

**Некоммерческое
акционерное
общество**



**АЛМАТИНСКИЙ
УНИВЕРСИТЕТ
ЭНЕРГЕТИКИ И
СВЯЗИ**

Кафедра иностранных языков

АНГЛИЙСКИЙ ЯЗЫК

Методические указания для улучшения навыков чтения
для студентов специальности

5В073100 – Безопасность жизнедеятельности и защита окружающей среды

Алматы 2014

СОСТАВИТЕЛЬ: Ж.Б. Ержанова. Английский язык. Методические указания для улучшения навыков чтения для студентов специальности 5В073100 – Безопасность жизнедеятельности и защита окружающей среды. – Алматы: АУЭС, 2014.-32 с.

В методических указаниях рассматриваются основы перевода, лексические трудности перевода научно-технической литературы. Большое внимание уделяется вопросам терминологии, что дает возможность увеличить активный словарь по специальности.

Методические указания предназначены для студентов специальности «Безопасность жизнедеятельности и защита окружающей среды», занимающихся техническим переводом.

Рецензент: доцент Серикбаева У. Б.

Печатается по плану издания некоммерческого акционерного общества «Алматинский университет энергетики и связи» на 2014 г.

© НАО «Алматинский университет энергетики и связи», 2014 г.

Preliminary exercises

Exercise 1. Transcribe and pronounce these words. Give their corresponding Russian equivalents.

Distinguish, inquiry, permanent, utopia, destiny, privacy, profound, philosopher, argue, traumatic, accelerate, intellectual, pervasive, contemporary, inhabitable, anticipation.

Exercise 2. Look through text and identify the meaning of the following words:

исследование, технология, влияние, современное общество, источник, промышленник, отношение, производительность, радиоактивность, последствия, ущерб.

Exercise 3. Read the text and answer the following questions:

1. What are three prevailing views on the role of technology in society?
2. What are the arguments of those who hold these views?
3. How may technology be defined?
4. Why is modern technology considered as an important determinant in the life of society?
5. What should be done to understand and control the effects of technology on society?

Exercise 4. These words will help you to understand the text:

Assess (v) – оценить

Contemporary (a) – современный

Distinguish (v) – различать (отличать)

Dignity (n) – достоинство

Survive (v) – переживать

Accelerate (v) – ускорять

Measure (v) – измерять

Relationship (n) – взаимосвязь

Define (v) – определять

Techniques (n) – методика

Value (n) – ценность

Rifle (n) – ружье

Inhabit (v) – населять

Awareness (n) – осознание

Determinant (n) – решающий фактор (детерминанта)

Cause (v) – вызвать, быть причиной

Pollution (n) – загрязнение

Environment (n) – окружающая среда

Damage (n) – ущерб

Anticipation (n) – прогнозирование
Strengthen (v) – усиливать, укреплять
Hardware (n) – технические средства (обеспечения)

Read the text.

The role of technology in society

1. While a good deal of research is aimed at discerning the particular effects of technological change on industry, government, or education, systematic inquiry devoted to seeing these effects together and to assessing their implications for contemporary society as a whole is relatively recent.

One may distinguish three prevailing views on the role of technology in society.

2. The first states that technology is seen as the motor of all progress, as holding the solution to most of our social problems, as the source of permanent prosperity. This view is held by many scientist and engineers, by many military leaders and aerospace industrialists, by people who believe that man is fully in command of his tools and his destiny.

3. A second view holds that technology is an unmitigated curse. Technology is said to rob people of their jobs, their privacy, their participation in democratic government, and even, in the end, their dignity as human beings.

This view is akin to historical “back-to-nature” attitudes towards the world and is propounded by artists, literary commentators, popular social critics, and philosophers. It is becoming increasingly attractive to many of youth, and it tends to be held by segments of the population that have suffered dislocation as a result of technical change.

4. The third view is of a different sort. It argues that technology as such is not worthy of special notice, because it has been well recognized as a factor in social change at least since the Industrial Revolution, because it is unlikely that the social effects of computers will be nearly so traumatic as the introduction of the factory system in the 18th century, because research has shown that technology has done little to accelerate the rate of economic productivity since the 1800s, because there has been no significant change in recent decades in the time period between invention and widespread adoption of new technologies, and because improved communications and higher levels of education make people much more adaptable to new ideas and to new social reforms required by technology.

5. This view tends to be held by historians and by many economists who find that their instruments measure some things quite well while those of the other social sciences do not yet measure much of anything.

6. Each of these views contains a measure of truth and reflects a real aspect of the relationship of technology and society.

7. Whether modern technology and its effects constitute a subject matter deserving special attention is largely a matter of how technology is defined.

8. We have found it more useful to define technology as tools in a general sense, including, machines, but also including linguistic and intellectual tools and contemporary analytic and mathematical techniques. That is, we define technology as the organization of knowledge for practical purposes. It is in this broader meaning that we can best see the extent and variety of the effects of technology on our society, values and culture. Its pervasive influence on our very culture would be unintelligible if technology were understood as no more than hardware.

9. Most of the consequences of technology that are causing concern at the present time are pollution of the environment, potential damage to the ecology of the planet, occupational and social dislocations, threats to the privacy and so on. Now that some of the negative impacts of technology are threatening to become critical, the government should consider measures to control these effects. Attention should be directed to development of a system of social indicators showing the social effects of technology, to establishment of some body of social advisers to the president to help develop policies in anticipation of such effects, and generally to strengthening the role of the social sciences in policy making.

Post – reading exercises

Exercise 1. Group the pairs of synonyms.

Effects, contemporary, permanent, population, demand, modern, impacts, continuous, inhabitants, devices, requirement, tools, cause, reason.

Exercise 2. Give all the words that can be derived from the following verbs and translate them into Russian.

Example: to govern-governor-government.

To solve, to industrialize, to participate, to comment, to attract, to populate, to in-habit, to locate, to dislocate, to recognize, to accelerate, to produce, to communicate, to invent, to educate, to adopt, to require, to measure, to reflect, to constitute, to determine, to know, to differ, to decide, to pollute, to occupy, to develop, to establish, to anticipate.

Exercise 3. After each sentence there is a choice of several words. Pick the word what is closest in meaning to the message of the sentence.

