

"The Good Neighbor"

Or The Continuing Story of One Resistance Movement



"We sincerely strive to be a good corporate citizen of this region; a good neighbor to all residents of Sakhalin"

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Introduction

This report describes a conflict that has continued unabated for many years between Sakhalin Energy Investment Company, Ltd. and Non-commercial Gardening Association "Builder" regarding resettlement outside of the negative impact zone of a liquefied natural gas plant and an oil-loading terminal in the village of Prigorodnoe, in Sakhalin Region. The conflict is primarily linked to Sakhalin Energy's refusal to resettle the dacha owners, whose plots are located within 1.2 kilometers of one of the world's largest oil and gas complexes.

This report was prepared by Sakhalin Environment Watch, a regional non-governmental organization, and is based on official materials provided by Sakhalin Energy, state regulatory agencies, scientific and research organizations, and NGA "Builder". Every fact found in this report has been confirmed by corresponding documentation or the dacha owners' first-hand accounts. Any of these documents can be provided upon request.

This report is meant for Sakhalin Energy, its shareholders, members of the Supervisory Board of the Sakhalin-2 project, representatives of state regulatory agencies, financial organizations, mass media companies, and anyone else who is interested in the ecological and social aspects of the Sakhalin-2 project.

All questions concerning the contents of this report can be directed to the report's authors:

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The authors of this report would like to express their gratitude and sympathy for members of the NGA "Builder" and that Association's leader, Alla Ivanovna Gafner, who has spent many years defending the rights of the dacha owners and fighting for their resettlement outside of the negative impact zone of the LNG plant and oil-loading terminal.

Prologue

Non-commercial Gardening Association "Builder" was founded in 1979 in the village of Prigorodnoe, in Korsakov district of Russia's Sakhalin Region. Members of the Association were mostly veterans and distinguished construction workers from Korsakov district. On the shore of Aniva Bay, 79 dachas were built, and the owners tilled the mountainside's virgin soils with their own hands. They built summer homes and began to grow vegetables, fruits, and berries for their own tables. By 1998, most of the properties had been privatized, and the amateur builders and gardeners became the owners not just of the buildings, but of the land.

In 2001, Sakhalin Energy Investment Company Ltd. (from here on referred to as Sakhalin Energy), a publicly owned company controlled, at that time, entirely by non-Russian corporations Shell, Mitsui and Mitsubishi,¹ announced plans to build a liquefied natural gas plant (one of the largest in the world) and an oil loading terminal in Prigorodnoe. This construction was planned as part of phase two of the Sakhalin-2 project. The company planned to build these facilities in the wide Mereya river valley, not far from the "Builder" Association's dacha community.

By this time, the former construction workers were pensioners, who had long ago become highly-effective gardeners and who, during the short summer seasons, reaped abundant harvests of potatoes, carrots, cabbage, beets, vegetable marrows, onions, garlic, greens, strawberries, raspberries, currants, and other berries. They grew tomatoes and cucumbers, and many even grapes, in greenhouses. Plums, apples and pears ripened on the trees. Because many of the dacha-owners had already retired to live off of their miniscule pensions, the fruits and vegetables that they grew and collected were an extremely important means of providing for their families.



Here it is important to note that the dacha is especially meaningful for Russians, especially for older, retired people. Vegetables, which are grown and collected in the autumn, as well as the marinades, juices, preserves, and pickled vegetables that are prepared from them, make up a significant portion of the food rations of every dacha owner and his or her family. The harvest of potatoes, beets, carrots, onions, cabbage, garlic and home-made preserves can often last an entire family until spring, when a new dacha season brings the beginning of the next harvest. It is not unusual for the agricultural output per unit of land area to be very high, even without accounting for the diversity of production.

¹ At the end of 2006 Gazprom became the company's main shareholder. Sakhalin Energy is currently divided between Gazprom (50% plus one share), Shell (25%), Mitsui (12.5%), and Mitsubishi (10%).

The provision of food and other economic benefits from farming are not, however, the only role that the dacha plays in its owner's life. Perhaps more valuable for Russians is the social and cultural aspect of life at the dacha. Parents bring their children to stay at the dacha with their aged and retired parents for the entire summer, allowing the young children to relax and grow strong in the countryside, as well as to get to know their grandmothers and grandfathers. The parents save money that they would otherwise spend to send their children to expensive summer camps. During the busy spring planting and fall harvest seasons, the middle and youngest generations labor together on the family's plot, and then relax together afterwards. The dacha is also the traditional location for friendly gatherings and parties, and helps prevent aged people from becoming a burden on their children and grandchildren by remaining very much needed, since they continue to literally feed the family. The dacha teaches people to love the land and nature and to work hard, and also strengthens family ties and respect for elders, relieves the stresses and difficulties of city life, and helps older people and children preserve their good health.

Historically, it was not long ago that Russia was chiefly an agricultural country, and the village-dwelling agrarian population was nearly an absolute majority. Therefore, food grown with one's own hands is a natural need for most Russians even today. And the dacha helps Russians fulfill this need. And naturally, to maintain a happy, unworried life at the dacha, to effectively produce agricultural products in dacha gardens, and to fulfill all of the dacha's various social functions, the surrounding environment – clean air and water, stable and undamaged transportation infrastructure, and a land free of excessive noise, worry, and damaging impacts – must be preserved.

It is therefore not at all surprising that the dacha-owners in Prigorodnoe were alarmed to learn about the construction of the liquefied natural gas plant and the oil export terminal (LNG plant /OET). Further developments would show that their fears were not unfounded.

2002 - Public Hearings

According to Russian legislation, production facilities and other sites that could have negative impacts on the environment or human health must be buffered by a territory with special use restrictions – a sanitary defense zone (SDZ). In order to preserve peoples' health and limit negative effects, human habitation, including dacha communities, is forbidden within the SDZ.

On one hand, this means that it is forbidden to build residential homes within the SDZ of an already existing enterprise. And on the other hand, this means that if the SDZ of an enterprise that is planned or under construction conflicts with already existing residential homes (including temporary homes, such as dachas), the owners should be resettled. Accordingly, they should be given properties with buildings and farming infrastructure of a value equal to that of the lost property.

Another legal solution to this problem is to give the homeowner adequate financial compensation along with his or her subsequent expulsion from the SDZ. Therefore, the most important question for the dacha owners concerning the construction of the LNG plant and the OET was the size of the sanitary defense zone surrounding this dangerous plant, which was expected to be located within 1.2 kilometers of the border of the dacha community. None of the members of the community doubted that the construction and subsequent exploitation of such an enormous plant would cause severe negative impacts on their dacha farms.

