Playground Equipment

Each year, roughly **200,000 kids** are treated for injuries associated with playgrounds. Although "kids will be kids" and inherently get hurt on playgrounds, there are dozens of precautions you can take to both protect students from unnecessary injuries as well as the district from unnecessary claims or lawsuits. Since **1981**, the U.S. Consumer Product Safety Commission has published the "Handbook for Public Playground Safety" which outlines basic equipment and layout recommendations that are designed to provide a play environment least susceptible to cause injuries. These guidelines are based on voluntary **ASTM F1487** standards that govern technical playground design for manufacturers, architects and designers.

General Recommendations

- Provide adequate shock absorbing materials – Both unitary (poured in place and other solid stationary materials) and loose fill materials can provide adequate shock absorbency. Recommended loose fill materials include wood chips, double shredded bark mulch, engineered wood fibers, fine sand, coarse sand, fine gravel, medium gravel and shredded tires. Depending on the height of play equipment, surfaces should have a consistent 9"-12" of shock absorbing material.

- Establish fall zones – Each piece of stationary equipment should have a radius of six (6) feet around it in all directions that is free of ground hazards and is covered with sufficient shock absorbing materials. When fall zones must overlap due to space constraints, there should be a minimum of nine (9) feet between structures over 30" tall. Swing sets are the exception to the six foot recommendation in that their fall zone should extend two times the height of the swing fulcrum in front and behind the swing's center.

- Maintain safe hardware – Equipment should be checked for extensive wear and tear, protruding bolts, and pinch points. Chains should not have open "S" hooks and should be replaced when there is 50% wear of the chain's gauge. Nuts, bolts and support bars should be as flush to the play surface as possible.

- Eliminate entanglement and entrapment hazards – Any protruding item which may be able to catch children's clothing and strings can be an entanglement hazard. These openings or snags should be filled in or made flush with their surrounding surface. As well, any opening which is greater than 3½" but less than 9" could entrap a child's head, arm or leg. These spaces should be eliminated as well.

- Conduct monthly inspections – One of the most effective safe guards any district can do is to document monthly inspections of the equipment. This will not only assist the district in quickly identifying any hazards which arise from normal wear and tear, but also document when hazards are identified and mitigated. A sample monthly checklist is available through the CPSC or by contacting the PACE Loss Control Department at (800) 285-5461.

This DIAL-UP provides a very brief overview of public playground safety. The U.S. CPSC's Handbook for Public Playground Safety is available for downloading and printing at http://www.cpsc.gov/CPSCPUB/PUBS/325.pdf