



European End-of-Life Vehicles Directive Prompts Automakers to Recycle

Its official name is "Directive of the European Parliament (EP) and of the Council on End-of-Life Vehicles" (EEC/200/53). It's known as the European Community (EC) End-of-Life Vehicles (ELV) Directive. And, although all is quiet at this time, it's causing automakers to scramble to eliminate or reduce the amount of waste generated when old vehicles are thrown away.

As passed in September 2000, the ELV Directive requires original equipment manufacturers (OEMs) to reclaim and recycle old cars and trucks. The document was passed to prevent or reduce the amount of waste generated by disposing of old vehicles. It is designed to accomplish this by encouraging re-use, recycling and other forms of recovery of end-of-life vehicles.

Why is the ELV Directive Needed?

According to the Commission of the European Community, between eight and nine million tons of waste are generated each year by old vehicles. About 25 percent of the weight of the junk cars and trucks is hazardous waste.

The portion of the old vehicles that cannot be reclaimed and recycled ends up being shredded for landfill. The shredded waste releases toxins into the ground, including heavy metals. In Europe, about 10 percent of the total amount of hazardous waste generated each year comes from shredded vehicle residue.

As enacted, the Directive applies to all 15 member states of the European Union, and requires each to enact its own legislation calling for OEMs to set up reclamation centers where customers can leave their junk vehicles. The reclamation centers will dismantle the old vehicles so that most of the vehicle's content is re-used, recovered or recycled. The Directive sets targets in the amount of the vehicle that must be recovered. The target amount is expected to increase on future dates as the Council continues to review the program.

Because automotive manufacturing is global in scope, all automotive companies will have to comply with the Directive, if they plan to sell cars in Europe. Most companies in the U.S. and Canada already have programs in effect to ensure compliance.

What it Means to Finishers

The original document limits the amount of hexavalent chromium [Cr(VI)] that can be present in a vehicle to 2.0 grams, and it can only be used in areas for corrosion protection. All other uses of Cr(VI) are banned. "This has nothing to do with plated chromium metal," said Dr. James H. Lindsay, AESF Fellow, technical editor of *P&SF*. "What we are talking about here are chromate conversion coatings, in all of their various hexavalent formulations."

Lindsay says the chromates are primarily found on zinc- or zinc-alloy-plated fasteners, tubing, brackets and other small parts for corrosion protection. There are thou-

sands of these parts used in vehicle manufacturing.

The original legislation called for compliance by July 1, 2003. This meant that automakers would need to plan ahead, because some 2003 models are built in the last half of 2002. Some 2002 models are already on the market.

Since the Directive was passed, it has also become apparent that there is no standard test that the ELV Directive recognizes as valid for measuring the 2.0 grams of Cr(VI) per vehicle. This is likely the reason that implementation has been delayed, Lindsay said.

Elizabeth Hanna of Howard Plating Industries, Madison, Heights, MI, said the industry is just waiting for further word about implementation. She said it is likely that implementation will be delayed until July 2007, but there has been no official word, so automakers and suppliers are uncertain about what to expect.

Lindsay also said that the word on the street is that implementation will likely be delayed for four years. He added: "Because of the question of reliably detecting 2.0 grams of Cr(VI) per vehicle, the bad news is that the standard could be reduced to zero grams per vehicle." Hexavalent chromium could be banned outright.

The ELV Directive is expected to have a significant impact on platers and metal finishers all over the world. For now, however, they can only wait for official word from the European Community. *P&SF*