

Chapter 2: SAFETY

Purpose of These Requirements

Operating a FCCH requires careful planning and proactive and protective measures to ensure the safety of the children in your care. Safe spaces, indoors and outdoors, help children to feel free to explore and experiment which, in turn, fosters development in all areas.

Operators have the responsibility to:

- Assess the risk associated with any activity;
- Minimize the risks;
- Develop habits that will reduce and prevent accidents while in care;
- Use effective supervision and maintain FCCH capacity;
- Have the skills and knowledge needed to operate the FCCH; and
- Know when and how to act in an emergency.

The purpose of these requirements is to bring to the operator's attention safety topics related to a FCCH and what specific steps the operator must take to ensure safety in indoor and outdoor environments and any activities associated with the FCCH.

Definitions

Keep out of reach of children: must be kept in locked storage or be inaccessible to the children in care.

Inaccessible: A product is considered inaccessible to children when stored in a locked space, on a shelf or in an unlocked cabinet that is mounted a minimum vertical distance of five feet above a finished floor.

Swimming Pool: bodies of water with a depth of more than 24 inches.

Wading Pool: small, shallow swimming pools not more than 24 inches deep designed for use by children.

SECTION 1: GENERAL SAFETY REQUIREMENTS

Safe Environment

Child Care Rules .1719(1); .1720(a)4

- ★ You must provide a safe indoor and outdoor environment for children in care.
- ★ All areas used by children, indoors and outdoors, must be kept clean and orderly and free of items that are potentially hazardous to children.
- ★ Hazardous cleaning supplies and other items that could be poisonous must be kept out of the reach of children or in locked storage.

- ☑ Indoor and outdoor areas must be safe from hazards that may be potentially hazardous or pose risk to children in care.
- ☑ Examples of possible hazards include small items that children can swallow, blocking an exit with a piece of furniture or other object, appliance cords hanging from an ironing board, tripping hazards, knives or scissors on the countertop, poisonous plants, power tools, cleaning supplies, protruding fence wires, and nails or broken glass in the yard.
- ☑ Crock pots are potential burning hazards. Keep the crock pot and cord out of children's reach. Also, when stirring the contents of the crock pot, make sure children are not near so that the condensation build-up of hot water droplets will not touch their skin.
- 💻 For resources on poisonous plants visit Poisonous Plants of NC at www.ces.ncsu.edu/depts/hort/consumer/poison/poison.htm.
- 💻 The American Association of Poison Control Centers has created a poison awareness program designed for preschool children. Visit <http://www.aapcc.org/dnn/Home/tabid/36/Default.aspx> for information and resource materials.
- 💻 Carolinas Poison Center offers emergency telephone resource for poisoning questions and information. Visit www.ncpoisoncenter.org or call 1-800-222-1222.
- ☑ Examples of ways to make an item inaccessible to children include placing items on a high shelf located in a storage closet or laundry room that is out of children's reach or placing items behind locked storage. Child safety latches are not acceptable as a means to prevent access.
- HH Magnetic locks, combination locks, and padlocks are acceptable to use. The unlocking device should be stored separately. Do not store a key to a padlock inside the lock.
- ☑ You must read product labels to see if items indicate "keep out of reach of children." Any item with this warning on the label must be kept in locked storage or made inaccessible to children. The Department of Environment and Natural Resources defines "out of reach" as being a shelf five feet above a finished floor.
- 📁 Refer to the **Hazardous Items Storage** handout in the resource section for a list of items that must be kept in locked storage or out of reach.

- ☑ Make sure motor oil is locked in the trunk of your vehicle or removed completely.
- ☑ Fireplace hearths with sharp edges must be modified to prevent injuries to children.
- ☑ Mop buckets with water should be emptied immediately, following use.
- HH To ensure that you are making your home safe for children you may want to get on a child’s level to see what they see.
- 📁 Use the **Child Care Environment: Room-by-Room Safety Checklist** at the end of this chapter to ensure that your home is a safe environment for children.
- 💻 An additional checklist, **Child Care Environment: General Safety Checklist**, includes items for fall prevention, fire prevention, air quality, outdoor play area, and car safety. This list can be found at <http://extension.unl.edu/publications>.
- 📁 You can find a resource from the American Academy of Pediatrics on choking prevention at the end of this chapter.
- 📁 Emergency Preparedness resources can be found in Appendix D of this handbook.
- 💻 CPSC is committed to protecting consumers and families from products that pose a fire, electrical, chemical, or mechanical hazard or can injure children. To obtain product safety information, get on an email listserv for recalled products for infants and children or to report unsafe products call 800-638-2772 or visit their website at www.cpsc.gov.

Electric Fans
Child Care Rule .1719(4)

★ All electric fans must be securely mounted out of the reach of children or have a mesh guard on each fan.

- ☑ Fans that are not out of the reach of children must be mounted securely to prevent the fan from falling on a child. Fans must have a mesh wire guard which prevents children’s fingers, toys or other small objects from coming in contact with the fan blades.

Electrical Outlets
Child Care Rule .1719(5)

 All electrical outlets not in use must be covered. Old, cracked or frayed cords must be removed.

- Electrical outlets must be covered using safety caps, putting a plate cover over the electrical outlets, or outlets must be located behind furniture that children cannot move.
- Multiple outlets on extension cords must be covered with safety caps.
- Outlets above the counter in a kitchen must be covered.

Steps/Stairs
Child Care Rule .1719(6)

 Steps and stairs used by children must be safe and solid.

 Stairs with two or more steps that are used by children must be railed. Indoor stairs with more than two steps must be made inaccessible to children in care who are two years old or younger.

- Steps and stairs both indoor and outdoor must be safe and solid.
- Children must be cared for on the ground level. The ground level could be on two floors if there are direct exits on both levels.
- HH** To make indoor stairs with more than two steps inaccessible, you may choose to block the area with a baby gate or closed door.
- HH** Outdoor steps must be safe, solid, and railed, but do not have to be blocked for children two-years-old and younger.
- HH** These rules include steps used when children arrive at your home as well as steps used by children when going outside to play.
- HH** See *Chapter 1 –Getting Started* for more information on rules about the ground level of a Family Child Care Home.

Storage of Firearms **Child Care Rule .1720(a)(1)**

-  Empty firearms of ammunition and keep both in locked storage separate from each other.

Combustible Materials **Child Care Rules .1719(10); .1720(a)(2)**

-  Safely store all combustible materials that may create a fire hazard.
-  Keep items used for starting fires, such as matches and lighters, out of children's reach.

- Highly flammable items such as gas cans, cigarette lighters, matches, propane tanks, rags, cleaning solutions and chemicals must be safely stored to prevent fires and injuries.
- To reduce the risk of fire, flammable items should not be stored on or near items that have a pilot light. Also, flammable items should not be stored near or around your hot water heater.
- Candles must not be burned when children are in care.

Medications **Child Care Rule .1720(a)(3)**

-  All medicines must be kept in locked storage.

- All medicine in the house must be kept in locked storage. A lock and key, combination lock, or magnetic locks must be used.
- This includes any medications belonging to children in your care or to household members.
- If medications need to be refrigerated, you will need a separate lock box to store the items in the refrigerator.
- If children take medications without the supervision of an adult, it could quickly lead to an overdose. Keeping medications in locked storage will assure they are never accessible to children and will eliminate the possibility of an overdose.
-  See *Chapter 3 - Health* for detailed information concerning the administration of medication and *Chapter 4 - Records*

and Activities for a sample **Permission to Administer Medication** form.

First Aid Supplies
Child Care Rule .1720(a)(5)



First aid supplies must be in a place easily accessible to you.

- Your first aid kit should be portable and tightly sealed.
- You should restock your first aid kit after each use.
- HH** To ensure you have access to first aid supplies at all times, you may want to have a kit in your car and a kit to take outdoors with you.
- HH** Store bought first aid kits often contain burn gel, Tylenol, and antibiotic cream. These items should be removed from your first aid kit or placed in locked storage. These items may not be used on children without written permission to administer from the child's parent.
- HH** Without specific written permission you are only allowed to treat cuts and scrapes with soap, water, and a bandage. If an injury needs further attention, the parent/guardian should be contacted.
- HH** Post a first aid information chart for easy reference in case of an emergency.
-  A first aid information chart may be requested free of charge from the North Carolina Child Care Health and Safety Resource Center by calling 1-800-367-2229.
- HH** It is a good practice to contact a parent of an injured child any time a child is injured, regardless of the type of injury.
-  At the end of this chapter you will find a suggested list of items that you should place in your first aid kit.
-  Call the Poison Control Center at 1-800-222-1222 for steps to take in case of poisoning. The Poison Control Center should be called before any treatment is initiated.

**Smoking and Use of Tobacco Products
Child Care Rules .1720(a)(6); (f)**

-  The operator is not allowed to use tobacco products at any time while children are in care.
-  Smoking or use of tobacco products by anyone is not allowed indoors while children are in care or in a vehicle when children are transported.
-  Tobacco products must be kept out of reach or in locked storage when children are in care.

- Other household members may go outside to smoke or use tobacco products as long as the area is not occupied by children in care.

**Equipment/Toys
Child Care Rule .1720(a)(7)**

-  All equipment and toys must be in good repair and developmentally appropriate for the children in care.

- You must have equipment and toys that are age appropriate for all of the ages of children in your care.
- Toys with small pieces must not be accessible to young children, because they pose a choking hazard.
- All toys that are broken must be safely repaired or removed.
- Indoor and outdoor toys must be kept clean.
- If toys require a battery, the batteries must be charged.
- HH** You can use an empty toilet paper or paper towel roll to test toys to see if the toy is safe. If the toy or any of its pieces fit inside the roll, then it is too small and poses a choking hazard for young children.
- HH** Outdoor toys will last longer and stay cleaner if they are kept in a shed, garage or a covered container.
-  You will find **Equipment and Material Suggestions for Infants - School-Age Children** in *Chapter 1 – Getting Started*.
-  Refer to the *School-Age Care Environment Rating Scale* for equipment and material suggestions for school-age children in your care. You may be able to locate a copy of this assessment tool at a Child Care Resource and Referral Agency or Smart Start Partnership near you. You also can order this rating scale from book stores or by calling Teacher’s Press at 1-800-575-6566.

-  The Consumer Product Safety Commission provides recall and safety information for infant/child products on their website, www.cpsc.gov. You may also subscribe to be on their listserv to receive email notification of recalled infant/child products.

Home Free of Rodents Child Care Rule .1720(d)(8)

 You must keep your home free of rodents.

- Your home must be free of rodents and pests such as roaches, rats or ants.
- Traps and poisons must not be accessible to the children and spraying must be done when the children are not present.
- HH** Remember some methods of removing rodents such as traps, poison or spraying may cause other safety issues. You must ensure the method that you use will not cause harm to the children.
-  See the resource section of this chapter for a resource on toxic free ways to eliminate pests and rodents.

Screened Windows and Doors Child Care Rule .1720(d)(9)

 You must screen all windows and doors used for ventilation.

- Screens are used to prevent flying insects from entering your home.
- Windows and doors you are not going to use for ventilation do not need to have screens.

Storage of Garbage Child Care Rule .1720(d)(11)

 You must store garbage in a waterproof container with a tight fitting cover.

- The container must be easily cleaned on a regular basis.

- Tight fitting lids prevent children and animals from getting into the garbage.

**Requirements for Telephone and Emergency Procedures
Child Care Rules .1720(a)(8); .1721(b)(1)**

-  You must have a working telephone in your home. Emergency telephone numbers must be posted near the telephone.
-  You must complete and maintain documentation of your emergency procedures on a form provided by the Division.

- Whether you are using a land line or cellular telephone your telephone must:
 - Be turned on for parents and other persons to contact you.
 - Have a strong reception or signal.
 - Be charged.
 - Be placed in an area that is accessible to you while children are in care.

- Emergency telephone numbers must include the fire department, law enforcement office, emergency medical service, and poison control center. These numbers must be posted.

 You can find a sample **Emergency Telephone Numbers** form in *Chapter 4 – Records and Activities*.

- Dial 911 to contact the fire department, law enforcement, or emergency medical service.

- The **Emergency Procedures** form must be completed prior to receiving a license and must be maintained on file in your FCCH.

- The **Child’s Health and Emergency Information** form completed for FCCHs has emergency contact information, important health information about children, the authorization for emergency medical care and hospital preference.

 You will find the **Child’s Health and Emergency Information** form in the resource section of *Chapter 4-Records and Activities*.

 For additional information regarding emergency medical care and plans for children, review *Chapter 3 –Health*.

HH Your local phonebook lists local emergency and poison control telephone numbers on the first several pages.

- HH** You may want to list parent and substitute contact telephone numbers near the telephone to have quick access to them.
- HH** You may want to take a cellular telephone with you on field trips in case of an emergency.
- HH** While a cell telephone is helpful to carry around as you move about your house, it can be left in different rooms which can mean that it may not be quickly located in the event of an emergency. Having a corded telephone would ensure availability.
-  You can find a copy of the required **Emergency Procedures** form in *Chapter 4 – Records and Activities*.
-  A resource on **Situations that Require Immediate Medical Attention** is located in the resource section of *Chapter 3 – Health*.
-  See Appendix D of this handbook for **Emergency Preparedness Resources**.
-  See *Chapter 1 – Getting Started* for requirements for emergency caregivers.
-  Turn to the local resource chapter of this notebook and add all of your local emergency contact telephone numbers.

Fire Drill Report
Child Care Rule .1721(b)(2)



You must complete and maintain records of the monthly fire drills that you complete with the children.

- You must complete monthly fire drills.
- You must use the same alarm sounding method when conducting fire drills, as you would in an actual fire. This will help children become familiar with the sound and know what to do if an actual fire occurs.
- All children must be evacuated, including infants.
- You must practice fire drills at different times of the day so that the children will be familiar with doing fire drills in any situation. Make sure that you have a fire drill on occasion just prior to the children getting up from nap. It may take longer to evacuate sleepy children.
- HH** The fire extinguisher should be serviced regularly and the gauge checked to make sure the extinguisher is properly charged.

HH If the smoke detector is “chirping,” the battery needs to be changed. A good rule to follow is to change the battery when daylight savings time changes.



Fire drill documentation must include the date each drill is held, the time of day, the length of time taken to evacuate the home, and the operator's signature. You can find a copy of the required **Fire Drill Report** in *Chapter 4 – Records and Activities*.

Incident Report
Child Care Rule .1721(b)(3)



You must complete and maintain an incident report each time a child receives medical treatment as a result of an incident that occurred while in your care.



An incident report must be completed each time a child receives medical treatment by a physician, nurse, physician's assistant, nurse practitioner, community clinic, or local health department, as a result of an incident occurring while the child was at your family child care home.



You and the parent must sign the incident report form.



The incident report form must be maintained in the child’s file. A copy of the form must be mailed to your child care consultant within seven calendar days after the incident occurs.



If a parent takes a child for medical treatment after the child is picked up, you still need to complete an incident report and submit the report to your child care consultant.

HH For liability purposes, you may want to complete an incident report for any type of incident that occurs at your program. This will provide documentation that you discussed the incident with the parents and may be helpful in determining causes of incidents that reoccur, such as biting. This form would not need to be submitted to the Division unless the child received medical treatment.



You can find a copy of the required **Incident Report** form in *Chapter 4 – Records and Activities*.

Incident Log
Child Care Rule .1721(b)(4)

 You must complete and maintain an incident log of all incident reports that are completed.

An incident log must be filled out any time an incident report is completed. This log shall be cumulative and maintained in a separate file and shall be available for review by your child care consultant.

 You can find a copy of the required **Incident Report Log** in *Chapter 4 – Records and Activities*.

Safe Sleep
NC General Statute 110-91(15) &
Child Care Rules .1718(a)(8); .1724

 If you care for infants aged 12 months or younger you must develop and adopt a written safe sleep policy.

 You must post a copy of your safe sleep policy or a poster about safe sleep practices in a prominent place in the infant sleeping room or area.

 A copy of your safe sleep policy must be given and explained to the parents of any infant 12 months or younger on or before the first day the infant attends your FCCH.

 The parent must sign a statement acknowledging the receipt and explanation of the policy.

 If a health care professional or parent completes a waiver authorizing an alternate sleep position, the FCCH operator must retain the waiver in the child’s record for at least one year from the date the child is no longer enrolled in the program.

 Bedding or other objects must not cover a child’s face when a child is sleeping or napping.

The purpose of developing a safe sleep policy is to provide a safer sleep environment to help reduce the risk of Sudden Infant Death Syndrome (SIDS).

Your safe sleep policy must specify that you will place infants 12 months or younger on their backs to sleep, unless for an infant aged 6 months or less, you receive a written waiver from a health care professional; or for a child older than 6 months, you receive a written waiver from a health care professional or a parent/guardian specifying a different position.

- Your safe sleep policy must include the following for infants 12 months or younger:
 - Infants must be placed in a crib, bassinet or play pen with a firm padded surface when sleeping.
 - You must specify whether pillows, blankets, toys, and other objects will be placed in a crib with a sleeping infant, and if so, you must specify the number and types of allowable objects.
 - You must specify that nothing will be placed over the head or face of an infant when the infant is laid down to sleep.
 - The temperature in the room where infants are sleeping must not exceed 75 degrees Fahrenheit.
 - You must specify how you will visually check on sleeping infants.
 - You must specify how you will document that you are visually checking on sleeping infants and such documents must be maintained for a minimum of 30 days from the date it is replaced with a new form.
 - You must specify any other steps that you will take to provide a safe sleep environment.
- Parents must sign a statement that acknowledges the receipt and explanation of your safe sleep policy. The acknowledgment must include: the infant's name, the date the infant first attended your FCCH, the date the safe sleep policy was given and explained to the parent, and the date the parent signed the statement. The acknowledgment must be on file on or before the first day the infant attends the home.
- A copy of the signed statement must be kept on file in your FCCH.
- If you amend your safe sleep policy, you must give written notice of the amendment to parents of all infants 12 months and younger enrolled at least 14 days before the amended policy is implemented. Each parent must sign a statement acknowledging the receipt and explanation of the amended policy. The signed statement must be on file by the first day the amended policy is implemented and kept in the child's records as long as the child is enrolled at your FCCH.
- If an infant is placed to sleep on his back, then rolls over to his stomach, the American Academy of Pediatric's position is to allow the infant to adopt whatever position he prefers as long as he is initially placed on his back.
- At the end of this chapter you can find a sample **Infant/Toddler Safe Sleep Policy (Revised)**.

-  If a written waiver is received for an infant six months of age or less, that indicates the infant may sleep in another sleep position other than the back to sleep, the waiver must be signed and dated by the infant’s physician, a nurse practitioner or a physician’s assistant; bear the infant’s name and birth date and specify the authorized sleep position.
-  If a written waiver is received for an infant older than six months, the waiver may be from a health care professional, a parent or legal guardian. The waiver must bear the infant’s name and birth date, be signed and dated by the health care professional or parent, and specify the infant’s authorized sleep position.
-  Copies of the **Alternative Sleep Position Waiver** (Health Care Professional Recommendation) and **Alternative Sleep Position Waiver** (Parent Request) are located in the resource section of *Chapter 4- Records and Activities*.
-  ITS-SIDS training must be completed within four months of receiving a license if you are licensed to care for children who are 12 months or younger, and completed again every three years from the completion of the previous ITS-SIDS training.
-  For more information on required “ITS-SIDS” training see *Chapter 1 - Getting Started*.
-  For information on the requirements for overnight care see *Chapter 3 – Health*.
-  For more information on ITS-SIDS you can go to the Division’s website, www.ncchildcare.net. You will find the ITS-SIDS laws and rules; sample sleep policies, sleep charts, and alternative sleep position waivers; and the ITS-SIDS trainer list.
-  <http://www.nchealthystart.org>. Check this website from the NC Healthy Start Foundation to learn more about Sudden Infant Death Syndrome and the NC Back to Sleep Campaign.

Missing or Deceased Children
NC General Statutes 110-102.1(a),(b)

-  When a child in care is discovered missing, you must report the missing child to local law enforcement.
-  If a child dies while in child care, or of injuries sustained in child care, a report of the death must be made by you to your child care consultant within 24 hours of the child’s death or on the next working day.

- You must immediately contact the police or sheriff’s department if a child is discovered missing from your care.
- You should contact the child’s parent/guardian as soon as the child is discovered missing from your care.

SECTION 2: SUPERVISION

All children must be adequately supervised while they participate in indoor and outdoor activities. Operators should be actively involved with the children at all times. Make yourself aware of areas that require close supervision such as crawl spaces and ladders with open entries outside and bookshelves and bathrooms inside. Be positioned to help in these areas.

**Supervising Children at All Times
Child Care Rules .1718 (7) (A), (B)**

-  The operator must interact with the children while moving about the indoor or outdoor area and must be able to hear and see the children at all times, except when emergencies necessitate that direct supervision is impossible for brief periods of time.
-  For children who are sleeping or napping, the staff are not required to visually supervise them, but should be able to hear and respond quickly to them.

