

Грамматика. Повторите перечисленные перед контрольной работой грамматические правила по грамматическому справочнику. Выберите правильный вариант и выполните контрольную работу .

Работа представлена в 5 вариантах. Выбор варианта осуществляется по номеру студенческого билета/зачетки, а именно: в соответствии с последней цифрой шифра студенческого билета:

шифр XXX1 – шифр XXX2 - вариант № 1

шифр XXX3 – шифр XXX4 - вариант № 2

шифр XXX5 - шифр XXX6 – вариант № 3

шифр XXX7 -шифр XXX8 – вариант № 4

шифр XXX9 –шифр XXX0 – вариант № 5

К О Н Т Р О Л Ь Н А Я Р А Б О Т А **(раздел 14)**

Прежде чем приступить к выполнению контрольной работы вам

необходимо повторить следующие разделы курса английского языка по рекомендованным учебникам:

1. Эквиваленты модальных глаголов **(to be able to, to be to, to have to, to be allowed to).**
2. Неличные формы глагола **(Participle I; Gerund).**
3. Правила перевода атрибутивных словосочетаний на русский язык.
4. Порядок слов в вопросительных предложениях. Вопрос к подлежащему.

В А Р И А Н Т 1

Упр. 1. Эквиваленты модальных глаголов

(А) Перепишите предложения и переведите их.

Подчеркните модальные глаголы и их эквиваленты.

1. Members realized that they could get a fairer price for their oil by agreeing on how much oil to supply to the market.
2. Oil can also be extracted from unconventional sources, for example, heavy crude oil, oil sands, but production costs are high.
3. An oil spill could cause enormous damage to the environment and habitats.
4. You may have to do night shifts but that depends on your job.
5. You have to work twelve hours each day but you get breaks and time for

meals.

(В) Заполните пропуски соответствующими модальными глаголами или их эквивалентами.

1. Some people simply _____ get used to this lifestyle so there is a high staff turnover.

2. You _____ to get used to jokes between workmates but people are not allowed to be unkind.

3. The oil company _____ to estimate the future costs of pumping out the oil.

4. His top priority _____ to complete the project on time and within budget.

5. Mark _____ do a safety course next week. He's not sure.

Упр. 2. Герундий. Перепишите предложения и переведите их.

1. In the early 1970s, OPEC caused a large increase in the price of petroleum by limiting production.

2. Global warming is melting the ice so it is easier to reach the oil.

3. Flaring and venting of natural gas from oil and gas wells is responsible for large quantities of greenhouse gases which are responsible for global warming.

4. Flaring is the burning of natural gas which is not required or a way of reducing pressure at oil and gas facilities.

Упр. 3. Ing-формы. Перепишите предложения и переведите их, обращая внимание на разные функции слов с окончанием -ing. Подчеркните причастие одной чертой, а герундий - двумя.

1. Associated gas is now being used to supply domestic customers, and to produce electricity and liquefied natural gas.

2. When people think of striking oil, they imagine it gushing out of the ground in a huge jet.

3. However, in most cases making the earth give up its oil is much more difficult.

4. Major oil companies and governments are now working together to reduce flaring and to recover and use this associated natural gas.

Упр. 4. Атрибутивные словосочетания. Перепишите данные словосочетания и переведите их, обращая внимание на правила перевода определений, выраженных существительными.

1. crane operator	2. technical Support
3. maintenance technician 5. production operator 7. gas processing plants 9. Human Resources	4. overhead crane 6. lifting equipment 8. monkey board 10. measuring pipe

Упр. 5. Задайте вопросы к подлежащему к следующим предложениям.

1. Refining crude oil is a completely different process.
2. The liquids are sent to a blending plant
3. The price of oil and gas to consumers is volatile.
4. Governments create strategic storage of oil.
5. The main causes of accidents in the workplace are not dramatic fires and explosions.

Упр. 6. (А) Прочитайте текст и устно переведите его. Выполните упражнения, данные после текста, письменно.

