ENSURING ENVIRONMENTAL SAFETY IN THE FIELD OF EDUCATION IN MODERN CONDITIONS

Svetlana Anzorova¹, Shakizada Niyazbekova^{2,3}, Elena Torbik⁴, Marina Krupchak⁴, Gulnar Zhumadilova⁵

 ¹Raoul Wallenberg Institute of Special Pedagogy and Psychology, Saint Petersburg, RUSSIA
²Moscow Witte University, RUSSIA
³Kh. Dosmukhamedov Atyrau University, Atyrau, KAZAKHSTAN
⁴Financial University under the Government of the Russian Federation, Moscow, RUSSIA
⁵NJSC Shakarim University of Semey city, Semey, KAZAKHSTAN
<u>anzorova@inbox.ru</u>
<u>shakizada.nivazbekova@gmail.com</u>

Abstract

This article discusses the importance of ensuring environmental safety in educational organizations. Thus, the operation of facilities is primarily associated with ensuring a safe environment for users of facilities – whether they are students, teachers, employees, legal representatives of students of an educational organization. As important as the cleanliness, order and level of the educational program being implemented, for facility planners, the safety of people should always be a top priority.

Maintenance of objects is connected, first of all, with the provision of safe conditions for users of objects, whether they are students, teachers, employees, legal representatives of students of an educational organization. As important as the cleanliness, order and level of the educational program being implemented, for facility planners, the safety of people should always be a top priority. Thus, while it can be difficult to define what exactly constitutes a «safe» environment, it is fair to say that providing a safe environment is a core component of effective educational facility management. The role of facility managers in building safety has changed in recent years. One of their main responsibilities now is to oversee the implementation of the numerous environmental regulations that govern educational institutions and their surroundings, as well as to verify compliance with many rules and laws. Thus, the successful management of the environment of an educational organization has gone far beyond the capabilities of one person.

Keywords: ecology, education, safety, economy, health protection

I. Introduction

Maintenance of objects is connected, first of all, with the provision of safe conditions for users of objects, whether they are students, teachers, employees, legal representatives of students of an educational organization. As important as the cleanliness, order and level of the educational program being implemented, for facility planners, the safety of people should always be a top priority. Thus, while it can be difficult to define what exactly constitutes a «safe» environment, it is fair to say that providing a safe environment is a core component of effective educational facility management. The role of facility managers in building safety has changed in recent years. One of their main responsibilities now is to oversee the implementation of the numerous environmental regulations that govern educational institutions and their surroundings, as well as to verify compliance with many rules and laws. Thus, the successful management of the environment of an educational organization has gone far beyond the capabilities of one person.

II. Metods and materials

In this study, such research methods as description, comparison, comparison are used.

Environmental regulations designed to protect people or the environment are many and varied and may seem overly complex to the uninitiated reader. However, most environmental safety regulations require only minimal monitoring and enforcement efforts unless a problem is identified.

III. Results

The first step in complying with environmental regulations is to be aware of their existence, purpose, applicability, and requirements. Much of this information is available from regulators, professional associations, and through on-the-job training. Obtaining this information may not always be costly, but requires significant experience, either paid or professional. In any case, compliance with environmental safety rules pays off compared to the alternative – the possible occurrence of serious problems with indoor air, leakage of underground tanks, contaminated drinking water, or other serious incidents related to the safety or health of the environment.

Measures to improve the environmental situation in educational institutions: garbage control, educational activities, saving water, fuel and electricity, refusing to use plastic bags and various disposable goods, proper use of the bin. In Russia, the Federal Law on Education in the Russian Federation was adopted, where Article 41 protecting the health of students states that protecting the health of students includes: promotion and training in healthy lifestyle skills, labor protection requirements; organization and creation of conditions for the prevention of diseases and the improvement of students, for their physical education and sports; the passage by students in accordance with the legislation of the Russian Federation of periodic medical examinations and medical examinations; prevention and prohibition of smoking, the use of alcoholic, low–alcohol drinks, beer, narcotic drugs and psychotropic substances, their analogues and other intoxicating substances; carrying out sanitary and anti–epidemic and preventive measures.