- You must be able to hear and see the children at all times by positioning themselves to be able to see all areas used by children in the outdoor learning environment.
- HH** You should be mindful of supervising children while children are on slides, climbers, or other tall equipment. Many fatal injuries reported to the U.S. Consumer Product Safety Commission involve falls.
- Interaction with the children should include expanding on their play experiences through communication and suggestions. It also includes actively playing and being engaged with the children.
- You must bring all the children inside if there is a need to leave the play area, such as for toileting.
- If there is a second caregiver, keep your interaction with the other person to a minimum, keeping supervision and interaction with the children the primary focus.
- Supervision in the bathroom is needed since children are curious and may investigate the commode and other sources of water.
- Children must not sleep or nap in a room with a closed door between the children and supervising staff.

- ☑ You must be on the same level of the home where the children are sleeping or napping.
- ☑ Monitors cannot be used as the primary means to hear or see children. The primary means of supervision are ears and eyes.

SECTION 3: OUTDOOR PLAY AREA

Outdoor Hazards Child Care Rules .1719(1), (2)

- ★ All outdoor areas used by children must be kept clean and orderly and free of items that are potentially hazardous to children.
- ★ Safely store equipment and supplies such as lawnmowers, power tools, or nails so that they are inaccessible to children.

- ☑ Grills with propane tanks are required to be inaccessible to children. They must not be stored in an area where children play.
- ☑ Air conditioner units with accessible moving parts may need a fence/barrier around them so children do not have access to the moving parts.
- ☑ The outdoor area must be safe for children. Play equipment must be in good repair. Home use items, (i.e. yard and garden tools and equipment, fertilizers and sprays, paint and turpentine), as well as low branches or unstable tree limbs, thorny bushes and plants, exposed tree roots and animal feces may not be accessible to children.
- ☑ Deck railings and other areas may have possible entrapment areas and should be checked to ensure that any spaces or openings are less than 3 ½ inches or more than 9 inches wide.
- ☑ Fences must not contain entrapments or protrusions.
- HH A fence around the outdoor play area is not typically required by the Division unless there are major safety concerns. Examples of safety concerns include bodies of water located on the premises, such as streams or drainage pipes; the FCCH being located close to or on a busy street or highway; and chemicals on adjacent properties. Some local ordinances do; however, require fencing for Family Child Care Homes.
- ☑ The area must be free of toxic plants.

-  For resources on poisonous plants visit Poisonous Plants of NC at www.ces.ncsu.edu/depts/hort/consumer/poison/poison.htm.
-  The United States Environmental Agency provides information and fact sheets on ways to reduce chances of pesticide poisoning at <http://www.epa.gov/pesticides/factsheets/playitsafe.htm>. A pesticide is any bait, liquid, powder, or spray used to kill a pest (ants, germs, cockroaches, flies, mice, rats, or termites).
- HH** Empty standing rain water in toys to prevent mosquitoes and mold.
- HH** Grass should be cut below the ankle to prevent skin irritations and chiggers.

Outdoor Play Equipment Child Care Rule .1719(3)

-  All outdoor stationary play equipment must be firmly anchored and not installed over concrete or asphalt.
-  Footings of outdoor play equipment or fencing must not be exposed.

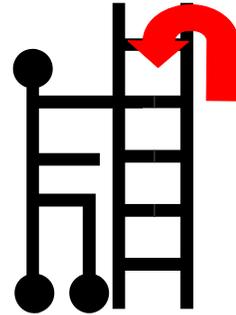
- Footings anchor a piece of outdoor play equipment to the ground. They may be metal bands or poured cement. Footings must be installed so they are not exposed above the ground. This prevents a tripping hazard.
- You must make sure the play equipment you have is appropriate for the ages of children in your care. Check with the manufacturer of the play equipment for the recommended age range.
- Always make sure the play equipment you are using is in good repair. All broken equipment must be removed from the premises immediately or made inaccessible to children.
- Equipment accessible to children during normal supervised play must be sturdy, stable, and free of hazards, which include sharp edges, lead based paint, loose nails, splinters, protrusions (excluding nuts and bolts on sides of fences), and pinch and crush points.
- Materials and equipment that are accessible to children must not be coated or treated with or contain toxic materials such as creosote, pentachlorophenol, tributyl tin oxide, dislodgeable arsenic and any finishes that contain pesticides.

Always check with the manufacturer or supplier to receive safety data before purchasing materials or equipment.

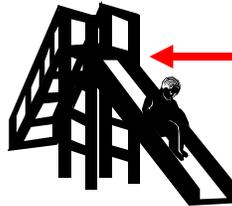
- If you use lightweight, portable equipment, make sure that it is used properly and safely. The U.S. Consumer Products Safety Commission (CPSC) indicates that these pieces of equipment should never be placed over concrete, asphalt, wood, or other hard surfaces.
- Make sure all nails and bolts are flush with the outer surface of equipment.
- HH** Equipment should be free of protrusions. Places to look for protrusions include bolts on equipment or fences, handrails on spring rockers, or other fixed equipment.
- Children are not allowed to play on outdoor equipment that is too hot to touch.
- Trampolines are not allowed to be used.
- HH** The outdoor learning environment must be designed so staff are able to see and easily supervise the entire area.
- HH** It is helpful to have storage near or in the outdoor learning environment to store items such as balls, tricycles, and other play materials for easy access.
- HH** Try to provide shade in your outdoor learning environment using trees, your house, awnings, tents or an arbor.
- HH** There are no specific requirements for playground surfacing in a FCCH. To make your outdoor play area a safe environment, you may want to refer to the chart below. The recommended depth of surfacing needed is based on the critical height of the equipment. The critical height of the equipment is the maximum height a child may climb, sit or stand without potentially having serious head injuries if they fall. This chart indicates what types of surfacing materials are approved and how much surfacing you should use under and around your play equipment in order to provide the safest place to play.

Equipment Critical Height			
Type of Surfacing	4ft. or less	4-5 ft.	5 ft –8 ft.
Fine or course sand	6 inches	9 inches	NA
Wood mulch	6 inches	6-9 inches	9 inches
Double shredded bark mulch	6 inches	6-9 inches	9 inches
Wood chips	6 inches	6-9 inches	9 inches
Pea gravel	6 inches	9 inches	NA

- HH** Carefully check the depth of surfacing in high use areas such as exit regions of slides, areas under swing sets, and high traffic areas.
- HH** Pea gravel should not be used as a surfacing material in areas used by children less than three years of age.
- HH** If you have a play structure with a ladder, make sure the space between slats is less than 3 ½ inches or greater than 9 inches to prevent an entrapment hazard.



- HH** Upright angles on equipment or fencing should be greater than 55 degrees to prevent entrapment and entanglement.



The space where the handrails meet the slide could be an upright angle.

- HH** You are not required to have large pieces of play equipment. You can use materials such as riding toys, balls, hoops, digging toys (i.e. shovels, buckets, cups), magnifying glasses, large trucks, or a big hill of dirt where children can run up, roll down, dig, and make mud pies.
- HH** Planting an outdoor garden offers a hands-on experience for learning about the types of creatures a garden attracts, the life cycle of a seed/plant, what plants need to grow, the parts of a plant, and the types of fruits, vegetables and herbs that grow in a particular region. Planting a garden is one of the strategies for meeting two or three of the scientific thinking standards listed in *Foundations: Early Learning Standards for North Carolina Preschoolers and Strategies for Guiding Their Success*.



The web site, <http://www.kidsgardening.com/>, provides helpful resources on how to plant a garden with children.



Except for the rules above, there are no specific requirements for outdoor play equipment. You may want to refer to the

U.S. Consumer Products Safety Commission (CPSC) Home Playground Safety Checklist at the end of this chapter to determine if your outdoor play area is safe.

- HH** For more information on playground safety consult the U.S. Consumer Products Safety Commission *Public Playground Safety Handbook (2008)*. You may call the U.S. Consumer Products Safety Commission to ask for a hard copy of the *Public Playground Safety Handbook* at 1-301-504-7923 or to review the Handbook online go to <http://www.cpsc.gov/CPSCPUB/PUBS/325.pdf>.
- HH** The National Program for Playground Safety (NPPS) offers the following recommendations:
- Loose ropes should not be used on playground equipment. Loose ropes have caused strangulation and severe injuries.
 - Clothing strings, loose clothing, and stringed items placed around the neck can catch on playground equipment and strangle children.
 - Children should not wear bike helmets when on playground equipment.
- ★ To be eligible for the most points in Program Standards for the issuance of a Star Rated License, you will need to have a Family Child Care Environment Rating Scale (FCCERS) assessment completed. Look at the Active Physical Play indicators to determine what type of equipment/materials outdoors will give you the highest number of points in Program Standards. Refer to *Chapter 6 – Star Rated License* for additional details.
-  Web addresses for additional **Playground Safety Resources** are located in the resource section of this chapter.
-  See *Chapter 3- Health* for outdoor play requirements.

Outdoor Inspection Checklist Child Care Rule .1721(b)(5)



You must complete a monthly outdoor inspection checklist and maintain a record of the inspection.



You must use the form provided by the Division for the monthly playground inspection.

- HH** You may want to complete the **Outdoor Inspection Checklist** on the same day that you complete your monthly fire drill so that you will not forget to do either.
- HH** It is best practice to conduct morning safety walks to inspect the outdoor area before children go outside. There may be fallen tree limbs, trash, wasp nests, ice or other hazards that sometimes turn up over night or over the weekend.
-  A copy of the **Outdoor Inspection Checklist** can be found in *Chapter 4 – Records and Activities*.

SECTION 4: TRANSPORTATION

Transporting children in child care is a high risk activity. Child care operators and parents need to be aware that transporting children requires careful planning and proactive, protective measures to ensure the safety of children and the operator. Any time children are transported there is a potential for problems to occur. Careful planning reduces the risk of harm or injury to children and reduces the liability for child care operators and their programs. The purpose of the transportation requirements is to establish standards for the safe transportation of children and staff. You are not required to provide transportation for the children in your care. If you provide transportation for any reason (to and from school, field trips, or on errands), you must meet the following requirements.

Vehicle Inspection and Registration Requirements Vehicle Code

NC General Statutes 20-66; 20-183.2; 20-309



Your car must be inspected and meet state and county laws.

- All vehicles used for transporting children must have passed an annual state inspection. Keep documentation of your inspection in your files.
 - Vehicles must be properly registered. A current registration sticker must be displayed on the license plate.
 - You must have liability insurance for the vehicle used to transport children. Proof of insurance must be available for consultant review.
 - Vehicles used to transport children must be safe and well maintained.
- HH** To ensure your vehicle is in the best condition possible you should conduct the following safety checks regularly:
- Seatbelts are secured to the vehicle
 - Seatbelts are not frayed
 - Lights and signals are functional
 - Doors open and close properly
 - Seats are securely bolted to the floor of the vehicle

- Engine hoses are not cracked
- Windshield wipers work properly
- Good tread and pressure in all tires
- Door locks are in working order
- All car fluids are full (brake, windshield wiper, transmission, power steering, etc.)
- Engine belts are not worn or frayed
- Free of hazards such as torn upholstery, broken windows, holes in the floor or roof.

HH It is best practice to stock vehicles with a fully charged fire extinguisher, a first aid kit and a functional spare tire in case of an emergency.



See the resource section for the handout, **Stocking a First Aid Kit.**

HH When children are being transported, FCCH operators should have a cell phone with them for use in an emergency.



For the requirements for the transportation of children by child care centers in North Carolina see www.buckleupnc.org.



For additional transportation safety resources, refer to the **SUPERvision Series – Get Ready, Get Set, Go!** training curriculum. It is located on the Division’s web site at www.ncchildcare.net under provider resources.



Field Trip and Transportation Safety Checklist on safe transportation practices is available in the resource section of this chapter.



To be eligible for the most points available in Program Standards for the issuance of a Two-Five Star-Rated License, a FCCH must have written operational policies that includes information on safe procedures. Safe transportation practices would be one of the topics covered. Refer to Chapter Six Star-Rated License for specific details on written operational policies.

**Written Permission to Transport
Child Care Rule .1723(1)**



You must have written permission from parents to transport children, regardless of your destination.



You must notify the parent when and where the child is to be transported and who the transportation provider will be.

- ☑ You will need to have written permission each time children you care for are away from your home.

 See *Chapter 4 - Records and Activities* for a sample **Permission to Transport Children and Blanket Permission for Routine Transport of Children** form.

Seatbelts or Seat Restraints Child Care Rule .1723(2)

- ★ Only one person shall occupy each seatbelt or child restraint device.
- ★ All children must be restrained by individual seatbelts or appropriate child restraint device when in a vehicle.

- ☑ Each child must be restrained with an individual seatbelt or appropriate child restraint device when the vehicle is in motion. **Under no circumstances may two or more children share one seatbelt.**
- ☑ The North Carolina Child Passenger Safety Law requires that children under age 8 and less than 80 pounds must ride in a weight-appropriate child safety seat that meets Federal Motor Vehicle Safety Standards at time of manufacture. A booster seat is often used with children who weigh 40 lbs or more. Children under age 16 must ride in a seat belt or a child safety seat no matter where they sit.
-  A copy of the **Requirements and Recommendations for the Transportation of Children by Schools, Child Care Centers and other Organizations in North Carolina** is in the resource section of this chapter. The basic requirements of the NC Child Passenger Safety law, including seatbelts and restraints, are provided as well as web resources.
- ☑ If you do not provide child restraints (such as car seats or booster seats), then you must ensure that parents provide appropriate child restraints for their child's use and transportation.
- HH** A child restraint device should be used according to the seat and vehicle's manufacturer's instructions and should fit the child's height and weight.
- HH** The NC Division of Motor Vehicles, in the *Driver's Handbook*, states that children 12 and under should ride buckled in a rear seat.
- HH** Keep the distance and time spent traveling appropriate for the age of the children.

- HH** A sticker on the inside of the driver’s side door should provide information concerning the maximum number of passengers per vehicle.

**Valid Driver’s License
Child Care Rule .1723(3)**

-  Any driver must be at least 18 years old, have a valid driver’s license, and no convictions of Driving While Impaired (DWI), or any other impaired driving offense, within the last three years.

- Each person who provides transportation must have a valid driver's license of the type required under the North Carolina Motor Vehicle Law for the vehicle being driven.
- A valid driver’s license must display the person’s current address. Active military families may have a valid license issued from another state.

**Manufacturer’s Designated Area
Child Care Rule .1723(4)**

-  All children must be seated in a manufacturer’s designated area.

- All children must be placed in area of the vehicle designed as a seating area. For example; a child may not sit on the floor or the load/cargo area of a van. A child may not sit in the bed of a pick-up truck.

**Front Seat/Airbag
Child Care Rule .1723(5)**

-  No child shall sit in the front seat if the vehicle has an operational passenger side airbag.

- No child may be seated in the front seat of the vehicle, if there is an operational airbag, regardless of the age and weight of the child. When airbags are activated, they can cause serious injury to a child.

Unattended Vehicle

NC General Statute 110-91(13) and Child Care Rule .1723(6)



No child shall be left in a vehicle unattended by an adult.

- There must always be an adult in the vehicle to supervise any children.
- You must never leave children in a vehicle alone, even if you are able to see them when you are outside of the vehicle. For example, you should never leave children in a vehicle alone to go to an ATM machine or go inside a store to pay for gas.

Emergency and Identification Information

Child Care Rule .1723(7)



Emergency and identification information for each child must be carried in the vehicle whenever children are being transported.

- Emergency and identification information for each child must be present in the vehicle when transporting children. The information should be such that it could identify each child in case of an accident, such as a description of hair and eye color and height and weight. Including a photograph of each child with his/her emergency information will enable easier identification in case of an emergency. Remember to update photos as children get older.
- HH** You may want to have a second copy of each child's emergency information form that remains in the vehicle at all times, in addition to the one in your home.
- HH** You may want to attach photos of the children to their emergency information form and the car safety seat that the child is using, to make it easier to identify the children in case of an accident.
-  You can find a copy of the **Child's Health and Emergency Information** form in *Chapter 4 – Records and Activities*.

Transportation in Emergency Situations

Child Care Rule .1720(a)(9)



You must have access to a means of transportation that is always available for emergency situations.

- You must have a vehicle available in case of an emergency situation to transport a child. This could include your own vehicle, an ambulance, or the car of someone who lives close to you that will always be available to assist you in an emergency situation during operating hours.

SECTION 5: ANIMALS

Animals

Child Care Rules .1719(9); .1720(d)(10)

-  Animals that are potentially dangerous to children must be safely secured in areas not accessible to the children in your care.
-  All pets must have up-to-date vaccinations.

- All animals have the potential to be harmful to children. Consultants will determine whether or not an animal is potentially dangerous by observing the animal and asking questions about its history, lifestyle and training, if applicable.
- If an animal is considered to be potentially dangerous, the animal must be separated from the children in a secure place. The secure place may include a place in the house that is made inaccessible to children in care or a separate gated area in the yard.
- Gated yard areas must be constructed so that children cannot have access to the animal by putting their hands through a fence where the animal could cause injury to a child.
- You must have proof of current rabies vaccination for any cat or dog over four months of age. This includes gated animals.
- Copies of vaccination records required by North Carolina law and local ordinances should be available for consultant review.
- HH** Consider fencing your yard if there are stray animals in the neighborhood.
- HH** You are responsible for a child’s safety. If a child is bitten by an animal while in your care, the Division will typically conduct an investigation and issue an appropriate action.
- HH** Please let your consultant know when you bring a new animal in your home. She/he will help you determine whether or not the animal should be separated from the children in your care.



For information about dog bite prevention and considerations when bringing a dog in your house, go to the Centers for Disease Control website, <http://www.cdc.gov/HomeandRecreationalSafety/Dog-Bites/biteprevention.html>

SECTION: 6: SWIMMING POOLS

Rules Governing Public Swimming Pools Child Care Rule .1719(7)

- ★ You must maintain any swimming pools or wading pools on your premises in a manner that will safeguard the lives and health of the children.
- ★ All swimming pools or wading pools used by children in care must meet the standards for construction and maintenance contained in the publication, **Rules Governing Public Swimming Pools** (15A NCAC 18A .2500).

Some important items contained in Rules Governing Public Swimming Pools

- All swimming and wading pools must meet the standards for public swimming pools when used by children in your child care program. Swimming and wading pools include above ground pools, in-ground pools, plastic pools and blow-up pools.
- All swimming and wading pools must be inspected annually by a representative from your local Health Department.
- A permit is required and must be updated annually.
- The fence surrounding a pool must be equipped with a self-closing gate with a self-latching closure that has a locking device.
- A filtration system and chemical treatment is required of all swimming and wading pools.

- ☑ Swimming and wading pools that do not meet the **Rules Governing Public Swimming Pools** must not be used by children in your care due to the risk of illness from bacterial growth.
- ☑ If your pool does not meet the **Rules Governing Public Swimming Pools**, the child care consultant will place a restriction on your license indicating the swimming pool cannot be used by children in care. Parents must be informed of this restriction.
- ☑ Life jackets or Personal Floatation Devices (PDF's) should never be substitutes for adult supervision.
- HH** Children who cannot swim should wear a life jacket in the pool.

-  For information on life jackets refer to a tip sheet created by the American Academy of Pediatrics at www.aap.org/family/tippslip.htm.
- HH** Use only life jackets and life preservers that are tested by Underwriters Laboratories (UL) and approved by the US Coast Guard.
- HH** Practice American Red Cross’ “Reach Supervision” with young children by staying within an arm’s length reach of children in the pool.
- HH** Watch children for signs of the dangerous “toos” – too tired, too cold, too far from safety, too much sun and too much strenuous activity (American Red Cross).
- HH** If you provide swimming activities at your home or another location, it is highly recommended to have signed permission from the children’s parents, test children’s swimming ability, and have a life guard certificate if you are the only person supervising the children.
- HH** In a FCCH the use of water activities that are not subject to swimming pool rules such as sprinklers, water tables, and slip and slides are recommended over swimming/water activities that use larger and deeper areas of standing water.
-  A copy of the **Rules Governing Public Swimming Pools** is in the resource section of this chapter. If you have any questions about the rules, contact your local health department.
-  A sample **Inspection of Swimming Pool** form can be found in the resource section at the end of this chapter.
-  Refer to additional pool safety tips located at the end of this chapter.
-  For information on types of life jackets recommended by the American Academy of Pediatrics go to <http://www.aap.org/family/tippslip.htm>

**Inaccessibility to Pools
Child Care Rule .1719(8)**

-  In-ground swimming pools must be enclosed by at least a four-foot high fence.
-  Access to above ground swimming pools must be prevented by locking and securing the ladder in a place inaccessible to the children.

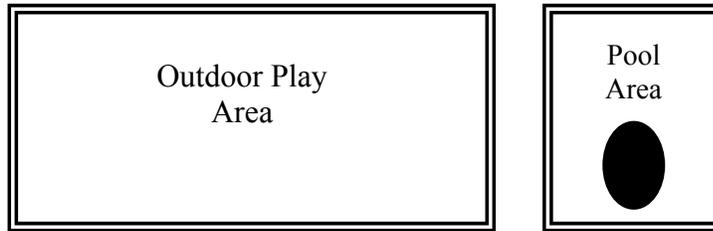
- At least a four-foot high fence must separate any play area from the pool whether children are using the pool or not.

