

A New Approach to Machine Safety

by Douglas R. Morita

This is the first of a series dealing with EU Directives and in particular the directives related to machine safety. It will present a broad overview of the directives and will attempt to show how these practices may impact US manufacturers -- even those who never plan to export to the EU. Later articles will look at specific requirements in more detail and compare the EU requirements with US requirements.

A **New Approach Policy** was established to allow the free movement of goods within the European Union (EU). This is a strategy for using technical rules and standards as a means for removing trade barriers by adopting common, minimal essential requirements that are acceptable to all members of the EU.

Do not let my use of the word minimal fool you. These include some of the most comprehensive safety requirements in the world.

The technical rules are known as directives. Over the course of this series, we will concentrate on the Machinery Directive but touch upon the Low Voltage Directive, the Product Liability Directive and the Electromagnetic Computability Directive.

The Machinery Directive contains safety requirements for machines. A machine is broadly defined as an assembly with at least one part that moves from an external (not manual) power source. It also includes an assembly of machines arranged and controlled so they function as an integral whole. Complying with this directive requires machines to be inherently safe by design. Machines that comply with this directive are identified by the CE Mark affixed to the machine. As of 1 Jan 95, only machines with the CE Mark can be exported to the EU.

The Workplace Safety Directive is akin to OSHA regulations. However, rather than putting the duty of making a machine safe on the employer, it requires the employer to purchase and put into service only CE marked (safe) machines.

This approach to safety rightly places the burden for making a safe machine on the manufacturer.

This is significantly different from the situation in the US where the obligations for making an equivalently safe machine are often divided between the employer and the manufacturer.

These differences will raise some interesting questions related to the machines sold in the US.

To see the ramifications of the EU directives, let's first assume that you manufacture and sell machinery in the EU. This implies that the machinery being sold in the EU has a CE Mark which is your certification that the machine complies with the relevant directives, including the Machinery Directive.

As a manufacturer, you can either sell that CE marked machine in the US or you can sell a similar machine that is manufactured to US standards.

For the sake of discussion, let's assume your machine is involved in an accident and the injured party sues you. Let's further assume you sold the employer the machine made to US standards. If the plaintiff's attorney discovers you are selling a CE marked machine in the EU, he can request the production of your technical file for the CE marked machine. This file will contain a risk analysis where you identified all of the risks associated with the machine and justified your choice of design features, components, guards and etc. It would include all the misuses you foresaw. It would include ergonomic considerations including foreseeable operator errors and your methods for preventing them.

If you complied with the Directives, your CE marked machine would probably have prevented the accident. Could your production and sale to the employer of the non CE Mark compliant machine affect the outcome of this lawsuit? Could it form the basis for punitive damages being assessed against you?

If we assume the injury occurred on the CE marked machine, the technical file would show the extreme care you took to make the machine safe and the thoroughness of your manual and product presentation. Could this assist you in the defense of your machine?

If you only manufacture machines for the US, you probably are basing your machine designs solely on US standards and practices. You may be requiring the purchaser to safeguard your machine.

What will happen if you are sued and it can be shown that a competitor's CE marked product would have prevented the accident? Does his machine define the state-of-the-art? Can the presence in the market of the CE marked machine affect the outcome of this lawsuit?

What happens if insurance companies' rates varied as a result of differences in exposure between US and CE marked machines?

Does the EU's New Approach to machine safety affect US manufacturers? Will it affect you? It's something worth pondering.

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