Brussels, 27 April 2009
Updated on 3 July 2009

JBCE Position for Categories 8 and 9
on the COM (2008) 809 Recast Proposal for a Directive on the Restriction of the Use of Certain Hazardous Substances (RoHS)

We appreciate the general fact that the proposed recast text of the RoHS Directive takes into account the special characteristics of products covered by categories 8 and 9. However, the following two points are our great concern and we propose some changes.

Our positions and proposals

1. Definition of the industrial monitoring and control instruments: we propose to change the text of Article 3(p) and ANNEX II for Category 9.
2. Exemption issue: we propose to change the text of Article 4.6 and ANNEX VI.

1. Definition of the industrial monitoring and control instruments

Article 3(p) of the Commission RoHS Recast Proposal contains the following definition: "industrial monitoring and control instruments" mean monitoring and control instruments designed for exclusively industrial or professional use. On the other hand, ANNEX II lists "Measuring, weighing or adjusting appliances for household or as laboratory equipment" as covered by category 9. As a result of this, there is a certain overlap, as well as a lack of clarity. Importantly,

1. "monitoring and control" by default includes processes/performance of "measuring, weighing or adjusting"
2. "measuring, weighing or adjusting appliances used as laboratory equipment" are by default designed for professional use and therefore used only professionally.

In order to clarify this and avoid confusion, we recommend the following changes:

JBCE - Japan Business Council in Europe Rue Montoyer 40, B-1000, Brussels, Belgium
Tel:02-286-5330 Fax: 02-230-5485 E-mail: info@jbce.org URL: http://www.jbce.org/

Article	COM Original Proposal	Recommendation
3 (p)	"industrial monitoring and control instruments" mean monitoring and control instruments designed for exclusively industrial or professional use.	**Amend wording in 3 (p):** "industrial monitoring and control instruments" mean monitoring and control instruments designed for exclusively industrial or professional use ***(e.g., laboratory equipment).***
ANNEX II	9. Monitoring and control instruments, including Smoke detector Heating regulators Thermostats Measuring, weighing or adjusting appliances for household or as laboratory equipment Industrial monitoring and control instruments	**Delete "or as laboratory equipment" in ANNEX II:** 9. Monitoring and control instruments, including Smoke detector Heating regulators Thermostats Measuring, weighing or adjusting appliances for household ~~***or as laboratory equipment***~~ Industrial monitoring and control instruments

2. Exemption issue

Exemptions are listed in ANNEX V (general) and ANNEX VI (categories 8&9). Because of the special characteristics of categories 8&9 equipment (e.g. safety, accuracy reliability, and so on) exemptions for categories 8&9 should be assessed specifically from the perspective of categories 8&9 equipment.* This is important for the existing general exemptions, as well, as the Oeko Institute has recommended: they should be assessed when categories 8&9 will be included in the RoHS scope (2014).

(* We are willing to take some technical data and explain these to you, if required.)

In order to carry out a process of assessment of all exemptions for categories 8&9 equipment separate from that for other categories, we propose to list in ANNEX VI both the existing general exemptions and solely the categories 8&9 specific exemptions (see attached Table).

Moreover, the starting time of the validity of these exemptions should be the time when

the categories 8&9 will be included in the RoHS scope. Correspondingly, we propose to change the text of Article 4.6 from “Paragraph 1 shall not apply to the applications listed in ANNEXES V and VI” to ***“Paragraph 1 shall not apply to the applications listed in ANNEX V for categories 1 – 7 and 10. It shall not apply to the applications listed in ANNEX VI for categories 8 and 9 from 1st January 2014”.***

If you have any questions, for further information, please feel free to contact us.

Kind regards,

Lars Brückner

Chairman Environment Committee
Japan Business Council in Europe (JBCE)

Attached table

[NEW ANNEX IV]

COM Original Proposal	Solution
ANNEX VI Applications exempted from the ban in Article 4(1) as regards Categories 8 and 9 Equipment utilising or detecting ionising radiation 1 Lead, cadmium and mercury in detectors for ionising radiation 2 Lead bearings in X-ray tubes 3 Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate 4 Lead in glass frit of X-ray tubes and image intensifiers and lead in glass frit binder for assembly of gas lasers and for vacuum tubes that convert electromagnetic radiation into electrons 5 Lead in shielding for ionising radiation 6 Lead in X-ray test objects. 7 Lead stearate X-ray diffraction crystals 8 Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers Sensors, detectors and electrodes (plus item 1) 1a Lead and cadmium in ion selective electrodes including glass of pH electrodes 1b Lead anodes in electrochemical	ANNEX VI Applications exempted from the ban in Article 4(1) as regards Categories 8 and 9 ***Exemption List I:*** Equipment utilising or detecting ionising radiation 1 Lead, cadmium and mercury in detectors for ionising radiation 2 Lead bearings in X-ray tubes 3 Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate 4 Lead in glass frit of X-ray tubes and image intensifiers and lead in glass frit binder for assembly of gas lasers and for vacuum tubes that convert electromagnetic radiation into electrons 5 Lead in shielding for ionising radiation 6 Lead in X-ray test objects. 7 Lead stearate X-ray diffraction crystals 8 Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers Sensors, detectors and electrodes (plus item 1) 1a Lead and cadmium in ion selective electrodes including glass of pH electrodes 1b Lead anodes in electrochemical oxygen sensors 1c Lead, cadmium and mercury in infra-red light detectors 1d Mercury in reference electrodes: low

