Saimaa University of Applied Sciences Faculty of Technology, Lappeenranta Double Degree Programme in Civil and Construction Engineering Civil Engineering

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**Certification of products in NCC** 

#### Abstract

Darva Beznosikova Certification of products in NCC, 40 pages, 2 appendices Saimaa University of Applied Sciences Faculty of Technology, Lappeenranta Double Degree Programme in Civil and Construction Engineering Civil Engineering

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The study was commissioned by NCC Real Estate to understand and compile a single table of all the required mandatory certificates required for the delivery of the NCC residential complex of Swedish Krona in commission. What is more, the purpose of the thesis was to develop principal works of certification system in Russia. For that purpose, basic documents of certification were learned and applied in action.

Data for this study was collected during the practical training at NCC Real Estate, Saint-Petersburg at Swedish Krona construction site. The information was gathered from the design project, subcontractors' reports, co-workers' experience, literature, the Internet, manufacturers' guides and local and international norms.

The final result of this thesis was the recommendations to the project engineers to simplify and accelerate the process of checking acceptance certificates of the work performed and to search for required certificates in the annex to them. All construction materials requiring mandatory certificationwere determined. The work of the project engineers was significantly accelerated, so the results show positive development.

Keywords: Certification, Russia, standard, GOST R

## **Table of contents**

1	Intro	oduction	4
2		c concepts of certification	
	2.1	Certification goals and objectives	6
3		ification of products in Russia: the order of quality certification	
3	3.1	Certificate of compliance GOST R	
3	3.2	Declaration of compliance in GOST R system	
3	3.3	Certificate of state registration	
3	3.4	Certificate of fire safety	
3	3.5	Rejection letter	
4		,	19
5		duct certification schemes in Russia	20
į	5.1	Stage of the application for certification	
į	5.2	Stage of conformity assessment	
į	5.3	Stage of analysis of practical conformity assessment	
į	5.4	The decision on certification	
į	5.5	Inspection control for certified object	23
	Ce	rtification of products in NCC Swedish Krona in different types of	
6		rks	24
	6.1	General information about NCC Swedish Krona construction site	24
		Description on example of one product how the certification is	
	6.2		27
	6.3	Tableof certified products of NCC Swedish Krona	30
7	Sur	nmary and Discussion	
Fig	gures		36
	bles		
Lis	st of re	eferences	36
Αp	pend	ices	38
7	Apper	dix 1. View of list of products subject to mandatory declaration of	
			38
		dix 2. English version of view of list of products subject to mandatory	
		ation of compliance in GOST R system	39

#### 1 Introduction

Engineering with the development of society and technology is gradually beginning to play a fundamental role, because in the first place, comfort, safety and, to a large extent, the quality of life of modern citizens - people who spend most of their lives in the walls of buildings - depend on it.

If you touch trends and the property that will be in demand tomorrow, it is important to talk about the construction, which will meet all the quality standards. The building's engineering systems are like the human circulatory system; If we do not see them and do not think about their existence, then they work as they should. And, of course, that everything worked as it should, we need a certification system.

Most of the things that surround us daily go through the certification procedure without fail. At first glance it may seem that this is absolutely a useless procedure, however it has many useful and important aspects.

Certification in construction is the most important procedure aimed at confirming the fact that the work in this area meets the standards and standards developed by the legislative base.

This thesis is about the necessary certificates for the qualitative construction of NCC Swedish Krona residential complex and difficult things in certification process in Russia that still remain.

## 2 Basic concepts of certification

The certificate (translated from Latin: certum - true, facere - do) means "done right". Certification is an activity aimed at establishing and confirming the compliance of the object in question with certain requirements.

On the market there are many goods of both high and low quality. To protect the consumer from the dishonesty of the manufacturer of products is called certification.

Certification takes into account the interests of the opposite parties in obtaining an objective assessment of product quality. Therefore, tests and decision-making on their results are entrusted to the third independent party - an organization whose competence, independence and objectivity are officially recognized. Thus, certification is designed to protect the consumer from low-quality and dangerous products, providing reliable objective and accurate information about its quality, thus freeing the buyer from the need to independently conduct a complex and time-consuming assessment of product quality.