1. At present a good deal of research is aimed at assessing negative effects of technology on contemporary society.

- a) present
- b) current
- c) modern

2. We have found it more useful to define technology as tools in a general sense.

- a) machinery
- b) apparatuses

- c) devices
- 3. Most of the consequences of technology are causing concern at the present time.
 - a) care
 - b) trouble
 - c) attention
- 4. Each of these views contains a measure of truth.
 - a) point
 - b) extent
 - c) fraction

Text Study

Exercise 1. Which of the following choices – a), b) or c) most adequately sums up the ideas of the whole paragraph?

Paragraph 1.

- a) There is no systematic research on the effects of technology on contemporary society.
- b) There are three prevailing views on the role of technology in society.
- c) A good deal of research is aimed at assessing the particular effects of technology on society.

Paragraph 2.

- a) Technology is considered as the motor of all progress.
- b) Technology is considered as the solution to all problems.
- c) This view is shared by many scientists.

Paragraph 3.

- a) Technology is considered to have only negative effects on society.
- b) This view is propounded by artist, literary commentators, critics and philosophers.
- c) Society is indifferent to technological changes.

Paragraph 4.

- a) New technologies help people become more adaptable to new ideas and to new social reforms.
- b) Technology as such is not worthy of special notice.
- c) Technology has done little to accelerate the rate of economic productivity since 1880s.

Paragraph 8.

- a) The paragraph gives the definition of technology.
- b) The paragraph evaluates the extent and variety of the effects of technology on society.
- c) The paragraph compares different definitions of technology.

Paragraph 9.

- a) The paragraph analyzes the most negative effects of technology on society.

b) The paragraph considers some measures to control negative effects of technology.

c) The paragraph describes the consequences of technological changes.

Exercise 2. Say whether these statements are true or false. Give your arguments.

1. There is no single view point on the role of technology in modern society.

2. Scientists who believe people to be fully in command of their tools and destiny do not consider technology as the motor of progress.

3. Technology is considered as an unmitigated curse by many artists, commentators, social critics and philosophers.

4. Technology is not worthy of special attention.

5. Technology is defined as the organization of knowledge for practical purposes.

6. Technology is understood as hardware.

7. Our society devotes significant efforts to the search for ways to measure and to control the effects of technology on society.

Exercise 3. Look through Paragraphs 3, 4, 5, 8, 9 and find sentences in which infinitives are used. Translate them into Russian.

Exercise 4. Translate the following into English.

Известно, что в настоящее время техника оказывает огромное влияние на общество, в котором мы живем. Это влияние может быть как положительным, так и отрицательным. Вот почему существуют различные точки зрения на роль техники в обществе. Некоторые считают технику великим благом для человека и общества, двигателем всего прогресса, решением всех социальных проблем, источником процветания и развития; другие полагают, что техника – настоящее проклятье для человечества, ибо лишает человека работы, заставляет менять место жительства и т.д., третьи вообще не считают, что о технике, как таковой, нужно говорить, ибо если сравнить развитие техники в настоящее время с введением фабричной системы в 18 веке, то техника незначительно увеличила уровень производительности, поскольку за последние десятилетия наблюдается большой разрыв со времени появления изобретения и его внедрением в практику.

Каждая из этих точек зрения отражает в какой-то степени долю истины во взаимосвязи техники и общества.

Preliminary exercises

Exercise 1. Look at these words and try to give their corresponding Russian equivalents:

Nature, natural, resources, products, machinery, geographical, minerals, collectively, exploitation, limit, moment, product, occupation, process.

Exercise 2. Read the following words paying attention to the pronunciation of the suffixes:

[əl]	[ən]
-cial	-sion
-cial	-tion
-cait	
essential	dimension
potential	possession
social	exploitation
special	population
commercial	occupation
associate	location

Exercise 3. Transcribe and pronounce the following words:

Earth, exhaustible, inexhaustible, trout, salmon, significance, mica, nitrate, precious, gemstone, jewelry, diamond, sapphire.

Exercise 4. Form the English nouns according to the pattern and give their Russian equivalents:

Pattern: V(verb) + tion = N (noun);

Example: to found + tion = foundation (основывать, основание);

to possess (владеть, обладать), to exploit (разрабатывать), to relate (устанавливать связь), to utilize (использовать), to operate (работать), to explain (объяснять), to affect (воздействовать), to construct (строить), to create (творить).

Exercise 5. Fill in the blanks with nouns formed from underlined verbs and translate the following sentences:

1) Although nearly all countries possess freshwater fish such as carp, trout and salmon these are not generally of commercial significance. Natural resources are essential for the creation of the products that man finds necessary in order to live: his food, clothing, ... power and motions.

2) Historical geology is the branch of geological science that relates to the past history of the earth. Geology includes the study of rocks and their ... of the earth to other heavenly bodies in the universe.

3) The science utilizes all knowledge in the field of physical geology gained in the study of minerals, rocks, geological processes and structures. This is the science which deals with the history of the earth, its inhabitants, the earth's construction and structure and with the ... of the earth materials by man.

4) Large capacity collieries operate in different regions of our country. The aim is to introduce mechanization and automation in underground ...s. A turbine of more than a million kw capacity is in Electronic computers will play a large role in mining ...s of the future.

5) In the mine machinery laboratory the students design and construct machines and test them in mines. The undergraduate took part in the ... of a new combine. The increase in the output of ores required the ... of large opencast mines and development of high capacity machines and equipments.

Exercise 6. Read and translate the following words paying attention to the prefixes non-, in-, il-, un- and suffix-less having negative meaning:

Example: renewable – возобновимый, nonrenewable – невозобновимый
depletable – исчерпаемый, nondepletable – неисчерпаемый.

Expensive – inexpensive; exhaustible – inexhaustible; limit – limitless; evitable – inevitable; destructible – indestructible; legally – illegally; decomposed – undecomposed; ferrous – nonferrous; productive – nonproductive; pollutes – unpolluted.

Words and word combinations to be remembered:

Constitute – составлять
Possession – имущество
Commodities – предметы потребления
Exhaustible – истощимый
Deplete – исчерпывать (запасы)
Pollute – загрязнять
Dimension – измерение
By-product – побочный продукт
Extract – извлекать (продукт)
Extraction – извлечение, добывание
Significance – значение, важность
Exist – существовать
Existence – существование
Timber – строевой лес
Coniferous trees – хвойные деревья
Hardwood – твердая древесина
Softwood – мягкая древесина
Rock – горная порода, скала
Earth crust – земная кора
Quarry – добывать
Solely – исключительно, единственно

Read the text and translate it.

