

FUME MINIMISATION GUIDELINES

GUIDELINE 11:

LOW FUME LEVEL PROCESSES

Low Fume Processes:

- Submerged arc welding (SAW)
- Electroslag welding
- Water jet cutting
- Resistance welding eg. spot, seam and projection welding
- High frequency induction welding
- Friction welding
- Ultrasonic welding
- Semi automatic stud welding

Materials:

All materials known not to contain beryllium or cadmium as an alloying element or as a coating, and not contaminated with solvents, oil or grease. See Guideline 3.

Explanation:

Atmospheric contaminants are generated only in small quantities by these processes, because either:

- The arc region is protected by a heavy slag blanket, which filters out metallic fume and prevents the formation of significant gaseous fume (ozone and oxides of nitrogen) by ultraviolet radiation from the arc (SAW welding), or
- The process does not use an arc (all the other processes in the list).

In addition, all of these processes are automatic or semiautomatic, and do not require the operator to be close to the work.

