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## IMPLEMENTATION OF ENVIRONMENTAL MANAGEMENT OF TERRITORIES AND NATURAL RESERVE FUND

S. Pohurelskyy, O. Tsviliy

State Ecological Academy of Postgraduate Education and Management

An analytical review of national standards to determine requirements for an effective environmental management system (EMS) is carried out. The basic principles of the application of DSTU ISO 14001:2006 "Environmental Management Systems are researched. Requirements and guidelines for the use" in the implementation of the environmental management system are examined, the definitions of EMS and natural reserve fund of Ukraine (NRF) are given. *Keywords:* environmental management system (EMS), Natural Reserve Fund of Ukraine, environmental policy, internal audit, stakeholders, corrective action, preventive action.

**Впровадження системи екологічного управління територій та об'єктів природно-заповідного фонду.** С.П. Погурельський, О.О. Цвілій. Проведено аналітичний огляд національних стандартів для визначення вимог до ефективної системи екологічного управління (СЕУ). Досліджено основні засади застосування ДСТУ ISO 14001:2006 «Системи екологічного керування. Вимоги та настанови щодо застосування» при впровадженні системи екологічного управління, наведено визначення терміну СЕУ та природно-заповідного фонду України (ПЗФ). *Ключові слова:* система екологічного управління (СЕУ), природно-заповідний фонд України, екологічна політика, внутрішній аудит, зацікавлена сторона, коригувальна дія, запобіжна дія.

**Внедрение системы экологического управления территорий и объектов природно-заповедного фонда.** С.П. Погурельский, Е.А. Цвилий. Проведен аналитический обзор национальных стандартов для определения требований к эффективной системы экологического управления (СЭУ). Исследованы основные принципы применения ДСТУ ISO 14001:2006 «Системы экологического менеджмента. Требования и руководство по применению» при внедрении системы экологического управления, приведены определения срока СЭУ и природно-заповедного фонда Украины (ПЗФ). *Ключевые слова:* система экологического управления (СЭУ), природно-заповедный фонд Украины, экологическая политика, внутренний аудит, заинтересованная сторона, корректирующее действие, предупреждающее действие.

### Problem Statement. Urgency of the issue

The Law of Ukraine "On the Fundamentals (Strategy) of State Environmental Policy of Ukraine till 2020" identified priority issues of environmental management and environmental protection, among which there is a

major improvement of the environmental management system (hereinafter - EMS) according to standards of series ISO 14000 [1].

EMS is a part of the general management of the entity, which includes organizational structure, planning, responsibilities, practice, procedures, processes and resources for developing, implementing and achieving the

objectives of environmental policy. Today, environmental activity is becoming more economically justified, allowing organizations to use the associated variety of direct and indirect benefits and rewards. A well-functioning EMS contributes to environmental protection.

Activity aimed for creating EMS found wide practical implementation in developed countries, as well as those that are developing, as mechanisms to improve the efficiency of production and product competitiveness.

Implementation of EMS allows to economic entities:

- meets the requirements of environmental legislation more effectively;
- reduces costs by reducing environmental payments;
- reduces the amount of waste, save energy and resources through more efficient management;
- improves the quality of products;
- improves the jobs and production sites, reduces environmental risks for personnel, increases labour productivity;
- uses a system of tax incentives;
- reduces the risk of accidents and reduces the scale of the consequences should they arise.

Level of detail and complexity of the EMS, the amount of documentation and required resources depend on several factors, including sphere of system use, enterprise size and character of its activities, products and services. This may relate, in particular, territories and natural reserve fund.

Natural Reserve Fund of Ukraine (hereinafter - NRF) is a set of plots of

land and water space, natural complexes and objects which are of special environmental, scientific, aesthetic, recreational, and other value and dedicated to preserving the natural diversity of landscapes, genebank of flora and fauna, maintaining the overall ecological balance and ensuring the environmental fund monitoring [2].

Today in Ukraine there are 11 categories of territories and objects of NRF, including:

- 20 natural reserves (total area 201.5 thousands of hectares);
- 4 biological reserves (total area 252.1 thousands of hectares);
- 47 national natural parks (total area of 1215.8 thousands of hectares);
- 58 regional landscape parks (total area of 754.6 thousand hectares).

#### **Basic principles of enforcement of the standard in the implementation of environmental management system for NRF institutions**

Ukraine created the conditions to encourage local organizations to implement environmental management systems according to the requirements of ISO 14000. The main subject of ISO 14000 is an environmental management system, including the implementation of specific procedures, preparation of certain documents, designation responsible persons for the defined areas of ecologically significant activity.