Certification is currently the most effective form of confirming the products or services produced and the requirements established for them and increasing their competitiveness in both the domestic and foreign markets.

In Russia, to ensure consumer safety, a national certification system was established - the GOST R system.

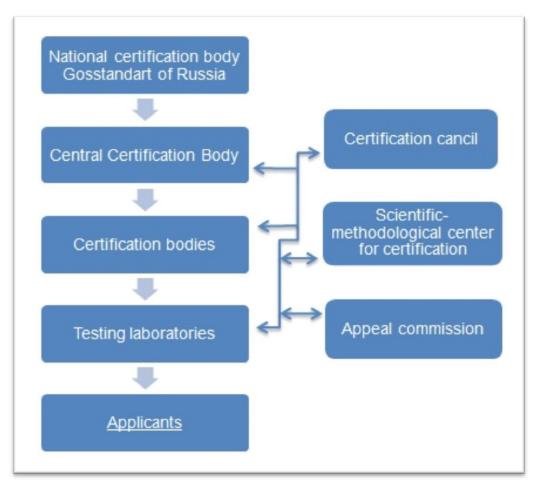


Figure 1. Certification bodies of the Russian Federation in the GOST R system (http://www.rospromtest.ru)

#### 2.1 Certification goals and objectives

Certification means documenting the conformity of products to certain requirements, specific standards or technical conditions. Certification has appeared in connection with the need to protect the market from products that are unsuitable for use.

The issues of safety, protection of health and the environment force the legislative branch, on the one hand, to establish responsibility for putting into circulation poor-quality products; on the other hand, - to establish mandatory minimum requirements concerning the characteristics of products put into circulation.



Figure 2. Certification elements and their role in the certification process

The application of product certification gives the following advantages:

- 1. Ensures consumer confidence in product quality;
- 2. Facilitates and simplifies the selection of necessary products for consumers;
- 3. Provides the consumer with objective information about the quality of products;
- 4. Contributes to longer success and protection in competition with manufacturers of non-certified products;
- 5. Prevents the entry of imported products in the country not at an appropriate level of quality;
- 6. Contributes to the improvement of the organizational and technical level of production;
- Stimulates the acceleration of scientific and technological development.

## 3 Certification of products in Russia: the order of quality certification

Certification of products in Russia is carried out in compliance with the established quality standards, and the final documents are: certificate of compliance GOST R, certificate of compliance the technical regulations of the Customs Union, declaration of compliance in GOST R system, declaration on compliance with technical regulations of the Customs Union, certificate of state registration, certificate of fire safety, rejection letter.

### 3.1 Certificate of compliance GOST R

What is subject to mandatory certification? Mandatory certification is a system of certification of products whose proof of safety is an obligatory requirement of legislation in the field of technical regulation. Consequently, mandatory certification of products is used to confirm the quality and safety of both imported and domestic goods, and the final document is a mandatory certificate of compliance. The mandatory form of quality assurance in Russia is applied to products that, in one way or another, can affect the safety of people, their property and the environment.

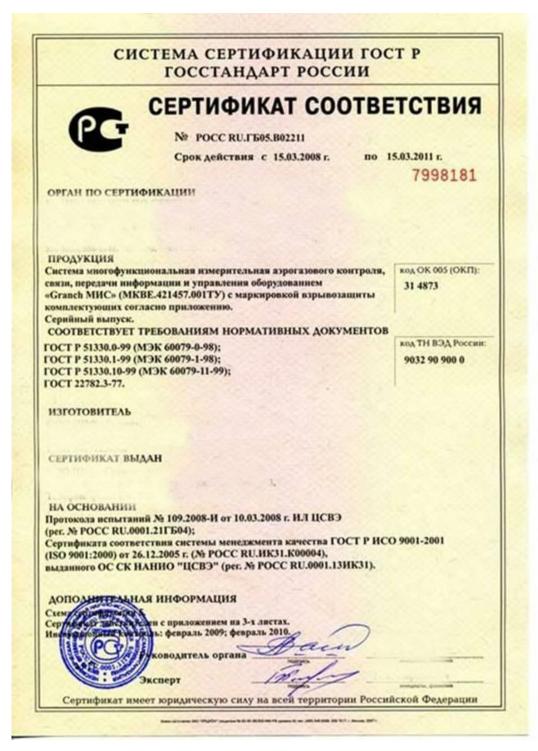


Figure 3. Certificate of compliance GOST R for obligatory certification (http://www.russia-rostechnadzor.ru)

