Disposal of Residues from Zinc Plant.

When the roasted zinc ore is treated with sulphuric acid, the zinc does not all dissolve and a residue is left, containing iron, lead, zinc and other ingredients of the ore. This residue may amount to more than one third of the original ore, and it must be treated again to recover the lead, gold and silver, when these are present in sufficient amount, and the remainder of the zinc. One method, the Waelz Process, is to heat the residue in a rotating tube furnace, driving off the zinc and lead as a fume which can be recovered by electrical precipitation, scrubbing or filtration. Another process is to smelt the residue in a closed electric furnace, producing a zinc-lead fume and lead bullion which contains the gold and silver.

It is impossible to state certainly what process would be used for the treatment of these residues, but there would not be any considerable production of sulphur dioxide and nearly all the fume and dust would be recovered, so that there would not be much smoke.