Standard DSTU ISO 14001:2006 "Environmental Management Systems. Requirements and Guidelines for Use" allows NRF institutions to formulate and implement policies and

set and achieve objectives, taking into account legal requirements and other requirements which it undertakes to perform, and information about significant environmental aspects. This standard applies to those environmental aspects, designated by entity, which it can control and which may be affected.

Institutions should develop, document, implement, maintain and continually improve the EMS and determine how to fulfill these requirements, and identify and document the scope of the EMS, including:

- define its environmental policy (environmental policy - overall intentions and direction of the organization in relation to its environmental characteristics, officially proclaimed by top management [3]) and ensure that it was clear enough to understand by internal and external stakeholders (interested party - a person or group, which is related to or which concern the environmental performance of the organization [3]). Personnel should be informed on the environmental policy;

- document information on environmental aspects and constantly update it, and establish those that are essential and which must be preferred into EMS;

- develop, implement and maintain procedures and other legal requirements regarding its environmental aspects;

- on the basis of environmental policy, establish, implement and maintain goals and objectives, documented by them, for the relevant departments and levels within the company, taking into account legal and other requirements that it shall per-

form as well as its significant environmental aspects;

- to develop, implement, maintain and improve the EMS, it is necessary to ensure the availability of human resources, particularly with specialized skills, enterprise infrastructure, technology and financial resources. In addition, it is necessary to determine, document functional duties, responsibilities and authorities and notify the personnel of the institution. Management must appoint a representative with specific defined responsibilities and authorities for implementing EMS;

- develop, implement and maintain procedures to:

- 1) familiarize personnel working at institution or acting on its instruction with:

- importance of adherence to conformity with environmental policies, methods and requirements of EMS;

- significant environmental aspects and actual or related potential impacts of its work to them, as well as environmental benefits from the improvement of the activity;

- its functional duties and responsibilities to achieve compliance with the EMS;

- possible consequences of deviation from established procedures;

- 2) internal and external information (documented in making this decision) in relation to its environmental aspects and EMS;

- 3) support a sufficient level of detail of documentation to describe EMS and interaction of its elements;

- 4) control of documents;

- 5) determination of possible emergencies and accidents that can have an

impact on the environment and respond to them;

6) regular monitoring and measurement of key parameters of work that can have a significant impact on the environment;

7) periodic evaluation of compliance under applicable legal and other requirements;

8) actual and potential nonconformities and corrective applications (corrective action - an action that performed to eliminate the cause of detected nonconformity or other undesirable potential situation [4]) and preventive action (preventive action - action that serve to eliminate the causes of potential non-compliance or other potentially undesirable situation [4]);

9) identification, accumulation, protection, retrieval, storing and putting out protocols;

10) performance of internal audit (internal audit - systematic, independent and documented process to obtain audit evidence and objective assessment for determination of the extent to which audit criteria identified by the environmental management system [3]).

Management of institution should analyze with established periodicity EMS to ensure its continuing suitability, adequacy and effectiveness. It is necessary to analyze evaluation covered the opportunities for improvement and the need to make changes to the EMS, including the environmental policy and environmental objectives and targets.

**Conclusion.** Ukraine does not have a full understanding of the environmental and economic benefits of implementing EMS by territories and

objects of NRF, in addition, the introduction of this system is voluntary.

At the same time, measures to implement the National Action Plan for Environment in 2011-2015 due to the necessity of discontinuance of loss of biological and landscape diversity and formation of ecological network had provided management system of the territories and objects of NRF to meet the requirements of international standards ISO 9001, ISO 14001 and OHSAS 18000. [5]

Right on the implementation and certification of quality management systems, environmental management and safety in accordance with international standards ISO 9001, ISO 14001 and OHSAS 18000 at enterprises, institutions and organizations that are in the area of central executive body for environmental protection was entitled by Ministry of Ecology to State Ecological Academy of Postgraduate Education and Management on August 28, 2008 № 448.

During the years 2011-2013 the State Ecological Academy of Postgraduate Education and Management passed all stages of accreditation for compliance with the international standard ISO / IEC 17021:2011 "Conformity assessment. Requirements for bodies performing audit and certification of management systems" in the National Accreditation Agency of Ukraine as a body of management system certification (accreditation certificate № 8O061 on 01.04.2013). It allows, as a body accredited in accordance with the Law of Ukraine "On accreditation of conformity assessment bodies" exercise the certification of environmental manage-

ment systems according to the standard DSTU ISO / IEC 14001:2006.

The national system of accreditation of Ukraine (National Accreditation agency of Ukraine) in the field of accreditation management systems ac-

ording to ISO / IEC 17021:2011 is recognized by the European Association for Accreditation (EA). This enables international recognition of certificates issued by an accredited certification body.

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