Legislative acts established the nomenclature of products, in relation to which mandatory certification of goods is provided. Annually some types of goods subject to mandatory certification are excluded from this list. In most cases, they are transferred to the Nomenclature of Products, in respect of

which there is a mandatory declaration of conformity. It should be noted that these lists are adjusted by the technical regulation agency approximately once a year.

The documents of obligatory and voluntary certification differ in appearance: a yellow form is required for the obligatory and a blue form is provided for the voluntary one.

The products that are subject to certification in Russia are described in the product nomenclature for which mandatory certification is provided. The list is approved by the Decree of the Government of the Russian Federation of December 1, 2009 №982 as amended on January 1, 2017. The nomenclature is a list of products ordered by the All-Russian classifier of products by types of economic activity.

It should be noted that the certification of products in Russia is necessary not only for the implementation of a particular product, but also for the purposes of customs clearance.

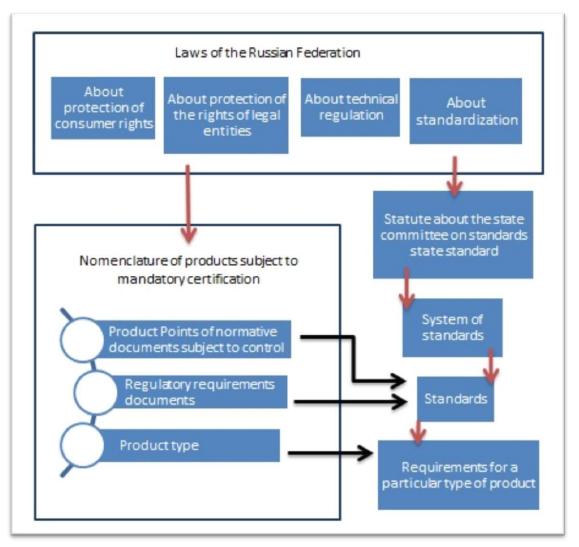


Figure 4. Normative and legal framework that establishes requirements for the nomenclature and characteristics of products subject to mandatory certification

What is subject to voluntary certification? Voluntary certification is an officially established system that applies to those goods, services or equipment whose quality assurance is not a mandatory requirement of the law. The system of voluntary certification is regulated by legislation on a par with other, existing systems. This form of confirmation of compliance is usually carried out at the request of the manufacturer, the seller of the goods or at the request of the customer.



Figure 5. Certificate of compliance GOST R for voluntary certification (http://www.russia-rostechnadzor.ru)

Parameters to which the product sample is checked is compliance with GOST or TU (technical specifications), that is, the manufacturer through laboratory tests and registration of a voluntary certificate confirms not only the quality of the goods provided, but also indicates compliance with those requirements specified in regulatory documents. The voluntary quality

assessment system in Russia includes schemes that are applied with mandatory quality assurance.

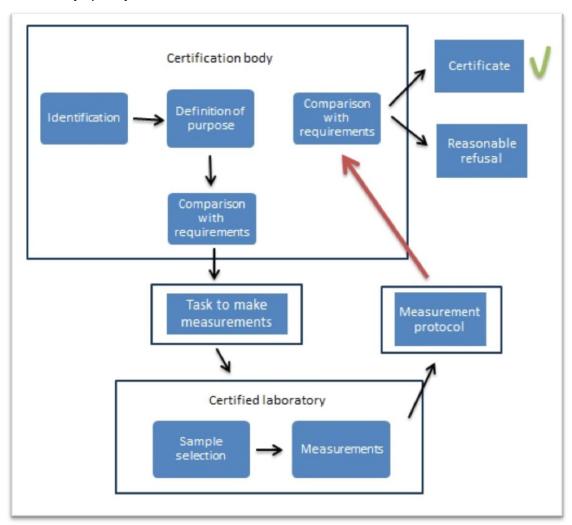


Figure 6. Regulatory and legal framework that establishes requirements for the nomenclature and characteristics of products subject to voluntary certification

#### 3.2 Declaration of compliance in GOST R system

Declaring conformity is a confirmation of the quality of products, the process of declaring compliance in Russia is not fundamentally different from certification. The procedure for declaring products includes the same stages of quality assurance: conducting laboratory tests, preparing a test report for products, and then issuing a declaration of conformity.