Between 18 December 2001 and 20 January 2002, Sakhalin Energy conducted public hearings on the preliminary conclusions of the Sakhalin-2, stage 2 environmental impact assessment. In the informational booklet, which collected all questions posed during the public hearings, along with the answers given by company representatives, Sakhalin Energy announced the following: *"The sanitary defense zone of the LNG plant and oil export terminal has been confirmed by Russian institutions responsible for the protection of public health, and will be one kilometer from the source of emission of pollutants into the atmosphere... According to the project that we have at the moment, not a single garden will lie in the territory of the sanitary-defense zone."*² Information confirming this conclusion was presented to the public during presentations made by representatives of Sakhalin Energy at public hearings.

Therefore, already at the beginning of 2002, Sakhalin Energy made it clear that it would not resettle or compensate the dacha owners. It was completely obvious that in this situation the people should have made a choice – either sell their dachas and purchase new land in a different dacha community, or continue to work the property of their dachas within 200 meters of the border of the sanitary defense zone of a large factory, in the hopes that the negative impacts would not affect them. But Sakhalin Energy itself hindered the dacha-owners from making a final decision during the early stages of the project's development, and even up until the beginning of construction of the LNG plant and OET. Only a few months after the completion of the public hearings, the company released contradictory information about the SDZ and raised peoples' hopes that there would be a more equitable solution to the problem of the harmful industrial neighbor.



Here it is necessary to make an important departure from the chronological summary of events. During the public hearings in January 2002, as is described above, Sakhalin Energy was already announcing with certainty in official materials and presentations that the width of the sanitary-defense zone for the LNG plant and OET had already been set by Russian public health officials at one kilometer. However, the single key document regarding this decision, which company representatives use as evidence to this day, and which has been included in materials presented for many assessments conducted by state institutions, is dated six months later. The letter is from Deputy Chief Sanitation Doctor of the Russian Federation, S. I. Ivanov, and is numbered 1100/2362 2 111 from 16 June 2002. That is, Sakhalin Energy knew that Rospotrebnadzor (the public health institution responsible for determining the size of the SDZ) would set the size of the SDZ at one kilometer already half a year before this event actually happened! Clearly, Sakhalin Energy has a magical gift for fortune telling...

² "Sakhalin Energy Investment Company Ltd." Public hearings. Preliminary variant of materials on environmental impact assessment. Sakhalin-2 project, phase 2. (18 December 2001 – 20 January 2002).

2002 – Development of a technological and economic feasibility study for construction

In 2002, Sakhalin Energy prepared a technological and economic feasibility plan (TEFS) for the construction of the second phase of the Sakhalin-2 project, which described in detail all of the decisions made regarding the project, and on what basis all necessary permits and agreements were awarded. A section called "Protection of Atmospheric Air" (prepared by Environmental Centre IFPA, a private company) was a foundational chapter of this document, and included subsections on calculations and analysis of the quantities of surface concentrations of pollutants, the predicted increase in air pollution from the LNG plant's and OLT's emissions, and the **organization of the sanitary defense zones** surrounding the plant and terminal.

The project planners calculated the level of air pollutants from the LNG plant's and OET's emissions (including the transport of LNG to and from the plant) as sufficiently high that – during both the construction and exploitation phases of the LNG plant - the burning of high quantities of carbon products in a planned torch would release tens of thousands of tons of various harmful pollutants into the atmosphere.

As a result, the authors of the TEFS calculated and determined feasible a sanitary defense zone for the LNG plant and OET, during just the exploitation phase, of a **minimal** width of at least **3.5 kilometers** (instead of one kilometer, as the company had announced at the public hearings):

"The second phase of exploitation will be characterized by two types of liquefaction. This variant will require the construction of a full-scale LNG plant. The planned size of the Sanitary Defense Zone is 3.5 kilometers from the border of the industrial area because of the presence of group 6009 chemicals (nitrogen dioxide and sulfur dioxide). The size of the Sanitary Defense Zone will be increased to 4.2 kilometers from all gardening plots in order to preserve recreational areas".

Sakhalin-2 Project, phase 2, TEFS, volume 5, book 9, part 1, chapter 4.2.5, pgs. 25-26.

It is necessary to highlight the fact that, practically and legally speaking, Sakhalin Energy was the author of the TEFS, and that the company is entirely responsible for the document's content. Despite this, nowhere in the "Protection of Atmospheric Air" section, nor anywhere else in Sakhalin Energy's TEFS, is there a single word mentioning that the Deputy Sanitation Doctor had already set the width of the sanitary defense zone for the LNG plant and OET at 1 kilometer. This fact is never mentioned or examined in the TEFS, as though it had never happened at all.

It is also important to point out that the TEFS in 2002, in which the size of the SDZ is determined feasible at 3.5 kilometers, was a document of significantly higher status than the above mentioned *"Preliminary variant of materials on environmental impact assessment. Sakhalin-2 project, phase 2 2001"*, in which the size of the SDZ was, without any justification, declared to be one kilometer.

Therefore, by the end of 2002, the size of the sanitary defense zone of the LNG plant and OET was justified at 3.5 kilometers in the publicly-available materials concerning Sakhalin Energy's TEFS (instead of the previously stated SDZ size of 1 kilometer), an area which would include the entire dacha community founded by the members of the Builder Association. Thus the dacha owners were legally justified when they began to hope that the company would relocate them to a safer place, where they could continue to work their land and collect their harvest far from any harmful or dangerous neighbors. And why would they hope for anything else, when they had already heard hundreds of assurances that Sakhalin Energy respects Russian laws, and conducts all of its work according to them. And the law in this case required that the dacha community be removed from the sanitary defense zone, or that the dacha owners receive equivalent properties, or financial compensation adequate for the purchase of new properties.

2003 – State environmental review

In January of 2003, Sakhalin Energy sent the feasibility study of phase two of the Sakhalin-2 project to the Ministry of Natural Resources of the Russian Federation for a state environmental review. This procedure was important, as it would decide the future of the project. A positive review by the state committee would green light the beginning of construction work.

The calculations showing the high level of atmospheric air pollution and justifying a sanitary defense zone of 3.5 kilometers in width were included among the TEFS materials sent for review.

However the company somehow "forgot" about letter No. 1100/2362 2 111 from the Deputy Sanitation Doctor from 16 June 2002, which they had already possessed for some time, and which established a sanitary defense zone of one kilometer around the LNG factory and OET. This letter was not included among the materials presented for an environmental review, even though it was supposedly a legal instrument of top importance, by which questions concerning the size of the SDZ (and, therefore, the relocation of the dacha owners) had legally been decided long ago. The document was, in fact, hidden from the state environmental review commission even despite procedural requirements demanding the presentation of all documents concerning the project.