How world resources work for the mankind and how the man should safeguard natural resources

1. Natural resources constitute the wealth of the world since they are essential for the creation of the products that man finds necessary in order to live: his food, clothing, possessions, power and machinery. In geographical terms these resources can be defined as the commodities that nature provides under, on and above the surface of the Earth: minerals, rocks, soils, water, animals and air. As such they can be viewed collectively as the one link between man and his environment. The greater their exploitation, the stronger is the man-environment relationship. However, resources are not limitless. Some are being used, others are latent and not yet being used to their full potential, but all are ultimately limited in supply. Even those that are renewable are limited in supply at any one moment. Indeed, as population increases, man's natural resources are becoming relatively more scarce still, the exhaustible resources being depleted and the inexhaustible resources (water and air) being polluted. Thus, the importance of natural resources is taking on a new dimension in geography. Not only do they underlie man's activities but also, through their excessive use, they are giving rise to concern about conservation.

2. Of all the resources obtained from water fish are by far the most important. They are a major source of food and various by-products (such as glue, fertilizer and liver oils) and there are numerous occupations involved in their extraction and process.

3. Although nearly all countries possess freshwater fish such a carp, trout and salmon, these are not generally of commercial significance. The salt-water varieties are much more important and some countries, like Iceland, are almost entirely reliant on these for their existence.

4. The chief fishing grounds of the world predominate in the temperate zone of the northern hemisphere as the result of geographical factors.

5. With over a quarter of the Earth's land surface covered by forest, it is to be expected that timber remains an important natural resource. As such it falls into two main groups: softwoods obtained largely from fast-growing coniferous trees (e.g. pine, spruce and fir) and hardwoods derived either from temperate deciduous trees such as oak, elm and maple or from tropical evergreen trees such as teak, ebony, mahogany and greenheart.

6. The locations of the main forest areas of the world are about 40% of all coniferous timber from North America and over half the remainder from Scandinavia, Burma, Thailand and Indonesia, together, produce well over a third of the world's tropical hardwoods and are especially noted for teak.

7. There are numerous types of rocks to be found in the Earth's crust and many have become extremely useful to man. Some are quarried solely for construction purposes, others solely for industrial raw materials, and a few for a variety of uses.

Apart from being used as a resource themselves, rocks also contain valuable materials. These can be divided between metallic minerals, including iron, precious metals and non-ferrous metals, and non-metallic minerals including industrial substances (such as mica and graphite) and natural fertilizers (such as nitrates and potash).

Precious metal such as gold, silver and tungsten, are characterized by their resistance to, chemical change and their high density, and are used for both industrial and domestic purposes.

Not to be forgotten, are the precious gemstone minerals mined largely for jewelry and other domestic ornamental work: diamonds (also for industrial purposes), emeralds, rubies, sapphires, opals and other.

Post – reading exercises

Exercise 1. Make up pairs of synonyms:

essential, aim, make up, constitute, own, impact, purpose, necessary, effect, possess, protection, harmful, research, adverse, conversation, exploration.

Exercise 2. Make up English-Russian pairs:

- 1) harmful effect
- 2) evergreen trees
- 3) long-term effect
- 4) internal combustion engine
- 5) ebony
- 6) petroleum deposits
- 7) natural fertilizers
- 8) earth's crust
- 9) coniferous trees
- 10) mahogany
- 11) by-product
- 12) renewable resources
- 13) man-environment relationship
- 14) commodities

- 1) кора земли
- 2) предметы потребления
- 3) взаимосвязь человека с природой
- 4) природные удобрения
- 5) эбеновое черное дерево
- 6) вредное воздействие
- 7) побочный продукт
- 8) вечнозеленые деревья
- 9) месторождение нефти

- 10) возобновляемые ресурсы
- 11) красное дерево
- 12) длительное воздействие
- 13) хвойные деревья
- 14) двигатель внутреннего сгорания

Exercise 3. Translate the following word groups:

Table 1	
oil	
natural	
natural gas	
World	
limited	
limitless	
exhaustible	resources
inexhaustible	
water	
Earth's land	
renewable	
depletable	

Table 2	wastes
reuse	water
	non-consumable goods
	wastepaper
Table 3	
increasing	
Chemical	fertility
Economic	
Table 4	
forest	
renewable resources	renew
supplies of coal	
oil deposits	

Exercise 4. Translate the following sentences paying attention to the active vocabulary:

- 1) Natural resources are not limitless.
- 2) The locations of the main forest areas are shown on the on the map of the world.
- 3) Apart from being used as a resource themselves, minerals also contain valuable materials.
- 4) Nitrates, phosphates and potash are rich fertilisers.
- 5) The precious gemstone minerals are mined largely for jewelry and other domestic ornamental work: diamonds (also for industrial purposes), emeralds, rubies, sapphires, opals and others.
- 6) Iron is the most ubiquitous of all minerals (making up about 5% of the Earth crust).
- 7) Synthetic rubber is made of gasses which are by-product s of oil extention.
- 8) Mineral resources are nonrenewable, and their conservation means economical and rational use of them.

Read the text and translate it.

Radioactivity

Radioactivity is a natural phenomenon and natural sources of radiation are features of the environment. Radiation and radioactive substances have many beneficial applications, ranging from power generation to uses in medicine, industry and agriculture. The radiation risks to workers and the public and to the environment that may arise from these applications have to be assessed and, if necessary, controlled.

Activities such as the medical uses of radiation, the operation of nuclear installations, the production, transport and use of radioactive material, and the management of radioactive waste must therefore be subject to standards of safety.

Regulating safety is a national responsibility. However, radiation risks may transcend national borders, and international cooperation serves to promote and enhance safety globally by exchanging experience and by improving capabilities to control hazards, to prevent accidents, to respond to emergencies and to mitigate any harmful consequences.

