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Japanese environmental management system : Eco-Action 21

「日本版環境管理システム:エコアクション21」

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## Abstract

The environment including the air and the water is easy to go over border of neighboring countries. We as a neighbor have to work on environmental protection. On this paper the current status of the Japanese environmental management system and an overview of Eco-Action 21 are stated.

### 1. Necessity of Environmental Management System(EMS)

Fossil fuels have been utilized since the industrial revolution in the 18<sup>th</sup> century. Consequently carbon dioxide concentration in the atmosphere has been increasing and the average temperature has been going up steadily.

On the other hand natural resources including fossil fuels and minerals are going to become exhausted and wastes including industrial, commercial and residential are going to flood the earth. The environment is going to be contaminated.

In 1997 COP3(the third Conference of the Parties) was held and the Kyoto Protocol was adapted and it was enacted in February 2006 by Russian ratification in spite of the USA's withdraw from Kyoto Protocol. Under such a condition the Japanese government is struggling to achieve a goal which is to decrease more than 6 percent of CO2 emissions in 2010 from the emission in 1990.

Table 1. Emission goal set forth for 2010 as issued in 1990

	EU	USA	Japan	Russia
Reduction goal	- 8	- 7	- 6	0

The most important factors to protect the environment from pollution is to change human attitude. EMS is one of the tools to change our conventional life style as it is now to a more environmentally friendly one.

### 2. Current status of EMS in Japan

ISO14001 has been certified by more than 20,000 works and offices, which is the most of the whole countries. Large companies exporting goods to Europe have

already acquired ISO14001. However it is too heavy to acquire and to maintain it for small-to-medium sized corporations (SMCs). Some local governments and large companies have prepared simpler and more economical EMSes. One of them is Kyoto Environmental Management System Standard (KES). In Europe many simpler EMSes have been made. They are Acorn Scheme (BS8555) in the UK, Ecolight House in Norway and Eco-Mapping in Denmark. Combining with these local EMSes and ISO14001, The Japanese Ministry of Environment made a new EMS named "Eco-Action 21".

### 3. Eco-Action 21 (EA21)

The Ministry of Environment launched the Eco-Action 21 in 1996 in order to encourage environmental activities of SMCs. The EA21 is a device for an organization to carry out environmental activities in effective and efficient manner and is a part of the overall management system of an organization. The Ministry promoted the Eco-Action 21 while revising it several times. The Ministry has completely revised the Eco-Action 21 as a response to recent progress in a green procurement.

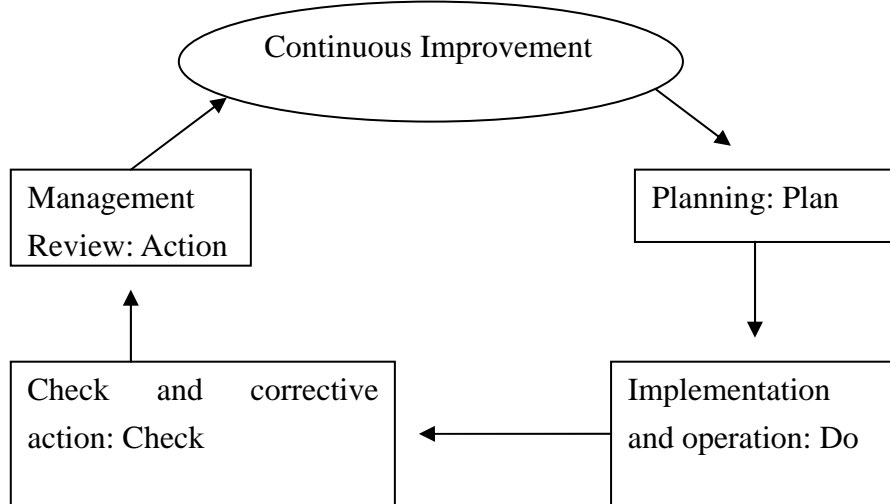
EA 21 consists of the following 4 documents.

1. Self-Checklists of Environmental Burden
2. Self-Checklists of Environmental Measures
3. Environmental Management Systems Guidelines
4. Environmental Activity Report Guidelines

EA21 is based on the PDCA cycle, which consists of the following 4 steps.

- 1) Voluntary establishment of environmental policy and objectives (Planning = P: Plan)
- 2) Formation of an implementation team and implementation of necessary measures to achieve the objectives (Implementation and Operation = D: Do)
- 3) Evaluation and correction of the operation, performance and the current status of the systems (Checking and corrective Action = C: Check)
- 4) Periodical review of the systems (Management Review = A: Act).

**Figure 1. Plan, Do, Check, Action Cycle**



The planning process consists of the following 4 items.

1. Establishment of environmental policy
2. Check and evaluation of environmental burdens and environmental measures
3. Study of relevant laws and regulations
4. Formation of environmental objectives and environmental action plans

The implementation and operation process consists of the following 5 items

5. Formation of an organizational structure
6. Education and training
7. Environmental communication
8. Implementation and operation
9. Preparation and response to an environmental emergency

The checking and correction process consists of the following 2 items.

10. Checking performance of programs and correction of shortcomings
11. Writing and sorting out of required documents and records

The management Review consists of the following 1 item.

12. Evaluation and review of the performance of the entire system

4. Benefits of EA21

The method of EA21 is an enterprise management system itself.

- All members of the organization involve in activities rather than only a few struggle.
- The members of the organization act on officially decided rules instead of spontaneous informal agreement.
- Goals of activities are clearly set.
- Outcomes of the activities are evaluated.
- If the goal is not achieved, reasons of the failure are investigated.
- These efforts are repeated everyday and continued for years.

And this would solve a variety of problems of the organization. In addition, the organization may expect the following benefits by adopting an EMS.

- Reduced cost resulting from reduced use of resources and energy, and reduced waste generation.
- Reduced environmental risks such as accidental pollution
- Improved image of the organization
- Increased sales which result in a qualification for green procurements, and increased trust from business partners

#### 5. Comparison between ISO14001 and EA21

EA21 is the one that takes in the good points of preceded EMSs including ISO14001 and KES, and cut out the unnecessary parts.

The specific characteristics of EA21 are the following three points.

1. Simpler and more economical system than ISO14001
2. Performance oriented system (CO<sub>2</sub>, waste and water reduction are essential.
3. Environment communication oriented system (Environment report and its release are mandatory.)

Through the above point 2 activity electricity, fuels, water and waste treatment cost will be reduced. If wastes are separated and recycled, they can be changed to valuable matters. Moreover through item 3 activity more trust can be obtained from existing customers and neighboring residents, and new customers can be found. Consequently environmentally friendly society will be realized.

Table 2. Comparison between EA21 and ISO14001

	EA21	ISO14001
System	Performance oriented	Document oriented
Cost	Low	High

Advice by auditor	Welcomed	Not permitted
Report	Publicized	closed
Coverage	Japan	International

#### 6. Cooperation with environmentally friendly activity

Eco-Action 21 contributes to protect local and global environment and will enable us to hand down the beautiful earth to our children. There must be many things to cooperate and to collaborate with each other as a neighbor. Let us perform “environmentally friendly” activities and let us communicate with Eco-Action 21.

#### 略歴

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