The declaration of conformity in the GOST R system and the technical regulations of the Customs Union is a mandatory procedure for confirming the quality of products, but as practice shows, entrepreneurs who have issued a declaration sometimes also issue a voluntary certificate for the same type of product. And this is not accidental, because the procedure for declaring is not widely known to date and so far large retail chains want to see a certificate, and it is not important whether it is mandatory or voluntary - this is not a matter of principle.

Declaring products in Russia is an obligatory procedure. Many entrepreneurs are deeply mistaken in the fact that if the products are not reflected in the nomenclature of goods subject to compulsory certification, then it is not necessary to issue any permits. If a product is reflected in the list of products subject to declaration of conformity, then first of all it is necessary to issue a declaration.

According to the letter of the law, if there is a declaration for products, the voluntary certificate will not replace the declaration. First of all, you need to issue a declaration, and only then, if desired, you can additionally receive a voluntary certificate.

In 2008, the State Duma of the Russian Federation passed a draft law of the Government of the Russian Federation providing for certain measures to replace compulsory certification with declaration of conformity. This is a draft law "About Amending Certain Legislative Acts of the Russian Federation in Connection with Ensuring the Possibility of Replacement of Mandatory Confirmation of Quality by Declaring Compliance". The purpose of this bill is to gradually replace mandatory certification by declaration of conformity.

ДЕКЛА	РАЦИЯ О СООТВЕТСТВИИ
Общество с ограниченной о	тветственностью предприятие «ЗИП-Научприбор»
Свидетельство о внесении з	амилия, ямя, отчество видивидуального предпринимателя, принявших декларацию о соответствии аписи в Единый государственный реестр юридических лиц
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350072 Т. Красподар, ул. 146	апрес, телефон, факе
	ва Николая Олеговича
заявляет, что амперметрь	иня, отчество руководителя организации, от имени которой принамается декларация и и вольтметры цифровые щитовые серии 3020: амперметры СА3020
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	(или)ТН ВЭД СНГ, сведения о серийном выпуске или партии. (номер партии,
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Figure 7. Declaration of conformity in the GOST R system (http://www.russia-rostechnadzor.ru)

## 3.3 Certificate of state registration

The certificate of state registration is issued for finished products after testing and the procedure for state registration in Rospotrebnadzor. As it is already known, in July 2010 sanitary and epidemiological certificates were also revoked for certain groups of goods, the procedure for registration of registration certificates (state registration certificates) was introduced. The decision of the commission of the customs union approved a list of products subject to state registration.



Figure 8. Certificate of state registration (http://www.russia-rostechnadzor.ru)

#### 3.4 Certificate of fire safety

Fire certificate or as it is officially called this document - a fire safety certificate, is a document that confirms the compliance of products with the established safety requirements. The basis for issuing a certificate of fire safety in Russia is the test report of standard samples. Each type of product has its own requirements and methods of certification tests. They are described in the relevant GOSTs and technical regulations for this or that product.



Figure 9. Certificate of fire safety (http://www.russia-rostechnadzor.ru)

The list of goods that are subject to compulsory expertise in the field of fire safety is contained in Article 146 of Federal Law №123 of July 22, 2008.

From this list it can be seen that not all manufactured products need to obtain a fire certificate. Nevertheless, at the initiative of the customer, a voluntary certificate of fire safety can be issued - the process of obtaining a fire certificate does not differ from the mandatory one. Usually a security document is issued in order to obtain competitive advantages, including, before taking part in all kinds of tenders.