- ☑ All ladders to above ground swimming pools must be locked in a secure place or removed where children will not have access to the ladder or pool.
- ☑ Below are options for separating the pool from the play area with fencing:

Option I:



Option II:



- HH** You are only required to have a fence around in-ground pools. However, it is highly recommended that you protect children from any standing water or bodies of water to prevent drowning.
- HH** Some companies have alarm systems that will sound if a child enters the water.

SECTION 7: LOCATION OF YOUR FAMILY CHILD CARE HOME

- HH** If your Family Child Care Home is located within 10 miles of a Nuclear Power Plant, in the Emergency Planning Zone, you are eligible to receive potassium iodide (KI) to use in the event of a severe nuclear power plant (NPP) accident. To access potassium iodide (KI) contact your local health department. Only administer if authorized to do so by the NC State Health Director or designee.



For information about potassium iodide (KI), access the following website,

<http://www.epi.state.nc.us/epi/phpr/ki/ki.html>.

Resource Section

Chapter 2: SAFETY

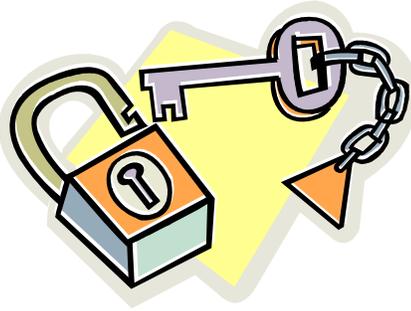
The following pages contain resource materials related to the content in the preceding chapter.

Some of the resources provided are forms created by the Division of Child Development and must be used by licensed family child care homes. Other materials are provided only as a resource for family child care homes and may be used at your discretion.

You may also wish to use this section to store additional resource materials that you have related to the chapter or information that is specific to your program.

Hazardous Items Storage

DCD Child Care Rule 10A NCAC 09 .1719(1)



Locked Storage

Combination, electronic or magnetic device, or key

- ★ Corrosive agents
- ★ Pesticides
- ★ Bleach
- ★ Detergents
- ★ Cleaners
- ★ Polishes
- ★ Aerosol cans
- ★ ALL MEDICATIONS*
- ★ Purses and personal items

Out of Reach

Five feet or more above the floor

- ★ Non-aerosol sanitizers
- ★ Non-aerosol disinfectants
- ★ Non-aerosol detergents
- ★ Hand sanitizers
- ★ Hand lotions
- ★ Diaper Creams
- ★ Sunscreens
- ★ Labeled "keep out of reach of children" without any other warnings
- ★ Emergency Medications
 - Epi-Pen
 - Glucagon
 - Diazepam suppositories
 - Albuterol (Proventil, Ventolin, Volmax)
 - Terbutaline (Brethine, Bricanyl)
 - Duo Neb (Albuterol/Ipratropium)
 - Foradil (formoterol)
 - Ipratropium
 - Maxair (Pirbuterol)
 - Metaprotererol
 - Salmeterol (Serevent)
 - Xoprenex



Safety Checklist

Use the following room-by-room checklist to evaluate the safety of your child care home. Identify areas and items to improve.

These are basic recommendations for a child-safe environment. For specific safety regulations, check with local or state regulatory agencies such as the health department, social services, or fire marshal. Regulations vary for child care homes and centers and also from area to area.

Kitchen and dining areas

- Look through all cabinets within children's reach and remove any breakable dishes and sharp items. Leave only plastic containers, paper goods, wooden spoons, and metal pots and pans that children can play with to their hearts' content. (Or put a *childproof* lock on all child-height cabinets.)
- Remove all dishwashing soap, cleansing powder, drain cleaner, laundry detergent, bleach, paint, turpentine, bug spray, and similar products from under the sink. Store them out of children's reach. (About 40 percent of accidental poisonings occur in the kitchen.)
- Check cleaning product containers for original or proper labeling. Store cleaning products so they do not contaminate any food source or play area.
- Lock the door to the water heater and any kitchen closets containing dangerous supplies.
- Place knives, ice picks, meat-turning forks, and other sharp utensils in top cabinets.
- Eliminate the risk of children scalding themselves by setting the water heater temperature at 100 to 120°F. (Laundering, cleaning, and dishwashing may require higher water temperatures.)
- Unplug toasters, coffee makers, and other electrical equipment when not in use and store them out of reach.
- Cover electrical outlets or install safety plugs to keep children from trying to stick things into them.
- Always keep matches out of children's sight and reach.
- Keep hard surface floors from getting slippery by wiping up spills promptly.
- Make sure chairs and high chairs are sturdy and not easily overturned. Place toddlers in high chairs with a strap or harness.
- Install a smoke detector close to the kitchen (but not so close that it will go off every time you cook). Do a safety check every month.
- Install a smoke detector (or detectors) between the children's area and the kitchen. Do a monthly safety check.
- Keep a fire extinguisher in the kitchen (such as a 2.5-pound "BC" dry chemical type), and learn how to operate it. (Be sure you or a staff member are trained to operate the extinguisher.) Have it checked and serviced once a year. Ask about regulations in your area.
- Cover trash containers.
- Turn handles of pots and pans on the stove to the back of the stove.

___ Make sure adults and children wash their hands when preparing food, before and after meals, and after toileting or diapering.

___ Inspect and remove eating utensils with chips or cracks.

Bathroom

___ Lock medicine cabinets. Place razors and glass bottles well out of reach of climbing, curious children.

___ Lock cabinet doors under sinks that have cleanser, shampoo, lotion, toilet bowl cleaner, alcohol, and similar products (About 20 percent of accidental poisonings occur in the bathroom.).

___ Remove the door lock so children cannot lock themselves in the bathroom.

___ Adjust the water heater (100 to 120°F) to keep children from scalding themselves while washing their hands, or use scald-prevention devices.

___ Check wastebaskets for hazards. Empty old medicines safely and rinse containers before disposing. Put used razor blades in a solid container (made of metal or heavy plastic or cardboard) and place them outside in the garbage.

___ Unplug appliances such as shavers and hair dryers when not in use. Place out of children's reach.

___ Place diapering area next to a water source. Use a container with a tight lid for soiled diapers.

Living room or indoor play area

___ Remove furniture with sharp corners or that overturns easily.

___ Push the TV set against the wall so children can't get to the cord or to the back of the set.

___ Move cords from lamps, radios, and other electrical appliances so they do not lie where people walk or children can reach.

___ Remove all extension cords used as permanent wiring.

___ Place ashtrays, lamps, knick-knacks and other breakables out of children's reach. Check for tablecloths that children may pull off and house plants that they may overturn.

___ Do not smoke around children. Remove all tobacco products, lighters, matches, and smoking accessories. Tobacco is toxic when eaten by a toddler (for example, butts from an ashtray). Research shows that secondhand smoke may increase childhood respiratory illness.

___ Install safety gates across stairs. (Use sturdy, straight-edge gates. Children can get their necks caught in the expandable type with V-shaped openings at the top.)

___ Keep stairways free of toys or other objects. Do not use scatter rugs at the top or bottom landing. Make sure railings are strong.

___ Avoid using infant walkers.

___ Place a high latch on doors leading to rooms you don't want children to use, or to any outdoor area not protected by a fence. Never block fire exits.

- ___ Install fireplaces and woodstoves in accordance with codes, and use a protective screen to prevent children from getting too close. Do not use portable unvented fuel-fired heating systems.
- ___ Install a protective shield over radiators and heater vents if they are too hot.
- ___ Mount electric fans where children cannot reach them. Inspect the protective fan-blade enclosure to be sure children cannot reach the blades.
- ___ Remove any peeling paint and repaint with lead-free paint. (If children eat paint that contains lead, they may be poisoned. Consult the health department if you suspect the peeling paint is lead-based. You may need professional help to remove or encapsulate it with a protective layer.)
- ___ Repair any loose nails and splinters in wooden floors and loose threads in carpet.
- ___ Remove scatter rugs or use non-skid ones to prevent falls.
- ___ Mark glass doors and low windows with posters, colored tape, or decals to prevent children from running into them.

Bedroom or sleeping area

- ___ Use cribs or beds with secure sides to keep infants and toddlers from crawling or rolling out onto the floor. Make sure a child in the crib cannot reach or easily release the side lock, and that all edges and bolts are smooth.
- ___ Measure crib slats. If there is more than 2 3/8 inches between slats, a baby's head can become wedged between them.
- ___ Make sure crib mattresses fit snugly and tie bumper pads securely so the baby's head cannot get caught between them and the crib frame.
- ___ Remove soft pillows, floppy toys, or loose-fitting plastic sheeting from cribs and playpens to prevent suffocation.
- ___ Place cribs away from windows unless the windows have guards or sturdy screens.
- ___ Have separate sheets and blankets for each child, especially if the children use the same beds as your family members.
- ___ Lock cabinets with vitamins, medicines, cosmetics, perfume, shoe polish, and similar products.
- ___ Tie used plastic clothes' bags into knots and throw them away.
- ___ Install smoke detectors near the children's sleeping areas. Do a monthly safety check. Ask about local fire codes.
- ___ Plan and implement monthly fire drills with children and staff. Specify an outside meeting place to account for all children. Teach children to "stop, drop, and roll" in case of clothing fires.

Toys and learning materials

- ___ Choose toys that are easy to wash and keep clean. Wash infant and toddler toys daily. Try to give each infant and toddler separate crib toys that another child will not use the same day. Keep a bin handy for soiled toys.

- ___ Choose fabric toys labeled flame-retardant or non-flammable.
- ___ Check stuffed toys to be sure eyes and other parts are secure. Fasten squeakers in place. Wash fabric-stuffed toys regularly.
- ___ Remove any toys with sharp points or rough edges. Some plastic toys become brittle with age.
- ___ Make sure toys are sturdy so they won't splinter or break with normal use.
- ___ Give infants and toddlers only toys too large to swallow. If you are caring for infants do not use any toys or objects with a diameter of less than 1 1/4 inch or with removable parts that have a diameter of less than 1 1/4 inch.
- ___ Keep plastic bags, tissue, and Styrofoam objects away from young children.
- ___ Read the labels on crayons, paints, clay, and other materials. Check to be sure they are not poisonous.
- ___ Store toys and learning materials on low shelves where children can reach them. Place heavy toys near the floor.
- ___ Keep toys used by older children out of reach of younger children.
- ___ Avoid toys with electrical parts unless children are school-age and know how to handle them safely. Check toys with batteries to be sure they have tight lids on battery compartments. Use only UL listed or other approved devices.
- ___ Do not let children play with shooting toys such as BB guns and darts or anything that explodes.

Outdoor play area

- ___ Have a fenced area outdoors where children may play daily. Check the fence for wires that stick out or loose nails. If you have no fence, walk the children around the boundary to show them where they may play. Check with local and state authorities about fencing regulations for child care homes or facilities.
- ___ Put away lawn mowers, fertilizers, and gardening tools.
- ___ Enclose the air-conditioning unit, water well, access to surface water, and electrical and mechanical equipment.
- ___ Remove doors on old refrigerators and freezers. Children like to hide in these and may suffocate.
- ___ Remove poisonous indoor and outdoor plants, such as oleander, azaleas, castor beans, dieffenbachia, philodendron, caladium, and some ivies. Contact a horticulturist or poison control center for more information.
- ___ Shift car gears to park and set the emergency brake if you have to keep a vehicle in the yard. Close the windows, lock the doors, and keep the keys in the house out of children's reach.
- ___ Make sure the yard is free of rusty nails, broken glass, and similar objects.
- ___ Make sure all swings and other play equipment are sturdy and firmly anchored to the ground. The best equipment is simple and adaptable to many uses.

- ___ Check porches, railings, and steps for splinters, loose nails, and slippery surfaces.
- ___ Mark glass doors with decals or tape at children's eye level.
- ___ If your home or child care facility is near a swimming pool, creek, pond, irrigation canal, or other body of water make sure children cannot wander off to it by themselves and fall in. Enclose swimming pools with a fence at least 4-6 feet high and always lock gates. Check local and state regulations.
- ___ If you use a wading or splashing pool, drain and clean it after each use. Store the pool where children cannot reach it. Use a pool that is no more than one foot deep. Always watch children when they are using a wading pool because they can drown in just a little water.
- ___ Check tricycles for sharp edges and missing parts. Tricycles with seats close to the ground generally are safer.
- ___ Keep shock absorbent surfacing beneath swings and slides. Check swings and slides to make sure they have smooth edges, no broken or missing parts, and are well anchored.
- ___ Check all play equipment weekly for loose bolts and screws.

Car safety checklist

- ___ Consult your highway safety office for state regulations. The number one killer of children, 1 to 5 years of age, is auto accidents.
- ___ Get written approval from parents or guardians to transport their children. Consult your attorney or insurance agent about liability and safety issues.
- ___ Use federally approved car safety seats for all infants and children. Children under age 8 and who weigh less than 80 pounds must be properly secured in a child passenger restraint device (CRD) or booster seat. Children should face backwards in car seats in the back seat of the car for as long as is physically comfortable.
- ___ Use toddler seats until children are ready for regular safety restraints. Some restraints are adjustable.
- ___ Never leave children alone in a car.

Fire prevention checklist

In case of danger from fire, your first responsibility as the child care provider is to get the children to safety.

Check with state regulatory agencies such as the state fire marshal's office or local officials about fire prevention regulations and recommendations for safety. Regulations may vary from area to area and for child care homes and child care centers.

- ___ Keep a 5-pound "ABC" dry chemical fire extinguisher in good working order and learn to operate it. Check with regulatory agencies or the fire department about your specific child care home or facility and where to place extinguishers.
- ___ Always have an adult who knows how to operate fire extinguishers present when children are in your care.
- ___ Service fire extinguishers after each use. At least once a year, have extinguishers serviced and inspected.

- ___ Have at least two unblocked exits from each floor or level to the outside of your child care home. Two unblocked exits from each room is even safer and may be required. Check with your state and local regulatory agencies about existing codes in your area.
- ___ Make sure the electrical wiring system is in good repair.
- ___ Check the fuses or circuit breakers in the fuse box. Be sure they are in good operating condition. Do not use a larger fuse than the circuit requires.
- ___ Consider a home sprinkler system for ultimate fire protection. Check with state and local regulatory agencies about requirements.
- ___ Inspect and make sure the cords for electrical items are in good condition and are approved.
- ___ Do not overload extension cords or use them as permanent wiring. Do not run them under rugs or hook them over nails.
- ___ Have a qualified technician inspect the central heating units as often as the manufacturer recommends.
- ___ Protect woodburning or gas log fireplaces and open flame heaters with a spark screen or guard.
- ___ Vent space heaters properly to the outside.
- ___ Always keep lighters and matches where children cannot reach them.
- ___ Store flammable liquids in safety cans where children cannot reach them.
- ___ Do not place rags, paper, and other flammable materials near heat.
- ___ Establish a fire escape plan and practice an escape drill monthly.
- ___ Teach children to "stop, drop, and roll" in case of clothing fires.

Sanitation checklist

For specific sanitation guidelines, contact your local or state social services or health department.

- ___ Keep the home or facility and grounds clean.
- ___ Keep the kitchen, all food preparation, storage, and serving areas, and utensils clean.
- ___ If you have pets, keep them clean. Make sure pets have all vaccinations, including for distemper and rabies. Empty kitty litter boxes daily. Some pets may transmit illnesses to children.
- ___ Use a public water supply or a private well approved by health authorities.
- ___ Keep plumbing in good working condition.

Daily check

Before the children arrive each day, take a quick walk around your child care facility or home and yard to make sure you have a safe environment for them.

- ___ Vacuum or sweep the floors to make sure there are no buttons, coins, paper clips, or similar items lying around.
- ___ Put away in locked cabinets cleaning fluids, bug spray, cosmetics, and other poisonous products that someone in your family may have used.
- ___ Turn pot handles to the back of the stove, and put the hot coffee pot out of reach.
- ___ Put up the gate to the stairs, and latch any doors that you don't want children to use, but don't block fire exits.

Other

- ___ Have a transistor radio and flashlight--and fresh batteries--on hand in case of a storm or power failure.
- ___ Post emergency and parents' numbers near the telephone.
- ___ List medical emergency information about each child.
- ___ Arrange for emergency transportation if needed.
- ___ Establish a health policy with parents of children in your care. Require immunization records for each child.

For a more detailed listing of safety guidelines, refer to *Caring for Our Children, Health and Safety Guidelines* published by the American Public Health Association and the American Academy of Pediatrics.

*Adapted from: Child Care Environment Safety Checklist, Institute of Agriculture and Natural Resources, University of Nebraska-Lincoln
The safety checklist is available on line at www.ianr.unl.edu/pubs/safety/g1213.htm .

Choking Prevention, AAP

Do not feed children younger than 4 years round, firm food unless it is chopped completely. Round, firm foods are common choking dangers. When infants and young children do not grind or chew their food well, they may try to swallow it whole. The following foods can be choking hazards:

- Hot dogs
- Nuts and seeds
- Chunks of meat or cheese
- Whole grapes
- Hard, gooey, or sticky candy
- Popcorn
- Chunks of peanut butter
- Raw vegetables
- Fruit chunks, such as apple chunks
- Chewing gum



Dangerous household items

Keep the following household items away from infants and children:

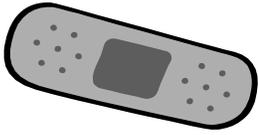
- Balloons
- Coins
- Marbles
- Toys with small parts
- Toys that can be squeezed to fit entirely into a child's mouth
- Small balls
- Pen or marker caps
- Small button-type batteries
- Medicine syringes

What you can do to prevent choking

- Learn CPR (cardiopulmonary resuscitation) (basic life support).
- Be aware that balloons pose a choking risk to children up to 8 years of age.
- Keep the above foods from children until 4 years of age.
- Insist that children eat at the table, or at least while sitting down. They should never run, walk, play, or lie down with food in their mouths.
- Cut food for infants and young children into pieces no larger than one-half inch, and teach them to chew their food well.
- Supervise mealtime for infants and young children.
- Be aware of older children's actions. Many choking incidents occur when older brothers or sisters give dangerous foods, toys, or small objects to a younger child.
- Avoid toys with small parts, and keep other small household items out of the reach of infants and young children.
- Follow the age recommendations on toy packages. Age guidelines reflect the safety of a toy based on any possible choking hazard as well as the child's physical and mental abilities at various ages.
- Check under furniture and between cushions for small items that children could find and put in their mouths.
- Do not let infants and young children play with coins.

American Academy of Pediatrics. Choking Prevention and First Aid for Infants and Children. April 2006

American Academy of Pediatrics. www.aap.org. AAP Parenting Center. Q&A:Choking Prevention. "What Can I do to Keep my Child from Choking?" 2/07



Stocking a First Aid Kit



GUIDELINES:

A first aid kit should be readily available wherever children are in care, including during field trips, indoor/outdoor play, and transportation. First aid supplies should be stored in a clearly marked closed container. Include a checklist of items. Check inventory monthly; replace missing or unusable items. Do NOT include any medications, unless prescribed for a specific child (i.e., Epi-pen Jr.™). Do not store in a hot vehicle or leave in direct heat. Kit should be portable and tightly sealed. Arrange items for easy access. Contents should be sanitary. Regularly check expiration dates.

EXAMPLES OF FIRST AID KIT CONTENTS:

- Adhesive strip bandages (various sizes)
- Bandage tape
- Bottled water
- Disposable nonporous gloves
- Sterile eye bandage
- Cotton-tipped swabs
- Face mask or microshield (for use in rescue breathing), 2 for shared breathing
- Current American Academy of Pediatrics standard first aid chart or similar guide
- Flashlight with extra batteries
- Sterile gauze pads (various sizes)
- Flexible roller gauze
- Liquid soap
- Note pad and pen/pencil
- Paper towels
- Safety pins
- Scissors
- Small plastic cups
- Plastic bags for clothes, gauze, or other materials used in handling blood
- Small plastic or metal splints
- Thermometer (non-breakable)
- Triangular bandages
- Tweezers
- Cold pack
- Cellular telephone or two-way voice communication device
- List of emergency phone numbers and the Poison Control Center phone number.

Note: *Syrup of Ipecac* was recommended for first aid kits prior to 2004. Because of recent research, it is no longer considered the best practice to include it in first aid kits. Instead the caregiver should call their Poison Control Center or 911 for instructions when they think a child may have taken poison.

Avoiding Big Risks for Small Kids

Five Questions for Kid-Safe Pest Control in Child Care

Did you know that the toxic pesticides in bug sprays and weed killers can be dangerous for young children, even when used correctly? These products are used in over half of NC child care facilities to get rid of pests like cockroaches, ants or weeds.

Pests are bad news for child care, but spraying toxic pesticides is **NOT** necessary! A safer and more cost-effective option for child care is known as IPM (short for “Integrated Pest Management”). It is healthier for kids, the adults who care for them, and the environment they’ll inherit.