COM Original Proposal	Solution
oxygen sensors 1c Lead, cadmium and mercury in infra-red light detectors 1d Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide Others 9 Cadmium in helium-cadmium lasers 10 Lead and cadmium in atomic adsorption spectroscopy lamps 11 Lead in alloys as a superconductor and thermal conductor in MRI 12 Lead and cadmium in metallic bonds to superconducting materials in MRI and SQUID detectors 13 Lead in counterweights 14 Lead in single crystal piezoelectric materials for ultrasonic transducers 15 Lead in solders for bonding to ultrasonic transducers 16 Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay 17 Lead in solders in portable emergency defibrillators 18 Lead in solders of high performance infrared imaging modules to detect in the range 8 – 14 µm 19 Lead in Liquid crystal on silicon (LCoS) displays 20 Cadmium in X-ray measurement filters	chloride mercury chloride, mercury sulphate and mercury oxide Others 9 Cadmium in helium-cadmium lasers 10 Lead and cadmium in atomic adsorption spectroscopy lamps 11 Lead in alloys as a superconductor and thermal conductor in MRI 12 Lead and cadmium in metallic bonds to superconducting materials in MRI and SQUID detectors 13 Lead in counterweights 14 Lead in single crystal piezoelectric materials for ultrasonic transducers 15 Lead in solders for bonding to ultrasonic transducers 16 Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay 17 Lead in solders in portable emergency defibrillators 18 Lead in solders of high performance infrared imaging modules to detect in the range 8 – 14 µm 19 Lead in Liquid crystal on silicon (LCoS) displays 20 Cadmium in X-ray measurement filters ***Exemption List II:*** ***1. Mercury in compact fluorescent lamps not exceeding 5 mg per lamp.***

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<tr><th>COM Original Proposal</th><th>Solution</th></tr>
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2. Mercury in straight fluorescent lamps for general purposes not exceeding:

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<tr><td>***— halophosphate***</td><td>***10 mg***</td></tr>
<tr><td>***— triphosphate with normal lifetime***</td><td>***5 mg***</td></tr>
<tr><td>***— triphosphate with long lifetime***</td><td>***8 mg.***</td></tr>
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3. Mercury in straight fluorescent lamps for special purposes.

4. Mercury in other lamps not specifically mentioned in this Annex.

5. Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

6. Lead as an alloying element in steel containing up to 0,35 % lead by weight, aluminium containing up to 0,4 % lead by weight and as a copper alloy containing up to 4 % lead by weight.

7. -Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead),
-lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission as well as network management for telecommunications,
-lead in electronic ceramic parts (e.g. piezoelectronic devices).

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COM Original Proposal	Solution
	8. Cadmium and its compounds in electrical contacts and cadmium plating except for applications banned under Directive 91/338/EEC27 amending Directive 76/769/EEC28 relating to restrictions on the marketing and use of certain dangerous substances preparations. ***9. Hexavalent chromium as an anti-corrosion of the carbon steel cooling system in absorption refrigerators.*** ***11. Lead used in compliant pin connector systems.*** ***12. Lead as a coating material for the thermal conduction module c-ring.*** ***13. Lead and cadmium in optical and filter glass.*** ***14. Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight.*** ***15. Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit Flip Chip packages.*** ***16. Lead in linear incandescent lamps with silicate coated tubes.*** ***17. Lead halide as radiant agent in High Intensity Discharge (HID) lamps used for professional reprography applications.*** ***18. Lead as activator in the fluorescent***

COM Original Proposal	Solution
	powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi2O5:Pb) as well as when used as speciality lamps for diazo-printing reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba)2MgSi2O7:Pb). ***19. Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact Energy Saving Lamps (ESL).*** ***20. Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCD).*** ***21. Lead and cadmium in printing inks for the application of enamels on borosilicate glass.*** ***22. Lead as impurity in RIG (rare earth iron garnet) Faraday rotators used for fibre optic communications systems.*** ***23. Lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with NiFe lead frames and lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm or less with copper lead frames.*** ***24. Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors.***

COM Original Proposal	Solution
	25. Lead oxide in plasma display panels (PDP) and surface conduction electron emitter displays (SED) used in structural elements; notably in the front and rear glass dielectric layer, the bus electrode, the black stripe, the address electrode, the barrier ribs, the seal frit and frit ring as well as in print pastes. ***26. Lead oxide in the glass envelope of Black Light Blue (BLB) lamps.*** ***27. Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers*** ***30. Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more.*** ***31. Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting).*** ***32. Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes.***