Vocabulary:

Radioactivity – the emission of ionizing radiation or particles caused by the spontaneous disintegration of atomic nuclei (радиоактивность)

Radiation – the emission of energy as electromagnetic waves or as moving subatomic particles, especially high-energy particles which causes ionization (радиация)

Feature – a distinctive attribute or aspect of something (черта, особенность)

Environment – the surroundings or conditions in which a person, animal or plant lives or operates (окружающая среда)

Substance – the real physical matter of which a person or thing consists and which has a tangible, solid presence (вещество)

Beneficial – resulting in good; favoring or advantageous (благоприятный, полезный, выгодный)

Agriculture – the science or practice of farming, including cultivation of the soil for the growing of crops and the rearing of animals to provide food, wool, and other products (сельское хозяйство)

To assess – evaluate or estimate the nature, ability, or quality of (оценить)

Nuclear – denoting, possessing, or involving weapons using nuclear energy (ядерный)

Installation – a large piece of equipment installed for use (установка)

To transcend – be or go beyond the range or limits of a field of activity or conceptual sphere (превышать, выходить или выйти за пределы)

To promote – support or actively encourage a cause, venture, etc (поощрять)

To enhance – intensify, increase, or further improve the quality, value or extent (усиливать)

Hazard – danger or risk (риск, опасность)

To prevent – keep (something) from happening (предотвращать)

To respond – say something in reply (отвечать)

To mitigate – make (something) less severe, serious or painful (смягчать, облегчать)

Consequence – a result or effect, typically one that is unwelcome or unpleasant (последствие)

Exercise 1. Decide if the sentences are true (T) or false (F).

1. Radioactivity is a natural phenomenon. T/F
2. Radiation and radioactive substances don't have many beneficial applications. T/F
3. Regulating safety is a national responsibility. T/F
4. International cooperation promotes and enhances safety. T/F

Exercise 2. Answer the questions.

1. What is radioactivity?
2. What beneficial applications do radiation and radioactive substances have?
3. What are the risks of radiation?
4. What must be subject to standards of safety?
5. What is a national responsibility?
6. How can radiation risks may transcend national borders?
7. What are the functions of international cooperation?

Preliminary exercises

Exercise 1. Look at these words and try to give their corresponding Russian equivalents:

factor, plan (v), personal, line, psychologist, career, style, group (v), typical, role, chief (a), ingredient.

Exercise 2. Transcribe and pronounce the following words:

identity, identify, leisure, engage, available, career, average (a), influence (v), opportunity, relationship.

Exercise 3. Take notice of this pattern and translate the sentences below:

Pattern: A (adjective) + - ty/ - ity = N (abstract noun);

active + - ty = activity;

difficult + - ty = difficulty.

1. Special attention is paid to industrial safety.
2. The control function is usually a management responsibility.

3. Young people have many opportunities nowadays but they don't always make the most of them.
4. He is a man of marked individuality.
5. Career is the central activity around which we plan our daily lives.
6. When we say that people have ability to do something, we mean that they are able to do it.
7. People who have difficulty in associating with other people are usually more successful working alone.

Exercise 4. Give the adverbs corresponding to the following adjectives and translate them into Russian:

main – mainly; close - ...; careful - ...; occupational - ...; professional - ...; large -

Exercise 5. Give the Passive Infinitive forms of the following verbs:
to place, to learn, to introduce, to ask, to think, to make, to do, to choose, to plan, to serve, to call, to reach.

Exercise 6. Transform these sentences according to the model and translate them:

Model: You must perform the work on time. The work must be performed on time.

1. You should choose your career carefully.
2. One can't learn a foreign language in a week.
3. Can you introduce me to Dr. Wilson?
4. You must place books in the right order.
5. When you meet a person he may ask you "What do you do?"
6. Students must plan their daily life around their studies.
7. They can't do research without this equipment.
8. Children should serve their parents in the old age.
9. A computer can do a great amount of work in a fraction of a second.
10. We can call this idea a brilliant thought.

Remember: "For" answers the question "How long?"
"During" answers the question "When?"

The noun after "for" may have:	The noun after "during" may have:
a, an – for a long time	the – during the holidays
no article – for years	a demonstrative pronoun – during this week some
a numeral – for two weeks	a possessive pronoun – during their visit
several – for some time for several hours	

for ages – очень долго, целую вечность	
for ever – навсегда	

Exercise 7. Fill in the blanks with “for” or “during”.

1. ... the lesson
2. ... the journey
3. ... hours
4. ... the last few days
5. ... two days
6. ... most of his life
7. ... a century
8. ... his stay in London
9. ... our trip
10. ... the talks

Exercise 8. Say the whole sentence in English:

- 1) My father has lived in Vladivostok (всю свою жизнь).
- 2) We have had no rain (около месяца).
- 3) I shall remember my school years (навсегда).
- 4) We talked our business (во время конференции).
- 5) I haven't seen you (целую вечность).
- 6) I am afraid it will last (много дней).
- 7) It stopped snowing at last but only (на несколько часов).
- 8) We met each other (в школьные годы).

Words and word combinations to be remembered:

Earn (v) – зарабатывать

To earn one's living – зарабатывать на жизнь

Influence (v) – оказывать влияние

Leisure (n) – досуг

Leisure time – свободное время

Opportunity (n) – удобный случай, благоприятная возможность

Age (n) – возраст

Trade (n) – занятие, ремесло, профессия

Profession (n) – профессия

Complex (a) – сложный

Job (n) – работа, место работы

Work force – рабочая сила goal (n) – цель

Average (a) – средний, обычный, нормальный

Involve (v) – вовлекать, втягивать

To be involved in – участвовать в

Major (a) – главный, более важный

Amount (n) – количество

Equal (a) – равный, одинаковый

Similar (a) – подобный, похожий

Determine (v) – определять, устанавливать

Read and translate the text.

Work – life's central activity

1. Today the work you do to earn a living influences your way of life. It is the major factor in your identity. It affects your choice of friends and the way you spend your leisure time. Work gives you an opportunity to have impact on the culture in which you live. Work is the central activity around which people plan their lives. Successful work activity is necessary to achieve personal happiness.

2. In the past the variety of work activity available to a young person was limited. Few women worked outside the home. Most young people followed in the same line of works as their parents. Many became farmers, having learned how to work at an early age by helping on their parent's farm. Others learned a trade by helping their parents or a friend of the family. There was not much choice about the kind of work a person could do.

3. During the past 50 yours, our society has become much more complex. There are now more than 20, 000 different jobs. Most women now work for at least 25 years of their lives outside the home. Women have become an important part of the work force. Most people no longer perform their work activities in the home – they travel to work. Thus, many young people never see their parents en-gaged in the work activity which earns the family livelihood. While there are several thousand kinds of work which are available to young people, there is less opportunity to closely observe work activity today than there was 50 years ago.

4. Psychologists tell us that one of the things which most disturb young people is the lack of an occupational identity. That is, too many young people have no picture of themselves some five or ten years in the future. They have no career goals. They don't know where they are going. Young people who know where they are going occupationally have a goal to pursue. They have a purpose.