SAFETY FIRST

(1) The main causes of accidents in the workplace are not dramatic fires and explosions, but very ordinary accidents that can be easily prevented by workers looking out for their own safety and the safety of others. Many of these accidents are minor, but some cause death or serious injury. The most common cause of accidents is from slips, trips, and falls, followed by lifting and carrying. Accidents involving cuts, burns, dropped objects, falling from height, and collisions are also common but often avoidable.

(2) The main preventable measure is safety training. All employees in the oil and gas industry go through regular safety training courses to

encourage a strong safety culture. For hazardous areas, employees will be issued with Personal Protective Equipment (PPE) which must be worn in signed areas. Safety boots, hard hats, overalls, gloves, and safety glasses are usually a standard issue.

(3) In addition, ear protectors and special trades' equipment such as welding shields, goggles, and gloves will be issued. Safety signage has to be followed. Signs are classified with different shapes and colours to denote whether they are mandatory, warnings, or giving information. Most signs are independent of language and use standard symbols as ideograms. The meaning of some of these signs is not always immediately obvious and so they should be learnt. Following information signs is practised in fire drills where workers must follow signs to safe areas. Those working offshore will attend special courses on helicopter escape, use of life jackets and survival craft, and escape through smoke. There are often opportunities for workers to volunteer as fire officers or first aiders, and special training is given.

(4) Safety cultures are different in every country and those workers from countries with a high safety culture may not be sure how to act when they see unsafe conditions or acts where the safety culture is lower. A good guide is never to intervene unless there is imminent danger, but always to report to your supervisor or to an agreed point of contact.

(5) When workers are assigned particular tasks, it is good practice for supervisors to give toolbox talks. These are talks at the working area usually at the beginning of a shift. Supervisors have the opportunity to point out particular hazards and remind workers of current safety initiatives. Most tasks will require the supervisor to carry out a generic or a specific risk assessment for a task. If special hazards are involved, a task may require a Permit to Work, where special procedures may need to be followed. A permit would be required where there is the risk of exposure to petroleum vapour and a source of ignition such as a welding operation.

(B) Найдите в тексте английские эквиваленты следующих слов и фраз:

1. обычные несчастные случаи

2. привести к смерти или серьезным травмам
3. столкновение
4. обучение технике безопасности
5. средства индивидуальной защиты
6. защитные очки
7. неминуемая опасность
8. производственное совещание, пятиминутка
9. источник возгорания
10. допуск для выполнения работ

(C) Письменно переведите на русский язык абзацы 3,5 из текста А.

В А Р И А Н Т 2

Упр. 1. Эквиваленты модальных глаголов

(А) Перепишите предложения и переведите их.

Подчеркните модальные глаголы и их эквиваленты.

1. From start to finish it can take as much as eight to ten years, especially if the company has to drill in deep water or arctic conditions.
2. The hundreds of smaller projects that make up the entire project have to be managed.
3. In addition, the project manager needs to know how to control costs, planning and purchasing and risk management.
4. This paper describes the main features of the installation and identifies the hazards that could cause a major accident.
5. We have to maintain and improve our management system rather than blame individuals.

(В) Заполните пропуски соответствующими модальными глаголами или их эквивалентами.

1. Next, senior managers of the oil company _____ to choose the consultants and contractors that can bring their knowledge and skills to each

stage of the project.

2. The manager _____ to be a team player but know how to make important decisions too.

3. The vehicle _____ not have been in the area.

4. I _____ get a job as a deep-sea driver with an oil company in the future.

5. He wanted to leave at five o'clock, but he has to finish the report first. He _____ be late.

Упр. 2. Герундий. Перепишите предложения и переведите их.

1. Modern oil tankers are double-hulled to stop oil spilling if there is an accident.

2. The process that begins with discovering oil and ends with exploiting it is long and difficult.

3. The company has to estimate the future costs of pumping out the oil and getting it to market and predict the prices of oil and gas in many years' time.

