

ent of GPS.

Locata has also demonstrated high accuracy positioning indoors in high multipath locations. Locata's technology includes a new type of antenna that mitigates multipath and makes possible revolutionary new applications in machine automation and robotics.

Globalization is a pervasive process, and the English language plays the role of the main instrument of business and technical communication. In intercultural communication the language is the main means of transmitting information. Today's business world cannot do without knowledge of the English language. To date, there are plenty of dictionaries to help achieve this goal. Exploring such dictionaries, you can find a lot of examples of terms requiring a detailed explanation. A foreign language is important to provide coverage, analysis and commentary with respect to international surveying, mapping and GIS industry.

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## **LANDFILL GAS: PRODUCTION, RECEIVING, COLLECTING, APPLICATIONS**

The problem of territories rational use that are occupied by landfills is eventually increasing, the volume of the population consumption simultaneously results in amount of wastes increase. Using advanced technologies that are adopted by foreign countries gas can be produced from some waste products - marsh gas and carbon, it will reduce the problem of territories rational use occupied by landfill and additional fuel materials for industry branches.

In order to start production of landfill gas special design that would collect gas for further use in various purposes, and would meet all current environmental regulations, which do not pollute the soil and groundwater is required. Therefore, we consider that it should be a similar ground.

The bottom of the excavated pit is covered with a special geomembrane and then covered with a layer of clay thickness of about a meter. Geomembrane is waterproofing material that is also able to perform a draining function. Such protection is needed to prevent the penetration of rotting food waste into soil and groundwater. Garbage in the trench is interred in layers, then, at the end of each working day it is pressed by machines, rollers and thick layer of clay (30 cm) is poured. This is to prevent garbage scattering by external factors and reduce the stench. After completing the trench by debris, it is covered by the roof sheeting. In this case, the covering is a thick layer of clay, that is layed over debris and rammed special rollers and geomembrane. The protective coating is also a thin layer of soil with vegetation.

The gas formed during the decomposition of waste, is carefully collected and then it gets to a scrubber - a special gas treatment device that uses different chemical-technological processes for gas purification from impurities. This gas is cleaned of dust particles and unwanted impurities (e.g. sulfur) and reaches the compressor. Then the gas is ready for further use.

Despite the seeming simplicity of the process, collecting landfill gas is quite responsible thing, because in the absence of properly managing the landfill in its collection can accumulate excessive amounts of gas. This can lead to very unpleasant consequences, as crude landfill gas contains a large amount of harmful and toxic substances that are extremely dangerous to human health.

Since landfill gas contains a significant amount of methane, it can be just used like traditional biogas. Typically, waste treatment plants use natural gas for heat energy consumed for own needs. However, after further purification gas can also be used as car fuel. In addition, the obtained gas can be used as a clean fuel for power generation. In this case, you must use a variety of gas turbines and gas engines. Thus, the gas can be used in many different purposes, making it a very promising production.

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## **ANALYSIS OF FOLDED-PLATE SHELL FOUNDATIONS APPLICATION**

Profitability increase of solutions in foundation engineering is to clarify the system of settlement schemes base-foundation construction, that is necessary for more complete usage of durable and deformational characteristics of base and foundation. That is why there is a need to design more flexible foundations in their projects on the natural base. At the present stage of foundation engineering there is a need to develop more advanced designs of foundations, which will be more economical, and can be used in the difficult engineering and geological conditions. Such foundations are folded-plate shell foundations diversified in form, area and conditions of use.

Active usage of such foundations is limited due to insufficient number of experimental and theoretical researches of joint work of folded-plate shells with base. However, there has been a significant increase in the number of new development of constructive solutions of such foundations and expansion of their effective usage – from the weak soil and peat to eternally frozen ground.

Foundations in the form of folded membranes are effective for weak, highly compressible soils and as floating bases. Nowadays there is experience of using folded-plate shell foundations all around the world - the USA, China, Mexico, France, etc. Shell foundation was developed at the Tyumen State Architectural Academy. It is a shell that lies at soil base and which is thin-walled and made of rein-