5. As you daydream (as everyone does) about your future, have you thought carefully about how your work affects you and your overall lifestyle? Did you know, for example, that half of the average person's lifetime is spent at or involved in work? Your work, or career, is not something that affects you only during working hours. If you are going to spend most of your walking hours involved in some kind of work activity for most of your adult life, you can see how important it is to spend some time planning this facet of your future.

Study the new words.

Exercise 1. Translate the following sentences paying attention to the active vocabulary.

1. Colleges and universities are free to determine their own individual standards, admission and graduation requirements.
2. The faculties must prepare their students to earn a living immediately after graduation.
3. The main principle of our educational system is an equal opportunity of getting education.
4. You may take courses in adult evening school.
5. Some people believe that traditional family values are now in danger.
6. The average human life is now longer.
7. Various schools and systems are similar in structure.
8. Does education influence culture or does culture influence education?
9. Old age is highly respected in China.
10. One of the goals of education is to bring people together.
11. More than 30 software firms were involved in the project.

Exercise 2. Fill in the blanks with the necessary words of the active vocabulary: average, goal, work force, jobs, leisure, make up, involved, major, alone, complex.

1. The proportion of women in the total ... is about 52 percent.
2. The ... of education may be money, status, power, or simply knowledge.
3. The speaker showed the ... tendencies in the development of science.
4. Many different cultural traditions, ethnic sympathies, racial and religious groups ... the people of America.
5. Few of us like to be told that we are ... or typical.
6. There are many families in which women have to raise their children
7. A very small proportion of the country's population is ... in agriculture.
8. A large number of students hold ... in addition to studying.
9. Many people are too busy in their jobs and cannot enjoy
10. The world around us is becoming more and more

Exercise 3. Make the pairs of synonyms:

- a) affect, occupational identity, trade, goal, culture, equal, similar, major, central, job, lifestyle;
- b) important, career goal, chief, like, the same, influence, way of life, purpose, career, occupation, society.

Study the new grammar.

Exercise 1. Give Participle II of the following regular verbs and pronounce them in accordance with the three variants of the endings [d], [t], [id]:

to answer, to arrange, to attend, to play, to close, to develop, to discover, to discuss, to enter, to equip, to establish, to introduce, to pass, to offer, to provide, to receive, to publish, to help, to construct, to fail.

Exercise 2. Make up sentences using the table and translate them.

I You We	have	just	helped them. translated texts into English. attended seminars on psychology. equipped the laboratory with a new computer.
He She	has	already	passed an exam in math. received a letter from the company. been to England.
I You We They	haven't	introduced the new method into the production listened to the latest news answered their letter	yet today this week
He She	hasn't	discussed the development of the experiment learned many new words arranged the meeting	this month lately recently
I you Have we they	(ever)	published your article in their journal constructed the new building of the University written letters to your foreign colleagues looked through the newspapers been in Russia failed to finish the work	yet? already ?
he Has she			today? this month?

Exercise 3. Say what you have done recently, lately, this year, this week.

Read the text.

Exercise 1. Find in the text the English equivalents of the following Russian phrases:

1) как вы проводите свободное время?

- 2) воздействовать на общество;
- 3) доступное молодому человеку;
- 4) вне дома;
- 5) занимались той же работой, что и родители;
- 6) не было большого выбора;
- 7) не видят своих родителей в работе;
- 8) средства к жизни семьи;
- 9) больше всего мешают молодым людям;
- 10) отсутствие профессиональной ориентации;
- 11) не имеют представления о своем будущем;
- 12) влияет на весь ваш образ жизни;
- 13) средняя продолжительность жизни человека;
- 14) эта сторона вашего будущего.

Exercise 2. Match the pairs of the sentences expressing the same idea.

1. In the past the variety of work activity available to a person was limited.	1. Very often, those who are most interested in and successful in their careers are most satisfied with life.
2. Women have become an important part of the work force.	2. Many young people do not know where they are going occupationally.
3. Some young people have no career goals.	3. There was not much choice about the kind of work a person could do.
4. How successful you are in life is largely measured by your success in your work.	4. The role of women in the working world has increased.
5. People who have successful careers of-ten find that their success is accompanied by happiness, satisfaction in life.	5. Success in your work influences all aspects of your life.

Exercise 3. Answer the questions on the text.

1. What is the major factor in a person's identity?
2. How does the work a person does to earn a living influence his way of life?
3. Successful work activity is necessary to achieve personal happiness, isn't it?
4. What opportunities of choosing work were available to people in the past?
5. Why do you think young people have less opportunity to closely observe work activity today?
6. According to psychologists what is the thing that most disturbs young people nowadays? Do you agree?

Read and translate the text.

Ecology and sustainable development

Humans have been living as part of natural ecosystems like humid tropical forests since millennia creating perturbations of different degrees and yet attaining a sustainable relationship with their surroundings. Over time they have evolved organic and cultural linkages with nature. Contrary to popular notion, most tropical forests of the world are not pristine. Patches of primary, secondary and managed forests, molded through historical times, are to this day associated with many agricultural landscapes. Ignorant of the traditional ecological knowledge (TEK) the whizkids of development tend to keep away the indigenous societies, leading towards social conflicts and ecological mismanagement. How to organize our life and life activities properly.

Forest ecosystems are prone to various perturbations. The death and falling of an aged tree, creating a canopy gap, triggers off a flurry of activity on the forest floor to fill up the lacuna. The *jhum* or shifting cultivation systems of the north-eastern India were originally adjusted to the rhythms of the forest. On the contrary, the revenue and industry oriented forest management tends to create larger perturbations, making the forest recovery a slower process or a failure altogether.

Ecology has to be firmly rooted in the cultural ethos of the people, otherwise culture-specific land-use systems of already marginalized societies would be gradually wiped out without any viable alternatives leading to ecological catastrophes and large-scale social disruptions.