4. His top priority is to complete the project on time and within budget to the customer's satisfaction while making a profit on the contract.

Упр. 3. Ing-формы. Перепишите предложения и переведите их, обращая внимание на разные функции слов с окончанием -ing. Подчеркните причастие одной чертой, а герундий - двумя.

1. It includes lifeboats, escape routes, safety equipment and shows how any remaining risks to safety and health are as low as reasonably practicable.

2. The statistics for health and safety in the UK are very good but there are still deaths, serious injuries, and lost time accidents that we can stop from happening.

3. The process of steam reforming can be used to separate these molecules.

4. As a result, most fuel-cell-powered vehicles being developed use a reformer to get hydrogen from gasoline.

Упр. 4. Атрибутивные словосочетания. Перепишите данные словосочетания и переведите их, обращая внимание на правила перевода определений, выраженных существительными.

1. welding hazards 2. pipeline cleaning 3. offshore workers 4. flammable gas 5. safety training	6. pipeline inspection gauge 7. welding machine 8. production platform 9. well head 10. water distribution
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Упр. 5. Задайте вопросы к подлежащему к следующим предложениям.

1. Oil company scientists and engineers use special measuring devices to survey these areas.
2. There is competition between oil companies and political sensitivity which must be considered.
3. The geophone array may comprise many hundreds of geophones
4. Marine surveys in environmentally sensitive areas are subject to strict controls.
5. Most of the exploration work is carried out by company personnel.

Упр. 6. (А) Прочитайте текст и устно переведите его. Выполните упражнения, данные после текста, письменно.

FINDING OIL AND GAS

(1) Oil companies employ geologists to identify areas where oil and gas may be

recovered. By studying how the earth and oceans were millions of years ago and how they have changed, geologists can predict where there are reservoirs of oil and gas that can be commercially recovered. Oil company scientists and engineers use special measuring devices to survey these areas. The results are analyzed and a decision is made whether to drill and gather more data.

(2) Most of the exploration work is carried out by company personnel to retain confidentiality. There is competition between oil companies and political sensitivity which must be considered. However, specialist drilling contractors are employed when exploratory drilling starts. The techniques used to collect this data are becoming more sophisticated as the search becomes more difficult for remaining reserves that are becoming less accessible in more challenging environments. In seismic surveying, sound energy generated by special vibrators or small explosives is reflected back to its source when it meets a different geological formation.

(3) Arrays of receivers, called geophones, pick up the reflected signal. The time taken for the reflection to be recorded is measured. Computers process the signals and analyze and display the depth and the nature of the boundary. The geophone array may comprise many hundreds of geophones and will require a large team of surveyors supported by large teams using a Global Positioning System (GPS) over wide areas, often in desert environments. Marine surveys are carried out using vessels towing hydrophones fitted to cables or streamers, or by Ocean Bottom Cable in shallower water.

(4) Large surveys must take into account the ecological disturbance they may cause, not only in mobilizing and sustaining large survey teams on land but also in generating signals at sea that can disturb and confuse marine life. Marine surveys in environmentally sensitive areas are subject to strict controls. Sakhalin Island is a breeding ground for the Western Gray Whale and Sakhalin Energy Investment Corporation, operators of platforms off the island with the Russian government, are committed to minimize any potential environmental risks in their survey work.

(В) Найдите в тексте английские эквиваленты следующих слов и фраз:

1. буксируемый гидрофон
2. геологоразведочные работы
3. залежи нефти и газа
4. особо охраняемая природная территория
5. плодородная почва
6. поисковое и разведочное бурение
7. принимать во внимание
8. пустынный район
9. сейсморазведочные работы
10. специальные измерительные устройства

(С) Письменно переведите на русский язык абзацы 1,2 из текста А.

ВАРИАНТ 3

Упр.1 Эквиваленты модальных глаголов.

(А) Перепишите предложения и переведите их.

Подчеркните модальные глаголы и их эквиваленты.