#### 3.5 Rejection letter

In Russia, a rejection letter for products is an official document issued by an accredited body informing that a product is not subject to certification and declaration. Rejection letters can be conditionally divided into the following types: a rejection letter for trade and an explanatory letter for customs clearance. As a rule, the contents of issued letters do not differ at all, but the key moment is the fact that the customs authorities accept only the documents issued by the Ministry of Industry and Trade as a regulatory explanation. And as an information refusal certificate, this document can be issued by virtually any accredited body. For the issuance of a refusal document in the Russian Federation, no approved format is provided, this document is issued on the letterhead of the certification authority and certified with a blue seal.

A rejection letter for trade can be issued if a certain product is not subject to certification and declaration. This document is usually drawn up as an explanatory argument for the controlling bodies.



Figure 10. Rejection letter (http://www.russia-rostechnadzor.ru)

## 4 Certification of imported and exported products from Russia

As for the products imported into Russia the procedure for certification is somewhat different in terms of the documents provided. In addition to the constituent documents of the applicant's company, it is necessary to provide a description of the imported products or equipment, the supply contract and the certificates of the country of manufacture. It should be noted that the contract number will be required to be reflected in the certificate or declaration of conformity. In other respects, the certification schemes for imported and domestic products are not particularly different. After the

certification tests are carried out, the certification body issues a certificate of conformity or a declaration of conformity.

Speaking about products exported from Russia currently, every Russian company can apply for the passage of international ISO certification. This type of certification can be attributed to voluntary, as it is carried out by the company in the event of entering the international market. It is the international certificate ISO 9001 will make this possible. So, international certification is an audit, the purpose of which is to confirm the quality of products or services by a few other quality standards in comparison with Russian ones. Confirmation of the quality of the product or service is given in writing. Thanks to the international certificate, you can export your products to the international market, which will significantly increase the company's profits. An application for this type of work is submitted to the International Commission. This organization is an expert institution that works with all kinds of goods and services.

#### 5 Product certification schemes in Russia

In the GOST R system, certification schemes are a defined procedure in compliance with which the procedure for certification of product quality is carried out.

Of course, the choice of the scheme is negotiated with the applicant, because certification of products is carried out primarily on the initiative of the producer or importer of products. Certificates are issued for a contract, for a batch or for a serial production. Now a little more about those schemes that are established by law.

The procedure for certification in Russia was established by the Decree of the State Standard of Russia of September 21, 1994 №15 in relation to mandatory certification (including imported products), but it can also be used for voluntary certification. For systems of certification of homogeneous

products, taking into account its features, the development of an appropriate procedure is allowed.

The procedure for the certification establishes the sequence of actions that constitute the cumulative certification procedure. Certification is carried out according to a typical sequence of procedures.

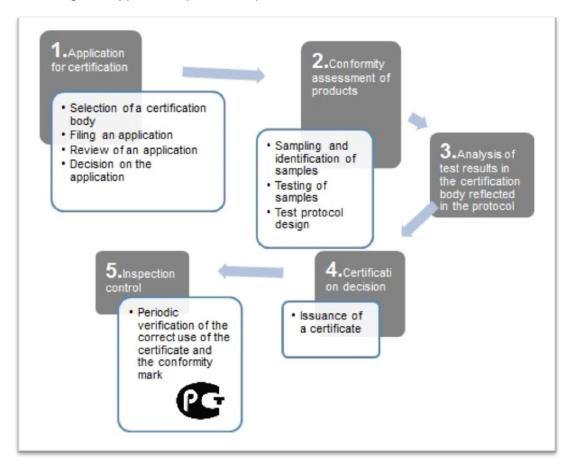


Figure 11. Certification procedure

#### 5.1 Stage of the application for certification

Stage of the application for certification consists in the selection by the applicant of a certification body capable of assessing the conformity of an object of interest to it. This is determined by the scope of accreditation of the certification body. If this work can be carried out by several certification bodies, then the applicant can apply to any of them. The application is sent according to the form established in the certification system. The certification body examines it and informs the applicant of the decision.

#### 5.2 Stage of conformity assessment

It has features depending on the object of certification. With respect to products, it consists of the selection and identification of product samples and their tests. Samples should be the same as the products delivered to the consumer. Samples are selected randomly according to established rules from the finished product.

Tests for certification are carried out in testing laboratories accredited for carrying out those tests that are provided for in regulatory documents used in the certification of this product.