Also important is the adoption of the Federal Law of the Russian Federation of December 29, 2010 N 436–FZ «On the protection of children from information that is harmful to their health and development». Educational institutions play a crucial role in instilling discipline and ensuring environmental safety, so you need to pay attention to internal rules. Thus, educational institutions are directly responsible for creating conditions conducive to quality teaching and learning. Faculty planning safety in control engineering and technology must have an understanding of health and safety, as well as risk assessment in the field of electronics and control technology. Educational organizations today develop, implement and manage health and safety policies and procedures approved by the Board of Trustees. These rules and procedures are expected to be followed in addition to the implementation of the recommendations. Before working with students, educators need to conduct an initial risk analysis of the manufacturing process to identify hazards. The role and policy of the leadership of the educational institution in the prevention of unwanted injuries and diseases that can lead to a deterioration in human health or functionality as a result of exposure to occupational hazards, as well as its role in identifying unsafe practices and addressing safety issues in the workplace, is important

Management should be responsible for the implementation of safety and health programs in the workplace, and employers must comply with its rules. Management should establish safety and health programs under which facilities and institutions should prepare their environmental, health and safety program, provide the necessary training for their employees and personnel, conduct inspections, tests, monitoring and auditing, and establish a registration system and record keeping for these events. Management should develop occupational safety programs, according to which enterprises and organizations should organize the following (Table 1).

Nº	Content			
1	To prepare programs for environmental protection, health and safety			
2	To provide the necessary training for its employees to carry out inspections,			
	tests, monitoring and auditing			
3	To create a system for registering and keeping records of these activities			
Source: developed by the authors based on the materials [1, 15]				

Table 1: Develo	opment of a labor	protection pro	gram in education
-----------------	-------------------	----------------	-------------------

Source: developed by the authors based on the materials [1-15]

Management is responsible for establishing and enforcing federal and state inspectors, organizing public education and advisory forums and workshops, and ensuring safety information materials are available.

Environmental safety is divided into internal programs for labor protection and health, environmental control.

Personal injuries and illnesses resulting from operations and situations related to study, work, interfere with a person's ability to work productively. An injured worker bears the burden of medical expenses and loss of wages. This also leads to economic losses for the company and the state.

Environmental management in education is a special aspect related to the management and proper disposal of pollutants and other sources of threat to the environment. Environmental control includes engineering and administrative decisions to minimize the impact of hazards. Examples of general environmental controls for facilities: safety color codes for pipes and cans, hazard labeling, provision of safety signs (danger, caution and warning signs), blocking/labeling, provision of sanitary facilities.

Hazard Elimination – Complete hazard elimination is the most preferred and effective solution for controlling risks and hazards. Substitution – Reduce manual stress on tools with power tools, reduce heavy objects to light ones, replace a harmful chemical with another chemical that is less or not hazardous, such as lead–free paint, natural pesticides, aqueous detergent solutions. Engineering controls are the design of systems or the modification of an existing circuit or process that will reduce exposure to hazards. Process control – electric motors instead of diesel engines, wet drilling instead of dry drilling, automation and remote control Isolation or enclosure are physical barriers that keep risk and worker from coming into contact with each other. Ventilation – removes or dilutes air pollutants to avoid dispersion in workplaces. Administrative controls are working practices and standard operating procedures that can change how and when work is done.

Restriction of access, planned maintenance of equipment, rotation of work to limit impact. Personal Protective Equipment (PPE) – PPE is the last line of defense, but it should not be the only method of reducing exposure. PPE includes eye protection, face shields, shoes and gloves. Chemical safety is another environmental safety issue that primarily focuses on ensuring the proper storage, use and disposal of hazardous chemicals. Businesses need to be aware of chemical safety regulations as it not only saves lives and saves the environment. Educational institutions should establish procedures necessary for identifying hazards in the educational and workplace and assessing existing risks for routine, non–routine and potential emergencies. After identifying hazards and risks, it is necessary to assess the level of exposure to students and employees, existing control measures, develop a plan to eliminate hazards and risks, conduct periodic inspections and identify new threats. Employee participation in an EHS program is integral to its successful implementation, from EHS planning, setting goals and objectives, risk and hazard reporting, monitoring, to incident investigation. Safety training for employers and employees.

Managers must be trained and informed about safety concepts, their role in its implementation and their responsibility to protect the well-being of workers at all times. All employees should be trained in how the safety program works, their participation in it, and the

skills to identify and recognize risks and hazards. Hazard prevention and control. Controls should first follow a hierarchy of engineering, then safe practices, administrative controls, and personal protective equipment. Evaluation and improvement Implemented controls should be periodically evaluated to verify their effectiveness. A program monitoring process should be established along with indicators used to check program implementation and identify opportunities for improvement.

