician shall complete a form notifying the Animal Welfare Section of the termination of employment or volunteer status and shall return the form and the Certificate to the Animal Welfare Section.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0415 NOTICE OF TERMINATION**

A certified facility shall notify the Animal Welfare Section in writing, no later than 10 days from the date of the termination of a Certified Euthanasia Technician's employment or volunteer status at that certified facility.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0416 RECERTIFICATION**

(a) If a former Certified Euthanasia Technician is employed or is accepted as a volunteer at a certified facility before the expiration of his certification, the former Certified Euthanasia Technician or employer may request reinstatement of his/her certification from the Animal Welfare Section. The reinstated Certification shall be good for five years from the date of its initial issue.

(b) If a former Certified Euthanasia Technician is employed or is accepted as a volunteer at a certified facility after the expiration of his certification, the former Certified Euthanasia Technician may only euthanize animals under the direct supervision of a licensed veterinarian or currently certified euthanasia technician for three months or until he/she passes practical examination whichever is less. The former Certified Euthanasia Technician and the manager of the certified facility shall each notify the Animal Welfare Section within 10 days of the date the former Certified Euthanasia Technician is employed or accepted as a volunteer.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0417 CERTIFICATION RENEWAL**

(a) Certifications may be renewed every five years provided that:

- (1) within the 12 months immediately preceding the application for certification renewal the Certified Euthanasia Technician has taken and passed a practical examination for each method of euthanasia for which they are seeking certification renewal;
- (2) the applicant receives up-to-date information about the method of euthanasia for which the applicant is seeking certification; and
- (3) the applicant receives training in stress management.

(b) The applicant shall submit an application for certification renewal to the Animal Welfare Section. The application shall be on a form created by the Animal Welfare Section and shall include a document from an approved Certified Euthanasia Technician trainer establishing that the applicant has passed a practical examination in the specific euthanasia techniques for which he or she is seeking certification.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0418 DUTIES**

A Certified Euthanasia Technician may:

- (1) Prepare animals for euthanasia;
- (2) Record the identification number of the animal, its species, sex, breed description and date, dosages for drugs that are administered and amounts for drugs wasted;
- (3) Order euthanasia supplies;
- (4) Maintain the security of all controlled substances and other drugs in accordance with applicable state and federal laws and regulations;
- (5) Directly supervise probationary Euthanasia Technicians;
- (6) Report to the appropriate government agencies violations or suspicions of a violation of the rules in this Subchapter or any abuse of drugs;
- (7) Euthanize animals;
- (8) Dispose of euthanized animals and expired or unwanted chemical agent(s) or the containers, instruments and equipment used in the administration of drugs in accordance with all applicable federal, state and local laws and regulations; and

(9) Notify the Animal Welfare Section as required in this Section upon leaving employment or volunteer status at a covered facility.  
*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0419 GROUNDS FOR DISCIPLINE - CERTIFIED EUTHANASIA TECHNICIANS**

The Department may refuse to issue, renew, or reinstate the certification of a Euthanasia Technician, or may deny, revoke, suspend, sanction, or place on probation, impose other forms of discipline, and enter into consent agreements and negotiated settlements with Certified Euthanasia Technician pursuant to the procedures set forth in G.S. 150B, Article 3, for any of the following reasons:

- (1) Failure to Carry Out Duties. Failure to carry out the duties of a Certified Euthanasia Technician;
- (2) Abuse of Chemical Substances. Abuse of any drug or chemical substance by:
  - (a) Selling, diverting or giving away drugs or chemical substances;
  - (b) Stealing drugs or chemical substances;
  - (c) Misusing chemical substances; or
  - (d) Abetting anyone in the foregoing activities;
- (3) Euthanizing animals without supervision as required by this subchapter;
- (4) Allowing uncertified individuals to euthanize animals;
- (5) Allowing probationary Euthanasia Technicians to euthanize animals outside of the Certified Euthanasia Technician's personal presence;
- (6) Fraud, misrepresentation, or deception in obtaining certification;
- (7) Unethical or Unprofessional Conduct. Unethical or unprofessional conduct means to knowingly engage in conduct of a character likely to deceive or defraud the public. Such conduct includes working in conjunction with any agency or person illegally practicing as a Certified Euthanasia Technician; failing to provide sanitary facilities or apply sanitary procedures for the euthanizing of any animal; euthanizing animals in a manner that endangers the health or welfare of the public; gross ignorance, incompetence or inefficiency in the euthanizing of animals as determined by the practices generally and currently followed and accepted as approved by the American Veterinary Medical Association, the Humane Society of the United States or the American Humane Association; intentionally performing a duty, task or procedure involved in the euthanizing of animals for which the individual is not qualified; and swearing falsely in any testimony or affidavits relating to practicing as a Certified Euthanasia Technician;
- (8) Conviction of any criminal offense as described in this Section;
- (9) Improper Record Keeping. Failure to follow proper record keeping procedures as outlined in the rules in this Subchapter;
- (10) Improper Security and Storage for Chemical Agents. Failure to provide and maintain proper security and storage for euthanasia and restraint drugs as established under applicable United States Drug Enforcement Administration and North Carolina Department of Health and Human Services statutes and rules;
- (11) Improper Disposal of Chemical Agents and Equipment. Failure to dispose of drugs and the containers, instruments and equipment in a manner permitted by this Subchapter;
- (12) Improper Labeling of Approved Chemical Agents. Failure to properly label approved euthanasia and restraint chemical agents;
- (13) Revocation, Suspension or Limitation. The revocation, suspension, limitation, of a license, certificate or registration or any other disciplinary action by another state or United States jurisdiction or voluntary surrender of a license, certificate or registration by virtue of which one is licensed, certified or registered to practice as a Certified Euthanasia Technician in that state or jurisdiction on grounds other than nonpayment of the renewal fee;
- (14) Failure of any applicant or certificate holder to cooperate with the North Carolina Department of Agriculture and Consumer Services during any investigation or inspection.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **SECTION .0500 – EUTHANASIA BY INJECTION**

