

## **Adaption to scientific and technical progress under Directive 2002/95/EC**

Stakeholder contribution for group II "Pb in  
solder/soldering technology" (concerning  
exemption 7, 11, 12, 14, 15, 23, 24, 27)

submitted 1 April 2008  
by Ulrika Bothin,  
Ringhals AB

### **Öko-Institut e.V.**

#### **Freiburg Head Office**

P.O. Box 50 02 40  
79028 Freiburg, Germany  
**Street Address**  
Merzhauser Str. 173  
D-79100 Freiburg  
**Tel.** +49 (0)761 – 4 52 95-0  
**Fax** +49 (0)761 – 4 52 95-88

#### **Darmstadt Office**

Rheinstraße 95  
64295 Darmstadt, Germany  
**Tel.** +49 (0)6151 – 81 91-0  
**Fax** +49 (0)6151 – 81 91-33

#### **Berlin Office**

Novalisstraße 10  
10115 Berlin, Germany  
**Tel.** +49 (0)30 – 28 04 86-80  
**Fax** +49 (0)30 – 28 04 86-88

## **Request for an exception of monitoring and control instruments from the RoHS-directive**

Ringhals AB request for an exception of monitoring and control instruments from the RoHS-directive regarding lead in solder and soldering technology.

Today there is no product that corresponds to the high quality that the nuclear power industry put on the monitoring and control instruments due to the reactor safety. To prohibit lead in solder and soldering technology is therefore not an option. Until substitute of Pb is available that meets the requirements of the nuclear power industry should this instruments therefore continue to be excluded.

The problem that follows when lead not is used is that “whiskers” are formed that could cause short circuit. Another problem when lead is excluded is that you need a much higher temperature at the soldering and this causes a coat on the printed circuit board and the circuit could also loose touch. When the solding is performed the solding itself will be much harder and not as flexibel as when lead is present and therefore you could get power cut (failure) on the components. This is not acceptable because it could affect reactor safety. The manufactures should therefore get the opportunity to evolve a product that meets the criteria that the nuclear power industry addresses before a prohibition of lead could be introduced.

Ringhals AB will hand in more additional information with explanation and example of problems if requested.