The Hazardous Waste Management and Emergency Response Guide focuses on the management of hazardous and hazardous substances and wastes and the provision of emergency response. It is designed for workers who are directly exposed to danger and are responsible for storing, cleaning, handling and disposing of hazardous materials [1-15].

IV. Conclusion

Thus, the environmental safety of educational institutions is determined by the guidance, policies and practices applied to ensure that the environment is free from hazards that guarantee the safety and well-being of staff and students, as well as the prevention of accidental environmental damage. Surrounding areas include industrial facilities, work areas and laboratories. Environmental safety is a critical issue for any industrial activity, as negligence and non-compliance increase the risk of injury, illness and accidental releases to the environment. Poor indoor air quality can affect student and teacher performance by causing eye, nose, and throat irritation, fatigue, headache, nausea, sinus problems, and other mild or serious illnesses.

References

[1] Anzorova, S., et al. Greening education as a foundation sustainable development of the environment, IOP Conference Series: Earth and Environmental Science this link is disabled, 2021, 937(4), 042007

[2] Sarbassova, S., et al. Formation of environmental literacy in an educational organization, IOP Conference Series: Earth and Environmental Sciencethis link is disabled, 2021, 937(4), 042006

[3] Artemenko, O.I., Anzorova, S.P., et al. On the issue of reforming public education in the Russian empire. Bylye Gody, 2021, 16(4), pp. 1624–1637

[4] Niyazbekova, S.U., et al. Digital Transformation of Government Procurement on the Level of State Governance. Studies in Systems, Decision and Control, 2021, 314, pp. 663–667

[5] Nikolskaya, E.Y., Anzorova, S.P., Potapov, S.V., Dekhtyar, G.M., Lebedev, K.A. Methodical approaches to estimate hotel facilities' efficiency. Journal of Environmental Management and Tourism, 2018, 9(8), pp. 1664–1669

[6] Yessymkhanova, Z., Niyazbekova, S., Dauletkhanova, Z., Dzholdoshev, N., Dzholdosheva, T. Environmental safety in the countries bordering Kazakhstan in the context of sustainable development. E3S Web of Conferences, 2021, 244, 01016

[7] Niyazbekova, S., Troyanskaya, M., Toygambayev, S., ...Aksenova, E., Ivanova, O. Instruments for financing and investing the green economy in the country's environmental projects. E3S Web of Conferences, 2021, 244, 10054

[8] Igaliyeva, L., Niyazbekova, S., Serikova, M., Tyurina, Y., Maisigova, L. Towards environmental security via energy efficiency: A case study. Entrepreneurship and Sustainability Issues, 2020, 7(4), pp. 3488–3499

[9] Alhassan, T. F., Ansah, E. O., Niyazbekova, S. U., & Blokhina, T. K. (2024). The impact of foreign investment in financing sustainable development in Sub-Saharan African countries. Russian Journal of Economics, *10*(1), 60-83.

[10] Urekeshova, A., et al. The Impact of Digital Finance on Clean Energy and Green Bonds through the Dynamics of Spillover. International Journal of Energy Economics and Policy, 2023, 13(2), pp 441–452 DOI:<u>10.32479/ijeep.13987</u>

[11] Zakiryanov, B.K., et al.Development of Rural Green Tourism of Regions of Kazakhstan. Environmental Footprints and Eco-Design of Products and Processes, 2022, pp.33–38 DOI:10.1007/978-981-19-1125-5_2

[12] Moldashbayeva, L., et al. Green bonds - A tool for financing green projects in countries. E3S Web of Conferences, 2021, 244, 10060 DOI:<u>10.1051/e3sconf/202124410060</u>

[13] Troyanskaya, M., et al. Instruments for financing and investing the green economy in the country's environmental projects. E3S Web of Conferences, 2021, 244, 10054 DOI:<u>10.1051/e3sconf/202124410054</u>

[14] Jazykbayeva, B., et al. The Growth of green finance at the global level in the context of sustainable economic development. E3S Web of Conferences, 2021, 244, 10058 DOI:<u>10.1051/e3sconf/202124410058</u>

[15] Abramova M., Varzin V. et al. Features of the mechanism for implementing sustainable development through the green economy. E3S Web of Conf., 402 (2023) 08030 DOI: 10.1051/e3sconf/202340208030