### **02 NCAC 52J .0501 INTRACARDIAC INJECTION**

Intracardiac injection shall only be used on animals that have been anesthetized or heavily sedated.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **SECTION .0600 - EUTHANASIA BY CARBON MONOXIDE**

### **02 NCAC 52J .0601 CARBON MONOXIDE EQUIPMENT**

If carbon monoxide is used for euthanasia in a certified facility, the following requirements shall be met:

- (1) Only commercially compressed, bottled gas shall be used;
- (2) The gas shall be delivered in a commercially manufactured chamber that allows for the individual separation of animals;
- (3) Animals placed inside of the chamber shall be of the same species;
- (4) The chamber shall achieve a minimum six percent uniform concentration of carbon monoxide within two minutes of beginning the administration of the gas;
- (5) Death shall occur within five minutes of beginning the administration of the gas; and

(6) Animals shall remain in the chamber with carbon monoxide for a minimum of 20 minutes.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0602 PROHIBITED USES**

Carbon monoxide may not be used to euthanize animals in certified facilities in any manner inconsistent with guidelines for the use of carbon monoxide approved by the entities referenced in 02 NCAC 52J .0401. Additionally, carbon monoxide shall not be used to euthanize the following animals in certified facilities:

- (1) Animals that appear to be less than 16 weeks of age;
- (2) Animals that are pregnant;
- (3) Animals that are near death.

*History Note: Authority G.S. 19A-24(5); Eff. March 23, 2009.*

#### **02 NCAC 52J .0603 DEAD ANIMALS**

Live animals shall not be placed into a euthanasia chamber with dead animals in certified facilities.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0604 INDIVIDUAL SEPARATION**

Animals shall be individually separated within a euthanasia chamber in a certified facility.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0605 CHAMBER REQUIREMENTS**

- (a) A euthanasia chamber in a certified facility shall be located in a well-ventilated place, preferably outdoors.
- (b) The chamber shall be in good working order.
- (c) The chamber shall have strong airtight seals around the doors and viewports.
- (d) The chamber shall have at least one port for viewing of the animals during euthanasia.
- (e) The chamber shall be lit sufficiently to allow observation of an animal in any part of the chamber.
- (f) Any chamber electrical wiring or components exposed to carbon monoxide must be warranted by the manufacturer to be explosion proof.
- (g) Any light inside of the chamber shall be shatterproof.
- (h) The chamber shall use exhaust ventilation to evacuate the gas from the chamber before the doors are opened upon completion of the process.
- (i) If the chamber is located outdoors:
  - (1) The exhaust shall be vented at least eight feet above ground level.
  - (2) The minimum stack velocity shall be at least 3,000 feet per minute;
  - (3) If there is a roof above the chamber, the exhaust shall be vented at least three feet above the highest point of the roof; and
  - (4) The exhaust shall not be located within eight feet of any building air intakes.
- (j) If the chamber is located indoors:
  - (1) The exhaust shall be vented to the outdoors at least three feet above the highest point of the roof;
  - (2) The exhaust shall not be located within eight feet of any building air intakes;
  - (3) The minimum stack velocity shall be at least 3,000 feet per minute; and
  - (4) At least two carbon monoxide detectors shall be placed in the room.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0606 INSPECTIONS AND RECORDS**

- (a) Chamber seals, exhaust flow, carbon monoxide monitors and other equipment used in the euthanasia process in certified facilities shall be inspected at least monthly and repaired or replaced as necessary.
- (b) The chamber must be inspected at least annually by the manufacturer, its authorized representative or an industrial hygienist knowledgeable about the manufacture and operation of the chamber.
- (c) A record shall be made of each inspection recording the results, the date of the inspection, and the name of the person performing the inspection. The record shall be maintained in the policy and procedure manual for at least two years.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

#### **02 NCAC 52J .0607 CLEANING CHAMBER**

A euthanasia chamber at a certified facility shall be cleaned between uses.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0608 OPERATIONAL GUIDES AND INSTRUCTION MANUALS**

