# Korkyt Ata Kyzylorda University Center for Professional Development and Additional Education

by the Chair of the Committee on Academic Quality

B.B. Abzhalelov

2023

#### «WASTE STORAGE AND SORTING» refresher course program

WORK PROGRAM

Hours: 42

Work program reviewed and approved by the Institution of Engineering and Technicademic Quality Committee meeting  Protocol Ne «1 » 51 08 20 23  Chairman of the Quality Committee Fraces B. B. Abzhalelov  B. B. Abzhalelov		ova	G.K. Syd	Lank	Head of EP_
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Work program considered at the meeting of EP «Electric Power Engineering Technosphere

Safety and Ecology»

Protocol No 1 « 28 » 08

**Purpose:** Provides an overview of ways to optimize the interaction between the environment and industry on the issue of waste storage, recycling and disposal while solving practical waste management problems.

#### **Responsibilities:**

- -Problems of recycling and disposal of industrial and consumer waste;
- -Characterization, classification of waste from various industries and understanding of waste storage, recycling and disposal processes;
- -Study the scientific and applied aspects of waste storage, recycling and utilization, review methods and principles of waste management;
- -Household solid waste, motor vehicle waste, agricultural waste, etc. consideration of recycling methods;
  - -Education of ways to utilize nature by forming a territorial industrial complex;
- -Teaching people to make independent decisions promoting the use and utilization of waste in the sphere of economic activity and various productions.

**Assignments:** Types of waste in the environment and their classification in the process of learning Disable.

## «WASTE STORAGE AND SEGREGATION»

## refresher course program

## WORK PROGRAM

№		Clock volume	
	Program name	Theoretical hours	Practical hour
1.	17 areas of sustainable development	3 hours	1 hour
2.	Waste Concept. Classification of waste	3 hours	1 hour
3.	Environmental issues in waste recycling	3 hours	1 hour
4.	Some aspects of production and consumption waste management within the framework of the environmental legislation reform	3 hours	1 hour
5.	Peculiarities of management of certain types of waste under the reform of environmental legislation	3 hours	1 hour
6.	The most affordable recycling technologies	3 hours	1 hour
7.	Methods of treatment and management of agricultural waste	3 hours	1 hour
8.	Hazardous industrial waste and its disposal	3 hours	2 hour
9.	Waste management	3 hours	1 hour
10	World experience in waste management	3 hours	2 hour
	All of them:	30 hours	12 hours
	All of them:	42 hours	

#### Literature used:

- 1. Ecological Code of the Republic of Kazakhstan (with amendments and additions as of 17.12.2020).
- 2. Akbasova A.J., Sainova G.A. Ecology: textbook for higher educational institutions. Almaty: Bastau Publishing House, 2003.-292 p.
- 3. The concept of sustainable development for 2007-2024. MOSRK.
- 4. Korobkin V.I., Peredelsky L.V. Ecology.- Rostov n/D: "Phoenix" Publishing House, 2001 576 p.
- 5. Duambekov M.S., Tlebaeva G.M. Fundamentals of industrial ecology.-/Teaching and methodical complex.- Astana: Foliant, 2004. Lot No. 108.-196 p.
- 6. Nikitin D.P., Novikov Y.V. Environment and people: Educational aid For study. Vuzov.-2nd ed., rework. and ball. M.: Higher. Shk., 1986.-415 p.
- 7. Development Strategy of Kazakhstan until 2030.
- 8. Sanitary Rules for Construction and Maintenance of Landfills Ministry of Health of the Republic of Kazakhstan.
- 9. Plant for sorting and processing of MSW, (SPTBO) in the city of Karaganda, PK Yenbekshi.
- 10. "Actual problems of ecology and nature management in Kazakhstan and adjacent territories" Materials of the international scientific-practical conference. Pavlodar izd.\_PGU, 431 pp.
- 11. Ermekov T.E. and others. Development of the program of solid waste management in Astana. Conference material Astana, pp. 215-217.
- 12. State of domestic wastes in RK. MEP RK. Committee for Environmental Regulation and Control. Waste management.
- 13. Zayadan B.K. Environmental Biotechnology. Tool for reading. Almaty: Publisher "Liter", 2013.
- 14. Kuznetsov A.E., Gradova N.B. Scientific bases of ecological biotechnology.-M.Mir, 2006.
- 15. Akimova TA, Haskin VV. Ecology. Man Economy Biota Environment: Textbook for Uzov.-2nd izd.pererabrab. i ball. M: UNITY-DANA, 2001. 566 c.
- 16. Ecological biotechnology: per. Edited by K. F. Froster, D. A. J. Weise, 1990.
- 17. Industrial Microbiology / Edited by N. S. Egorova-M. Higher School, 1985.
- 18. Waste Classifier of the Republic of Kazakhstan 2.06.2007/4775
- 19. Low-carbon development Kyoto Protocol: Kazakhstan, Russia Zharkyn Co Publishing House
- 20. Kopylov M.N., Kopylov S.M. Forgotten facts from the history of international environmental law: UN Conference on conservation and utilization of resources in 1949.
- 21. Guman O.M. Ecological and geological conditions of solid domestic waste landfills in the Middle Urals: Cand. D. in Geology and Mineralogy, 2009. 342c.
- 22. Program of modernization of the system of solid domestic waste handling for 2014-2050.
- 23. Ecological Code of the Republic of Kazakhstan Code of the Republic of Kazakhstan dated January 9, 2007.