Facts and Safety Tips for Christmas trees

1. Christmas Tree Fires
   a. Between 2002 and 2005 there were an average of 24 deaths per year related to Christmas tree fires
   b. Break down of causes
      i. 48% - Electrical problems
      ii. 27% - Too close to a heat source
      iii. 15% - Candles
   c. While the number of Christmas tree related fires is relatively low the risk of death is unusually high.

2. Choosing a live Christmas Tree
   a. “Fresh” cut – Always pick a tree that is freshly cut
   b. Test the tree by tapping it against the ground
      i. If only a few needles fall off it is fairly fresh
      ii. If a large amount of needles fall off it is too dry
   c. The needles are hard to pull from the branches and do not break when bent between your fingers
   d. The trunk of the tree is sticky with resin

3. Placing your Christmas Tree
   a. Place the tree away from fireplaces and radiators
   b. Cut the trunk at least one-half inch above the original cut – keep water at least 1 inch above the highest cut end
   c. Clean debris regularly

4. Decorating your Christmas Tree
   a. Check all lights for defects
      i. Compromised insulation
      ii. Broken light bulbs
      iii. Exposed wiring
   b. Never use more than 3 standard sets of lights per extension cord
   c. Only use non-combustible or flame resistant decorations

References:
NFPA Home Christmas tree and Holiday light fires, Marty Aherns Nov 2007
Fire Safety Tips – FamilyEducation.com
North Carolina Fire Prevention Code 2009 Ed
Section 806
5. Christmas Trees in Commercial Buildings
   a. Natural cut trees are prohibited in the following occupancies: A, E, I-1, I-2, I-3, I-4, M, R-1, R-2 and R-4
   b. Natural cut trees are allowed in the following occupancies when protected by a sprinkler system installed per NFPA 13 or NFPA 13R: A, E, M, R-1 and R-2
   c. Supportive devices shall comply with the following
      i. The device shall hold the tree securely and shall be of adequate size to keep from tipping
      ii. The device shall be capable of holding a 2 day water supply
      iii. The water level when full shall be a minimum of 2 inches above the cut and the water level shall be checked at least once daily
   d. The tree shall be removed from the building whenever the needles fall off readily when a branch is shaken or if the needles are brittle and break when bent between the fingers
   e. Artificial trees shall meet the requirements of NFPA 701
   f. Christmas trees shall not obstruct any portion of the required means of egress
   g. Lighting
      i. The use of unlisted electrical wiring is prohibited
      ii. The use of any electrical wiring on metal tress is prohibited

The following links show how quickly a fire can spread through a dry Christmas tree:
http://www.fire.gov/flashover/FR4010.PDF - Test report
http://www.fire.gov/flashover/Flashover.mpg - Video

http://www.residentialfiresprinklers.com/blog/residential-fire-sprinkler-demonstration-on-christmas-tree-fire/