

## Explanation of How TEL Addresses Issues Regarding Environmental Laws and Regulations in Products

- View of Tokyo Electron Group  
Enactment of environmental laws and regulations has accelerated in many countries due to concerns over the impact on the environment and ecosystems of chemical substances contained in parts and materials and CO2 emissions. Tokyo Electron Group has set our basic method of response to environmental laws and regulations as follows:
  - We will deliver products that are promptly and appropriately attuned to relevant environmental laws and regulations to customers worldwide.
  - We will continue our voluntary activities to set our own standards and work on product environmental laws and regulations.
  
- Conformity to applicable laws in respective countries and regions
  - It has been announced that EU REACH\*<sup>1</sup>, China RoHS Restriction\*<sup>2</sup>, GHS Restriction\*<sup>3</sup>, Battery Restrictions\*<sup>4</sup>, Energy efficiency regulation\*<sup>5</sup>, F-Gas regulation\*<sup>6</sup> and other restrictions will increasingly deepen. Moreover, these restrictions have been adopted in an increasing number of countries and regions. It is anticipated that new requirements will be proposed by several countries. We will conform to all new requirements by further strengthening liaison with local affiliates and obtaining information about laws and regulations as early as possible.
  
- Our voluntary efforts to reduce chemical substances contained in equipment  
The EU RoHS directive\*<sup>7</sup> that went into effect in July 2006 is one of a number of well-known measures aimed at regulating hazardous chemical substances. Although Tokyo Electron Group's semiconductor manufacturing equipment, flat panel display manufacturing equipment, and solar panel manufacturing equipment are not targets of the regulation, we are voluntarily promoting reduction of ten substances (lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP and DIBP) that are regulated in the EU RoHS directive. We will continue to comply with the EU RoHS Directive through cooperation with our suppliers.

Note:

\*<sup>1</sup> EU REACH:

EU REACH: This is a new EU restriction on chemical substances that went into effect on June 1, 2008. Its official name is Registration, Evaluation, Authorization and Restriction of Chemicals. If any SVHC candidate is contained in a product, the new restriction demands that manufacturers provide relevant details on its inclusion as well as information regarding safe use of the product. Visit the following URL for details.

[https://www.meti.go.jp/policy/chemical\\_management/081127gaiyou.pdf](https://www.meti.go.jp/policy/chemical_management/081127gaiyou.pdf)

\*<sup>2</sup> China RoHS Restriction:

It is a law officially known as Administrative Measures for the Restriction of the Use of Hazardous

Substances in Electrical and Electronic Products. This restriction demands that manufacturers provide information on inclusion of the six substances (lead, mercury, cadmium, hexavalent chromium, PBB and PBDE) with respect to each part of the equipment.

\*3 GHS Restriction:

GHS is the abbreviation for Globally Harmonized System of Classification and Labeling of Chemicals. The United Nations agreed to set classification criteria for degrees of toxicity of chemicals, and to ensure integrated harmony of labeling and contents of SDSs. In order to introduce GHS, many countries have enacted new laws or revised existing laws related to chemical substances.

\*4 Battery Restrictions:

This law is already in place in many countries. It requires that manufacturers apply the recycling mark to their products and bear the costs of collecting used batteries in order to promote collection and recycling of batteries.

\*5 Energy efficiency regulation:

Energy efficiency regulations for components have been established in each country, including the EU. For example, ErP Directive (Energy-related Products) in EU, Energy Consumption Efficiency Label Management Act in China, and EISA (Energy Independence and Security Act) in US. Each component has its own requirements for energy efficiency, and some components require labeling, registration with government authorities, etc.

\*6 F-Gas regulation:

Starting with the EU Fluorinated Greenhouse Gases Regulation, countries are restricting HFCs, PFCs, SF6, etc. based on the Montreal Protocol. Refrigerants used in refrigerators such as chillers are also subject to this regulation, and the production and use of high GWP F-Gas are restricted.

GWP: Global Warming Potential

\*7 EU RoHS Directive:

RoHS is the abbreviation for Restriction of the use of certain Hazardous Substances in Electrical and Electronic Equipment. It prohibits sales of electronic products in the European market when such products contain lead, mercury, cadmium, hexavalent chromium, PBB, PBDE, DEHP, BBP, DBP and DIBP beyond the threshold.