In June of 2003 the TEFS for phase two of the Sakhalin-2 project received a positive conclusion of state environmental review, confirmed by Order #600 of the Ministry of Natural Resources of the Russian Federation, on 15 June 2003.

According to the TEFS documents, which were confirmed by the state environmental review, the sanitary defense zone around the LNG plant and OET was supposed to be 2.1 kilometers during the startup period and 3.5 kilometers during full exploitation, taking into account emissions from shipping near the terminal. These distances were set according to the maximum surface concentration of pollutants of summation group 6009 – a group of two harmful pollutants, nitrogen dioxide and sulfur dioxide.

The project planners' calculations showed that the concentration of these harmful pollutants decreases to the maximum permissible level at a distance of 3.5 kilometers. Any closer, and the level of pollutants exceeds the allowable limit. The state environmental review confirmed these calculations and agreed and confirmed them in its final conclusion.

Therefore, the dacha owners saw the state environmental review as one more weighty confirmation that their dachas fell within the sanitation defense zone, and that they would be resettled to the other side of the mountains.

How could they have known that a one kilometer SDZ had already been put into place, if even Sakhalin Energy did not even inform its own project planners, or the experts from the state environmental review, about this decision? It is no wonder that, at meetings with Sakhalin Energy, members of the dacha community who had seen preparations for the commencement of construction, began to ask questions about being resettled outside of the 3.5 kilometer sanitary defense zone.

2004 - Sakhalin Energy's informational brochure about resettlement of dacha owners

In the spring of 2004, after the snow had melted, dacha owners from the "Builder" Association arrived at their beloved dachas in Prigorodnoe and discovered that the world around their modest village had changed dramatically.



Actually, this became clear as they were approaching the village – the previously passable Korsakov-Novikovo road, which passes close to the dacha village, had been so completely broken apart by heavy trucks that regular cars had difficulty passing, and frequently sank into the mud.

The cozy, picturesque Mereya river valley at the edge of the village had been torn up, and heavy construction equipment worked on the site day and night, creating a constant clamor and raising a cloud of dust. The river itself, in which the village dwellers previously swam and caught fish, had become cloudy from sediments flowing out of the construction site.

Additionally, explosions, which rang out from time to time at a quarry located near the construction site, had the village's older residents clutching their hearts. The relocation question suddenly became more relevant than ever, and the leadership of the dacha community demanded a conclusive answer from Sakhalin Energy. They were not forced to wait for long.

In June of 2004, Sakhalin Energy had already created and begun distributing an informational brochure called *"Steps to provide compensation in connection with the upcoming resettlement of dachas from the sanitary defense zone of the LNG plant and OET in the village of Prigorodnoe."* The following is an excerpt from the brochure:

Russian legislation establishes limits on land use within the boundaries of sanitary defense zones of industrial enterprises. These limits require the resettlement of dachas in the village of Prigorodnoe if the 3.5 kilometer sanitary defense zone is approved. A final decision by federal and regional sanitation and epidemiological authorities is expected by the end of 2004.

Sakhalin Energy assumes that the 3.5 kilometer zone will be approved. Therefore, the company, together with the administration of the city of Korsakov, decided to continue the resettlement and compensation program (author's emphasis). Compensation can be provided monetarily or in-kind (for example, provision of an analogous property or home, relocation of property to a new site) within both reasonable and feasible limits.

ИНФОРМАЦИОННАЯ БРОШЮРА
Действия по Предоставлению компенсаций в связи с
предстоящим перемещением дач из санитарно-защитной зоны
завода СПГ/ТОН в п. Пригородное

1 ВВЕДЕНИЕ

Целью данной брошюры является информирование землепользователей, чьи интересы затрагиваются в связи с введением в действие санитарно-защитной зоны завода по производству сжиженного природного газа (СПГ) и терминала отгрузки нефти (ТОН) п. Пригородное Корсаковского района.

В настоящее время в п. Пригородное компанией «Сахалин Энерджи Инвестмент Компани, Лтд.» (компания «Сахалин Энерджи») осуществляются работы по строительству завода по производству сжиженного природного газа (СПГ) и терминала отгрузки нефти (ТОН). В соответствии с нормами российского законодательства вокруг промышленных предприятий, к которым относится завод СПГ/ТОН, устанавливается санитарно-защитная зона. Санитарно-защитная зона завода СПГ и ТОН начнет действовать в середине 2007 года.

Российским законодательством в пределах санитарно-защитных зон промышленных предприятий устанавливаются ограничения в землепользовании. Данные ограничения обуславливают необходимость перемещения дачных участков в п. Пригородное, если предложенная санитарно-защитная зона 3,5 км одобрена. Заключительное решение федеральных и областных органов санитарно-эпидемиологической службы ожидается к концу 2004.

Компания «Сахалин Энерджи» предполагала, что зона в 3,5 км будет одобрена. Как результат Компания совместно с администрацией г. Корсакова решила продолжить программу переселения и компенсаций.

В соответствии с требованиями российского законодательства компания «Сахалин Энерджи» предоставит компенсацию землепользователям согласно их законным правам. Те землепользователи, которые не имеют права на компенсацию согласно российскому законодательству, могут получить дополнительную помощь согласно принятой в компании «Сахалин Энерджи» Программе дополнительной помощи.

2 ЧТО ПРЕДСТАВЛЯЕТ СОБОЙ САНИТАРНО-ЗАЩИТНАЯ ЗОНА?

Санитарно-защитные зоны представляют собой территории вокруг промышленных объектов, отделяющие их от жилой застройки и устанавливаемые для обеспечения безопасности населения от неблагоприятных воздействий, связанных с промышленной деятельностью.

Размеры санитарно-защитных зон устанавливаются в зависимости от санитарной классификации предприятий, сооружений и иных объектов. Непосредственно размеры санитарно-защитной зоны устанавливаются в процессе проектирования в соответствии с СанПиН 2.2.1/2.1.1.1200-03 «Санитарно-защитные зоны и санитарная классификация предприятий, сооружений и иных объектов».

It is completely obvious that these brochures were distributed at a time when Sakhalin Energy already possessed the authoritative state institution's decision to create a one kilometer SDZ. Sakhalin Energy was brazenly lying to the dacha owners, just as it had previously lied to the experts on the state environmental review, and before that, the project designers. And, like an experienced card shark, the company was hiding the trump card up its sleeve.

Representatives of Sakhalin Energy proclaimed the company's promise to resettle both in official announcements and at special informational meetings for the dacha owners from Prigorodnoe.