Vocabulary:

Ecology – the branch of biology that deals with the relations of organisms to one another and to their physical surroundings

Sustainable – able to be maintained at a certain rate or level; Ecology (especially of development, exploitation, or agriculture) conserving an ecological balance by avoiding depletion of natural resources

Ecosystem – a biological community of interacting organisms and their physical environment

Humid – marked by a relatively high level of water vapour in the atmosphere (влажный)

Perturbation – anxiety; mental uneasiness; a deviation of a system, moving object, or process from its regular or normal state or path, caused by an outside influence (встревоженность, волнение)

To attain – succeed in achieving (something that one has worked for); reach (a specified age, size, or amount) – (достигать, добиваться)

To evolve – develop gradually; (with reference to an organism or biological feature) develop over successive generations as a result of natural selection (развиваться, эволюционировать)

Pristine – in its original condition; unspoilt (чистый)

Patch – a small piece of ground, especially one used for gardening (участок)

To mould – form (an object) out of malleable material (формовать)

Whiz-kid – a young person who is outstandingly skillful or successful at something (восходящая звезда)

Indigenous – originating or occurring naturally in a particular place (туземный, местный)

Mismanagement – manage (something badly or wrongly) – (плохое управление, руководство)

Properly – appropriately for the circumstances (подобающе, должным образом)

Prone to/to do something – likely or liable to suffer from, do or experience something unpleasant or regrettable (склонный к чему-либо)

Canopy – the uppermost branches of the trees in a forest, forming a more or less continuous layer of foliage (покров)

Gap – a pass or way through a range of hills (проход, ущелье)

To trigger off – cause (an event or situation) to happen or exist (вызывать)

Flurry – a small swirling mass of something, especially snow or leaves, moved by sudden gusts of winds; a number of things arriving or happening suddenly and during the same period (шквал, волнение)

Lacuna – an unfilled space, a gap (пробел)

Revenue – income, especially when of an organization and of a substantial nature (доход)

Be rooted in – have as an origin or cause (иметь причину)

Ethos – the characteristic spirit of a culture, era or community as manifested in its attitudes and aspirations (дух, характер)

Marginalized – (a person, group or concept) as insignificant or peripheral

Society – the aggregate of people living together in a more or less ordered community (общество, объединение, организация)

To wipe out – ruin, destroy, clean (вытирать, уничтожать)

Viable – (of a plant, animal or cell) capable of surviving or living successfully, especially under particular environmental conditions (жизнеспособный)

To disrupt – drastically alter or destroy the structure of (нарушать).

Exercise 1. Decide if the sentences are true (T) or false (F).

1. Most tropical forests of the world are not pristine. T/F
2. Forest ecosystems are prone to various perturbations. T/F
3. The *jhum* or shifting cultivation systems of the north-eastern India were not originally adjusted to the rhythms of the forest. T/F
4. Ecology has to be firmly rooted in the cultural ethos of the people. T/F

Exercise 2. Answer the questions.

1. What kind of relationship are humans attaining with their surroundings?

2. What linkages have humans evolved with nature?
3. What is TEK?
4. What perturbation forest ecosystems are prone to?
5. What is jhum?
6. What are the tendencies of industry oriented forest management?
7. What are the original principles of ecology?

Read and translate the text.

Appointment of qualified experts

The operating organization may appoint one or more suitably qualified persons as qualified experts (radiation protection advisers) to advise on matters relevant to radiation safety. The responsibility for compliance with the regulations is not delegated to the qualified expert and remains a responsibility of the operating organization. The appointment can be on a part time basis or as an outside consultant; a radiation protection adviser need not necessarily be an employee of the organization.

The qualified expert provides information and technical assistance on matters relating to radiation safety, including: equipment maintenance, calibration and repair, hazard assessments and emergency planning, commissioning, monitoring and dissymmetry, internal inspections, emergency support, investigations of incidents, accidents and overexposures, training.

The qualifications of the qualified expert include : Theoretical training and practical experience to ensure the necessary knowledge of the properties of ionizing radiations used in industrial radiography. A knowledge of the hazards of the ionizing radiations present and the ways in which the hazards should be controlled and minimized. A general knowledge of the working practices in other organizations of the same type. A knowledge of all relevant regulatory provisions, codes of practice and international and national protection standards, guidance material and other information needed for the provision of advice in industrial radiography. The operating organization has to provide the qualified expert with adequate information, facilities, equipment and support services as may be needed for the qualified expert to work effectively.

Vocabulary:

Appointment – an arrangement to meet someone at a particular time and space
(назначение)

Relevant – closely connected or appropriate to the matter in hand
(относящийся к делу, уместный)

Compliance – the action or fact of complying with a wish or command
(уступчивость)

To delegate – entrust (a task or responsibility) to another person, typically one who is less senior than oneself (делегировать, поручать)

To remain – continue to exist, especially after other similar people or things have ceased to do so; stay in the place that one has been occupying (оставаться)

To provide – make available for use; supply (приготавливаться, обеспечивать)

Calibration – the action or process of calibrating something (калибровка)

Hazard – a danger or risk (опасность)

Assessment – the action of assessing someone or something (оценка)

Commissioning – order or authorize the production of something (поручать)

Dissymmetry – lack of symmetry

Overexposure – expose too much, especially to the public eye or to risk (передержка)

To include – comprise or contain as part of a whole (включать, вносить)

To ensure – make certain that (something) will occur or be the case (обеспечивать)

Facility – a place, amenity or piece of equipment provided for a particular purpose (способность)

Exercise 1. Decide if the sentences are true (T) or false (F).

1. The operating organization may appoint only one suitably qualified person as qualified expert. T/F

2. The responsibility is not delegated to the qualified expert and remains a responsibility of the operating organization. T/F

3. The appointment can be only on a part time basis. T/F

4. The operating organization has not to provide the qualified expert with any kind of information, facilities or equipment and support services as may be needed for the qualified expert to work effectively. T/F

Exercise 2. Answer the questions.

1. How many qualified experts may the operating organization appoint?

2. Is the qualified expert responsible for compliance with the regulations?

3. What kind of appointment can it be?

4. Is it necessary for a radiation protection adviser to be an employee of the organization?

5. What kind of information and technical assistance is the qualified expert provided?

6. Name all the qualifications of the qualified expert?

7. Is it necessary to have theoretical training and practical experience in industrial radiography? Name all the possible knowledge a qualified expert has to obtain.

8. How is the qualified expert can be informed to work effectively?

Read and translate the text.

Objectives of radiation protection and safety

The primary aim of radiation protection and safety is to provide appropriate standards of protection and safety for people without unduly limiting the benefits of practices giving rise to exposure.

This primary aim is expressed by the following objectives of radiation protection and safety:

“Protection objectives: to prevent the occurrence of deterministic effects in individuals by keeping doses below the relevant threshold and to ensure that all reasonable steps are taken to reduce the occurrence of stochastic effects in the population at present and in the future.”

