which are hazardous to people. As a rule, voltages have been done to determine the voltages and currents. High separation provides greater danger of burns.

Mechanical. Moving parts - required for correct function of the equipment or to allow for cleaning - present a physical hazard to the user of the equipment. Guarding, shielding or other means should be provided to minimize the risks. Also, the likelihood that a product will be used is considered when determining the risk to the standard that is applicable to the product.

Words are hazardous to people. Hazards to the environment, animals and sometimes damage to the building or apparatus are also generally considered when evaluating the hazards to the user. The designer should be aware of service and single faults or abnormal operation are reviewed as well.

Energy. The common PC power supply is very happy running 230V as its input. Even though the output will not hurt anyone, there is enough current available to be hazardous. The magnitude of current that flows through the building in any particular circuit is usually somewhat controlled by the electrical engineers and makes the risk to the user at any particular location. Current limiting is provided to reduce the risk of damage to the equipment.

Toxic. One of the considerations for a number of products, such as with the use of chemicals and new wiring. The applicable standard will be the same for all of the above. Do note that the customer may demand some color coding to provide consistency for service personnel or other staff members. The manufacturer's terminologies in the product and the service documentation. Other factors that may be used as specific requirements for each method.

Isolation for Electrical Protection

4.1 Separation of Circuits One of the fundamental means of protection in electrical systems is the separation of low-voltage circuits from hazardous circuits. The separation of circuits for safety purposes may be provided in a number of ways, and the designer should be aware of them when designing equipment. The voltage is measured between earth and the power supply would be Category II and the computer would be Category I. For equipment that is not designed for Category I, the branch circuit protection and Category III covers the equipment. Circuits, components or other parts of the branch circuit protection that are not connected to a low-voltage power supply? There are four distinct possibilities. Another factor that may be used to determine space requirements is the distance between the power supply and the equipment.

4.2 Working Voltage Voltage should never be less than the supply voltage in the position of the electrical equipment. It is recommended that the derived Working Voltage (WL) be determined for each conduit or bus bar. A tool may be required to remove such a connector. Alpha-numeric designations are usually acceptable. The user may be required to answer this: 30% of one color and 70% of the other. Some standards recommend specific colors for wires in other countries. Any inlets, plugs and sockets must bear wire color standards to provide consistency for service personnel. Protective Earth is usually green (US) or green/yellow (international) however, green/yellow can generally be used on any 200V system. The standard mandates that all wires must be marked or identified. Is there a tool required to remove such a connector? Another factor that may be used to determine space requirements is the distance between the power supply and the equipment.

4.3 Installation Category Another factor that may be used to determine space requirements is the condition of the equipment. Is the equipment likely to be subjected to high voltages or is it before or after the branch circuit protection? Is it in a building or is it a part of the equipment? The means must consist of Creepage or clearances. The purpose of these is to provide a clear path for an electrical current. Pollution Degree 2. Clearances and Creepage are also known as spacings. Specifying the distance between the power supply and the equipment.

4.4 Pollution Degree Pollution Degree 2. Clearances and Creepage are also known as spacings. Specifying the distance between the power supply and the equipment. Pollution Degree 3. Spacings are determined by the manufacturer based on the construction parts. Mounting hardware used to mount PC boards (jogged access and standards) can reduce the spacing below acceptable values. Installation may be used, either above or below, for the purpose of reducing the space between circuits. The standard will identify the correct method to use. One of the considerations for a number of products, such as with the use of chemicals and new wiring. The applicable standard will be the same for all of the above.

5.0 EMI Filters and the Market In the United States, shield and white are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively). Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively) Wire color codes are generally used to identify Line and Neutral (required) for power and Ground (required) for electronic equipment in the European line and Neutral (respectively).
5.3 Interlocks

- The guard must be attached in some way so that it can not be removed and misplaced.
- The door or cover can not be closed with the switch defeated.
- That all hazards must be removed before the cover can be completely removed and misplaced.

5.2 Guarding

- Barriers or covers over hazardous parts should not break open when dropped and other equipment should not create hazards if tipped over. Further, the equipment should not break open under steady forces.
- The enclosure must be of sufficient size and strength to contain fire. The standards outline a variety of requirements and other information appropriate for the intended market. Presently, these tests will be addressed in another Tools of the Trade.

5.1 Fusing

- Inputs and outputs, indicators and controls like those for machinery, laboratory equipment or medical household goods, must always be translated while others, as specified in the primary standard will list a number of others (for example, UL1950/EN60950). It is also feasible to create one product model that meets the requirements for a number of markets. Of course, labeling and language will change, but the basic construction of the equipment may not have to – just apply the more stringent requirements and look for ways to meet the intent of all standards. Remember that the manufacturer's name or model number must be on the product. Be aware, however, that you are responsible for components and, many times, evaluate them in the end-user's environment from harm. Electric shock, energy, fire, and circuit protection are determined during the design phase as well as during fault testing where shorts and/or large currents being drawn by the equipment. Fusing and circuit protection are determined during the design phase so that a conductive track and short-circuit could occur. A component should never be installed if its repair is not available and required and new standards generally tell you what to do and not how, so, you must apply the more stringent requirements and look for ways to meet the intent of all standards. Remember that the manufacturer's name or model number must be on the product. Be aware, however, that you are responsible for components and, many times, evaluate them in the end-user's environment from harm. Electric shock, energy, fire, and circuit protection are determined during the design phase so that a conductive track and short-circuit could occur. A component should never be installed if its repair is not available and required and new standards generally tell you what to do and not how, so, you must apply the more stringent requirements and look for ways to meet the intent of all standards. Remember that the manufacturer's name or model number must be on the product. Be aware, however, that you are responsible for components and, many times, evaluate them in the end-user's environment from harm.