It is no wonder that people believed that the resettlement would happen soon and ceased going to their dachas, not seeing the sense in tilling land, planting gardens, and repairing homes that they would soon abandon. Besides that, the endless construction activity simply did not allow them to live and work comfortably. Because of the endless noise, dust, and fumes from the construction equipment, many children and grandchildren ceased visiting their families at the dachas. And so the once flowering community began to fall into decline.



But beautiful places never remain empty for long, and a loud group of Kyrgyz workers, who had been brought to the area to work on the LNG plant, moved into one the abandoned dachas. Every day they traveled to and from work in giant construction vehicles, destroying the village's tiny streets. The indigenous villagers were forced to become acquainted with the peculiarities of Kyrgyz national holidays, which are all celebrated wildly throughout the night. And only repeated, persistent requests to Sakhalin Energy helped to get rid of the uninvited guests. But no one would save the village from the rest of the awful consequences of living next to a large-scale construction site.

Meanwhile, the company met regularly with the dacha owners and never denied their promises to resettle the dachas. Representatives also gave detailed descriptions of the Sakhalin-2 project, the so-called "best in the world," while quietly recording all questions, requirements, and requests, and promising to take all of them into consideration.

And so the dacha owners spent all of 2004 putting up with fumes, clatter, dust, alarm, hope, expectations, worry, and endless "constructive dialogue" with Sakhalin Energy. The village's population diminished. Part of the once flourishing dacha community began to overflow with weeds. And the company's promises to resettle all of the unhappy people to a new place became increasingly evasive. The growing season ended, and the dacha owners returned to their winter apartments certain that they would absolutely be resettled next year.



2005 – "Ta-da!" – It's one kilometer again! Thank you for your attention. You can go now

The noise began to rise again in May of 2005, when construction of the LNG plant and OET was already at its height, and the dacha residents, despite the spring planting season, began to prepare for their move. Sakhalin Energy "suddenly remembered" about the 16 June 2002 letter No. 1100/2362-2-111 with the signature of the Deputy Sanitation Doctor, which set the size of the sanitary defense zone at one kilometer.

The long-hidden trump card was released and set into motion a rapid chain of events. By letter № 2005-OUT-Y-08-00098 from 25 May 2005 Sakhalin Energy informed the members of the "Builder" Association that, it turns out, the sanitary defense zone for the LNG plant and the OET would not be 3.5 kilometers, but just one kilometer.

Such a sharp 180-degree turn simply stunned the dacha owners. Many members of the community began to abandon their land, even despite the fact that it was their private property, which their labor and expense had transformed into flowering gardens. One piece of paper from Sakhalin Energy deprived the dachas of their value, and their owners of just hope for resettlement or adequate compensation. Suddenly no one wanted the cozy homes and rich gardens.

The letter, however, stated that *"The Company is currently completing an international standard **resettlement action plan** (author's emphasis), which includes compensation mechanisms for land users in accordance with the World Bank Operational Directive 4.30"*.

What is contained in the "resettlement plan", what exactly is meant "compensation mechanisms for land users" and where one can get acquainted with this unknown "World Bank Operational Directive 4.30" is never stated. However, this phrase in the letter caused hope in resettlement to rise anew for many. After all, people really wanted to believe in the trustworthiness of their new neighbor and in a favorable outcome.

The dacha owners spent all of 2005 hoping for some sort of progress toward a solution to the resettlement question. Some people continued to plant and harvest, and others simply abandoned what was already an unpromising task. Sakhalin Energy vigorously pursued its "constructive dialogue" with the members of the dacha community and, not losing any time, constructed the largest LNG plant and oil loading terminal in the world.

2006. Manipulating the compensation

2006 arrived.

The negative impacts affecting the residents of the dacha village, and the surrounding environment, continued to get worse. The water in Aniva Bay became cloudy from the large-scale dredging operations necessary for the construction of a pier and other port facilities for the loading of LNG. The laying of underwater pipes for the oil terminal buried the habitat of the tastiest local mollusk – the sea scallop – which had previously been caught offshore just a five minute walk from the dacha village. Cod had long spawned off the beautiful beach in the Mereya valley, and the dacha owners, as well as other local residents, had literally scooped them up in buckets before construction began. That same beach was now closed off by a tall fence and attentive security guards. Most of it had been turned into a construction site.



In addition to all of this, Sakhalin Energy began construction on part of two pipelines and an emergency valve directly behind the dacha village, driving all of the equipment and materials through the village's tiny streets. And the resettlement plan, which had supposedly been completed according to international standards in 2005, still had not been, and was not being, implemented.

For all of this time, the leadership of the dacha community insistently offered Sakhalin Energy its own simple and logical solution.

They proposed that Sakhalin Energy would purchase a plot and dacha of approximately equal value to the lost property in a nearby dacha village for every member of the "Builder" Association. The land owner would then give up his or her rights to land in Prigorodoe. This proposal was especially reasonable since there was already a precedent for such action. During construction of the Sakhalin-2 project, Sakhalin Energy bought land and real estate for owners whose land and homes had been in construction zones, or who had refused to live close to them.

However, the company quietly avoided responding to this proposal at all meetings and negotiations with the leadership of the dacha community.

And then, in the summer of 2006, the long-awaited progress appeared. Despite the much-touted "World Bank Operational Directive 4.30" Sakhalin Energy did not offer the dacha owners compensation, or even the long-promised relocation plan, but merely monetary compensation for the market value of the dacha property.

Jumping ahead, we will note that the company, to this day, has not offered the dacha owners the resettlement plan, which was designed according to World Bank Operational Directive 4.30 and, therefore, has not lived up to the responsibilities that it set for itself.

For the majority of dacha owners, the most important question was about what, exactly, the "market value" would be, and whether or not this compensation would be sufficient to purchase a dacha of equal value in a nearby dacha community.

Their worries were certainly justified, since it was obvious that the company itself had caused the market price to drop with its letter of 25 May 2005, and even earlier, with its gigantic construction project, fencing off of the community, and large-scale negative impacts on the property, health, environment, and social welfare of the dacha owners. Because, quite simply, the market price of a dacha plot is the amount of money that a dacha owner could receive by selling the property on the existing real estate market. The more attractive and expensive the good, the more a buyer is prepared to pay for it. And who needs a dacha next door to an enormous construction project? And, for a perspective on what could be expected in the future, for the next 25 years a natural gas torch would burn, releasing harmful pollutants in such quantities that even the project planners and state environmental impact commission claimed that the safe zone was no closer than 3.5 kilometers. And the dachas were little more than one kilometer away!