Five questions child care providers should be asking about pest control:

1. Are pesticides ever used while kids are here?

Answer should be: No way José! Spraying while kids are around – even if they are in a different room or outside – can dramatically raise the risk of poisoning.

2. Are baseboard spraying or fogging ever used?

Answer should be: No way José! Both ways of using pesticides are very risky, and are never really necessary for run-of-the-mill pest problems.

- ▶ “Baseboard spraying” usually uses a pump sprayer, and pesticides are squirted onto the baseboards around the perimeter of a room. After they dry, the chemicals can off-gas into the room for days, or even weeks. There is also a high risk that kids will touch the sprayed surfaces while they play on the floor.
- ▶ “Fogging” or “bombing” usually uses a high-pressure canister of pesticides that is “set off” in the middle of a room, and fills up the whole room with pesticide gas. This is a very high-volume, high-risk practice that coats every surface in the room with chemicals, where they can easily be inhaled or picked up on people’s skin.

3. Are pesticides ever used according to a calendar?

Answer should be: No way José! Pesticides are toxic chemicals that should be used sparingly for stubborn pest problems – not for prevention, and not according to a calendar.

4. Does your pest control professional do thorough inspections and make recommendations about preventing pests?

Answer should be: Yes indeed! The first step in any pest control effort should be a thorough inspection to identify the source of the problem, and then sanitation and maintenance upgrades to correct it. These could include steps like cleaning up hidden crumbs and gunk, putting pest-prone food in jars, fixing leaky pipes or correcting drainage problems.

5. Do you have a pest control policy or contract that calls for least-toxic IPM?

Answer should be: Yes indeed! It’s important to put IPM down in writing so that everyone knows the plan, especially when there’s a third-party contractor involved in pest control.

We’re here to help! For more information on kid-safe pest management for child care, including sample contracts, fact sheets, training resources and more, please contact Toxic Free NC at 1-877-NO-SPRAY, or visit our website – ToxicFreeNC.org.



Survey shows high-risk pest control in NC child care

In Summer of 2008, Toxic Free NC surveyed 89 child care providers from all across North Carolina about pest control in their facilities. More than half of child care providers who took the survey said that broadcast pesticide sprays – baseboard spraying or fogging – are used in their facilities.

These broadcast pesticide applications carry a significant risk that children or staff will be exposed to pesticides by inhaling, ingesting or absorbing them through their skin. Pesticide exposure has been connected with many health risks for children including asthma attacks, learning difficulties, and some forms of cancer – even when they're used correctly.

Like schools, NC child care needs kid-safe, cost effective pest control

Thanks to a law adopted in 2006 – the NC School Children's Health Act – public schools in North Carolina are switching to kid-safe IPM (short for "integrated pest management") programs that dramatically reduce the risks to children from pests and pesticides. Most school systems that use it report that over time, IPM works better and costs less – sometimes just a fraction of the cost of conventional spray programs!

IPM is common sense pest management that relies on smart pest prevention, and uses pesticides sparingly if at all. It is recommended by Toxic Free NC and the US Environmental Protection Agency for child care facilities, schools and other spaces occupied by children, because it reduces or eliminates the risk of harm to children from pesticides. IPM uses pro-active monitoring, sanitation, and maintenance to prevent pest problems before they start, and uses least-toxic pesticide products – like contained baits or crack & crevice treatments – only when necessary.

About one-quarter of child care providers who took Toxic Free NC's survey in 2008 said that only least-toxic pest control methods are used in their facility. That group of centers was less likely to report having serious ongoing pest problems!



Get the Report

There are two ways to get a free copy of the complete report on findings from Toxic Free NC's 2008 NC Child Care Pest Control Survey - ***Avoiding Big Risks for Small Kids***.

- 1) Download a copy from ToxicFreeNC.org.
- 2) Request a copy be mailed to you by calling 919-833-1123.

We're here to help!

For more information on kid-safe pest management for child care, including sample contracts, fact sheets, training resources and more, please contact Toxic Free NC at 1-877-NO-SPRAY, or visit our website – ToxicFreeNC.org.



Name of FCCH: _____



Infant/Toddler Safe Sleep Policy Sample (Revised)

Date Adopted: _____

Sudden Infant Death Syndrome (SIDS) is the unexpected death of a seemingly healthy baby for whom no cause of death can be determined based on an autopsy, an investigation of the place where the baby died and a review of the baby's clinical history.

Child care providers can maintain safer sleep environments for babies that help lower the chances of SIDS. N.C. law requires that child care providers caring for children 12 months of age or younger, implement a safe sleep policy, share this information with parents and participate in training.

In the belief that proactive steps can be taken to lower the risks of SIDS in child care and that parents and child care providers can work together to keep babies safer while they sleep, this Family Child Care Home (FCCH) will practice the following safe sleep policy.

Safe Sleep Practices

1. The FCCH operator and additional staff who may potentially work in the FCCH will receive training on the Infant Safe Sleep Policy.
2. Infants will always be placed on their backs to sleep, unless there is a signed sleep position medical waiver on file. In that case, a waiver notice will be posted at the infant's crib and the waiver filed in the infant's file.
3. The American Academy of Pediatrics recommends that babies are placed on their back to sleep, but when babies can easily turn over from the back to the stomach, they can be allowed to adopt whatever position they prefer for sleep.
4. All parents/guardians of infants cared for in the FCCH will receive a written copy of our Infant/Toddler Safe Sleep Policy before enrollment.
5. **Visually checking sleeping infants.** Sleeping infants will be checked daily, every 15-20 minutes, by the FCCH operator or additional staff. The sleep information will be recorded on a Sleep Chart. The Sleep Chart will be kept on file for one month after the reporting month. I will be especially alert to monitoring a sleeping infant during the first weeks the infant is in child care.

I will check to see if the infant's skin color is normal, watch the rise and fall of the chest to observe breathing and look to see if the infant is sleeping soundly. I will check the infant for signs of overheating including flushed skin color, body temperature by touch and restlessness.

6. To promote healthy development, awake infants will be given supervised "tummy time" for exercise and for play.

Safe Sleep Environment

7. Room temperature will be kept between 68-75°F **and a thermometer kept in the room.**
8. Infants' heads will not be covered with blankets or bedding. Infants' cribs will not be covered with blankets or bedding. **I may use a sleep sack instead of a blanket.**
9. No loose bedding, pillows, bumper pads, etc. will be used in cribs. We will tuck any infant blankets in at the foot of the crib and along the sides of the crib mattress.
10. Toys and stuffed animals will be removed from the crib when the infant is sleeping. **Pacifiers will be allowed in infants' cribs while they sleep.**
11. A safety-approved crib with a firm mattress and tight fitting sheet will be used.
12. Only one infant will be in a crib at a time, unless I am evacuating infants in an emergency.
13. No smoking is permitted in the infant room or on the premises.
14. Steps will be taken to keep babies from getting too warm or overheating by regulating the room temperature, avoiding excess bedding and not over-dressing or over-wrapping the baby.

Best Practices

1. Any additional staff and I will participate in *Responding to an Unresponsive Infant* practice drill twice each year, in April and in October, in conjunction with fire drills.

I, the undersigned parent or guardian of _____ (child's full name), do hereby state that I have read and received a copy of the FCCH's Infant/Toddler Safe Sleep Policy and that the operator has discussed the FCCH's Infant/Toddler Safe Sleep Policy with me.

Date of Child's Enrollment: _____

Signature of Parent or Guardian: _____

Date: _____

Signature of Child Care Provider: _____

Date: _____

Distribution: one signed copy to parent(s)/guardian(s); signed copy in child's FCCH record.

Effective date: 5/1/04

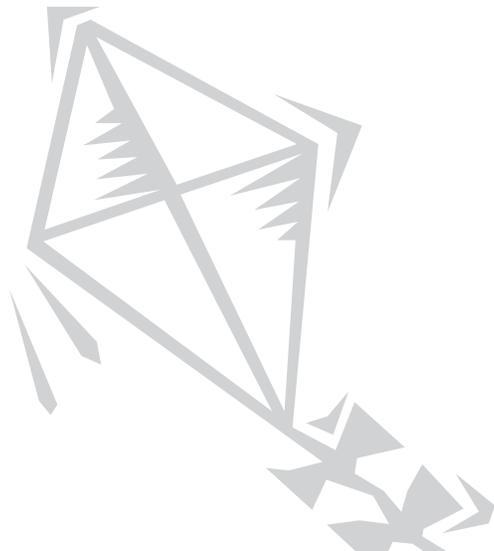
Review: #1 12/15/05

FACTS

Each year, more than 200,000 children go to U.S. hospital emergency rooms with injuries associated with playground equipment.

Most injuries occur when a child falls from the equipment onto the ground. Many backyard playsets are placed on dirt or grass—surfaces that do not adequately protect children when they fall.

**MAKE YOUR
BACKYARD
PLAYGROUND
A SAFE PLACE
TO PLAY!**



Brought to you by:

**U.S. Consumer Product
Safety Commission**



For more information on playground safety, visit the CPSC website at www.cpsc.gov to check out the *Handbook for Public Playground Safety* and other publications. Or, call the toll-free CPSC Hotline at 1-800-638-2772.



KaBOOM! is the national nonprofit organization committed to building safe playgrounds for America's children through partnership with individuals, community groups and businesses. For more information, visit the KaBOOM! web site at www.kaboom.org or call 1-202-659-0215.

7-01/50M

**IS YOUR
HOME
PLAYGROUND
A SAFE
PLACE TO
PLAY?**



From the
**U.S. Consumer Product
Safety Commission**
www.cpsc.gov
and



www.kaboom.org

HOME PLAYGROUND SAFETY CHECKLIST

Use this simple checklist to help make sure your home playground is a safe place to play.

- 1** Install and maintain a **shock-absorbing surface** around the play equipment. Use at least 9 inches of wood chips, mulch, or shredded rubber for play equipment up to 7 feet high. If sand or pea gravel is used, install at least a 9-inch layer for play equipment up to 5 feet high. Or, use surfacing mats made of safety-tested rubber or rubber-like materials.
- 2** Install protective **surfacing** at least 6 feet in all directions from play equipment. For swings, be sure surfacing extends, in back and front, twice the height of the suspending bar.
- 3** **Never attach**—or allow children to attach—**ropes**, jump ropes, clotheslines, or pet leashes to play equipment; children can strangle on these.
- 4** Check for **hardware**, like open "S" hooks or protruding bolt ends, which can be hazardous.
- 5** Check for **spaces** that could trap children, such as openings in guardrails or between ladder rungs; these spaces should measure less than 3.5 inches or more than 9 inches.
- 6** Make sure platforms and ramps have **guardrails** to prevent falls.
- 7** Check for **sharp points** or edges in equipment.
- 8** Remove **tripping hazards**, like exposed concrete footings, tree stumps, and rocks.
- 9** Regularly **check play equipment and surfacing** to make sure both are in good condition.
- 10** Carefully **supervise children** on play equipment to make sure they are safe.



Playground Safety Resources

US Consumer Products Safety Commission (CPSC)

Washington, DC 20207

1-800-638-2772

www.cpsc.gov

U.S. CPSC Public Playground Safety Handbook (4/08 draft)

<http://www.cpsc.gov/cpscpub/pubs/325.pdf>

American Society for Testing and Materials (ASTM) International

100 Barr Harbor Drive

West Conshohocken, PA 19428-2959

Phone: (610) 832-9585 Fax: (610) 832-9555

www.astm.org

National Recreation and Parks Association

National Playground Safety Institute

22377 Belmont Ridge Road

Ashburn, Virginia 20148

PH: (703) 858-2148 FX: (703) 858-0794

www.nrpa.org

The National Program for Playground Safety

School of HPELS

University of Northern Iowa

Cedar Falls, IA 50614-0618

PH: 800-554-PLAY FX: 319-273-7308

www.uni.edu/playground



FIELD TRIP & TRANSPORTATION SAFETY CHECKLIST

GET READY advance planning

PLAN AHEAD

- Identify the purpose and concepts (reasons and ideas) for the trip.
- Identify the group of children for the trip.
- Select an appropriate activity site (*form 1A*).
- Request child care facility supervisor's approval for planned trip (*form 2A*).

VISIT THE SITE

- Plan how to get to the site (your way to travel and route).
- Find out the travel time each way.
- Decide if the activities fulfill the purpose of the trip.
- Look for appropriate things for the children to see and do.
- Learn how much time should be allowed for a good visit.
- Learn how much site fees are and decide how the fees will be paid.
- Understand the rules and regulations of the site.
- Obtain brochures, posters, etc. about the site to show the children.
- Check for a safe physical environment (playground, equipment, etc.).
- Locate restrooms, water fountains, and phones.
- Know the field trip site's emergency evacuation plan.
- Ask if various sensory experiences are offered for special needs children.
- Locate accessible ramps, parking areas, paths, restrooms, etc.

PLAN YOUR STAFFING

- Set staff-child ratio for a safe trip -- normal ratios won't be adequate.
- Identify staff and other adults for the trip.
- Plan to have extra adults for emergency situations.
- Plan to have an adult with CPR and First Aid training on each vehicle.

TRAIN YOUR STAFF

- Clearly define each adult's responsibilities on the trip.
- Assign a specific group of children to each adult group leader.
- Assign each group of children with an adult leader to the same vehicle.
- Assign attendance and emergency forms to each adult group leader.
- Stress importance of regular attendance checks by name and by face.
- Discuss the purpose of the trip, sequence of activities, and time schedule.
- Consider how children's behavior may vary in new settings and suggest appropriate guidance techniques.
- Clearly designate who is in charge of staff remaining at the facility.
- Assign supervision and care of all children remaining at the facility.

GET SET advance preparations

MAKE ARRANGEMENTS WITH THE TRIP SITE

- Send a letter to the site requesting a visit (*form 3A*).
- Choose the best time (day and hour) to make your visit.
- Learn the name and phone number of a contact person at the site.
- Confirm arrangements a few days ahead with the contact person.
- Make snack and/or lunch arrangements if needed.

INFORM THE PARENTS

- Get signature of parent/guardian on *Permission Slip for Field Trip (form 4A)*.
- Post a trip reminder notice in a prominent place 2 or 3 days in advance.

PREPARE THE CHILDREN

- Outline your trip on the weekly *Activity Plan (form 5A)*.
- Discuss the trip; talk about what they will see and do.
- Go over simple rules for travel and visiting.
- Discuss behavior rules and safety precautions.
- Explain and practice a possible buddy system.
- Prepare child identification with the facility's name and phone number.

PREPARE NECESSARY FORMS

- Prepare *Master List / Staffing Pattern* (carried by trip leader) (*form 6A*) and/or
- Prepare *Group Attendance Rosters* (carried by group leaders) (*form 7A*).
- Prepare *Emergency Information Form* on each child (*form 9A*).
- Take *Emergency Telephone Numbers (form 10A)*.
- Take *Incident Report Forms (form 11A)*.
- Take *Permission to Administer Medication Forms (form 12A)*.
- Take *Checklist for Administering Medication (form 13A)*.
- Take *First Aid Chart (form 14A)*.
- Leave copy of attendance roster at the facility as a list of children on the trip.

DEVELOP EMERGENCY PLANS

- Plan what to do if a child is ill, hurt, misbehaves or separated from the group.
- Plan what to do if a vehicle accident or breakdown occurs.

PREPARE NECESSARY EQUIPMENT AND SUPPLIES (in protective containers)

- First Aid kit
- Drinking water, juice, snacks, lunches
- Insulated containers for keeping food at safe temperatures
- Wet wipes, soap, paper towels, paper cups, napkins, tissues
- Diapers, diapering supplies, changing pad, gloves
- Extra clothes
- Plastic bags, trash bags (out of children's reach)
- Medications & sunscreen in locked container(s)
- Equipment and supplies for special trips
- Mats or blankets for sitting on the ground
- Cellular phone

GO! safe transportation practices

MAKE SURE VEHICLES ARE SAFE

- Vehicles must be well maintained; check gas and tires.
- Vehicles must be registered, licensed, inspected and insured.
- Capacity limits must be observed for vehicles.
- Doors must be locked when the vehicle is moving.
- All body parts must be kept inside the vehicle.
- Vehicles need proper restraint systems: car seats for children under age 4; individual seat belts for each child and each adult.
- Vehicles must contain fully-equipped first aid kits and fully-charged fire extinguishers; each must be mounted or secured.
- Vehicles carrying children with special needs must be properly equipped.

PROVIDE APPROPRIATE ADULT SUPERVISION ON VEHICLES

- Drivers must be trained, licensed, and have criminal history clearance.
- Best practice: at least two adults in each vehicle -- driver and monitor.
- Best practice: monitor rides in the back of the vehicle (when practical).
- Monitor keeps roster, checks children on and off by name and face(*form 8A*).
- Strictly follow pick-up and delivery procedures; keep a copy in the vehicle.
- Load and unload children away from traffic.
- Each vehicle needs at least one adult trained in CPR / First Aid.
- Children are NEVER left unattended on a vehicle.
- DRIVER MUST ALWAYS MAKE THE LAST PHYSICAL CHECK OF THE ENTIRE VEHICLE TO BE SURE ALL CHILDREN HAVE EXITED.

PLAN AHEAD FOR TRANSPORTATION

- Check weather conditions shortly before leaving.
- Provide drivers with a clear map and precise directions.
- Leave a copy of the map and directions at the child care facility.
- Arrange for a back-up vehicle in case of an accident or breakdown.
- Carry emergency forms for the children and staff riding on each vehicle.

PLAN FOR WALKING TRIPS and PUBLIC TRANSPORTATION

- Set the route in advance so all adults understand and follow it.
- Leave a copy of the route and plans at the facility.
- Have adults visually supervise at the front and rear of the group at all times.
- Make provisions to keep all children together.
- Know the transit schedules, fares, and distances before you go.

TIME TO GO and TIME TO RETURN

- Take children to the toilet and water fountain before leaving sites.
- Dress children in needed sweaters, coats, raincoats, hats, mittens.
- Maintain an orderly exit from and return to the facility.

FIELD TRIP FOLLOW-UP

- Plan follow-up activities with children, including thank-you notes (*form 15A*).
- Keep information about the trip site filed for future use.

CHAPTER 18 - ENVIRONMENTAL HEALTH

SUBCHAPTER 18A - SANITATION

Amended Eff. September 1, 1990; February 1, 1987.

SECTION .2500 - PUBLIC SWIMMING POOLS

Rules .2501 - .2507 of Title 15A Subchapter 18A of the North Carolina Administrative Code (T15A.18A .2501 - .2507); have been transferred and recodified from Rules .2501 - .2507 Title 10 Subchapter 10A of the North Carolina Administrative Code (T10.10A .2501 - .2507), effective April 4, 1990.

15A NCAC 18A .2501	DEFINITIONS
15A NCAC 18A .2502	PUBLIC SWIMMING POOL OPERATION PERMITS
15A NCAC 18A .2503	INSPECTIONS
15A NCAC 18A .2504	DESIGN AND CONSTRUCTION STANDARDS
15A NCAC 18A .2505	WATER QUALITY STANDARDS
15A NCAC 18A .2506	REVOCAION OF PERMITS
15A NCAC 18A .2507	APPEALS

*History Note: Authority S.L. 1989, c. 577;
Eff. May 1, 1990;
Repealed Eff. May 1, 1991.*

15A NCAC 18A .2508 DEFINITIONS

The following definitions apply throughout this Section:

- (1) Equipment replacement means replacement of individual components of the hydraulic and disinfection systems such as pumps, filters, and automatic chemical feeders.
- (2) Public swimming pool means public swimming pool as defined in G.S. 130A-280. Public swimming pools are divided into four types:
 - (a) Swimming pools are public swimming pools used primarily for swimming.
 - (b) Spas are public swimming pools designed for recreational and therapeutic use that are not drained, cleaned, or refilled after each individual use. Spas may include units designed for hydrojet circulation, hot water, cold water mineral bath, air induction bubbles, or any combination thereof. Common terminology for spas includes "therapeutic pool", "hydrotherapy pool", "whirlpool", "hot spa", and "hot tub".
 - (c) Wading pools are public swimming pools designed for use by children, including wading pools for toddlers and children's activity pools designed for casual water play ranging from splashing activity to the use of interactive water features placed in the pool.
 - (d) Specialized water recreation attractions are pools designed for special purposes that differentiate them from swimming pools, wading pools and spas. They include:
 - (i) water slide plunge pools and run out lanes;
 - (ii) wave pools;
 - (iii) rapid rides;
 - (iv) lazy rivers;
 - (v) interactive play attractions that incorporate devices using sprayed, jetted, or other water sources contacting the users and that do not incorporate standing or captured water as part of the user activity area; and
 - (vi) training pools deeper than a 24 inch deep wading pool and shallower than a 36 inch deep swimming pool.
- (3) Registered Design Professional means an individual who is registered or licensed to practice engineering as defined by G.S. 89C or architecture as defined by G.S. 83A.