“Safety objectives: to protect individuals, society and the environment from harm by establishing and maintaining effective defenses against radiological hazards from sources.”

Industrial radiography sources emit X rays and gamma radiation which produce dose rates of the order of hundreds of milligrays per hour at one metre. These high dose rates at close distances can cause severe injuries such as radiation burns following exposures of a few seconds. Workers using such sources must achieve the protection objective to prevent doses arising from acute and chronic accidental exposures and unsafe work practices likely to cause injuries to develop. Safe work practices will protect not only the individual worker but also others in the vicinity and the public from serious consequences.

Vocabulary:

Objective – not influenced by personal feelings or opinions in considering and representing facts (объективный)

Protection – the action of protecting, or the state of being protected (защита, попечение)

Appropriate – suitable or proper in the circumstances (соответствующий, подходящий)

Unduly – unwarranted or inappropriate because excessive or disproportionate (чрезмерный, излишний, неподобающий)

Exposure – the state of having no protection from something harmful (выставление, разоблачение, экспозиция)

To prevent – keep (something) from happening; stop (someone) from doing something (предотвращать, мешать, препятствовать)

Occurrence – an incident or event (происшествие, случай, явление)

Deterministic – the doctrine that all events, including human action are ultimately determined by causes regarded as external to the will (детерминистический)

Relevant – closely connected or appropriate to the matter in hand (относящийся к делу, уместный)

Threshold – a point of entry or beginning (порог, начало)

To ensure – make certain that (something) will occur or be the case; make certain of obtaining or providing something (обеспечивать)

Reasonable – fair and sensible (разумный)

Stochastic – having a random probability distribution or pattern that may be analyzed statistically but may not be predicted precisely

X ray – an electromagnetic wave of high energy and very short wavelength (between ultraviolet light and gamma rays), which is able to pass through many materials opaque to light (рентгеновы лучи)

Gamma radiation – gamma rays – penetrating electromagnetic radiation of shorter wavelength than X rays (гамма лучи)

Severe – (of something bad or undesirable) very great, intense (суровый)

Injury – an instance of being injured (рана)

Likely – such as well might happen or be true; probable (вероятный, правдоподобный)

Vicinity – an area near or surrounding a particular place (близость, соседство)

Consequence – a result or effect, typically one that is unwelcome or unpleasant (последствие)

Exercise 1. Decide if the sentences are true (T) or false (F).

1. Radiation protection doesn't have any aims. T/F
2. To reduce the occurrence of stochastic effects in the population at present and in the future is one of the types of protection objectives. T/F
3. Industrial radiography sources don't emit anything at all. T/F
4. Safe work practices will protect the vicinity and the public from serious consequences arising from the loss or use of these sources. T/F

Exercise 2. Answer the questions.

1. What is the primary aim of radiation?
2. How is this primary aim expressed?
3. What are the protection objectives?
4. What are the safety objectives?
5. What are the functions of X rays and gamma radiation?

Read and translate the text.

Radiation safety

Ionizing radiation is an extremely important NDT tool but it can pose a hazard to human health. For this reason, special precautions must be observed when using and working around ionizing radiation. The possession of radioactive materials and use of radiation producing devices in the United States is governed by strict

regulatory controls. The primary regulatory authority for most types and uses of radioactive materials is the federal Nuclear Regulatory Commission (NRC). However, more than half of the states in the US have entered into "agreement" with the NRC to assume regulatory control of radioactive material use within their borders. As part of the agreement process, the states must adopt and enforce regulations comparable to those found in Title 10 of the Code of Federal Regulations. Regulations for control of radioactive material used in Iowa are found in Chapter 136C of the Iowa Code.

For most situations, the types and maximum quantities of radioactive materials possessed, the manner in which they may be used, and the individuals authorized to use radioactive materials are stipulated in the form of a "specific" license from the appropriate regulatory authority. In Iowa, this authority is the Iowa Department of Public Health. However, for certain institutions which routinely use large quantities of numerous types of radioactive materials, the exact quantities of materials and details of use may not be specified in the license. Instead, the license grants the institution the authority and responsibility for setting the specific requirements for radioactive material use within its facilities. These licensees are termed "broadscope" and require a Radiation Safety Committee and usually a full-time Radiation Safety Officer.

Vocabulary:

Hazard – a danger or risk (риск, опасность)

Precaution – a measure taken in advance to prevent something dangerous, unpleasant or inconvenient from happening (предосторожность)

To enforce – cause (something) to happen by necessity or force (заставить кого – нибудь подчиняться)

To stipulate – demand or specify (a requirement) typically as part of an agreement (обуславливать, оговаривать)

To grant – give a right formally or legally (даровать, жаловать)

To set – put, lay or stand (something) in a specified place or position (класть, размещать, располагать)

Requirement – a thing that is needed or wanted (нужда, потребность)

Facility – a place, amenity or piece of equipment provided for a particular purpose (условия, оборудования, помещение)

Exercise 1. Decide if the sentences are true (T) or false (F).

1. Ionizing radiation can pose a hazard to human health. T/F
2. The possession of radioactive materials and use of radiation is governed by strict regulatory controls. T/F
3. All the states in the US have entered into "agreement" with the NRC to assume regulatory control of radioactive material use within their borders. T/F
4. These licensees are termed "broadscope" and don't require a Radiation Safety Committee and usually a full-time Radiation Safety Officer. T/F

Exercise 2. Answer the questions.

1. What can pose a hazard to human health?
2. What is the reason why special precautions must be observed when using and working around ionizing radiation?
3. What is the primary regulatory authority for most types and uses of radioactive materials?
4. What must the states adopt and enforce as part of the agreement process?

Read and translate the text.

Control of radioactive sources

Radioactive sources used for industrial radiography can, and have, caused serious accidents. Operating organizations should ensure that they obtain radioactive sources only from authorized suppliers and that disused sources are returned to the original supplier or transferred to another authorized body. The import and export of radioactive sources should be consistent with the recommendations in the Code of Conduct on the Safety and Security of Radioactive Sources and its supplementary guidance on import and export controls. Operating organizations are required to conduct a periodic inventory of sources, to confirm that they are in their assigned locations and are secure. Sources should be removed from a source store or moved to another location only by authorized and trained radiographers. The radiographers should log their name, the date and time, and the exact new location of the source(s). These records should be audited by the radiation protection officer at least once per month, to ensure that all radioactive sources are where they are supposed to be. Exposure devices that incorporate depleted uranium shielding should be included in the accountancy procedures. Any suspected loss of control over a radioactive source should be promptly investigated by the operating organization and notified to the regulatory body (and any other authority considered to be relevant) within 24 hours or as otherwise specified in regulatory requirements.