"During commissioning, flaring will be conducted for approximately ten days, with 65 000 t of gas flared. This is equivalent to a throughput of approximately 40% of one LNG train operation. ... The flare will be 125 m in height. Modeling of emissions from flaring has not been undertaken. ... However, the dachas (summer homes) are located approximately 1 km to the west and at approximately 80 m above sea level and there is therefore potential for impacts here".

*Environmental Impact Assessment
Volume 5. Sakhalin II Phase 2 Project*

But it is possible that someone would take the risk of purchasing such land hoping to receive financial compensation in the future. But, after the announcement that the "Builder" community was not located in the sanitary defense zone, any discussion of the market value of the community's dachas was a joke.

Nevertheless, Sakhalin Energy was not laughing (at least not at meetings with the dacha owners), conducted a serious market analysis of the dachas' market values. The analysis was completed between April and June 2006 by the GAKS Sakhalin Appraisal Agency, an appraisal company hired by Sakhalin Energy. The market price was set according to a hypothetical situation, in which the LNG plant and oil export terminal near the community did not exist at all, and the surrounding environment was in the state it had been before the beginning of the giant construction project.

But the analysts did not take into account the fact that, beginning in 2002, the members of the dacha community had been preparing to move, and that exactly two years earlier these preparations received a powerful impetus in the form of direct, documented promises from Sakhalin Energy. Many people, expecting to move, had therefore already abandoned their land, and the gardens, orchards, and buildings there had fallen into serious disrepair – seriously lowering their market values. All of this happened because of the company's actions. But the evaluation was completed based on the community's condition in April and May of 2006, and not based on the condition prior to the beginning of the project's negative impacts.

In June of 2006 Sakhalin Energy acquainted the company with the results of the market value analysis of their homes and property, which was determined to be 15, 092, 400 rubles for 71 dacha plots. That works out to an average of 212,000 rubles, or just under 8 thousand dollars, for every plot, according to the exchange rate at the time the evaluation was completed. All of the plots, with their buildings, were evaluated individually, and then each dacha owner could make his own decision about whether or not he or she could purchase property of equal value in a different dacha community. Almost all of the dacha owners realized that this would be impossible without large contributions of their own money.

So, for example, the market value of one typical plot (seven hundreds fully cultivated square meters, a fence around the land, a wooden home in good condition, two greenhouses, various fruit and berry-producing plants, various outbuildings, a well for water), according to the GAKS evaluation, would cost about 222 thousand rubles. For comparison, a dacha plot on six hundreds square meters with an unfinished home, uncultivated land, and decrepit greenhouse in the same Korsakov district, at the same time, cost a minimum of 250 thousand rubles.

Therefore, the market value of the dacha plots, with buildings and gardens, as calculated by the company's order, was not nearly enough to purchase analogous property in another dacha community. There could be no discussion, therefore, about just compensation or resettlement to an area of equal value.

In August of 2006, based on their own evaluation of the market value of dachas in Prigorodnoe, Sakhalin Energy finally offered the weary dacha owners a compensation packet with two key components:

1. *Compensation "for the loss of market value"* – 50 percent of the market value of each plot as determined by GAKS. The company agreed to pay this to everyone, unconditionally and without exception – simply as compensation for the fact that the dacha plots lost a portion of their value, as calculated by order of Sakhalin Energy. Since this portion of the compensation came without any obligations, all of the members of the dacha community received it. It was paid in September and October of 2006.

2. *Compensation under the terms of the "exemption package"* – Payment of the remaining 50 percent of the market value of each plot, as calculated by the company. This portion of the compensation was paid out only on the condition that the property owner denies his or her rights to all property and buildings. 28 members of the "Builder" Association, remembering the saying that "You can have no more of a cat but her skin", agreed to receive this second half of the compensation, thereby forfeiting all rights to their property. The "exemption package" was paid out to 18 property owners in January of 2007, and to ten more in July of 2007. Sakhalin Energy did not make an index of the market value of the properties during this period. And yet, there was a very serious reason why it should have.

Between 2006 and 2007 there was an enormous boom on the Sakhalin real estate market, and prices skyrocketed. So, for example, in Yuzhno-Sakhalinsk (the capital of Sakhalin Region) in the second half of 2006 the value of the secondary housing market doubled. This can be explained both by typical Russian tendencies, and by the active construction phase on the Sakhalin-1 and Sakhalin-2 drilling projects, which brought large numbers of outside specialists to the area. In Korsakov district, the growth in real estate prices (including dacha plots and buildings) far outpaced averages, since it was here that the largest oil and gas projects were being constructed. So, according to the experts at the Island Home Sakhalin Informational-Analytical Journal, prices on real estate in Korsakov district increased threefold during the second half of the year.

As we have already said, the evaluation of the market value of the dacha plots at the "Builder" Association's community was completed in June of 2006, but the first actual payments were made only at the beginning of September, and final accounting of who agreed to abandon their property took place only in the summer of 2007, one year later. In that year, the market value of dacha plots in Korsakov district, at a minimum, doubled. The dacha owners, however, received compensation only for the initial calculation – Sakhalin Energy did not do any indexing. Naturally, in order to purchase a dacha plot of equal value, the 28 land owners who agreed to the "exemption package" had to add significantly more of their own money than they received from the company. And, since pensioners are not wealthy people, it is no wonder that only two of them were able to buy themselves new dachas. That is how the compensation was paid. Needless to say, significant emotional damage also befell the dacha owners.

The remaining 42 dacha owners decided not to deny their rights to their property, and therefore did not accept the "exemption package." People rightly considered it a miserly gesture, and completely insufficient to obtain property with a home, greenhouses, water, electricity, gardens and orchards in another dacha community. One look at the real estate section in the local newspaper was enough to understand that the price for dachas in Korsakov district was much higher than the "market value" compensation being offered by Sakhalin Energy. Only four people out of those 42 were able to buy new dachas, since they had steady sources of income. And even though legally the dachas in Prigorodnoe were still theirs, the remaining dacha owners had long abandoned them, since the new "good neighbor" – the giant LNG plant – had made living and working there extremely difficult.

To this day there are 37 dacha owners left in Prigorodnoe. These gardeners live in the hopes that the long-promised resettlement to a new dacha community will happen after all.

2004-2010

Negative impacts of the Sakhalin-2 project on the dacha village at Prigorodnoe

Construction period

In 2005 the sociology department of Sakhalin State University produced a report called *"Evaluation of assumed loss of value parameters of dachas among the Non-commercial Gardening Association "Builder" in Prigorodnoe, Korsakov district, in connection with the construction of the LNG plant"*. The sociology experts listed the following as the main negative impacts on the dacha community, as caused by the construction of the LNG plant:

- decline of the area's reputation because of environmental dangers connected to plant operations;
- decline in the state of roads because of the use of heavy transport vehicles for construction purposes;
- dust, noise, and vibrations caused by the movement of heavy transport vehicles;
- decline in safety on roads;
- increase in the risk of attack or theft by construction workers from the plant.