- (4) Remodeled means renovations requiring disruption of the majority of the pool shell or deck, changes in the pool profile, or redesign of the pool hydraulic system.
- (5) Repair means returning existing equipment to working order, replastering or repainting of the pool interior, replacement of tiles or coping and similar maintenance activities. This term includes replacement of pool decks where the Department has determined that no changes are needed to underlying pipes or other pool structures.
- (6) Safety vacuum release system means a system or device capable of providing vacuum release at a suction outlet caused by a high vacuum occurrence due to suction outlet flow blockage.
- (7) Splash zone means the area of an interactive play attraction that sheds water to a surge tank or container to be recirculated.
- (8) Unblockable drain means a drain of any size and shape that a human body cannot sufficiently block to create a suction entrapment hazard.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Temporary Amendment Eff. June 1, 1994 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
Amended Eff. May 1, 2010; March 1, 2004; April 1, 1999; January 1, 1996; October 1, 1994.*

15A NCAC 18A .2509 PLAN REVIEW AND APPROVAL

(a) Public swimming pools plans and specifications shall be prepared by a registered design professional if required by G.S. 89C Engineering or G.S. 83A Architecture, and shall be approved by the Department prior to construction. If required by G.S. 87-1 General Contractors, public swimming pools shall be constructed by swimming pool contractors licensed by the North Carolina Licensing Board for General Contractors.

(b) The owner shall submit a minimum of two complete sets of plans to the local Health Department for review. Plans shall be drawn to scale and accompanied by specifications so as to permit a clear, comprehensive review by the local health department. All prints of drawings shall be a minimum of 18 x 24 inches and a maximum size of 36 x 42 inches. These plans shall include:

- (1) Plan and sectional view dimensions of both the pool and the area enclosed by the barrier fences to include the bathhouse and the equipment room and pool accessories;
- (2) Specifications of all treatment equipment used and their layout in the equipment room;
- (3) A piping schematic showing piping, pipe size, inlets, main drains, skimmers, gutter outlets, vacuum fittings and all other appurtenances connected to the pool-piping system;
- (4) Layout of the chemical storage room; and
- (5) Specifications for the water supply and wastewater disposal systems that include aspects such as well location and backwash water disposal where applicable.

(c) The Department shall approve, disapprove, or provide written comments on plans and specifications for public swimming pools within 30 days of their receipt. If such action is not taken within 30 days, the plans and specifications shall be deemed approved.

(d) If construction is not initiated within one year from the date of approval, the approval is void.

(e) The swimming pool contractor shall contact the local health department when pool pipes are in place and visible so that the local health department may conduct an open-pipe inspection of the pool piping.

(f) Prior to issuance of the operation permit, the owner shall submit to the local health department a statement signed by a registered design professional stating that construction is complete and in accordance with approved plans and specifications and approved modifications. Observation of construction and a final inspection for design compliance by the certifying registered design professional or his representative are required for this statement.

(g) Upon completion of construction, the contractor shall notify the local health department and the owner. The contractor shall provide the owner with a complete set of drawings, which show as built, the location of all pipes and the connections of all equipment and written operating instructions for all equipment.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; July 1, 1992.*

15A NCAC 18A .2510 PUBLIC SWIMMING POOL OPERATION PERMITS

(a) No public swimming pool shall commence or continue operation unless the owner or operator has an operation permit issued by the Department for each public swimming pool. Unless suspended or revoked, the operation permit shall be valid for the period of operation specified in the application but in no event shall it be valid for more than 12 months. For public swimming pools which are constructed or remodeled, plans and specifications shall have been approved by the Department in accordance with Rule .2509. Compliance with the design and construction requirements in Rules .2514 through .2534 and approval of plans and specifications shall not be required for public swimming pools constructed or remodeled prior to May 1, 1993. No public swimming pool shall commence or continue operation after May 1, 2010 unless documentation of compliance with pool drain safety requirements of Rule .2539 of this Section has been submitted to the local health department.

(b) Equipment replacement shall comply with Rules .2514 through .2534 and shall be approved by the Department prior to installation. However, for existing swimming pools with recirculation systems unable to meet the pool volume turnover rates specified in the rules of this Section, pump replacement shall match the flow capabilities of the system. Repairs do not require prior approval by the Department.

(c) A separate application for an operation permit must be submitted for each public swimming pool. The owner or operator shall apply annually to the Department for an operator's permit. The application form shall be obtained from the Department and shall include the following information:

- (1) the owner's name, address, and phone number;
- (2) the operator's name, address, and phone number;
- (3) street address of the public swimming pool;
- (4) the physical location of the public swimming pool;
- (5) type of public swimming pool;
- (6) construction date;
- (7) proposed operating dates;
- (8) type of disinfection; and
- (9) signature of owner or designated representative.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; January 1, 1996.*

15A NCAC 18A .2511 INSPECTIONS

(a) Each public swimming pool shall be inspected by the Department to determine compliance with the rules of this Section. Where an operation permit is issued prior to inspection of a public swimming pool, an inspection shall be completed within 60 days following issuance of the permit. Pools that open on or after April 1 and close on or before October 31 shall be inspected at least once during the period of operation. All other pools shall be inspected at least twice a year.

(b) Inspections of public swimming pools shall be conducted by Environmental Health Specialists authorized by the Department to enforce the rules of this Section. Inspections shall be documented on Inspection of Swimming Pool Form DENR 3960. Items on the grade sheet shall be divided into two, four and six-demerit items. Six-demerit items are failures to maintain minimum water quality or safety standards and warrant immediate suspension of an operation permit under G.S. 130A-23(d). Four-demerit items are rule violations which warrant denial of an operation permit or notification of an intent to suspend an operation permit. Two-demerit items are rule violations that do not warrant permit action unless such violation causes an imminent hazard, a failure to meet water quality or safety standard, or a suction hazard. Demerits shall be assessed for each item found not to be in compliance with the rules of this Section. Demerits shall be assessed as follows:

- (1) Violation of Rule .2535(2) of this Section regarding water clarity shall be assessed six demerits.
- (2) Violation of Rule .2531(a)(10), .2531(b)(3), .2535(3), (4), (5), (7), (8), or (9), or .2543(d)(7) or (e)(2) of this Section regarding disinfectant residuals shall be assessed six demerits.
- (3) Violation of Rule .2535(1) of this Section regarding pool water pH shall be assessed six demerits.

- (4) Violation of Rule .2535(12) of this Section or regarding control of water temperature in heated pools shall be assessed six demerits.
- (5) Violation of Rule .2535(10), (11), or (13), .2537(c), or .2540 of this Section regarding pool operator training, water quality records and test kits shall be assessed four demerits.
- (6) Violation of Rule .2518(j), .2537(b)(7) or (16), or .2539 of this Section regarding pool drains and suction hazards shall be assessed six demerits.
- (7) Violation of Rule .2537(b)(3), (8), (9) or (14) of this Section regarding maintenance of pool walls and floor shall be assessed four demerits.
- (8) Violation of Rule .2518(k) or (l), .2531(4), .2532(4)(b) or .2537(b)(14) of this Section regarding water surface skimmers shall be assessed four demerits.
- (9) Violation of Rule .2523 or .2537(b)(6) of this Section regarding depth markers and no diving markers shall be assessed four demerits.
- (10) Violation of Rule .2515(d) or (f), .2523(e) or .2537(b)(12) of this Section regarding floating safety ropes and contrasting color bands at breakpoints shall be assessed two demerits.
- (11) Violation of Rule .2517, .2521, .2527, .2537(b)(10), .2527, or .2542 of this Section regarding diving equipment, slides, ladders, steps, handrails and in-pool exercise equipment shall be assessed two demerits.
- (12) Violation of Rule .2518(i) or .2537(b)(8) of this Section regarding inlets and other fittings shall be assessed four demerits.
- (13) Violation of Rule .2516(b), .2521(b)(4), .2532(13) or .2537(b)(12) of this Section regarding contrasting color bands on seats or benches shall be assessed four demerits.
- (14) Violation of Rule .2532(7) or .2537(b)(11) of this Section regarding spa timers shall be assessed four demerits.
- (15) Violation of Rule .2530(a), or (b), or .2537(b)(1) of this Section regarding lifesaving equipment shall be assessed six demerits.
- (16) Violation of Rule .2528, .2531(a)(7) or .2537(b)(5) of this Section regarding fences, barriers and gates shall be assessed four demerits.
- (17) Violation of Rule .2522 or .2537(b)(2) of this Section regarding decks shall be assessed four demerits.
- (18) Violation of Rule .2530(c) of this Section regarding No Lifeguard warning signs shall be assessed four demerits.
- (19) Violation of Rule .2530(d) or .2543(d)(13) of this Section regarding pet and glass container signs shall be assessed four demerits.
- (20) Violation of Rule .2532(15) through (17), or .2537(b)(13) of this Section regarding caution signs at hot water spas shall be assessed four demerits.
- (21) Violation of Rule .2524, or .2537(b)(4) of this Section regarding pool and deck lighting and ventilation shall be assessed four demerits.
- (22) Violation of Rule .2530(f) of this Section regarding emergency telephones shall be assessed six demerits.
- (23) Violation of Rule .2535(6) of this Section regarding automatic chlorine or bromine feeders shall be assessed four demerits.
- (24) Violation of Rule .2518 .2519, .2525, .2531(a)(1) through (3), .2532(1) through (6), or .2543(b), (d)(1) through (6) or (e)(1) of this Section regarding pool filter and circulation systems shall be assessed four demerits.
- (25) Violation of Rule .2533, .2534 or .2537(b)(15) of this Section regarding equipment rooms and chemical storage rooms shall be assessed two demerits.
- (26) Violation of Rule .2518(d) of this Section regarding identification of valves and pipes shall be assessed two demerits.
- (27) Violation of Rule .2513(b) of this Section regarding air gaps for filter backwash shall be assessed two demerits.
- (28) Violation of Rule .2526 or .2543(d)(11) of this Section regarding accessible dressing and sanitary facilities shall be assessed two demerits.
- (29) Violation of Rule .2526 of this Section regarding maintenance and cleaning of dressing and sanitary facilities and fixtures shall be assessed two demerits.

- (30) Violation of Rule .2512 of this Section regarding water supplies shall be assessed two demerits.
- (31) Violation of Rule .2513(a) of this Section regarding sewage disposal shall be assessed two demerits.
- (32) Violation of Rule .2526(c) of this Section regarding floors in dressing and sanitary facilities shall be assessed two demerits.
- (33) Violation of Rule .2526(c), or (d) of this Section regarding hose bibs and floor drains in dressing and sanitary facilities shall be assessed two demerits.

History Note: Authority G.S. 130A-282;
 Eff. May 1, 1991;
 Amended Eff. May 1, 2010; March 1, 2004; January 1, 1996.

15A NCAC 18A .2512 WATER SUPPLY

- (a) The water supply serving the swimming pool and all plumbing fixtures including drinking fountains, lavatories, toilets, and showers, shall meet all requirements in 15A NCAC 18A .1700 or be an approved public water supply in accordance with 15A NCAC 18C. However, the Department may approve the use of water from natural sources, including the use of saline water, for the swimming pool.
- (b) The water distribution system serving the swimming pool and auxiliary facilities shall be protected against backflow. Water introduced into the pool, either directly or by the circulation system, shall be supplied through an air gap (American National Standards Institute A112.1.2-1979), a pipe-applied atmospheric vacuum breaker (ANSI/American Society of Sanitary Engineering No. 1001-1971), a pressure type anti-siphon vacuum breaker (ANSI/ASSE No. 1020-1976), or a reduced-pressure principle backflow preventer (ASSE No. 1013-1979, American Water Works Association No. C506-1978), which are hereby adopted by reference in accordance with G.S. 150B-14(c) or equivalent.
- (c) Whenever an over-the-rim spout is used to introduce water into the swimming pool, it shall be shielded so as not to create a hazard. The open end of the spout shall have no sharp edges, shall not protrude more than two inches (5.1 cm) beyond the edge of the pool and shall be at least two pipe diameters above the deck or pool overflow level. The over-the-rim spout shall be located under the diving board or within six inches of a ladder or handrail.

History Note: Authority G.S. 130A-282;
 Eff. May 1, 1991.

15A NCAC 18A .2513 SEWAGE SYSTEMS AND OTHER WASTEWATER DISPOSAL

- (a) Sewage shall be disposed of in a public sewer system or, in the absence of a public sewer system, by an approved, properly operating sanitary sewage system.
- (b) There shall be no direct physical connection between the sewer system and any drain from the swimming pool or circulation system. Overflow from the swimming pool, and discharges from the circulation system, when discharged to the sewer system, storm drain or other approved natural drainage course, shall be discharged through a suitable air gap so as to preclude the possibility of back flow of sewage or other waste water into the swimming pool or the swimming pool piping system. Deck drainage shall be discharged through an indirect drain.

History Note: Authority G.S. 130A-282;
 Eff. May 1, 1991;
 Amended Eff. April 1, 1999; July 1, 1992.

15A NCAC 18A .2514 MATERIALS OF CONSTRUCTION

- (a) Pools and appurtenances shall be constructed of materials which are inert, non-toxic to man, impervious and permanent, which can withstand design stresses and which can provide a water-tight tank with a smooth and cleanable surface. Use of vinyl liners is prohibited; however, liners no less than 60 mil thick may be used provided the underlying pool shell is of approved construction. If this material is used for repairs, the existing pool shall be remodeled in accordance with this Rule.
- (b) Sand or earth bottoms are prohibited in swimming pool construction.

(c) Pool finish, including bottom and sides, shall be of white or light colored material determined visually to contrast least with a value of gray whiter than 50 percent black on an artists gray scale, or shown by reflectance testing to reflect more than 50 percent of visible light.

(d) Pool surfaces in areas which are intended to provide footing for bathers including steps, ramps, and pool bottoms in areas with water less than three feet deep, shall be designed to provide a slip-resistant surface.

*History Note: Authority G.S. 130A-82;
Eff. May 1, 1991;
Amended Eff. May 1, 2010.*

15A NCAC 18A .2515 DESIGN DETAILS

(a) Pools shall be designed and constructed to withstand all loadings for both full and empty conditions.

(b) A hydrostatic relief valve shall be provided for in-ground swimming pools which extend more than two feet below the grade of surrounding land surface unless a gravity drainage system is provided.

(c) Provisions shall be made for complete, continuous circulation of water through all areas of the swimming pool. Swimming pools shall have a circulation system with approved treatment, disinfection, and filtration equipment as required in the rules of this Section.

(d) The minimum depth of water in the swimming pool shall be three feet (0.91 m) except where a minimum depth of less than three feet is needed to provide non-swimming areas such as children's activity areas and sun shelves.

(e) The maximum depth at the shallow end of a swimming pool shall be three and a half feet (1.07 m) except for pools used for competitive swimming, diving or other uses which require water deeper than three and a half feet.

(f) Connections for safety lines shall be recessed in the walls in a manner which presents no hazard to swimmers.

(g) Decorative features such as planters, umbrellas, fountains and waterfalls located on pool decks shall comply with the following:

- (1) Decorative features shall not occupy more than 20 percent of the pool perimeter;
- (2) If located adjacent to a water depth of greater than five feet, decorative features shall not be more than 20 feet wide;
- (3) Decorative features shall not provide handholds or footholds that could encourage climbing above deck level;
- (4) A walkway shall be provided to permit free access around decorative features and shall be as wide as the lesser of five feet or the deck width required in Rule .2528 of this Section;
- (5) Decorative features shall not obstruct the view of any part of the pool from any seating area; and
- (6) Features with moving water shall be separate from the pool recirculation system.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; August 1, 2000; April 1, 1999.*

15A NCAC 18A .2516 POOL PROFILE

(a) The vertical walls of a public swimming pool shall not exceed 11 degrees from plumb. Corners formed by intersection of walls and floors shall be coved or radiused. Hopper bottomed pools are prohibited.

(b) Underwater ledges or protrusions are prohibited; except that underwater stairs, sun shelves, seats and benches may be installed in areas of the pool no more than four feet deep. Underwater benches shall have a maximum seat depth of two feet from the water surface, protrude no more than 18 inches from the wall and be marked by a two inch contrasting color band on the leading edge. Underwater protrusions may provide seating at swim-up bars located in offset areas away from swim lanes. Underwater stairs may adjoin a sun shelf to deeper water provided the depth at the bottom of the stairs is no more than four feet and the stairs meet all provisions of Rule .2521 of this Section.

- (c) The slope of the bottom of any portion of any public swimming pool having a water depth of less than five feet (1.52 m) shall not be more than one foot vertical change in 10 feet (10 cm in one meter) of horizontal distance and the slope shall be uniform.
- (d) In portions of pools with water depths greater than five feet (1.52 m), the slope of the bottom shall not be more than one foot vertical in three feet (33.3 cm in one meter) of horizontal distance.
- (e) Design of diving areas shall be in accordance with Tables 1A and 1B of Rule .2517 of this Section.
- (f) Fountains installed in public swimming pools shall be approved prior to installation and shall comply with the following:
- (1) Fountains shall not be installed in an area with a water depth exceeding 18 inches;
 - (2) Fountains shall be recommended by the manufacturer for use in a public swimming pool;
 - (3) Fountains shall be installed in accordance with the manufacturer's instructions;
 - (4) Fountains shall be separate from the pool water recirculation system; and
 - (5) Fountains shall not release water at a velocity greater than 10 feet per second.

*History Note: Authority G.S. 130A-82;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; February 1, 2004; January 1, 1996.*

15A NCAC 18A .2517 DIVING EQUIPMENT

- (a) When diving equipment is installed in a public swimming pool, it shall be located in the diving area of the pool so as to provide the minimum dimensions as shown in Tables 1A and 1B of this Rule and shall conform to the following specifications:
- (1) Diving equipment shall be designed for swimming pool use and shall be installed in accordance with the manufacturer's recommendations.
 - (2) Installation instructions and specifications shall be provided with each unit.
 - (3) A label shall be permanently affixed to the diving equipment and shall include:
 - (A) manufacturer's name and address;
 - (B) board length;
 - (C) type of diving board;
 - (D) fulcrum setting specifications if applicable.
 - (4) Diving equipment shall have slip-resistant tread surfaces.
- (b) Supports, platforms, and steps for diving equipment shall be of sufficient strength to carry safely the maximum anticipated loads. Steps shall be of corrosion-resistant design. Handrails shall be provided at all steps and ladders leading to diving boards that are one meter or more above the water.
- (c) There shall be a completely unobstructed clear vertical distance of 13 feet above any diving board measured from the center of the front end of the board. This area shall extend horizontally at least eight feet behind, eight feet to each side, and 16 feet ahead of Point A in Table 1A.

Table 1A

Maximum Board Length	Maximum Board Height Above Water	Board Overhang (Pt. A)		Minimum Water Depths		
		Max	Min	D1	D2	D3
12 feet	30 in	5 feet	4 feet	8'0"	9'0"	8'3"
16 feet	1 meter	6 feet	5 feet	8'6"	10'0"	8'6"
16 feet	3 meters	6 feet	5 feet	11'6"	12'0"	11'6"

KEY TO ABBREVIATIONS:

Pt A is the point on the water line of the pool directly beneath the end of the diving board.

D1 is the depth of the water measured from the water line to the floor at the beginning of the radius connecting the end wall with the floor at the deep end of the pool.
D2 is the depth of the water at the deepest point in the pool.
D3 is the depth of the water at the point where the deep area of the pool meets the transition to the shallow area of the pool.

Table 1B

Maximum Board Length	Horizontal Distances						Minimum Pool Width	Minimum Separation Distances	
	L1	L2	L3	L4	L5	L6		F	G
	12 feet	3'	7'	10'3"	9'9"	30'		4'	20'
16 feet	5'	5'	11'6"	10'6"	32'	4'	24'	12'	10'
16 feet	5'	5'	7'6"	19'6"	37'	3'	28'	14'	12'

KEY TO ABBREVIATIONS:

L1 is the radius of the curve connecting the side wall to the floor at the deep end of the pool.
L2 is the distance between the center of the radius connecting the end wall to the floor at the deep end of the pool and the deepest point in the pool.
L3 is the distance between the deepest point in the pool and the beginning of the transition to the shallow area of the pool.
L4 is the length of the transition zone.
L5 is the total of L1 + L2 + L3 + L4.
L6 is the length of the shallow area of the pool.

F is the distance between the side wall of the pool and the centerline of the diving board.

G is the distance between the center lines of two adjacent diving boards.

(d) Public pools with diving facilities in excess of three meters in height, or pools designed for platform diving, shall meet the Federation Internationale De Nation Amateur (FINA) guidelines that are incorporated by reference in accordance with G.S. 130B-21.6 including any subsequent amendments or additions.

