

HOW TO DEAL WITH THE RESOURCES OF OUR PLANET – REUSE OR ABUSE? NUMEROUS GLASS WORKS ON A LOCAL SCALE

Björn Lindbom
Swedish Geological Survey, Sweden

Abstract

Since several decades it is a well-known fact that mankind and the industrial activities of man, withdraws resources from the crust of the earth at an alarming pace. Alarming, since the reuse of withdrawn material is very limited, at least for a numerous number of industrial branches.

The question of reusing material has been brought to the attention in general in Sweden and elsewhere, but it has been specifically high-lighted in rather a small part of Sweden – the “Kingdom of Glass”. In this area, within a radius of roughly 150 km, about 50 former and still existing glass works are located. Some sources indicate that there can be up to 50 more glass works in the region. The presence of the latter 50 is, however, difficult to prove since they were shut down a long time ago and the remnants from them are very limited, foundations have been covered and even built on since the glass work was shut down.

The glass works estates often consist of old and abandoned buildings, contaminated soils and glass deposits. It can easily be stated that, in general, the former glass work sites are heavily contaminated with metals and heavy metals, mainly arsenic, lead and cadmium. The contaminants pose a threat to the environment and all these former glass work sites are subject to environmental investigations and, if appropriate, also remedial actions. In that context it would be beneficiary for the environment, and also suitable from an economic standpoint, to thoroughly investigate the possibility of extracting material for reuse, rather than having the waste dumped at waste treatment facilities.

This paper will in short describe a task presented by the Swedish Government to the two County Boards Kronoberg and Kalmar, both located in the “Kingdom of Glass”.