During the construction of the LNG plant and OET (2003-2007) construction sites completely surrounded the dacha community:

- the dirt roads from the south, east, and north sides, along which flowed construction equipment, raising clouds of dust;
- large-scale construction of the LNG plant and oil terminal from the east;
- construction of a pipeline, including the emergency valve, from the north.

Five years of unceasing large-scale construction and constant dust from the road, along with fumes from heavy construction vehicles and powerful diesel generators, led to a loss of air quality and devaluation of the dacha plots. Wells expired or were polluted with dust and fumes. Roads leading to the dacha plots were broken up by heavy machinery, necessitating expensive repair of personal automobiles. The constant noise and clatter from the construction site, and the bright lights at night, prevented older people from sleeping. The pensioners went to their dachas as though they were going to a prison camp, constantly nervous and worried, not finding any happiness in their work or their vacations at the beloved dachas. The children of the older dacha residents stopped bringing their children to visit their grandmothers and grandfathers, and themselves came less and less frequently. That is, the negative impacts were material, moral, social, and economic.

Flare Up

In addition to all of the other woes, in 2007 the LNG plant began commissioning and testing compressors and other equipment. The results were something that had long been expected with dread – the burning of a giant torch, with a smaller one next to it. From this moment onward, living at the dacha community became simply impossible because of the constant hum from the 60 meter pillar of flame atop the torch and the plume of black soot which was carried many kilometers, and occasionally fell on the dacha community.





Photographs illustrating the site can be seen by following this link:
<http://www.ecosakh.ru/?div=gallery&id=7>

According to the calculations conducted during the TEFS (volume 5, book 9, part 1, section 4), the sanitary-defense zone should have been 2.5 kilometers from the boundary of the industrial site **during the initial period of use**, since the air, which was polluted with nitrogen oxides and the 6009 group of total chemical reactivity (polluted by an aggregate of nitrogen dioxide and sulfur dioxide), would reach normal levels only at that distance. For the first phase of exploitation, the calculated size of the SDZ would be 3.2 kilometers, and for the second phase it would be 3.5.

*Therefore, Sakhalin Energy itself, in its own TEFS and with the help of calculations based on standardized methodology proved that a zone with a radius of 3.5 kilometers around the LNG plant during the exploitation period would experience an **above-normal level of pollutants** – nitrogen dioxide and sulfur - which would be extremely harmful to living organisms.*

In accordance with the permits to emit pollutants into the atmosphere numbered 34-21(2)/77 from 23.03.2007 and 331/34-021 from 28.11.2007, issued by the Sakhalin Regional Service for Ecological, Technical, and Atomic Supervision (Rostekhnadzor), the LNG plant and OET would emit 22,515.43 tons of harmful pollutants over three years, including:

Table 1. List and quantity of harmful (pollutant) materials, which Sakhalin Energy is permitted to release into the atmosphere:

No.	Pollutant Name	2007	2008	2009
1	Iron Oxide	1,638	1,638	1,638
2	Manganese and its compounds	0,014	0,014	0,014
3	Lead and its compounds	0,027	0,027	0,027
4	Nitrogen dioxide	265,3473	1847,4412	1965,5782
5	Nitrogen oxide	43,1034	300,1535	319,332
6	Carbons (soot)	44,1932	683,7304	553,7424
7	Sulfur dioxide	179,6207	568,6895	769,737
8	Hydrogen sulfide	10,9176	10,9176	10,9176
9	Carbon monoxide	719,7394	6770,2978	5566,1668
10	Insoluble flourides	0,415	0,415	0,415
11	Methane	345,3796	480,5146	442,2391
12	Saturated mixture C1-C5	86,6932	204,0622	230,0042
13	Saturated mixture C6-C10	19,8213	19,8213	19,8213
14	Benzene	0,0617	0,0617	0,0617
15	Xylene (mixed isomers)	0,0194	0,0194	0,0194
16	Toluene	0,0389	0,0389	0,0389
17	Benz/a/pyrene (3.4 nzpiren)	0,0026	0,0006	0,0008
18	Formaldehyde	0,619	0,014	0,0102
19	Gas oil	0,0115	0,0105	0,0105
20	Kerosene	15,9638	0,8206	0,7297
21	Lube oil	1,593	2,358	2,358
22	Carbon saturate C12-C19	0,4406	0,4406	0,4406
23	Emulsol	0,812	0,812	0,812
24	Inorganic dust up to 20% SiO2	0,068	0,068	0,068
25	White corundum	0,782	0,782	0,782
	Total:	1737,3222	10893,1484	9884,9644

The table shows that the most significant air-pollution causing emissions from the LNG plant and OET are: nitrogen oxide and dioxide, soot, sulfur dioxide, hydrogen sulfide, carbon monoxide, methane, various hydrocarbons, and benz/a/pyrene. In 2008, the total volume of emissions rose more than six times in comparison to the 2007 volume, including a sevenfold rise in sulfur dioxide. Emissions of soot rose 15.5 times, and sulfur dioxide by a factor of 3.

Meanwhile, despite the sharp increase in emissions in 2008, the pollutant content of the air in the dacha village barely changed over three years according to statistics created during atmospheric monitoring conducted by order of Sakhalin Energy, and on Sakhalin Energy's bill. This is clearly illustrated in the following table:

Table 2. Results of an analysis of samples of air on the territory of the Builder Gardening Association (point 1), taken during the course of monitoring conducted by Sakhalin Energy. Based on test protocols taken by the environmental-analytical laboratory ANO "Sakhalin meteorological agency." The pollutant content is represented in mg/m³, benz/a/pyrene in ng/m³.

Name	2007					2008					2009					
	5.05	3.06	7.07	2.08	6.09	4.05	1.06	9.07	1.08	1.09	2.05	7.06	2.06	1.07	1.08	1.11
Suspended matter	.26	.26	.26	.26	.26											
Sulfur dioxide	.01	.01	.01	.014	.019	.01	.01	.01	.01	.01	.01	.023	.01	.015	.01	.01
Carbon monoxide	.5	.5	.6	.9	.3	.5	.1	.1	.8	.7	.7	.4	.4	.4	.8	
Nitrogen dioxide	.02	.03	.02	.062	.032	.042	.02	.031	.024	.02	.038	.02	.023	.022	.02	.02
Hydrogen sulfide	.003	.003	.003	.003	.003											
Formaldehyde						.002	.01	.019	.012	.017	.03	.01	.01	.014	.01	.01
Benze/a/pyrene ng/m ³						.073	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2
Soot	.025	.025	.025	.025	.025	.03	.05	.025	.025	.028	.025	.025	.025	.055	.025	.025
Hydrocarbons	.75	.75	.75	.75	.75	.75	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Mineral oils	.05	.05	.05	.05	.05	.05										

In 2007, of the 25 listed harmful pollutants emitted by the plant, monitoring was conducted only for eight of them: suspended matter, sulfur dioxide, carbon monoxide, nitrogen oxide, hydrogen sulfide, soot, hydrocarbons, and mineral oils.