(e) Starting platforms used for racing starts during competition shall be secured from use when the pool is open for general use by removal; covering; or signage and active supervision. Minimum water depth for starting platforms shall be measured at a distance of 3 feet, 3 ½ inches (1.0 meter) to 16 feet, 5 inches (5.0 meters) from the end wall. Height of starting platforms shall not exceed the following:

- (1) In pools with water depth less than 3 feet, 6 inches (1.07 meters) at the starting end, raised starting platforms shall be prohibited.
- (2) In pools with water depth 3 feet, 6 inches (1.07 meters) to less than 4 feet (1.22 meters) at the starting end, starting platforms shall be no more than 18 inches (0.46 meter) above the water surface.
- (3) In pools with a water depth of 4 feet (1.22 meters) or greater at the starting end, starting platforms shall be no more than 30 inches (0.762 meter) above the surface of the water. Starting platforms shall be constructed to be easily removed from the deck when the swimming pool is used for other than competitive purposes.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. February 1, 2004; April 1, 1999; January 1, 1996.*

15A NCAC 18A .2518 CIRCULATION SYSTEM

- (a) Pools shall be equipped with a circulation system.
- (b) The capacity of the circulation system shall be sufficient to clarify and disinfect the entire volume of swimming pool water four times in 24 hours. The system shall be operated 24 hours per day during the operating season.

(c) The circulation piping shall be designed and installed with the necessary valves and pipes so that the flow from the swimming pool can be from main drains or the surface overflow system. The circulation piping shall be designed such the flow of water from the swimming pool can be simultaneous from the surface overflow system and the main drains. Skimmer piping constructed after May 1, 2010 shall be sized to handle the maximum flow rate for the required number of skimmers, but in no case less than 100 percent of the design flow rate. Perimeter overflow system piping constructed after May 1, 2010 shall be sized to handle 100 percent of the design flow rate. The main drain piping constructed after May 1, 2010 shall be sized to handle 100 percent of the design flow rate.

(d) Piping shall be designed to reduce friction losses to a minimum and to carry the required quantity of water at a maximum velocity not to exceed six feet per second for suction piping and not to exceed 10 feet per second for discharge piping except for copper pipe where the velocity shall not exceed eight feet per second. Piping shall be of non-toxic material, resistant to corrosion, and able to withstand operating pressures. If plastic pipe is used, a minimum of Schedule 40 PVC is required. Flexible pipe shall not be used except that flexible PVC hoses that meet NSF Standard 50 may be affixed to spa shells where rigid pipes do not provide the necessary angles to connect circulation components. Exposed pipes and valves shall be identified by a color code or labels.

(e) The circulation system shall include a strainer to prevent hair, lint, and other debris from reaching the pump. A spare basket shall be provided. Strainers shall be corrosion-resistant with openings not more than ¼ inch (6.4 mm) in size that provide a free flow area at least four times the cross-section area of pump suction line and are accessible for daily cleaning.

(f) A vacuum cleaning system shall be provided to remove debris and foreign material that settles to the bottom of the swimming pool. Where provided, integral vacuum ports shall be located on the pool wall at least six inches and no greater than 18 inches below the water level. Skimmer vacuums may be used in pools with two or fewer skimmers provided the skimmer basket remains in place while the vacuum is in operation. Integral vacuum cleaning systems shall be provided with valves and protective caps. Integral vacuum ports constructed after May 1, 2010 shall have self-closing caps designed to be opened with a tool.

(g) A rate-of-flow indicator, reading in liters or gallons per minute, shall be installed on the filtered water line and located so that the rate of circulation is indicated. The indicator shall be capable of measuring flows that are at least 1½ times the design flow rate, shall be accurate within 10 per cent of true flow, and shall be easy to read. The indicator shall be installed in accordance with manufacturers' specifications.

(h) A pump or pumps shall be provided with capacity to recirculate the swimming pool water four times in 24 hours, and shall be so located as to eliminate the need for priming. If the pump or pumps, or suction piping is located above the overflow level of the pool, the pump or pumps shall be self-priming. The pump or pumps shall be capable of providing a flow adequate for the backwashing of filters. Unless headloss calculations are provided by the designing engineer, pump design shall be based on an assumed total dynamic head of 65 feet of water. Pumps three horsepower or smaller shall be NSF International (NSF) listed or verified by an independent third-party testing laboratory to meet all applicable provisions of NSF/ANSI Standard 50 which is incorporated by reference including any subsequent amendments or editions. Copies may be obtained from NSF International, P.O. Box 130140, Ann Arbor, MI 48113-0140 at a cost of one hundred fifty-five dollars (\$155.00). Verification shall include testing and in-plant quality control inspections. Larger pumps for which NSF listing is not available shall be approved by the Department on a case-by-case basis.

(i) Inlets.

- (1) Inlets shall be provided and arranged to produce a uniform circulation of water and maintain a uniform disinfectant residual throughout the pool.
- (2) The number of inlets for any swimming pool shall be determined based on return water flow. There shall be at least one inlet per 20 gallons per minute of return water flow. There shall be a minimum of four inlets for any swimming pool.
- (3) Inlets shall be located so that no part of the swimming pool is more than 25 feet of horizontal distance from the nearest return inlet.
- (4) Provision shall be made to permit adjustment of the flow through each inlet, either with an adjustable orifice or provided with replaceable orifices to permit adjustments of the flows.

(j) Drains.

- (1) Public Swimming pools with suction drains shall be provided with at least two main drain outlets which are located at the deepest section of the pool and connected by "T" piping.

Connecting piping shall be sized and configured such that blocking any one drain will not result in flow through the remaining drain cover/grates exceeding the cover/grate manufacturer's safe flow rating while handling 100 percent of the pump system flow. The drains shall be capable of permitting the pool to be emptied completely. Drains shall be spaced not more than 30 feet apart, and not more than 15 feet away from the side walls. Drains shall be separated by at least three feet measured from centers of the cover/grates. This shall not preclude construction of a public swimming pool without main drains where water is introduced at the bottom of the pool and removed through a surface overflow system designed to handle 100 percent of the design flow rate. Provision shall be made to completely drain pools constructed without drains. Public swimming pools constructed prior to May 1, 2010 with a single drain or multiple drains closer than three feet apart shall protect against bather entrapment with an unblockable drain or a secondary method of preventing bather entrapment in accordance with Rule .2539 of this Section.

- (2) Drain outlets shall comply with the American National Standard ASME/ANSI A112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs which is hereby incorporated by reference including any subsequent amendments, editions, and successor standards under the Virginia Graeme Baker Pool and Spa Safety Act (15 U.S.C. 8001 et seq.). Copies may be obtained from ASME, P.O. Box 2300, Fairfield, NJ 07007-2300 at a cost of fifty-three dollars (\$53.00).
 - (3) Public swimming pools constructed after May 1, 2010 shall comply with ANSI/APSP -7 2006 American National Standard for Suction Entrapment Avoidance in Swimming Pools, Wading Pools, Spas, Hot Tubs and Catch Basins which is hereby incorporated by reference including any subsequent amendments and editions. Copies may be obtained from APSP, 2111 Eisenhower Avenue, Alexandria, VA 22314 at a cost of three hundred fifty dollars (\$350.00).
- (k) Surface Overflow Systems.
- (1) Swimming pools shall be provided with a surface overflow system that is an integral part of the circulation system and that consists of a built-in-place perimeter overflow system, a pre-fabricated perimeter overflow system, or recessed automatic surface skimmers.
 - (2) Whenever a built-in-place perimeter overflow system or a pre-fabricated perimeter overflow system is provided, it shall be designed and installed as follows:
 - (A) The system shall be capable of handling 100 percent of the circulation flow without the overflow troughs being flooded;
 - (B) A surge capacity shall be provided either in the system or by use of a surge tank; and the total surge capacity shall be at least equal to one gallon per square foot (41L per square meter) of swimming pool water surface area;
 - (C) The water level of the swimming pool shall be maintained above the level of the overflow rim of the perimeter overflows, except for the time needed to transfer all of the water that may be in the surge capacity back into the swimming pool after a period of use; provided that this transfer time shall not be greater than 20 minutes;
 - (D) When installed the tolerance of the overflow rim shall not exceed $\frac{1}{4}$ inch (6.4 mm) as measured between the highest point and the lowest point of the overflow rim;
 - (E) During quiescence, the overflow system shall be capable of providing continuously and automatically a skimming action to the water at the surface of the swimming pool;
 - (F) The overflow troughs shall be installed completely around the perimeter of the swimming pool, except at steps, recessed ladders and stairs;
 - (G) The exposed surfaces of the overflow trough shall be capable of providing a firm and safe hand-hold; and
 - (H) The overflow trough shall be cleanable and shall be of such configuration as to minimize accidental injury.
 - (3) Whenever a recessed automatic surface skimmer or skimmers are installed, they shall be designed and constructed in accordance with Section 8 of NSF Standard #50 for

circulation system components for swimming pools, spas, or hot tubs. Recessed automatic surface skimmers shall be installed as follows:

- (A) The flow-through rate through any one recessed automatic surface skimmer shall be between 20 gallons per minute and the maximum flow the skimmer is certified for under NSF Standard Number 50;
- (B) There shall be at least one recessed automatic surface skimmer for each 400 square feet of water surface area of the swimming pool or fraction thereof;
- (C) When two or more recessed automatic surface skimmers are required, they shall be so located as to minimize interference with each other and as to insure proper and complete skimming of the entire swimming pools water surface; and
- (D) Skimmers shall not protrude into the swimming pool. Automatic surface skimmer or skimmers without a perimeter overflow system shall be installed so that the operating level of the pool is no more than nine inches below the finished deck level so that the deck can be used as a handhold.

(l) Where flooded suction on the pump is not possible to prevent cavitation and loss of prime, skimmers shall have a device or other protection to prevent air entrainment in the suction line. The inlet to the equalizer line shall be provided with a grate.

(m) Nothing in this Section shall preclude the use of a roll-out or deck-level type of swimming pool. Such designs shall conform to the general provisions relating to surface overflow systems.

(n) Nothing in this Section shall preclude the use of a surface overflow system that combines both a perimeter overflow system and a recessed automatic surface skimmer or skimmers.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2519 FILTERS

(a) All swimming pools shall be equipped with a filtration system for the purpose of clarifying the swimming pool water; said filtration system shall be an integral part of the circulation system and shall consist of one or more units of sand type filters, of diatomaceous earth type filters, or of cartridge type filters.

(b) All filter units shall be designed and constructed in accordance with Section 5 of the National Sanitation Foundation's Standard number 50 which is hereby adopted by reference in accordance with G.S. 150B-14(c), or equivalent.

(c) When a sand type filter is installed on a swimming pool, it may be either a gravity or a pressure sand type filter, and it may be either a standard-rate sand type filter which shall be designed for filtration rates not in excess of three gallons per minute per square foot (122 L per minute per square meter) of sand bed area, or a high-rate sand type filter which shall be designed for filtration rates not in excess of 15 gallons per minute per square foot (612 L per minute per square meter) of sand bed area or the flow rate indicated for commercial pools in the most recent NSF listing.

(d) When a sand type filter is installed on a swimming pool, it shall be designed and installed such that it may be backwashed at a rate recommended by the manufacturer or, in the absence of manufacturer's recommendations, at a rate not less than 15 gallons per minute per square foot (612 L per minute per square meter) of filter bed area. The backwash water shall be discharged to waste. A sight glass or other means for viewing the clarity of the backwash water shall be provided.

(e) If the sand type filter is designed to be operated in conjunction with a coagulant, a chemical feeder shall be provided for adding the coagulant ahead of the filters.

(f) When a diatomaceous earth type filter is installed on a swimming pool, it may be either a pressure or vacuum type and it may be designed to operate either with or without continuous body feed. Diatomaceous earth filters which operate with continuous body feed shall be designed for filtration rates not in excess of 2.5 gallons per minute per square foot (102 L per minute per square meter) of filter area; and diatomaceous earth filters which operate without continuous body feed shall be designed for filtration rates not in excess of two gallons per minute per square foot (82 L per minute per square meter) of filter area.

(g) When a diatomaceous earth type filter is installed on a swimming pool, it shall be designed and installed with provisions for cleaning by one or more of the following methods:

- (1) backwashing at two gallons per minute per square foot minimum;
 - (2) air-bump-assist backwashing;
 - (3) spray wash, (either mechanical or manual); or
 - (4) agitation.
- (h) The water used in cleaning a diatomaceous earth type filter shall be discharged to waste, or in a manner approved by the Department.
- (i) When a cartridge type filter is installed on a swimming pool, it shall be designed for filtration rates not in excess of 0.375 gallons per minute per square foot (15 L per minute per square meter) of effective filtration area.
- (j) When a cartridge type filter is installed on a swimming pool, it shall be designed and installed with provisions being provided for cleaning or replacement as recommended by the manufacturer. Two sets of filter cartridges shall be provided to facilitate the cleaning and drying of one set while the filter is operating.
- (k) All filters on swimming pools shall be designed and installed so as to provide easy accessibility for cleaning, operating, maintaining, and servicing. All filter tanks shall be so positioned as to provide adequate circulation of air beneath and around all sides, when necessary, to reduce corrosion and to facilitate cleaning. Whenever filter tanks are installed in the ground (i.e. buried), provisions shall be made so that the tanks are protected against corrosion and are installed in accordance with the recommendations of the manufacturer.
- (l) Filters on swimming pools shall be equipped with an approved type pressure gauge or gauges.
- (m) Filters on swimming pools shall be designed and installed with all the necessary valves and piping which may be needed to drain the filters completely.
- (n) All pressure filters on swimming pools shall be designed and installed with an air-relief valve or valves which shall be located at or near the high point of the filters.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. January 1, 1996.*

15A NCAC 18A .2520 CHEMICAL FEEDERS

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Repealed Eff. July 1, 1992.*

15A NCAC 18A .2521 LADDERS, RECESSED STEPS, AND STAIRS

- (a) If the vertical distance from the bottom of the swimming pool to the deck is over two feet (0.61 m), recessed steps, stairs, or ladders shall be provided in the shallow area of all swimming pools. Recessed steps or ladders shall be provided at the deep portion of all pools; and, if the swimming pool is over 30 feet (9.14 m) wide, such recessed steps or ladders shall be installed on each side near the deep end. A stairway, ladder or set of recessed steps shall be provided every 75 feet along the shallow area perimeter. Where stairs are provided in the shallow area of the pool, one ladder may be deleted in the shallow area for each stairway provided.
- (b) Pool Stairs - The design and construction of pool ladders and stairs shall conform to the following:
- (1) Stair treads shall have a minimum unobstructed horizontal depth of 10 inches, a maximum horizontal depth of 36 inches, and a minimum unobstructed surface area of 240 square inches.
 - (2) Risers at the centerline of the treads shall have a maximum height of 12 inches and shall be within one inch of a uniform height with the bottom riser height allowed to vary plus or minus two inches from the uniform riser height.
 - (3) Each set of stairs shall be provided with at least one handrail to serve all treads and risers. For stairs wider than 20 feet, additional handrails shall be provided and spaced no more than 10 feet from adjacent handrails or stair ends.
 - (A) Handrails, if removable, shall be installed in such a way than they cannot be removed without the use of tools.
 - (B) The leading edge of handrails facilitating stairs and pool entry/exit shall be no more than 18 inches horizontally from the vertical plane of the bottom riser.

- (C) The outside diameter of handrails shall be between one inch and one and nine-tenths inches.
- (4) The leading edge of stair treads shall be marked with a contrasting color band or line at least two inches (5 cm) wide visible from above the stairs. Use of contrasting color tiles installed in the stair tread is acceptable provided the tiles are spaced no more than one inch (2.5 cm) from the edge of the tread or from adjacent tiles.
- (5) Swimming pool ladders shall be corrosion-resistant and shall be equipped with slip-resistant treads. All ladders shall be designed to provide a handhold and shall be installed rigidly. There shall be a clearance of not more than six inches (15.3 cm), nor less than three inches (7.6 cm), between any ladder and the swimming pool wall. If the steps are inserted in the walls or if step holes are provided, they shall be of such design that they may be cleaned easily and shall be arranged to drain into the swimming pool to prevent the accumulation of dirt thereon. Step holes shall have a minimum tread of five inches (12.7 cm) and a minimum width of 14 inches (35.6 cm).
- (6) When step holes or ladders are provided within the swimming pool, there shall be a handrail at each side.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; January 1, 1996.*

15A NCAC 18A .2522 DECKS

- (a) Outdoor swimming pools shall have a continuous deck extending completely around the swimming pool. The width of the deck or walkway shall provide at least six feet of clear walking space at all points. If the swimming area of the pool is 1600 square feet or larger, at least eight feet of clear walking space is required.
- (b) Indoor swimming pools shall have a continuous deck or walkway extending completely around the swimming pool. The width of the deck shall provide at least five feet of clear walking space at all points. Structures covering swimming pools, including temporary domes, shall be constructed to maintain a vertical clearance of at least seven feet from all parts of the required clear walk space.
- (c) Wading pools shall have a continuous deck extending completely around the wading pool. The width of the deck or walkway shall provide at least four feet of clear walking space at all points.
- (d) Spas shall have a continuous deck extending at least one-half way around the spa. The width of the deck or walkway shall provide at least four feet of clear walking space at all points.
- (e) There shall be at least five feet of clear walking space around any diving board, handrail, slide or other permanent structure installed on a swimming pool deck.
- (f) All deck areas and walkways shall be sloped at a grade of one-fourth inch to one-half inch per foot to a deck drain or sheet drain to deck edge. Deck drains shall not be connected to the circulation system in any manner.
- (g) All decks and walkways shall have a slip-resistant, impervious surface.
- (h) Sufficient hose bibs shall be provided to allow all areas of the deck to be reached with a 100 foot hose.
- (i) Special purpose pools such as waterslides and wave pools may vary from the minimum deck area requirements to the extent necessary to accommodate the special features of the pool.
- (j) Structures necessary to provide access to a public swimming pool by persons with disabilities shall be allowed to vary from the provisions of this Section to the extent necessary to accommodate such access. Such structures shall be approved on a case-by-case basis and shall be designed so as to minimize obstruction of the deck.
- (k) For all swimming pools constructed after April 1, 2000 decks shall be continuous with the top of the pool wall or gutter and shall not be more than nine inches above the standard operating water level.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2523 DEPTH MARKINGS AND SAFETY ROPES

(a) On swimming pools the depth of the water shall be marked at or above the water surface on the vertical wall of the swimming pool where possible and on the edge of the deck next to the swimming pool. Where depth markers cannot be placed on the vertical walls at or above the water level, other means shall be used; provided the markings shall be visible to persons in the swimming pool. Depth markers shall be placed at the following locations:

- (1) at the points of maximum and minimum depths;
- (2) at the transition point where the slope of the bottom changes from the uniform slope of the shallow area;
- (3) if the pool is designed for diving, at points to denote the water depths in the diving area; and
- (4) at both ends of the pool.

(b) Depth markers shall be so spaced that the distance between adjacent markers is not greater than 25 feet (7.5 m) when measured along the perimeter of the pool.

(c) Depth markers shall be in Arabic numerals at least four inches (10 cm) high and of a color contrasting with the background. Depth markings shall indicate the depth of the pool in feet of water and shall include the word "feet" or symbol "ft" to indicate the unit of measurement. Depth markings installed in pool decks shall provide a slip resistant walking surface.

(d) "No Diving" markers shall be provided on the pool deck adjacent to all areas of the pool less than five feet deep. "No Diving" markers shall consist of the words "No Diving" in letters at least four inches high and of a color contrasting with the background or at least a six-by-six inch international symbol for no diving in red and black on a white background. The distance between adjacent markers shall not be more than 25 feet. Posting of "No Diving" markers shall not preclude shallow diving for racing starts and competitive swimming practice.

(e) A minimum of $\frac{3}{4}$ inch diameter safety rope shall be provided at the breakpoint where the slope of the bottom changes to exceed a 1 to 10 vertical rise to horizontal distance at a water depth of five feet (1.5 m) or less. The position of the rope shall be marked with colored floats at not greater than a five-foot spacing and a minimum two inch wide contrasting color band across the pool bottom. Float ropes shall be positioned within two feet on the shallow side of the breakpoint marker.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; February 1, 2004; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2524 LIGHTING AND VENTILATION

(a) Artificial lighting shall be provided at all pools that are to be used at night, or when natural lighting is insufficient to provide visibility in the pool area.

(b) Lighting fixtures shall be of such number and design as to illuminate all parts of the pool, the water, the depth markers, signs, entrances, restrooms, safety equipment and the required deck area and walkways.

(c) Fixtures shall be installed so as not to create hazards such as burning, electrical shock, mechanical injury, or temporary blinding by glare to the bathers, and so that lifeguards, when provided, can see every part of the pool area without being blinded by glare. The illumination shall be sufficient so that the floor of the pool can be seen at all times the pool is in use.

(d) If underwater lighting is used, it shall provide at least 0.5 watts or 8.35 lumens per square foot of water surface and deck lighting shall provide not less than 10 foot candles of light measured at 6 inches above the deck surface.

(e) Where underwater lighting is not used, and night swimming is permitted, area and pool lighting combined shall provide not less than 10 foot candles of light to all parts of the pool and required deck area.

(f) Mechanical ventilation is required for all indoor pools.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; February 1, 2004; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2525 HEATER AND TEMPERATURE REQUIREMENTS

(a) Pool heaters shall be designed for the purpose intended.