The test reports shall be submitted to the applicant and to the certification body. Copies of test reports shall be stored for a period not less than the validity period of the certificate.

Tests of the result of the service are carried out in testing laboratories accredited in accordance with the established procedure or on the basis of the applicant by experts of the certification body using its testing and technological equipment. This equipment must be verified or calibrated by metrological service authorities.

Based on the test results, a protocol is drawn up, which is sent to the certification body, and a copy to the applicant.

#### 5.3 Stage of analysis of practical conformity assessment

The stage of the analysis of the practical assessment of the compliance of the object of certification with the established requirements consists of examining the test results, the examination or checking the quality system in the certification body.

When certifying the products, the applicant submits to the agency the documents specified in the decision on the application and the test report of samples of products from the testing laboratory. Experts of the certification

body verify the conformity of the test results reflected in the protocol of the current regulatory documentation. After this, a decision is taken to issue a certificate of conformity or conduct of missing tests. Similar actions are performed by the service certification body when checking the result of the service.

#### 5.4 The decision on certification

It is accompanied by the issuance of a certificate of conformity to the applicant or a refusal therein. In case of positive results of tests (inspections) provided for by the certification scheme and examination of the submitted documents, the certification body prepares a certificate of conformity, registers it and issues a license for the right to use the conformity mark. This mark marks the products or documentation for services that have been certified.

The type of the certificate of conformity and the term of its validity are established by the rules of the certification system. Usually the validity of a product certificate extends to the period of its service, operation or sale: for services - up to three years, for quality systems of enterprises - three years, for personnel - five years.

#### 5.5 Inspection control for certified object

It is carried out by the body that issued the certificate, if it is stipulated by the certification scheme. It is conducted during the entire validity period of the certificate, usually once a year in the form of periodic inspections. Inspection includes the analysis of information about the certified facility and conducting sample inspections of product samples, services or quality system elements.

The cancellation of the certificate of compliance and the right to use the conformity mark is carried out when the products and services do not comply with the requirements of regulatory documents, as well as in the case of

changes in the regulatory document for the certification object, the technological process of manufacturing products or the sale of the service, as well as the design, the completeness of the products or the composition of services.

# 6 Certification of products in NCC Swedish Krona in different types of works

Data for this study was collected during the practical training at NCC Real Estate, Saint-Petersburg at Swedish Krona construction site.

#### 6.1 General information about NCC Swedish Krona construction site

NCC is one of the leading construction and property development companies in Northern Europe. With the Nordic region as its home market, NCC is active throughout the value chain – developing and building residential and commercial properties, and constructing industrial facilities and public buildings, roads, civil engineering structures and other types of infrastructure. Business areas NCC in Saint-Petersburg includes NCC Housing, NCC Construction and NCC Roads. NCC also offers input materials used in construction and accounts for paving and road services. NCC creates future environments for working, living and communication based on responsible construction operations that result in sustainable interaction between people and the environment. This complex is located in Russia, St. Petersburg, Fermskoe Highway 22, letter B.

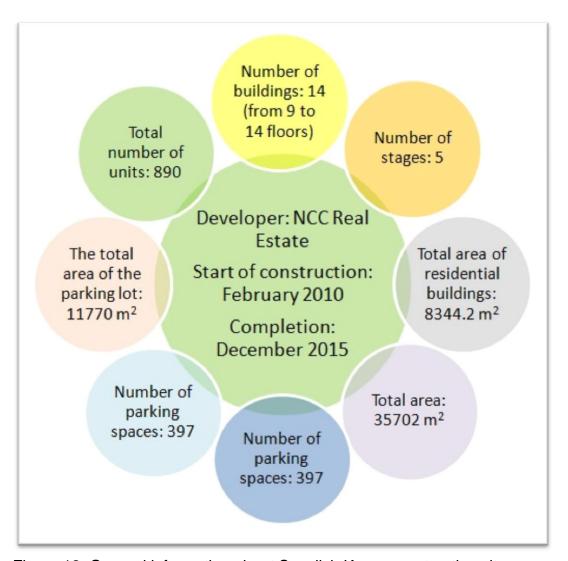


Figure 12. General information about Swedish Krona construction site

Residential complex Swedish Krona provides everything the customer could need in a modern metropolis for a comfortable life: a secure landscaped area, modern engineering systems, efficiently budgeted living spaces, prams- andstorerooms, shops and services, kindergarten, an underground garage. The house was twice voted as the best in the All-Russian competition for eco-development Green Awards, also one of the buildings was the first in the city which received an international certificate of environmental efficiency BREEAM. Swedish Krona was included in the rating of "Strong buildings of Russia."