1. I might try to get a job in a refinery or I could look for a job in the plastics industry. I can't decide.
2. He might not get the job. He doesn't have the right qualifications.
3. They could find the oil in the north of the country. The geologists are doing tests there now.
4. My job is to analyze data that we collect from seismic studies and I now have to manage my own project.
5. The oil is able to move freely in the pipe.

(В) Заполните пропуски соответствующими модальными глаголами или их эквивалентами.

1. I ____ try to get a job in a refinery or I could look for a job in the plastics industry. I can't decide.
2. He ____ not get the job. He doesn't have the right qualifications.
3. To get hydrogen, it _____ to be separated from other elements, using, for example, water or natural gas.
4. The manager _____ to be able to manage his workforce.

5. The rig _____ not be moved quickly.

Упр. 2. Герундий. Перепишите предложения и переведите их.

1. An apprentice begins work after leaving school, working together with a qualified person such as a technician, electrician, or welder to learn the job.
2. My company spends a lot of time searching for oil and gas.
3. Working in extreme conditions at onshore sites can be tough.
4. Some people believe they are an excellent step in making vehicles cleaner and more efficient but they still need more development.

Упр. 3. Ing-формы. Перепишите предложения и переведите их, обращая внимание на разные функции слов с окончанием -ing. Подчеркните причастие одной чертой, а герундий - двумя.

1. There are many different jobs within the oil and gas industry, each requiring different skills and qualifications and sometimes travel.
2. There are three types of pipelines. Upstream, oil and gas from the fields is carried in gathering pipelines.
3. It's my job to operate this vehicle from the platform using electronic equipment.
4. I use computer programs to do financial modeling. That means looking at what will happen.

Упр. 4. Атрибутивные словосочетания. Перепишите данные словосочетания и переведите их, обращая внимание на правила перевода определений, выраженных существительными.

- | | |
|--------------------------|-------------------------|
| 1. measurement unit | 2. operations manager |
| 3. reflected sound | 4. cable tray |
| 5. light waves | 6. natural gas reserves |
| 7. instruction manual | 8. receiving terminal |
| 9. liquefaction facility | 10. organic matter |

Упр. 5. Задайте вопросы к подлежащему к следующим предложениям.

1. The pipes in refineries and on platforms are carried on large pipe racks.
2. Pipes are joined using flanges.
3. Process engineers calculate the size of pipe required.
4. The welds may be tested for cracks.
5. Layout engineers decide exactly where the process equipment is to be located.

Упр. 6. (А) Прочитайте текст и устно переведите его.

Выполните

упражнения, данные после текста, письменно.

PIPES AND PIPELINES

(1) Pipes carry the liquids and gases from the wells to platforms, under the sea, across countries, and within refineries. The pipes in refineries and on platforms are carried on large pipe racks, which are mainly straight. Different fittings are used to join the pipe, change the size and direction, and connect to the required process units. Pipes are joined using flanges. There are various types of flanges, depending on how they are attached to the pipe. Two pipes are joined by bolting the flanges together through holes in the flanges with a gasket between the faces of the flange to provide a seal. Pipe fittings for permanent fixings are tees, elbows, and reducers, which are attached by welding, or by screw threads for small bore pipes.

(2) Process engineers calculate the size of pipe required and the piping scheme between the process units. Layout engineers decide exactly where the process equipment is to be located. Metallurgists check whether any special materials are required and pipe stress engineers calculate the stresses in the pipes, specify the details of the pipe required and how it will be supported. Piping designers use Computer Aided Design (CAD) to visualize the three dimensions they work in. CAD helps to generate the dimensions, select the materials, pipe, and fittings, and produce working drawings for the fabricator. A list of

materials called a Material Take Off (MTO). and a three dimensional drawing called an isometric are generated.

