

MMSD Draft Report: Chapter 5 Case Studies on Minerals

Comments of the Lead Development Association International

Table 5-2, page 5-6

In the section on “Batteries”, the only battery market mentioned is electric cars. Whilst the observations about competition are correct, it should be noted that the electric car market is in its infancy and accounts for a small proportion of lead-acid battery usage. The major market for lead-acid batteries is in SLI (starting, lighting, ignition) batteries which are required by every internal combustion engine vehicle in the world. No competition on either performance or cost grounds has yet emerged for this market which accounts for about 3.7 million tonnes of lead per year (approx 75% of lead consumption for batteries, approx 57% of total lead use).

Page 5-14, para 4

The reduction in the use of lead cable sheathing has never been associated with health or environmental considerations. Substitution has been exclusively a result of technological developments and cost.

Page 5-14, para 5

Although there is some potential for lead to dissolve from lead pipes into certain types of water, this was not the main driving force for a switch to other piping materials, notably copper. The installation of new lead pipes, and indeed the repair of old pipes, was a skilled and labour-intensive task and thus very expensive. Thus when new materials (eg copper, galvanized steel, plastics) became available with simpler methods of joining, a natural move away from lead was inevitable.

Very similar arguments apply to the substitution of lead-sheathed electric cables by plastic sheathing. However, it is notable that in the most demanding service environments (eg underwater) where performance guarantees are most stringent, lead sheathing is still the preferred choice.

Page 5-14, para 7

Lead-acid batteries are not the only use in which lead cannot be replaced, although certainly they are by far the largest. Uses such as radiation shielding (as solid metal or incorporated as oxide in the glass of TV tubes and computer monitors) are equally irreplaceable at present.