Figure 13. View of Swedish Krona construction sitein progress



Figure 14. View of Swedish Krona construction site

## 6.2 Description on example of one product how the certification is checked

As an example to clarify table 1 and all procedure of certification from the beginning to the end we took sewer pipe to show on example the process of certification.

Imagine that we are the manufacturer of this product and we need to find out whether it is necessary for it to carry out the certification process. And if necessary, how.

First, we'll find out whether we need a certificate of compliance with GOST R. We can find out by looking into the legislative acts, where the nomenclature of products is established, in relation to which mandatory certification of goods is stipulated. This list will be amended and supplemented once a year. The list is approved by Decree of the Government of the Russian Federation of December 1, 2009 N 982 as amended on January 1, 2017. By opening this list we learn that our product is subject to mandatory certification. This means that we need to undergo the procedure for obtaining the GOST R certificate.

We will need documents to issue certificates of conformity our product like a one of mass-produced domestic products:

- 1. Certificate of state registration (OGRN);
- 2. Certificate of INN (about registration in the tax);
- 3. The first three pages of the company's charter;
- Normative and technical documentation for products (TU specifications or GOST). For our products, apply GOST R 51613-2000 (Pipes for pressure from non-plasticized polyvinyl chloride).
- 5. The contract of lease of production areas or a document confirming the ownership right;
- 6. Brief description of the product;
- 7. Application.

After collecting all the necessary documents, we send the application to the certification body. The term for issuing permits for these types of products usually does not exceed seven working days from the date of filing an application and a package of documents. The certification body sends a shipment of goods to the testing laboratory. After that, typical samples for testing are selected. Then test the sample samples, followed by an analysis of the tests done. Tests and analysis are carried out to meet the requirements of GOST R 51613-2000. The analysis of the tests carried out makes it possible to know whether the products meet the requirements or not. If the product meets all requirements according to GOST, a decision is taken to issue a GOST R certificate of conformity.

The next step is to find out whether for our merchant you need a declaration of compliance in the GOST R system. The list of products subject to compulsory declaration is supplemented annually with new types of products. The Agency of Russian Technical Regulation established the nomenclature of products, the conformity of which can be confirmed by a declaration of conformity. By opening this list we learn that our product is not subject to mandatory certification.

Further we, as a manufacturer, need to find out whether a certificate of state registration is necessary for our company. By the decision of the commission of the customs union of May 28, 2010 No. 299, the list of products subject to state registration was approved. Having opened this list, we see that our goods are subject to compulsory examination of state registration. As part of the group 39 plastic products.

To obtain a certificate in the certification center, we need to provide:

- 1. Application for registration of products;
- Certificates of assignment of INN, OGRN;
- 3. Copies of consumer labels or their mock-ups;
- 4. Instructions for use:

- Copies of documents in accordance with which the production takes place (standards, technical conditions, regulations, technological instructions, specifications);
- Ingredient composition for each name with a percentage of components;
- A copy of the lease agreement or a document on the ownership of production premises;
- 8. Notification of the commencement of business;
- Extract from the Unified State Register of Legal Entities of the Unified State Register of Legal Entities;
- 10. Samples in the amount of 400-500 gram.

Also, as well as when obtaining a certificate of compliance with GOST R, the conformity of the requirements of the goods is checked. So, after all necessary procedures our sewer pipes receive declaration of compliance in the GOST R system.

Last step is to find out whether a fire safety certificate is needed for our product. The list of goods that are subject to compulsory expertise in the field of fire safety is contained in Article 146 of Federal Law №123 of July 22, 2008. Based on the list, we see that sewer pipes is subject to mandatory fire safety certification.