(3) The fabricator receives the material from the MTO and makes up as much as possible into pipe spools in the workshop. The pipe spools are transported to the work site and pipefitters and welders complete the erection and construction of the isometric. Welders have to be trained, tested, and certified for the particular welding techniques they can work with. After the pipe erection is complete, the work is inspected. Critical lines are tested. The welds may be tested for cracks and the whole line may be tested by filling it with water and looking for leaks. Finally, lines may have to be painted or insulated. Steel of different types is mainly used but plastic pipe is used for some chemicals, gas, and drainage, and copper is used for plumbing.

(4) Pipelines carrying oil and gas long distances have to be specially designed for their surrounding environment varying from the deserts of the Middle East to the arctic environment of Alaska. Technical design has to consider such things as how the structure is supported in unstable sand or permafrost, access for maintenance and inspection, corrosion, leak detection, and cleaning. Environmental design has to allow for the protection of habitats, animal migration routes, mud slides, forest fires, and whether to build above or below ground. Marine pipelines are another specialization.

Pipeline inspection gauges (sometimes called 'pigs') are used to clean and inspect the insides of pipelines. These are introduced at special stations and move through the pipeline to the next station to remove contaminants and detect and measure corrosion.

(В) Найдите в тексте английские эквиваленты следующих слов и фраз:

1. ведомость заказа материалов
2. вечная мерзлота
3. обнаружение течи
4. природоохранное проектирование
5. проверять на трещины
6. проектирование с помощью ЭВМ
7. рабочие чертежи

8. сварочная технология
9. скребок для очистки трубопровода
10. трубная катушка

(С) Письменно переведите на русский язык абзацы 1,2 из текста

В А Р И А Н Т 4

Упр. 1. Эквиваленты модальных глаголов

(А) Перепишите предложения и переведите их.

Подчеркните модальные глаголы и их эквиваленты.

1. At sea, hydrocarbons can be found by equipment that is pulled along in the water.
2. The manager needs to be able to manage his workforce.
3. In order to confirm the results of this initial analysis, we need to run further tests to eliminate contamination or measurement errors.
4. High levels of mercury can cause damage to piping and equipment if materials are not chosen correctly.
5. Drill bits can be covered with industrial diamonds to make them last longer.

(В) Заполните пропуски соответствующими модальными глаголами или их эквивалентами.

1. I am interested in computers and science. The job means I _____ use theory in real-life situations.
2. Next week I _____ to do a three-day offshore safety training course so I can go to the offshore platform to help with commissioning.
3. Geologists _____ use the information from different well logs to construct a map of the area between the wells.
4. He _____ not get the job. He doesn't have the right qualifications.
5. It _____ also be hazardous to health and the environment.

Упр. 2. Герундий. Перепишите предложения и переведите их.

1. Most oil-bearing strata are approximately horizontal so deviated drilling allows drillers to enter horizontally across oil-bearing rocks.
2. We recommend further discussions with Petrolink to decide on the procedure for sampling and further testing, costs, etc.
3. We use hydrocarbons for fuel, for heating, cooking and transportation.
4. I am in charge of taking the oil tanker into the terminal.

Упр. 3. Ing-формы. Перепишите предложения и переведите их, обращая внимание на разные функции слов с окончанием -ing. Подчеркните причастие одной чертой, а герундий - двумя.

1. A large part of the industry has developed, transporting oil and gas from the producing countries to consumers and this is sometimes referred to as the midstream sector.
2. The hydrocarbons in crude oil are a complex mixture of different sizes and shapes of molecules depending on where the oil and gas are found.
3. By drilling through this impermeable rock, the oil and gas can be recovered at the surface.
4. Kerosene, diesel, and fuel oils are mixtures of larger molecules with higher boiling points.

Упр. 4. Атрибутивные словосочетания. Перепишите данные словосочетания и переведите их, обращая внимание на правила перевода определений, выраженных существительными.

1. land surveyor	6. safety officer
2. maintenance technician	7. environmental impact

3. petroleum chemist	8. risk assessment
4. piping designer	9. construction site
5. refinery manager	10. wildlife protection programme

Упр. 5. Задайте вопросы к подлежащему к следующим предложениям.

