Design Considerations

Flammability - Like many construction materials, EPS is combustible and should not be exposed to flame or other ignition sources. Current model building code requirements should be met for adequate protection.

Solvent Exposure - EPS is subject to attack by petroleum-based solvents. Care should be taken to prevent contact between EPS and these solvents or their vapors. Use only adhesives approved for EPS applications.

Ultraviolet Exposure - Prolonged exposure of EPS to sunlight will cause slight discoloration and surface dusting, however, insulating properties will not be significantly affected. If stored outside, EPS insulation should be protected with a light-colored, opaque tarp.

Vapor Retarders in Walls and Foundations - EPS provides high moisture resistance and low water vapor transmission but it is not a vapor retarder. Recommended design practices for walls and foundations should be followed in selecting vapor and moisture barriers for severe exposures.

Vapor Retarders in Roofs - Study each roofing application to determine the need for a vapor retarder to control internal condensation. Based on NRCA/MRCA sponsored studies, vapor retarder placement is less critical with EPS than with other rigid insulation products.

Exposure/Application Temperatures - EPS should not be exposed to temperatures in excess of 170°F for prolonged periods. In hot asphalt roofing applications, asphalt temperatures should not exceed 250°F at time of contact with EPS insulation.

Roof Installation Practices - Following each day of application, cover all exposed insulation and temporarily seal from moisture. Replace or thoroughly dry any wet insulation prior to applying covering materials.