(b) Heaters shall be equipped with thermostatic controls capable of assuring that the maximum operating temperature of spa water does not exceed 104 degrees Fahrenheit (40 degrees C), and that the maximum operating temperature of other heated public swimming pools does not exceed 90 degrees Fahrenheit (32 degrees C). Such controls shall be accessible only to the operator.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. February 1, 2004; August 1, 1991.*

15A NCAC 18A .2526 DRESSING AND SANITARY FACILITIES

(a) Dressing and sanitary facilities shall be provided at all pools, except for pools at hotels, motels, condominiums, and apartments where pool use is restricted to residents or guests. At hotels, motels, condominiums and apartments where the farthest unit is more than 300 feet from the pool, as measured along walkways provided for access by residents or guests to the pool area, a toilet and lavatory shall be provided. All public swimming pools shall post a sign visible upon entering the pool enclosure directing pool users to shower before entering the pool.

(b) Partitions shall be of material, not subject to damage by water and shall be designed so that a waterway is provided between partitions and floor to permit thorough cleaning of the walls and floor areas with hoses and brooms.

(c) Dressing facility floors shall be continuous throughout the areas. Floors shall have a slip-resistant surface that shall be smooth, to insure complete cleaning. Floor drains shall be provided, and floors shall be sloped not less than ¼ inch per foot toward the drains to insure positive drainage.

(d) Hose bibs shall be provided such that all parts of the dressing facility interior can be reached with a 50 foot hose.

(e) The minimum number of fixtures required in dressing and sanitary facilities shall be based upon the maximum bather load.

(f) One water closet, one lavatory, and one urinal shall be provided for the first 100 male users. One additional water closet, lavatory, and urinal shall be provided for each additional 200 male users up to a total of 500 users. Where user load exceeds 500 male users, two additional water closets or urinals and one lavatory shall be provided for each additional 250 male users. Where the maximum bather load includes less than 50 male users, one water closet and one lavatory will be sufficient.

(g) Two water closets and two lavatories shall be provided for the first 100 female users. One additional water closet and lavatory shall be provided for each additional 100 female users up to a total of 500 users. Where user load exceeds 500 female users, two additional water closets and one lavatory shall be provided for each additional 250 female users. Where the maximum bather load includes less than 50 female users, one water closet and one lavatory will be sufficient.

(h) Showers shall be provided in the proportion of one for each 200 persons at the time of maximum bather load.

(i) The water heater shall be inaccessible to users. The system shall be designed such that water temperature at the shower heads and lavatories cannot exceed 110° Fahrenheit.

(j) Soap dispensers with either liquid or powdered soap shall be provided at each lavatory or required shower. The dispenser shall be of all metal or plastic type, with no glass permitted in these units.

(k) If mirrors are provided, they shall be of shatterproof materials.

(l) Toilet paper holders with toilet paper shall be provided at each water closet.

(m) Dressing and sanitary facilities shall be kept clean and in good repair.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2527 SWIMMING POOL SLIDES

All swimming pool slides installed at a public swimming pool shall be labeled by the manufacturer for use in public pools, and shall be installed in accordance with manufacturer's instructions.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991.*

15A NCAC 18A .2528 FENCES

(a) Public Swimming pools shall be completely enclosed by a fence, wall, building, or other enclosure, or any combination thereof, which encloses the swimming pool area such that all of the following conditions are met:

- (1) The top of the barrier shall be at least 48 inches above grade measured on the side of the barrier that faces away from the swimming pool. The maximum vertical clearance between grade and the bottom of the barrier shall be two inches measured on the side of the barrier that faces away from the swimming pool;
- (2) Openings in the barrier shall not allow passage of a four-inch-diameter sphere and shall provide no external handholds or footholds. Solid barriers that do not have openings shall not contain indentations or protrusions except for normal construction tolerances and tooled masonry joints;
- (3) Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is 45 inches or more, spacing between the vertical members shall not exceed four inches. Where there are decorative cutouts within the vertical members, spacing within the cutouts shall not exceed 1.75 inches in width;
- (4) Where the barrier is composed of horizontal and vertical members and the distance between the tops of the horizontal members is less than 45 inches, the horizontal members shall be located on the swimming pool side of the fence. Spacing between the vertical members shall not exceed 1.75 inches in width. Where there are decorative cutouts within the vertical members, spacing within the cutouts shall not exceed 1.75 inches in width;
- (5) Maximum mesh size for chain link fences shall be a 2.25 inch square unless the fence is provided with slats fastened at the top or the bottom that reduce the openings to no more than 1.75 inches;
- (6) Where the barrier is composed of diagonal members, the maximum opening formed by the diagonal members shall be no more than 1.75 inches;
- (7) Access gates shall comply with the dimensional requirements for fences and shall be equipped to accommodate a locking device. Effective April 1, 2011, pedestrian access gates shall open outward away from the pool and shall be self-closing and have a self-latching device except where a gate attendant and lifeguard are on duty. Gates other than pedestrian access gates shall have a self-latching device. Where the release mechanism of the self-latching device is located less than 54 inches from the bottom of the gate, the release mechanism shall require the use of a key, combination or card reader to open or shall be located on the pool side of the gate at least three inches below the top of the gate, and the gate and barrier shall have no openings greater than 0.5 inch within 18 inches of the release mechanism; and
- (8) Ground level doors and windows opening from occupied buildings to inside the pool enclosure shall be self-closing or child protected by means of a barrier or audible alarm.

(b) Public swimming pool fences constructed prior to May 1, 2010 may vary from the provisions of Paragraph (a) of this Rule as follows:

- (1) the maximum vertical clearance between grade and the bottom of the barrier may exceed two inches, but shall not exceed four inches;
- (2) where the barrier is composed of vertical and horizontal members and the space between vertical members exceeds 1.75 inches, the distance between the tops of the bottom horizontal member and the next higher horizontal member may be less than 45 inches, but shall not be less than 30 inches;
- (3) gates other than pedestrian access gates are not required to have self-latching devices if the gates are kept locked; and
- (4) gates may swing towards a pool where natural topography, landscape position or emergency egress requirements prevent gates from swinging away from the pool.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2529 USER LOADING

In determining the maximum number of persons allowed in the pool at any one time, the following criteria shall govern:

- (1) Fifteen square feet (1.39 sq m) of water surface area per person shall be provided in areas of the pool five feet (1.52 m) deep or less.
- (2) Twenty-four square feet (2.23 sq m) of water surface area per person shall be provided in areas of the pool greater than five feet (1.52 m) deep. Three hundred square feet (27.87 sq m) of pool area around each diving board or platform, where provided, shall not be included in computing this area for the purpose of determining maximum bather load.
- (3) Ten square feet (0.9 sq m) of water surface area per person shall be provided in spas.
- (4) Twenty-five square feet of splash zone area per person shall be provided at interactive play attractions.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. March 1, 2004; January 1, 1996.*

15A NCAC 18A .2530 SAFETY PROVISIONS

(a) Swimming pools shall have lifesaving equipment conspicuously and conveniently on hand at all times. A unit of lifesaving equipment shall include the following:

- (1) A pole not less than 12 feet long, with a body hook securely attached. The pole attached to the body hook shall be non-telescoping, non-adjustable and non-collapsible.
- (2) A minimum $\frac{1}{4}$ inch diameter throwing rope as long as one and one-half times the maximum width of the pool or 50 feet, whichever is less, attached to a U.S. Coast Guard approved ring buoy. A rescue tube or rescue can shall be accepted as a substitute for the ring buoy where it is accompanied by a lifeguard who has been trained to use it properly.

(b) Two units of lifesaving equipment must be provided for any pool that exceeds 3,000 square feet (186 sq m) of total surface area.

(c) When a swimming pool does not have at least one lifeguard on duty, a sign shall be posted with legible letters of at least four inches (10 cm) in height stating: "WARNING-NO LIFEGUARD ON DUTY." In addition there shall be signs legible from all bather entrances with a minimum letter size of one inch stating: "CHILDREN SHOULD NOT USE THE SWIMMING POOL WITHOUT ADULT SUPERVISION", and: "ADULTS SHOULD NOT SWIM ALONE". Wading pools that do not have a lifeguard inside the wading pool enclosure shall have a sign posted stating "WARNING NO LIFEGUARD ON DUTY". Such signs shall be mounted permanently.

(d) A sign prohibiting pets and glass containers in the pool area shall be provided.

(e) Pool closed signs shall be provided and shall be posted at bather entrances whenever an operation permit is suspended for water quality or safety violations.

(f) A telephone capable of directly dialing 911 or other emergency notification system shall be provided and accessible to all pool users. Effective April 1, 2005 the telephone shall be permanently affixed to a location inside the pool enclosure or outside the enclosure within 75 feet of a bather entrance. The telephone shall be visible from within the pool enclosure or a sign shall be posted indicating the location of the emergency telephone. A sign with legible letters shall be posted at the telephone providing dialing instructions, address of the pool location and the telephone number. Where the telephone does not directly access 911, the emergency notification system shall:

- (1) Provide 24 hour monitoring of all incoming calls by a telecommunicator who answers only emergency calls;
- (2) Be capable of routing calls to the local 911 telecommunicator via the 911 dedicated emergency trunk line; and
- (3) Electronically transfer Automatic Number Identification and Automatic Locator Identification for the emergency telephone at the pool to the Enhanced 911 system for all calls routed to 911.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;*

Amended Eff. February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.

15A NCAC 18A .2531 WADING POOLS

(a) Wading pools shall meet all design specifications for swimming pools and wading pools included in Rules .2512 through .2530 of this Section with the following exceptions:

- (1) Wading pools shall be physically separate from other public swimming pools except that a fill pipe and valve from a swimming pool recirculation system may be used to introduce water to a wading pool.
- (2) Every wading pool shall be equipped with a circulation system that is separate from, and independent of, the circulation system of the swimming pool. Such circulation system shall at least consist of a circulating pump, piping, a filter, a rate-of-flow meter, a disinfectant feeder, two inlets, and one automatic surface skimmer. Individual components of a wading pool system must meet the criteria of Rule .2518 of this Section.
- (3) The capacity of the circulation system shall be capable of filtering and disinfecting the entire volume of water in the wading pool 12 times in every 24 hours.
- (4) Wading pools shall be equipped with a surface overflow system capable of removing floating material.
- (5) Wading pools shall be no deeper than 24 inches (61 cm) at the deepest point.
- (6) Wading pools' floor slope shall not exceed one foot in 12 feet.
- (7) Wading pools shall be located in the vicinity of the shallow end of the swimming pool, and shall be separated from the swimming pool by a fence or structure similar to that described in Rule .2528 of this Section, that shall be equipped with self-closing and positive self-latching closure mechanisms, and shall be equipped with permanent locking devices. Wading pool entrance gates located inside another public swimming pool enclosure shall open away from the deeper pool. Wading pool fences constructed after April 1, 2000 shall be at least four feet high.
- (8) Wading pools shall be designed to provide at least 10 square feet per child.
- (9) Depth markers are not required at wading pools.
- (10) The free chlorine residual in wading pools shall be maintained at no less than two parts per million.
- (11) Wading pools are not required to provide the lifesaving equipment described in Rule .2530(a) of this Section.

(b) Children's activity pools shall be constructed and operated in accordance with the rules of this Section including the requirements for wading pools with the following exceptions:

- (1) The filter circulation system shall be separate from any feature pump circulation system.
- (2) The filter circulation system for stand-alone children's activity pools shall filter and return the entire water capacity in no more than one hour and shall operate 24 hours a day.
- (3) The disinfectant residual in children's activity pools shall be maintained at a level of at least two parts per million of free chlorine measured in the pool water and at least one part per million in all water features.
- (4) Valves shall be provided to control water flow to the features in accordance with the manufacturers' specifications.
- (5) Children's activity pools built prior to February 1, 2004 that do not comply with this Paragraph may operate as built if no water quality or safety violations occur.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; February 1, 2004; April 1, 1999; January 1, 1996.*

15A NCAC 18A .2532 SPAS AND HOT TUBS

Spas and hot tubs shall meet all design specifications for swimming pools and wading pools included in Rules .2512 through .2530 of this Section with the following exceptions:

- (1) The circulation system equipment shall provide a turnover rate for the entire water capacity at least once every 30 minutes.

- (2) The arrangement of water inlets and outlets shall produce a uniform circulation of water so as to maintain a uniform disinfectant residual throughout the spa.
- (3) A minimum of two inlets shall be provided with inlets added as necessary to maintain required flowrate.
- (4) Water outlets shall be designed so that each pumping system in the spa (filter systems or booster systems if so equipped) provides the following:
 - (a) Where drains are provided, drains shall be unblockable or shall consist of two or more drains connected by a "T" pipe. Connecting piping shall be of the same diameter as the main drain outlet. Filter system drains shall be capable of emptying the spa completely. In spas constructed after April 1, 2000 drains shall be installed at least three feet apart or located on two different planes of the pool structure.
 - (b) Filtration systems shall provide at least one surface skimmer per 100 square feet, or fraction thereof of surface area.
- (5) The water velocity in spa or hot tub discharge piping shall not exceed 10 feet per second (3.05 meters per second); except for copper pipe where water velocity shall not exceed eight feet per second (2.44 meters per second). Suction water velocity in any piping shall not exceed six feet per second (1.83 meters per second).
- (6) Spa recirculation systems shall be separate from companion swimming pools.
 - (a) Where a two-pump system is used, one pump shall provide the required turnover rate, filtration and disinfection for the spa water. The other pump shall provide water or air for hydrotherapy turbulence without interfering with the operation of the recirculation system. The timer switch shall activate only the hydrotherapy pump.
 - (b) Where a single two-speed pump is used, the pump shall be designed and installed to provide the required turnover rate for filtration and disinfection of the spa water at all times without exceeding the maximum filtration rates specified in Rule .2519 of this Section. The timer switch shall activate only the hydrotherapy portion of the pump.
 - (c) Where a single one-speed pump is used, a timer switch shall not be provided.
- (7) A timer switch shall be provided for the hydrotherapy turbulence system with a maximum of 15 minutes on the timer. The switch shall be placed such that a bather must leave the spa to reach the switch.
- (8) The maximum operational water depth shall be four feet (1.22 m) measured from the water line.
- (9) The maximum depth of any seat or sitting bench shall be two feet (61 centimeters) measured from the waterline.
- (10) A minimum height between the top of the spa/hot tub rim and the ceiling shall be seven and a half feet.
- (11) Depth markers are not required at spas.
- (12) Steps, step-seats, ladders or recessed treads shall be provided where spa and hot tub depths are greater than 24 inches (61 centimeters).
- (13) Contrasting color bands or lines shall be used to indicate the leading edge of step treads, seats, and benches.
- (14) A spa or hot tub shall be equipped with at least one handrail (or ladder equivalent) for each 50 feet (15.2 meters) of perimeter, or portion thereof, to designate points of entry and exit.
- (15) Where water temperature exceeds 90 degrees Fahrenheit (32 degrees Celsius), a caution sign shall be mounted adjacent to the entrance to the spa or hot tub. It shall contain the following warnings in letters at least ½ inch in height:

CAUTION:

 - Pregnant women; elderly persons, and persons suffering from heart disease, diabetes, or high or low blood pressure should not enter the spa/hot tub without prior medical consultation and permission from their doctor;
 - Do not use the spa/hot tub while under the influence of alcohol, tranquilizers, or other drugs that cause drowsiness or that raise or lower blood pressure;

- Do not use alone;
 - Unsupervised use by children is prohibited;
 - Enter and exit slowly;
 - Observe reasonable time limits (that is, 10-15 minutes), then leave the water and cool down before returning for another brief stay;
 - Long exposure may result in nausea, dizziness, or fainting;
 - Keep all breakable objects out of the area.
- (16) Spas shall meet the emergency telephone and signage requirements for swimming pools in Rule .2530(f).
 - (17) A sign shall be posted requiring a shower for each user prior to entering the spa or hot tub and prohibiting oils, body lotion, and minerals in the water.
 - (18) Spas are not required to provide the lifesaving equipment described in Rule .2530(a) of this Section.
 - (19) In spas less than four feet deep, the slope of the pool wall may exceed 11 degrees from plumb, but shall not exceed 15 degrees from plumb.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. May 1, 2010; January 1, 2006; July 1, 2004; February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.*

15A NCAC 18A .2533 EQUIPMENT ROOM

- (a) All pumps, chemical feeding apparatus and other mechanical and electrical equipment shall be enclosed in a weatherproof structure with a minimum ceiling height of seven feet. The equipment room shall be provided with a door with a permanent lock that must be kept locked when not in use by the pool operator. Filters located outside the equipment room shall be completely enclosed by a fence.
- (b) Lighting to allow the operator to read all gauges and control devices shall be provided.
- (c) Valves and control devices shall be accessible and visible to the pool operator. At least three feet of clear walkway shall be provided to allow access to equipment.
- (d) Drainage in and around the equipment room shall preclude the possibility of water entering or accumulating on any interior surface of the enclosure. Equipment room floors shall be sloped not less than ¼ inch per foot toward the drains.
- (e) Natural cross draft or continuous forced ventilation is required.
- (f) A permanent means of access shall be provided to all equipment rooms.
- (g) A hose bib with an approved backflow prevention device shall be provided within 50 feet of the equipment room.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. February 1, 2004; January 1, 1996.*

15A NCAC 18A .2534 CHEMICAL STORAGE ROOM

A separate chemical storage room that meets the following criteria shall be provided:

- (1) The chemical storage room shall be in a dry, weatherproof structure with a minimum ceiling height of seven feet.
- (2) For public swimming pools built after May 1, 1996, chemical storage space shall be provided based on a minimum of five square feet for the first 10,000 gallons of pool water plus one additional square foot for each additional 3,000 gallons or portion thereof up to a total area of 100 square feet. Public swimming pools constructed after April 1, 2004 shall provide a separate room for storage of pool chemicals.
- (3) Natural cross draft or continuous forced ventilation is required.
- (4) Provision shall be made for dry storage of all pool chemicals in waterproof containers or above the floor on shelves, pallets or dollies.
- (5) The chemical storage room shall be arranged so that chemicals which can react with other pool chemicals are stored separately and shall be constructed and arranged to permit easy cleanup of chemical spills.

- (6) Lighting shall be provided in chemical storage rooms.

*History Note: Authority G.S. 130A-282;
Eff. May 1, 1991;
Amended Eff. February 1, 2004; January 1, 1996.*

15A NCAC 18A .2535 WATER QUALITY STANDARDS

Whenever a public swimming pool is open for use, water quality shall be maintained in accordance with the following:

- (1) The chemical quality of the water shall be maintained in an alkaline condition at all times with the pH between 7.2 and 7.8.
- (2) The clarity of the water shall be maintained such that the main drain grate is visible from the pool deck at all times.
- (3) Disinfection shall be provided in accordance with manufacturers' instructions for all pools by a chemical or other process that meets the criteria listed as follows:
 - (a) registered with the U.S. Environmental Protection Agency for pool water or potable water;
 - (b) provides a residual effect in the pool water that can be measured by portable field test equipment;
 - (c) will not impart any immediate or cumulative adverse physiological effects to pool bathers when used as directed;
 - (d) will not produce any safety hazard when stored or used as directed;
 - (e) will not damage pool components or equipment; and
 - (f) will demonstrate reduction of total coliform and fecal coliform to a level at least equivalent to free chlorine at a level of one part per million in the same body of water.
- (4) When chlorine is used as the disinfectant, a free chlorine residual of at least one part per million (ppm) shall be maintained throughout the pool whenever it is open or in use. Pools that use chlorine as the disinfectant must be stabilized with cyanuric acid except at indoor pools or where it can be shown that cyanuric acid is not necessary to maintain a stable free chlorine residual. The cyanuric acid level shall not exceed 100 parts per million.
- (5) When bromine or compounds of bromine are used as the disinfectant, a free bromine residual of at least two parts per million, shall be maintained throughout the pool whenever it is open or in use.
- (6) When chlorine or bromine are used as the disinfectant, automatic chemical feeders shall be used. Automatic chlorine or bromine feeders shall be manufactured and installed in accordance with NSF/ANSI Standard number 50. Automatic chlorine and bromine feeder pumps shall be automatically prevented from operating when the circulation pump is not in operation.
- (7) When biguanide is used as the disinfectant, a residual of 30 to 50 parts per million shall be maintained throughout the pool whenever it is open or in use.
- (8) When silver/copper ion systems are used, the copper concentration in the pool water shall not exceed one part per million and a chlorine residual must be maintained in accordance with Item (4) of this Rule.
- (9) The use of chlorine in its elemental (gaseous) form for disinfection of public swimming pools is prohibited.
- (10) Test kits or equipment capable of measuring disinfectant level, pH, and total alkalinity must be maintained at all public swimming pools. Pools using cyanuric acid or chlorinated isocyanurates must have a test kit capable of measuring cyanuric acid levels.
- (11) The pool operator shall inspect the pool at least daily and maintain written records of the operating conditions of each pool. Records shall be maintained at the pool site for a period of not less than six months. Records shall include the following:
 - (a) daily recording of the disinfectant residual in the pool;
 - (b) daily recording of pool water pH;

- (c) daily recording of water temperature in heated pools; recording of activities pertaining to pool water maintenance including chemical additions and filter backwash cycles;
 - (d) weekly recording of total alkalinity and cyanuric acid levels; and
 - (e) daily recording of pool drain cover/grate inspection.
- (12) Water temperature in heated swimming pools shall not exceed 90 degrees Fahrenheit (32 degrees Celsius) and in heated spas shall not exceed 104 degrees Fahrenheit (40 degrees Celsius).
- (13) The pool operator shall take the following steps to manage fecal and vomitus accidents:
- (a) Direct everyone to leave all pools into which water containing the feces or vomit is circulated and do not allow anyone to enter the pool(s) until decontamination is completed;
 - (b) Remove as much of the feces or vomit as possible using a net or scoop and dispose of it in a sewage treatment and disposal system;
 - (c) Raise the free available chlorine concentration to two ppm at a pH of 7.2 to 7.5 and test to assure the chlorine concentration is mixed throughout the pool; and
 - (d) For accidents involving formed stools or vomit, maintain the free available chlorine concentration at two ppm for at least 25 minutes or at three ppm for at least 19 minutes before reopening the pool. For accidents involving liquid stools increase the free chlorine residual and closure time to reach a CT inactivation value of 15,300 then backwash the pool filter before reopening the pool. CT refers to concentration (C) of free available chlorine in parts per million multiplied by time (T) in minutes.