1. Working on an offshore platform is different from a lot of other jobs.
2. The platform is equipped with a helideck for helicopter landings.
3. Many workers take the opportunity during their shore leave for further education and training.
4. Regular communication is maintained with the onshore base.
5. Accidents are highly unlikely.

Упр. 6. (А) Прочитайте текст и устно переведите его. Выполните упражнения, данные после текста, письменно.

WORKING OFFSHORE

(1) Working on an offshore platform is different from a lot of other jobs. An offshore platform works continuously so it needs a team of workers to support the operations every day and night. The platform is equipped with a helideck for helicopter landings and this is how you get to work. You report for work at the heliport and check in. You will be searched and maybe breathalysed. There is no alcohol allowed on the platform. The helicopter flight is probably the most hazardous part of the job, although accidents are highly unlikely and there is a large number of safety precautions.

(2) Typically, you will work two weeks offshore for twelve hours every day, then you will have two weeks' unpaid leave. You will share a cabin, often with someone on the alternating shift. There are recreational facilities and common areas, and the food is restaurant standard. Pay is usually good and there are travel allowances and tax concessions, depending on where you are from and the location of the platform. There is a wide variety of jobs: laborers, chefs, technicians, and engineers. A crew of 150 is

quite common.

(3) The platform is supplied from an onshore base. Regular supplies are by supply boat, with the helicopter bringing urgent material where necessary. Regular communication is maintained with the onshore base and records are noted and transmitted to a support team onshore who plan maintenance, monitor throughput, order and ensure delivery of supplies and spares, and respond to any requests and emergencies. The management of the platform is by the Oil Installation Manager (OIM). Various supervisors report to the OIM.

(4) The work is often hard and you should be fit and healthy and must have the temperament to follow instructions and be reliable, particularly with regard to safety. You will be issued with the required protective clothing and equipment and you will often have to work outside, sometimes in harsh environments. You will receive regular safety training on the job and you will be expected to work as a team. Although competition for jobs is high, once you have experience there are opportunities to work in different areas of the world. Many workers take the opportunity during their shore leave for further education and training.

(B) Найдите в тексте английские эквиваленты следующих слов и фраз:

1. буровая морская платформа
2. посадочная платформа для вертолётот
3. проводить тест на алкоголь
4. меры предосторожности
5. денежная компенсация расходов на проезд
6. налоговые уступки
7. защитная одежда
8. дополнительное образование
9. обеспечивать поставку
10. объекты культурно-бытового назначения

(C) Письменно переведите на русский язык абзацы 1,2 из текста

Упр. 1. Эквиваленты модальных глаголов

(А) Перепишите предложения и переведите их.

Подчеркните модальные глаголы и их эквиваленты.

1. Nobody can visit an offshore platform without some safety training.
2. Biogas can come from organic matter, for example rotting plants and animal waste.
3. Offshore work is more hazardous than onshore work, so workers must also have a medical test and do a fire-fighting and escape course before they go.
4. We test all of our materials for strength. We need to see how easily they break.
5. These days modern rotary drills are able to bore through several hundred feet of rock in the same time.

(В) Заполните пропуски соответствующими модальными глаголами или их эквивалентами.

1. Offshore workers _____ be physically fit.
2. If electricity enters your body, it _____ burn you badly or kill you.
3. One man _____ always have radio contact with the crane operator.
4. This _____ take many years, particularly where the reserves are difficult to exploit, and _____ involve many different specialists and support people with a variety of knowledge, skills, and experience.
5. There is widespread debate on when oil and gas will run out, but whatever figures are used, we _____ to find new sources of energy.

Упр. 2. Герундий. Перепишите предложения и переведите их.

1. The processing of oil into different products is known as the downstream sector.
2. Atoms combine to produce compounds by forming bonds with other atoms to produce molecules.
3. Geophysicists survey these areas, visibly inspecting and sampling the surface, often using subsea operated vehicles or satellite surveys.
4. Sulphur is a useful by-product of refining and is used in

steelmaking,
papermaking, fertilizers, and dyes.