Vocabulary:

Import – a commodity, article or service brought in from abroad for sale (импорт, ввоз)

Export – a product or service sold abroad (экспорт, вывоз)

Supplementary – completing or enhancing something (дополнительный, добавочный)

To confirm – establish the truth or correctness of something previously believed or suspected to be the case (подтверждать, утверждать)

Assigned – возложенный, порученный

Radiographer – someone who produce an image of (something) on a sensitive plate or film by X-rays, gamma rays or similar radiation

To log – to enter (on incident or fact) in the log of a ship or an aircraft or in another systematic record (зано́сить в вахтенный журнал, регистри́ровать)

To be audited – conduct a systematic review of (про́верить отчетность)

To suppose – think or assume that something is true or probable but lack proof or certain knowledge (предполагать)

Exposure – the state of having no protection from something harmful (вы́ставление, разобла́чение)

Depleted – reduce the number or quantity (исчерпа́нный, угасши́й)

Shielding – protect from a danger, risk or unpleasant experience (засло́нять, защи́щать)

Accountancy – the profession or duties of an accountant (бухгалте́рия)

To suspect – have an idea or impression of an existence, presence or truth of (something) without certain proof (подозре́вать)

Promptly – without delay, immediately (бы́стро)

Exercise 1. Decide if the sentences are true (T) or false (F).

1. Radioactive sources caused serious accidents. T/F
2. Operating organizations obtain radioactive sources from all suppliers. T/F
3. There is no need to know the names, the dates and time, and the exact new location of radiographers. T/F
4. The accountancy procedures should not incorporate any information. T/F

Exercise 2. Answer the questions.

1. Could radioactive sources cause serious accidents?
2. Where are disused sources returned or transferred to?
3. What are the requirements for radiographers?
4. What is the length of the period that any suspected loss of control over a radioactive source should be promptly investigated?

Read and translate the text.

Accident notification and report

Where accident notification is required, it is important that the information provided is complete and accurate and that notification is made as soon as possible. Accidents are reported to the Regulatory Authority in accordance with the regulatory requirements or authorizations and the time-scales for notification, depending on the severity of the accident. Major radiological consequences can be avoided if actions are initiated quickly for those accidents that have broader implications for workers, the public and the environment. Notifications are to be followed up by a written accident report which includes a description of the accident, methods used to render the source of radiation safe, assessments of exposures (workers, emergency services personnel, members of the public), the

cause of the accident and corrective actions. Accident reports are to be evaluated by the Regulatory Authority, in conjunction with the operating organization and the manufacturer or supplier as appropriate. The lessons learned from the accident have to be communicated to all involved, and any necessary improvements to enhance safety carried out.

Vocabulary:

Notification – inform (someone) of something typically in a formal or official manner (объявление, сообщение)

Complete – having all necessary or appropriate parts (полный, завершённый)

To report – give a spoken or written account of something that one has observed, heard, done or investigated (докладывать)

In accordance – in a manner conforming with (в соответствии, согласно)

Severity – (of something bad or undesirable) very great; intense (строгость, суровость, серьёзность)

Consequence – a result of effect, typically one that is unwelcome or unpleasant (последствие)

To avoid – keep away from or stop one self from doing something (избегать)

Implication – the conclusion that can be drawn from something although it is not explicitly stated (вовлечение, намек)

To render – provide or give a service, help, etc. (воздавать, представлять)

Assessment – the action of assessing someone or something (оценка)

Exposure – the state of having no protection from something harmful (выставление, экспозиция)

To evaluate – from an idea of the amount, number or value of; assess

In conjunction – together

Manufacturer – the one who makes (something) on a large scale using machinery (производитель)

Supplier – someone who provides and supplies

Appropriate – suitable or proper in circumstances (уместный)

To enhance – intensify, increase

To carry out – perform a task

Exercise 1. Decide if the sentences are true (T) or false (F).

1. The information should not be complete and accurate, where accident notification is required. T/F

2. Accidents are reported in accordance with the regulatory requirements or authorizations. T/F

3. Major radiological consequences can be avoided if actions are initiated quickly. T/F

4. The lessons learned from the accident have to be communicated to all. T/F

Exercise 2. Answer the questions.

1. When is it important that the information provided must be complete and accurate?
2. How are notifications to be followed up?
3. How are accident reports to be evaluated?
4. What lessons have to be communicated to all involved?

Список литературы

1. Муравья Л.А. “Безопасность и жизнедеятельность”. – Москва, 2000.
2. Белова С.В. “Безопасность жизнедеятельности”. – Москва, 1999.
3. Шилов И.А. “Экология”. – Москва, 2012.
4. Боголюбов С.А. “Экологическое право”. – Москва, 2012.
5. Першиков В.И., Савинков В.М. “Республика Казахстан: Отчет по человеческому развитию”. – Алматы, 1997.
6. Кулекеева Ж.А. “Статистический ежегодник Казахстана”. – Алматы, 1999.

Содержание

5. Preliminary exercises	3
6. The role of technology in society	4
7. How world resources work	10
8. Radioactivity	13
9. Work – life’s central activity	17
10. Ecology and sustainable development	21
11. Appointment of qualified experts	23
12. Objectives of radiation protection and safety	25
13. Radiation safety	26
14. Control of radioactive sources	28
15. Accident notification and report	29

Сводный план 2014 г., поз. 270

Жанна Борисовна Ержанова

АНГЛИЙСКИЙ ЯЗЫК

Методические указания для улучшения навыков чтения
для студентов специальности

5В073100 – Безопасность жизнедеятельности и защита окружающей среды

Редактор Л. Т. Сластихина

Специалист по стандартизации Н.К. Молдабекова

Подписано в печать __. __. ____.

Формат 60x84 1/16

Тираж 50 экз

Бумага типографская №1

Объем 2,1 уч.-изд. л.

Заказ ____. Цена 1050 т.

Копировально-множительное бюро
Некоммерческого акционерного общества
«Алматинский университет энергетики и связи»
050013, Алматы, Байтурсынова, 126