In 2008, suspended materials, hydrogen sulfide, and mineral oils were excluded from the list of controlled substances and formaldehyde and benz/a/pyren were included.

A comparison of the information presented in the table with the results of monitoring of air quality in 2003 and 2004 shows that concentrations of pollutants in the air remains practically even, despite the dramatic growth in the volume of emissions.

Therefore, according to the data released by the company, twenty two and a half thousand tons of harmful and very harmful materials, which were released into the atmosphere, magically avoided the dacha community, in no way polluting its air, which was so clean that it was like no factory was ever built.

Sakhalin Region's division of Rospotrebnadzor, the Russian Federal Consumer Protection and Human Health Control Service, took air samples on 10 June 2009 in three places on the territory of the dacha community and analyzed the content of soot, nitrogen dioxide, nitrogen oxide, sulfur dioxide, carbon monoxide, and formaldehyde. The pollution content of the samples was not higher than the permitted limit and was barely different than the information gathered during Sakhalin Energy's monitoring, with one exception. Rospotrebnadzor found one pollutant - sulfur dioxide – in a concentration of 0.24-0.29 mg/m³, or 24-29 times the concentration found during Sakhalin Energy's analysis.

In 2010, test results of air samples taken by Sakhalin Meteorological Agency in the dacha community on 11 June showed a "sudden" dramatic increase in the concentrations of a few pollutants in comparison with analyses from May 2010 and before. The concentration of nitrogen dioxide doubled to 0.044 mg/m³, and of benz/a/pyren three times, to 0.65x10⁻⁶. Both volumes are within the permissible range. However, this increase was never officially explained, and one could suggest, that the "testers" were finally successful in "detecting" residual pollution from the "torch-burning", which was completed in the first half of June.

Since the volume pollutant emission from the LNG plant and OET rose several times in 2008 and 2009 in comparison to 2007, and the quality of the air did not change at all according to Sakhalin Energy's industrial monitoring, then one must naturally have serious doubts in the quality, effectiveness and trustworthiness of the measurements, the time and place that air samples were taken, and the analysis and representation of these samples by biased individuals. These doubts were strengthened by various strange trends noticed in the harvest on the dacha plots in Prigorodnoe.

Effects on production on the dacha plots

In 2007, scientists from the Institute of Marine Geology and Geophysics of the Russian Academy of Sciences created a complex environmental monitoring project on a specific area within one kilometer of the LNG plant and OET. The specialists believe that, within the plant's impact zone, there is a possibility of acid rain because of the high content of nitrogen oxides and sulfur in emissions from the burning of natural gas in the flares, as well as because of the region's climactic specificities (partial fog coverage, light rainfall). This directly and indirectly affects surrounding ecosystems, especially plant life³.

In order to prove these assumptions, in March of 2009 the snow cover at distances of 800, 1500 and 3000 meters from the LNG plant and OET was researched, as the chemical content of snow can be used to measure the quality of air in the atmosphere. The results of the chemical analysis showed negative changes in quality by several parameters, with a steady increase approaching the LNG plant. The increase in the acidity of the snow cover increases the total mineralization of precipitation and the quantity of cations of sodium, potassium, calcium, chloride and sulfate and chlorine anions.

The scientific data show that the direct impacts of acidic gasses cause the death of specific plant organs, a decline in their size and yield, and the quality of agricultural productivity. Green plants are more sensitive to various gasses than people or animals. This is because of the higher rate of penetration of gasses, as well as the autotrophic character of their metabolisms. High concentrations of sulfur dioxide cause serious damage to plants. Major damage caused by these pollutants is reflected in the appearance of whitish spots on large-leaved plants, or by discolored whitish stripes on leaves with longitudinal venation. The chronic effect appears in the discoloration of chlorophyll, which leads to a yellowing of the leaves and the appearance of a red or brown tint. No matter the symptoms, the result is always a decrease in productivity and slowing of growth.

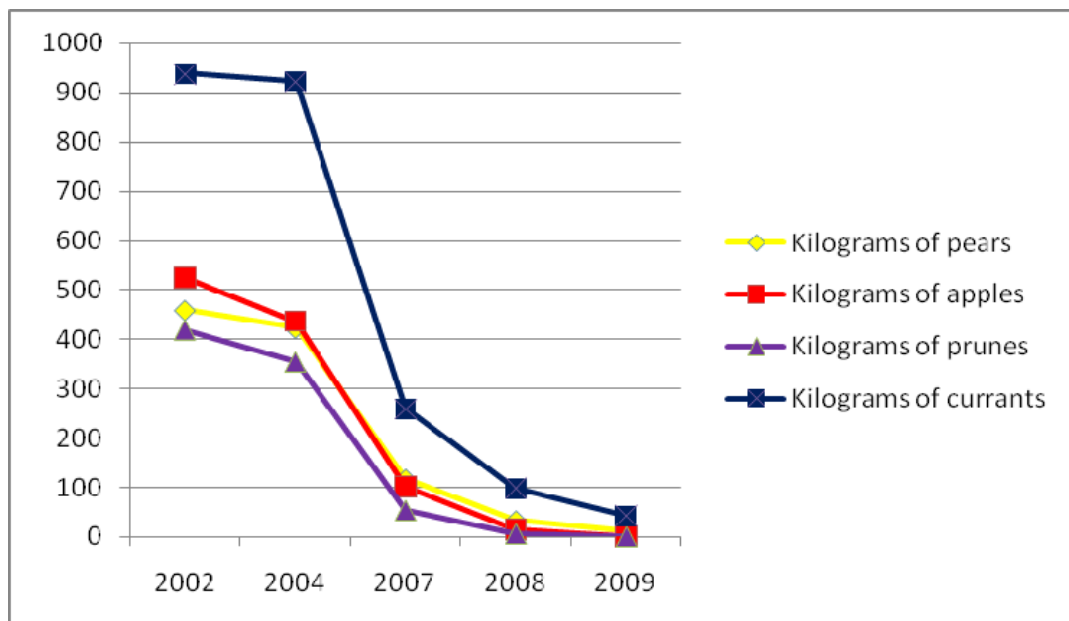
The average critical levels of pollutants in the atmosphere for agricultural areas, as listed by the World Health Organization, are as follows: sulfur dioxide – 0.03 mg/m³ (sanitary-hygienic permissible limit, for people – 0.05mg/m³), nitrogen dioxide – 0.03 mg/m³ (permissible limit for people – 0.04 mg/m³).