History Note: Authority G.S. 130A-282;
 Eff. May 1, 1991;
 Amended Eff. May 1, 2010; February 1, 2004; April 1, 1999; January 1, 1996; July 1, 1992.

15A NCAC 18A .2536 REVOCATION OF PERMITS

The Department may suspend or revoke permits in accordance with G.S. 130A-23.

History Note: Authority G.S. 130A-282;
 Eff. May 1, 1991.

15A NCAC 18A .2537 MAINTENANCE AND OPERATION

- (a) All public swimming pools constructed or remodeled on or after May 1, 1991 shall be maintained and operated in accordance with the Rules of this Section.
- (b) On or after May 1, 1993 all public swimming pools including those constructed prior to May 1, 1991 shall be maintained and operated in accordance with the following:
 - (1) All safety provisions of Rule .2530 of this Section shall be met.
 - (2) Decks shall be structurally sound and shall be maintained free of trip hazards or offsets greater than one-half inch resulting from deterioration or changes from the original deck profile.
 - (3) There shall be no loose coping.
 - (4) Artificial lighting shall be provided for all pools used when natural lighting is not sufficient to make all parts of the pool and pool area clearly visible.
 - (5) Swimming pools shall be protected by a fence, wall, building, or other enclosure, or any combination thereof, that completely encloses the swimming pool area. All gates and doors shall be equipped with self-closing and positive self-latching closure mechanisms. Existing waterslide flumes and other appurtenances are not required to be located inside the fence.
 - (6) Depth and safety markings shall be provided as required in Rule .2523 of this Section
 - (7) Drain covers shall be in good condition and securely attached.
 - (8) Damaged face plates or fittings shall be repaired or replaced.

- (9) Underwater light niches shall be maintained or covered so as not to present a potential hazard to bathers.
 - (10) Diving equipment and pool slides including stairs and railing shall be maintained in good working order.
 - (11) A timer switch that allows no more than 15 minutes of operation without manual resetting shall be used to control air blowers and hydrotherapy pumps on heated spas.
 - (12) All breaks in grade of the pool bottom including the leading edges of stair treads and seats and the tops of breakpoints where the slope of the bottom changes at a depth of five feet (15m) or less shall be marked with a contrasting color band by May 1, 2000. Contrasting color bands are not required where a registered engineer, registered architect or licensed swimming pool contractor certifies in writing that structural weakness or materials of construction prevent the installation of permanent markings.
 - (13) All heated spas shall post a caution sign as specified in Rule .2532 of this Section.
 - (14) Pool maintenance shall include removal of debris from the water surface and bottom of the pool.
 - (15) All pool chemicals shall be stored in a clean, dry, well ventilated area and shall be organized so as to prevent chemicals from reacting.
 - (16) No submersible pumps or mechanical pool cleaning equipment shall be placed or used in the pool while bathers are in the pool.
- (c) The owner of a public swimming pool shall provide for the operation of the pool by a person or persons who shall be responsible to the owner for operation, maintenance, pool safety and record keeping. The pool owner shall maintain documentation that the person responsible for operating the pool has been trained on pool equipment operation, disease and injury prevention, pool water chemistry and regulatory requirements for public swimming pools. A pool and spa operator certificate issued by the National Swimming Pool Foundation or other organization that provides training on those subjects shall be accepted as meeting this requirement.

*History Note: Authority G.S. 130A-282;
 Eff. July 1, 1992;
 Temporary Amendment Eff. May 11, 1993 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner.
 The Codifier of Rules determined that the agency's findings of need did not meet the criteria listed in GS 150B-21.1(a);
 Temporary Amendment Eff. May 1, 1993 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
 Amended Eff. February 1, 2004; April 1, 1999; January 1, 1996; October 1, 1993; May 1, 1993.*

15A NCAC 18A .2538 FILL AND DRAW POOLS

Fill and draw pools are prohibited. Provisions shall be made for filtration and recirculation of water in all public swimming pools, wading pools, and spas.

*History Note: Authority G.S. 130A-282;
 Eff. May 1, 1993.*

15A NCAC 18A .2539 SUCTION HAZARD REDUCTION

- (a) At all public wading pools that use a single main drain for circulation of water, signs shall be posted stating, "WARNING: To prevent serious injury do not allow children in wading pool if drain cover is broken or missing." Signs shall be in letters at least one-half inch in height and shall be posted where they are visible to people entering the wading pool.
- (b) All submerged suction outlets other than vacuum ports shall be protected by anti-entrapment cover/grates in compliance with ASME/ANSI A112.19.8-2007 Suction Fittings for Use in Swimming Pools, Wading Pools, Spas, and Hot Tubs. All submerged suction fittings shall be installed in accordance with the manufacturer's instructions. Pumping systems that have a single main drain or single submerged suction outlet other than an unblockable drain, or which have multiple outlets separated by less than three

feet measured at the centers of the cover grates shall have one or more secondary methods of preventing bather entrapment. Secondary methods of preventing bather entrapment include:

- (1) Safety vacuum release system which ceases operation of the pump, reverses the circulation flow, or otherwise provides a vacuum release at the suction outlet when a blockage has been detected, that has been tested by a third party and found to conform to ASME/ANSI standard A112.19.17 which is incorporated by reference including any subsequent amendments or editions. Copies may be obtained from ASME, P.O. Box 2300, Fairfield, NJ 07007-2300 at a cost of forty-five dollars (\$45.00);
- (2) A suction-limiting vent system with a tamper-resistant atmospheric opening;
- (3) A gravity drainage system that utilizes a collector tank;
- (4) An automatic pump shut-off system;
- (5) Drain disablement; or
- (6) Any other system determined by the U.S. Consumer Product Safety Commission to be equally effective as, or better than the systems in Subparagraphs (1) through (5) of this Paragraph.

(c) Prior to issuance of operation permits, owners of all public swimming pools shall provide documentation to the Department to verify suction outlet safety compliance. This documentation shall include:

- (1) Documentation of the maximum possible flow rate for each pump suction system. This shall be the maximum pump flow shown on the manufacturer's pump performance curve except where flow reductions are justified with total dynamic head measurements or calculations; and
- (2) Documentation that cover/grates meeting ASME/ANSI A112.19.8-2007 are installed in compliance with the standard and manufacturer's instructions. This includes documentation that each cover/grate on a single or double-drain pump suction system is rated to meet or exceed the maximum pump system flow and that cover/grates on a pump suction system with three or more suction outlets are together rated to always meet or exceed the maximum pump system flow with one drain completely blocked; and
- (3) Documentation that drain sumps meet the dimensional requirements specified in the cover/grate manufacturer's installation instructions.

(d) Operators of all public swimming pools shall inspect pools daily to ensure the drain covers are in good condition and securely attached. Missing, broken, or cracked suction fittings shall be replaced and loose suction fittings shall be reattached before using the pool.

*History Note: Authority G.S. 130A-282;
Temporary Adoption Eff. June 1, 1994 for a period of 180 days or until the permanent rule becomes effective, whichever is sooner;
Eff. October 1, 1994;
Amended Eff. May 1, 2010; January 1, 2006; February 1, 2004; April 1, 1999.*

15A NCAC 18A .2540 REPORTING OF INJURY OR ILLNESS

The pool operator shall report any death, serious injury or complaint of illness attributed by a bather to use of a public swimming pool to the local health department within two working days of the incident or complaint. The report to the health department shall include the following:

- (1) Name and telephone number or address of the person injured or making a complaint.
- (2) Date of the incident or onset of illness.
- (3) Description of the type of injury or complaint.
- (4) Name and phone number of the person rendering assistance or first aid.
- (5) The name of any known hospital, rescue squad or physician providing medical assistance.
- (6) Names and phone numbers of available witnesses to the incident.

*History Note: Authority G.S. 130A-282;
Eff. January 1, 1996.*

15A NCAC 18A .2541 FLOW THROUGH POOLS

Tanks or structures built prior to May 1, 1995 which hold a flowing natural water source for public swimming, diving, wading or recreational use without physical or chemical treatment shall not be required to comply with the rules of this Section.

*History Note: Authority G.S. 130A-282;
Eff. January 1, 1996.*

15A NCAC 18A .2542 IN POOL EXERCISE EQUIPMENT

(a) Exercise equipment such as steps, weights, or floats used in a public swimming pool shall be designed and constructed so as not to pose a threat to water quality or bather safety and shall be removed from the pool after each use.

(b) Where in-pool exercise equipment such as underwater treadmills remain in a swimming pool when not in use, the following conditions shall be met:

- (1) The swimming pool shall be restricted to use only by adults or a lifeguard shall be on duty at all times when children are allowed in the pool.
- (2) Exercise equipment shall meet Underwriters' Laboratories Standard Number 1647 for exercise equipment as verified in writing by an independent third party testing laboratory.
- (3) The position of underwater equipment shall be marked with colored floats attached by a 3/4 inch diameter rope or other movable barrier that surrounds the equipment with a visible perimeter designed so as not to entangle or otherwise threaten bather safety.
- (4) Equipment shall be verified by the manufacturer to be designed for use in a public swimming pool and to be free of grease or oil that might negatively impact pool water quality.
- (5) Any cords or hoses attached to underwater exercise equipment shall not pose a threat of bather entanglement. Cords or hoses which cross a pool deck shall be covered or shielded to prevent tripping. Covers that protrude more than one-half inch from the deck surface shall be sloped at an angle of no more than 30° from the horizontal deck surface.

*History Note: Authority G.S. 130A-282;
Eff. January 1, 1996;
Amended Eff. February 1, 2004.*

15A NCAC 18A .2543 WATER RECREATION ATTRACTIONS

(a) Water recreation attractions including water slides, wave pools, rapid rides, lazy rivers and other similar features can deviate from the requirements of this Section with respect to pool profile, depth, freeboard, flow dynamics and surface skimming systems. The designing engineer or equipment manufacturer shall provide the Department with information to justify such deviation as necessary for the proper function of the attraction. Water recreation attractions shall meet all other requirements of this Section.

(b) Water slide landing pools with a capacity of less than 60,000 gallons shall have a circulation and filtration system capable of turning over the entire pool capacity every two hours. Where automatic chemical controllers are used the turnover time shall be no more than three hours. Landing pool dimensions shall be consistent with the slide manufacturer's recommendation.

(c) When waterfalls are incorporated in water recreation attractions, they shall be constructed with no handholds or footholds to a height of four feet to discourage climbing.

(d) Interactive play attractions shall be constructed and operated in accordance with the rules of this section and shall comply with the following:

- (1) The recirculation system shall contain a water capacity equal to at least three minutes of maximum flow of all feature pumps and filter circulation pumps combined and shall not be less than 1,000 gallons. Where the water capacity exceeds 10,000 gallons, the minimum capacity shall be based on the lesser of three minutes of maximum feature flow or 7.5 gallons per square foot of splash zone watershed drained to the surge container.
- (2) Access shall be provided to the surge water container.
- (3) A filter circulation system shall be provided and shall be separate from the feature pump system except that both systems can draw water from a common drain pipe if the drain

and pipe are sized to handle the flow of all pumps without exceeding the flow velocities specified in Rule .2518 of this Section.

- (4) The filter circulation system shall draw water from the surge container through a variable height surface skimmer and a bottom drain located no more than 6 inches from the bottom of the container. Custom skimming systems that do not comply with ANSI/NSF Standard 50 shall be approved where the operational requirements make it necessary to deviate from that standard.
 - (5) The filter circulation system shall filter and return the entire water capacity in no more than 30 minutes and shall operate 24 hours a day.
 - (6) Automatic chemical controllers shall be provided to monitor and adjust the disinfectant residual and pH of the water contained in the system.
 - (7) The disinfectant residual in interactive play attractions shall be maintained at a level of at least two parts per million of free chlorine. Chlorine feeders shall be capable of producing 12 parts per million of free chlorine in the filter circulation piping.
 - (8) Valves shall be provided to control water flow to the features in accordance with the manufacturers' specifications.
 - (9) Splash zones shall be sloped to drains sized and located to remove all feature water to the surge tank without water accumulating on the surface.
 - (10) Deck or walkway space is not required outside the splash zone.
 - (11) Dressing and sanitary facilities shall be provided.
 - (12) Interactive play features shall not be required to have a fence except the wading pool fence requirements shall apply to interactive play features located inside a swimming pool enclosure.
 - (13) The safety provisions of Rule .2530 of this Section shall not apply except a sign shall be posted prohibiting pets and glass containers.
 - (14) Interactive play attractions built prior to April 1, 2004, that do not comply with these design and construction requirements shall be permitted to operate as built if no water quality or safety violations occur.
- (e) Training pools shall meet the requirements for swimming pools with the following exceptions:
- (1) Training pools shall be equipped with a filter circulation system that filters and returns the entire pool capacity in no more than two hours.
 - (2) The free chlorine residual in training pools shall be maintained at no less than two parts per million.

*History Note: Authority G.S. 130A-282;
Eff. April 1, 1999;
Amended Eff. March 1, 2004.*

Inspection of Swimming Pool

Demerit Score: _____
Date of Insp/Chg _____
Status Code: _____

Health Department _____
Current Facility ID _____
Old Facility ID _____

Water Supply: 1 Community 3 Non-Transient Non-Community
 2 Transient Non-Community 4 Non-Public Water Supply

Water sample taken today? YES NO
 1 Inspection Name Change
 2 Re-Inspection Verification of Closure
 V Visit Status Change

Wastewater System: 1 Community 2 On-Site Systems

Name of Establishment: _____ Pool Operator: _____

Location Address: _____ Mailing Addr.: _____

City: _____ State: NC Zip: _____ City: _____ State: _____ Zip: _____

Points Deducted (Circle) * Indicates critical item (6-point demerit)

- WATER QUALITY: (.2535)
*1. Water clear enough to clearly see bottom of pool and pool drain 6
*2. Disinfectant residual provided by: free chlorine = (at least 1.0 ppm or 2.0 ppm where required); bromine = (at least 2.0 ppm); or biguanide = (30 to 50 ppm)..... 6
*3. Pool water pH = (7.2 to 7.8)..... 6
*4. Water temperature of heated pool °F; does not exceed 90°F (swimming pool) or 104°F (spa) 6
5. Daily written records of water quality and test kit kept on site 4

- POOL MAINTENANCE:
*6. Main drain covers secured and in good repair, no suction hazard. Single drains protected by April 1, 2006 (.2537, .2539)..... 6
7. Pool walls and floor kept clean, free of debris and in good repair (.2537)..... 4
8. Surface skimmers (with weirs, baskets and covers) or gutters clean, in good repair, and functioning properly, no floating debris (.2518, .2537) 4
9. Depth markings and no diving markers or signs visible and properly located (.2523, .2537)..... 4
10. Safety ropes with floats and contrasting color bands provided at shallow area breakpoints (.2515, .2523)..... 2
11. Diving equipment, ladders, steps and handrails properly placed, in good repair (.2517, .2521)..... 2
12. Inlets and other fittings in place and in good repair (.2537)..... 4
13. Contrasting band on steps and benches (.2521, .2516, .2532)..... 4
14. Spa timer working properly (.2537)..... 4

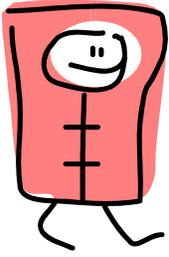
- PREMISES:
*15. Body hook and ring buoy with throw rope or lifeguard with rescue tube provided and properly located (.2530, .2537) 6
16. Fence or barrier with self-closing, self-latching gates properly constructed and maintained (.2528, .2537) 4
17. Decks unobstructed, properly drained, free of trip hazards (.2522, .2537)..... 4
18. Lifeguards present or warning signs posted (.2530) 4
19. Signs prohibit glass containers or pets in pool area(.2530) 4
20. Caution signs posted at hot water spas (.2532) 4
21. Pool and deck lighting provided at pools that operate at night (.2524, .2537) ... 4
*22. Emergency telephone provided (.2530) 6

- EQUIPMENT ROOM:
23. Chlorine or bromine automatic feeders that meet NSF Standard 50 (.2535) 4
24. Approved pump, filter, and flow meter operating properly (2518, .2519) 4
25. Equipment and chemicals kept in a dry, well-ventilated enclosure (.2533, .2534, .2537) 2
26. Valves and pipes identified by color codes or labels (.2518) 2
27. Filter backwash discharged through an air gap (.2513) 2

- DRESSING AND SANITARY FACILITIES:
28. Bathhouse or rest rooms accessible; shower sign posted (.2526) 2
29. Required fixtures provided, clean, and in good repair (.2526) 2
30. Approved water source, no cross connections (.2512) 2
31. Sewage disposed of in a properly operating sewage system (.2513) 2
32. Floors smooth, slip-resistant, kept clean(.2526) 2
33. Hose bibbs and floor drains provided (.2526) 2

Inspection Conducted by: _____ EHS I.D.# _____ Comment Sheet Attached Yes No

Report received by: _____
Purpose: General Statute 130A-282 requires the Commission for Health Services to adopt rules governing Public Swimming Pools. 15A NCAC 18A .2511 specifies the contents of an inspection form to record the results of inspections. This form is developed to be used in making inspections of public swimming pools, spas, wading pools and water recreation attractions. Preparation: Local environmental health specialists shall complete the form every time they conduct an inspection. Prepare an original and two copies for: 1. Original to be left with the responsible person. 2. Copy for the local health department. 3. Copy for the Environmental Health Services Section, Division of Environmental Health. Disposition: This form may be destroyed in accordance with Standard 7, Inspection Records, of the Records Disposition Schedule published by the N.C. Division of Archives and History. Additional forms may be ordered from: Division of Environmental Health, 1630 Mail Service Center, Raleigh, NC 27699-1630.



Pool Safety

"Children Aren't Waterproof"



Drowning Prevention and Safety Tips

- ↪ Never leave a child out of eye contact supervision in or near a pool, even for a second.
- ↪ Young children should never be considered water safe despite their swimming skills, previous instruction or experience.
- ↪ Teach children good pool safety habits such as no running, pushing playmates, no jumping on others, no diving or jumping in shallow water or “dunking”.
- ↪ Do not rely solely on plastic inner tubes, inflatable arm bands or other toys to prevent accidents.
- ↪ Keep toys, particularly tricycles or wheel toys, away from the pool. A child playing with these could accidentally fall into the water.
- ↪ Do not allow anyone of any age to swim without a “spotter” nearby.
- ↪ During social gatherings, be certain that someone has the major responsibility of watching the children and swimmers at all times.
- ↪ Do not permit playful screaming for help (false alarms) which might mask a real emergency.
- ↪ Teach children the most effective way to get out of the pool quickly.
- ↪ Do not allow a child to swim immediately after eating a heavy meal.
- ↪ Do not allow swimming during thunder or other storms.
- ↪ Do not allow glass in the pool area.
- ↪ Do not allow the use of drugs or alcohol by persons using the pool or in the pool area.
- ↪ A fence, wall, or natural/artificial barrier should completely enclose all pools.
- ↪ All gates or doors with access to the pool should have a spring lock, self-closing and self-latching mechanism that protects against unauthorized entry and use.
- ↪ The inside latch on the gate should be above the reach of toddlers and young children.
- ↪ A float line stretched across a pool indicating where the deep end begins can avoid a dangerous excursion by young children into water over their heads.
- ↪ A clear view of the pool from the house should be assured by removing vegetation and other obstacles.
- ↪ Reaching and throwing aids should be kept on both sides of the pool. These should remain stationary and not be used for play activities.
- ↪ Children who cannot swim should wear a life jacket tested by the Underwriters Laboratories and approved by the US Coast Guard.