Current operational guides and maintenance instruction manuals shall be kept in the room with the euthanasia chamber at all times in a certified facility.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0609 PERSONS REQUIRED TO BE PRESENT**

A euthanasia chamber in a certified facility shall not be operated unless a Certified Euthanasia Technician or a veterinarian licensed in North Carolina and one other adult are present at the time of its use.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **SECTION .0700 - EXTRAORDINARY CIRCUMSTANCES**

### **02 NCAC 52J .0701 METHODS OF EUTHANASIA PERMITTED UNDER EXTRAORDINARY CIRCUMSTANCES AND SITUATIONS**

For purposes of this Section, extraordinary circumstance or situation includes a situation which is offsite from the shelter, in which an animal poses an immediate risk to animal, human or public health and in which no alternative, less extreme measure of euthanasia is feasible. It also includes circumstances or situations in which it would be inhumane to transport an animal to another location to perform euthanasia.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0702 GUNSHOT OR OTHER METHODS**

Under extraordinary circumstances and situations which occur offsite from the shelter, a shelter employee may use gunshot or other extreme method of euthanasia as set forth in the American Veterinary Medical Association, Humane Society of the United States or American Humane Association Guidelines incorporated by reference in 02 NCAC 52J .0401.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0703 METHODS AND STANDARDS**

Methods of euthanasia used by a certified facility under an extraordinary circumstance or situation must be approved by the American Veterinary Medical Association, the Humane Society of the United States or the American Humane Association for use on that species of animal and must conform to standards set forth by that organization.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0704 TECHNICIAN NOT REQUIRED**

If an extraordinary circumstance or situation occurs and euthanasia is necessary, the person performing the euthanasia is not required to be a Certified Euthanasia Technician at a certified facility.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0705 REPORTS**

A licensee or registrant shall prepare a report of any euthanasia performed under extraordinary circumstances or situations, and keep the report on file for at least two years. The report shall include the date, time, identification of the animal, the name of the person performing the final euthanasia, the method of euthanasia and the reason for euthanasia of the animal as permitted by this Section.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **SECTION .0800 – POLICY AND PROCEDURE MANUAL**

### **02 NCAC 52J .0801 MANUAL REQUIRED**

Any animal shelter performing euthanasia shall have a current policy and procedure manual about euthanasia.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

### **02 NCAC 52J .0802 CONTENTS**

The policy and procedure manual shall set forth the shelter's equipment, process, and the procedures for individual separation of animals.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*

## **02 NCAC 52J .0803 ADDITIONAL CONTENTS**

A certified facility's policy and procedure manual shall be kept consistent with the publications listed below and reflect the current information for each. The manual shall include:

- (1) A copy of the current North Carolina Animal Welfare Act and the rules in this Subchapter;
- (2) A copy of the 2000 Report of the American Veterinary Medical Association Panel on Euthanasia and any future revisions, replacements, supplements or changes thereto issued by that organization;
- (3) A current copy of the Euthanasia Training Manual of the Humane Society of the United States;
- (4) A copy of the publication on euthanasia by the American Humane Association;
- (5) A list of methods of euthanasia allowed at the shelter and the policy and procedures for each method;
- (6) A list of Certified Euthanasia Technicians, the methods of euthanasia in which they have received training, and the date of training;
- (7) The name, address and contact information for the veterinarian responsible for the Annual Program of Veterinary Care;
- (8) The name, address and contact information for veterinarians responsible for the veterinary medical care of the animals. The contact information shall include telephone numbers for working hours, weekends, nights and holidays;
- (9) Euthanasia procedure to use in emergencies, after hours, holidays and weekends;
- (10) Procedures to follow if no Certified Euthanasia Technician is present and euthanasia of an animal is necessary;
- (11) Methods of verifying death of an animal after a euthanasia process is performed;
- (12) The name and contact information of the supplier of materials. It shall include:
  - (a) Bottled gas (if applicable);
  - (b) Manufacturer of the chamber used to euthanize animals by inhalant gas (if applicable);
  - (c) Injectable euthanasia solution;
  - (d) Tranquilizer or anesthetic solution;
- (13) Original of U.S. Drug Enforcement Administration certification permitting the use of controlled substances;
- (14) A material safety data sheet for any chemical or gas used for euthanasia in that shelter;
- (15) A material safety data sheet for any anesthetic or tranquilizer used in that facility;
- (16) Notice of the signs and symptoms associated with human exposure to the agents used for euthanasia at the facility;
- (17) First aid for people accidentally exposed to the agents used for euthanasia at the facility; and
- (18) Contact information of the physician or medical facility providing medical treatment to employees of the facility. The information shall include the name of the medical facility, the telephone number for both working and after-hours contact and directions to the medical facility from the certified facility including a map. If the medical facility does not provide service after-hours, on weekends or on holidays, there must be contact information as described in this item for the nearest medical facility, urgent care clinic or emergency room that does provide care during that time.

*History Note: Authority G.S. 19A-24; Eff. March 23, 2009.*