Therefore, flora is much more sensitive to pollution than the human body, and the effects of toxins, and the negative changes they bring about, appear much faster.

Up until the beginning of the plant's regular operations, the dacha owners began to notice a fall in the productivity of the fruits and berries that grew on trees and bushes on their plots. At the end of 2009, a representative of the dacha community, Alla Gafner, surveyed owners of 17 dacha plots and collected information about the total yield of pears, apples, plums and currants in 2002 (control year), 2004 (beginning of construction), 2007 (beginning of regular operations), 2008 (beginning of exploitation) and 2009. The results of the survey are displayed in the chart below.

³ "Organization of complex environmental monitoring in the impact zone of the LNG plant in the south of Sakhalin", The Journal of the Far East Branch of the Russian Academy of Sciences (2009. No.6, pgs. 60-67).

Chart 1. Trends in total productivity of pears, apples, prunes and currants on 17 dacha plots of the Builder Association in 2002, 2004, 2007, 2008, 2009.



Fruit trees and bushes experienced the maximum impact from pollution, because these plants are not annuals, and are not planted anew every year (such as potatoes, carrots, beets, etc.), and they grow in one place over the course of many years, thereby collecting pollution.

The data from the survey of dacha owners shows that, over the course of the full construction project, there was a severe fall in the productivity of fruit and berry-producing plants, and that up to 2009 productivity decreased almost to zero, despite receiving proper care.

Take currants for example. Nearly every dacha plot contained five to 25 black, red, and white currant bushes, and each bush produces about two to eight kilograms of berries, which provide vitamin C to dacha families throughout the frozen winter. And if 938 and 922 kilograms of berries were collected from 210 currant pushes (an average of 4.5 kg per bush) on the 17 dacha plots in 2002 and 2004, then in 2007 this quantity fell to 259 kg, in 2008 to 98 kg, and in 2009 the dacha plots produced just 42 kg of berries.

All of the surveyed gardeners noted that leaves on trees and bushes have begun to turn yellow and dry out much earlier than they had during the fall of earlier years and than it is happening in other dacha communities located farther from the LNG plant and OET.



Plum tree without berries in September 2010. Usually gardeners reap the harvest from it in October.

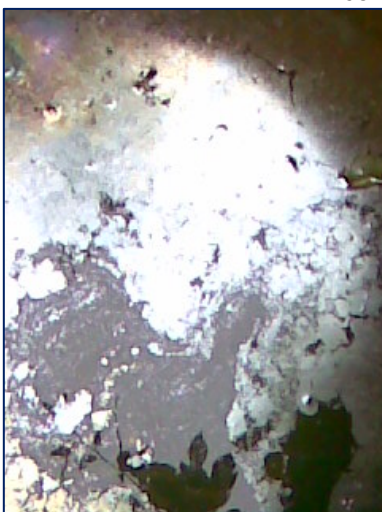
Of course, you can doubt the connection between the sharp decline in productivity and the beginning of intensive, day to day operations of the LNG plant and OET as much as you want. However, the fact that trees and bushes in 2009 had lost productivity in comparison with 2002 remains, and it is difficult to blame anything but emissions from the LNG factory. Especially when the equipment on the dacha properties is covered with various pollutants:



Thin coat of soot on the film, covering greenhouse with cucumbers. September 2009



Coat of the brown-yellow substance on the film, covered a window on a dacha house during the winter 2008 - 2009.



Oily iridescent rainbow-pearl film on the top of water stored in barrels for irrigation. June 2010.

Threats to the life and health of dacha owners from continuing to live on the dacha plots

In the TEFS (volume 5, book 9, part 1, section 4.3) it is calculated that average burned emissions of acidic gasses in the contaminated zone could reach 3.1 kilometers from the industrial site, in the direction of the city of Korsakov.

According to the project design documentation for phase two of the Sakhalin-2 project (volume 8, addendum 8-5-2), the maximum safe zone from the LNG terminal's fires and flash is 2999 meters.

Therefore, the health and lives of the dacha owners, who live from May to October of every year just over a kilometer from the LNG plant, would be under a direct threat during an emergency.

According to the 21 January 2010 letter from Gazprom, Russia's state gas company, to a representative of the "Builder" Association, the likelihood of a disaster in the maximum danger zone is one in 3.5 million, and injuries sustained after such a disaster would be mere scratches. It is difficult to believe this, taking into account the contradictory official documentation for Sakhalin-2 and the frequency that technological disasters have occurred in our country because of "human factors" in recent years, such as the disaster at the Sayano-Shushensk Hydroelectric Station, explosions in coal mines, the tragedy in the Lame Horse (Khromaya Loschad) bar, and many others. And "human factors," as we all know, are unpredictable.

That's why the dacha owners do not want to, and can not, stay in place and continue to grow the fruits, berries, and vegetables that have such a large meaning to them.

The dacha owners demand to be resettled or aided in obtaining dacha plots of equal value to those lost in other dacha communities in Korsakov district, but away from the impact zone of the LNG plant and OET.

The cost of resettling the remaining 37 landowners (the purchase of equally valuable dacha plots in other dacha communities), judging by the market value of dacha plots at the current time, would be between 25 and 30 million rubles (835-1165 thousand dollars at the current rate of exchange about 30 rubles for 1 USD).

Epilogue

The non-profit organization Sakhalin Environment Watch believes that dacha owners' demand is entirely justified and should be complied with for the following reasons:

- Sakhalin Energy has already claimed responsibility for the resettlement of the members of the "Builder" Association;
- Sakhalin Energy has already declared that the sanitary-defense zone should have a width of 3.5 kilometers, and not 1 kilometer, since the harmful pollution from the LNG plant and OET, which exceeds the permissible limit, travels significantly farther than the dacha community, and since these calculations were confirmed by the state environmental review;
- In the last six years, construction of the oil and gas pipeline, LNG plant, and oil export terminal has already caused the strongest possible negative impacts on the lives, health, well-being, and property of the dacha owners, and all calculations indicate continued negative impacts during the operations period, which is expected to last no less than 25 years;
- Sakhalin Energy was extremely unconscionable and improper in its relation to the aged, poor residents of the dacha community, whose rights were not properly defended by the Russian state or by local government. Sakhalin Energy should show with its actions, and not just its words, that it truly is a **good neighbor** to all residents of Sakhalin.