Упр. 3. Ing-формы. Перепишите предложения и переведите их, обращая внимание на разные функции слов с окончанием -ing. Подчеркните причастие одной чертой, а герундий - двумя.

1. By encouraging companies to employ locally in contracts and legislation, governments help to fulfill the aspirations of their own people and improve their long-term national economy.
2. There are over forty oil-producing countries in the world with substantial oil and gas industries.
3. Even with improved technology, oil and gas are being consumed at four times the rate that they are being discovered.
4. Distillation is also used in making alcoholic beverages to separate alcohol and water.

Упр. 4. Атрибутивные словосочетания. Перепишите данные словосочетания и переведите их, обращая внимание на правила перевода определений, выраженных существительными.

1. power tools	6. column pipe
2. precision measurements	7. routine maintenance
3. workshop management	8. general inspection
4. safety zones	9. liquid petroleum gas
5. personal protection equipment	10. distillation tower

Упр. 5. Задайте вопросы к подлежащему к следующим предложениям.

1. Gas will be more difficult to store than oil.
2. Storage is also created by pumping gas back into depleted oil and gas reservoirs.
3. The methods are used for bulk transport of gas.
4. LNG can be transported over long distances by special tankers

by road or sea.

5. North Sea reserves of oil and gas are declining rapidly.

Упр. 6. (А) Прочитайте текст и устно переведите его. Выполните упражнения, данные после текста, письменно.

NATURAL GAS

(1) Gas is more difficult to store than oil mainly because its volume at normal temperature and pressure is 1,000 times that of oil for the same amount of energy content. In small densely populated countries like the United Kingdom, when coal was the main source of fuel in the early twentieth century, an infrastructure was built to distribute gas from coal throughout the country using a pipeline system from the gas plants to homes in major towns and cities. When North Sea gas was discovered, the system was modified and a pipeline system was created from the onshore terminals to domestic consumers. The system stores gas by increasing the pressure in the main pipeline. Storage is also created by pumping gas back into depleted oil and gas reservoirs. As North Sea reserves of oil and gas decline and gas is imported to the UK, storage is becoming more important.

(2) Where pipeline systems are not available, gas is distributed for domestic use in pressurized containers as propane or butane, known as liquefied petroleum gas (LPG). The liquefied gas is stored in cylindrical or spherical containers at refineries and terminals and can be transported by road to residential storage tanks or in smaller exchangeable cylinders. All storage must take into account dangers of overheating in accidental fires which can cause containers to explode.

(3) By cooling petroleum gas to -162°C , it condenses to a liquid and 1/600th of its volume. This is called liquefied petroleum gas (LNG). The method is used for bulk transport of gas and is carried out at plants usually close to the source of the gas. LNG can be transported over long distances by special tankers by road or sea. It is stored at the LNG plant and at its destination in special insulated storage tanks.

(4) Russia has the largest reserves of natural gas in the world and

transports most of its gas by pipeline. It supplies one quarter of Europe's gas requirements and 80% of this is by pipeline through Ukraine. The risk to supplies was highlighted by a dispute between Ukraine and Russia in 2009 which affected supplies to Ukraine and Europe. Russia is also using LNG from its first offshore platforms in Sakhalin Island. Natural gas is transported from the platforms to onshore terminals then by pipeline to the southern tip of the island which is ice-free during winter. Here it is processed at an LNG plant and distributed by tanker to Asia-Pacific markets.

(B) Найдите в тексте английские эквиваленты следующих слов и фраз:

1. источник топлива
2. система трубопроводов
3. морской нефтеналивной терминал
4. магистральный нефтепровод
5. залежи нефти и газа
6. контейнер под давлением
7. случайное возгорание
8. сжиженный углеводородный газ
9. резервуар для хранения нефтепродукта
10. принимать во внимание

(C) Письменно переведите на русский язык абзацы 1,2 из текста