When obtaining a fire certificate, it is necessary to provide a number of documents to the certification body. Their list is not the same for different product groups. Certification of fire safety is carried out in accordance with the regulations of technical regulations. However, there is a list of documents that need to be provided in the general case. Namely:

- 1. Constituent documents;
- Technical conditions for products;
- Other technical documentation for products: passport, drawings, description of the device and / or structure

In the process of performing the tests, the sewer pipes are studied for compliance with a number of requirements. The test report reflects the degree of compliance and other characteristics.

#### 6.3 Table of certified products of NCC Swedish Krona

Almost for all materials used on construction site needed certification. Like we know, it can be for mandatory certification, declaration, state registration or fire certificate. The example view of list of products subject to mandatory declaration of compliance in GOST R system is in Appendix 1 and Appendix 2. To make the work of engineers easily and faster a table of common certified products was made. In the table 1:

- 1. «-» means that the product does not require an obligatory procedure
- 2. «+» means that the product does require an obligatory procedure
- 3. «+/-» means that the procedure can be, but only on a voluntary wish

Object	Obligatory	Voluntary	Declaratio	Certifica	Certific
	certificate	certificate	n of	te of	ate of
	of	of	complianc	state	fire
	complianc	complian	e in GOST	registrat	safety
	e GOST R	ce GOST	R system	ion	
		R			
Bitumen	-	+/-	-	-	+
Control cables	_	+/=	+	_	+
with rubber and		',	'		'
plastic insulation					
Cables power	+	-	+	-	+
for stationary	,		'		
laying for					
voltage of 1 kV					

Crushed stone	-	+/-	•	-	-
Double-glazed	-	+/-	+	-	-
windows					
Electric bells	•	+/-	+	•	•
Electrical	+	-	+	-	-
energy in					
general purpose					
electric network					
three-phase and					
single-phase current 50 Hz					
current 50 Hz					
Enamels	-	+/-	+	+	+
Fittings	+	-	-	-	-
Foam Mounting	-	+/-	-	+	+
Mastic	-	+/-	-	-	-
Mounting wires with plastic insulation	-	+/-	+	-	+
Pipes from plastic	-	+/-	-	+	-

Pipes made of	_	+/-	_	_	_
steel	_	1,7-	_	_	_
Plywood sheets		+/-	+	-	+
Portland cement		+/-	<b>—</b>	-	_
		.,			
Primings	_	+/-	+	+	+
anticorrosive	_	1,7-	1	I	'
Sandwich		+/-	-	-	+
panels					
Self-tapping	-	+/-	+	_	-
screws					
Sewer pipe					
Sewer pipe	+	-	-	+	+
Steel fasteners	1				
	+	-	-	-	-
Window and		+/-	+	=	-
balcony door					
blocks of					
polymeric					
materials					
Window and	-	+/=	+	-	_
balcony door					
blocks of					
aluminum alloys					

Window and	-	+/-	+	-	-
balcony door					
blocks, wooden,					
wood-aluminum					

Table 1. Certified products in NCC Swedish Krona

## 7 Summary and Discussion

The thesis has investigated the certification system in general and its application in practice. Certificates have been reviewed and classified. Their characteristics, advantages and peculiarities of implementation were analyzed. The structure of the certification system has been studied.

The data for this thesis was collected by studying the normative documentation and then in a real project, using the example of a specific product as applied to the case. A general register of products used at the construction site was compiled.

I would like to note that certification of products in Russia has reached a certain level, has many advantages and in most cases reaches its goals. However, looking to the future, much in the process of certification of products would be desirable to change. Since the certification system is a complex, complex phenomenon, this big question needs to be broken down into several smaller issues. I distinguish two main areas that need to be worked on: simplification of the certification process within the country and the need to influence the willingness of countries to mutually recognize foreign certificates and agree to supervise them from other states.

As for the certification process in the country, in the future it would be desirable to create a single base allowing the manufacturer to simplify the certification process. For example, the creation of a single site and a search system in one click that allows you to understand all the necessary types of certification for this product.

As for the relations with other countries regarding certification issues, in my opinion, the integration process is going on all over the world and this process will inevitably affect the certification process, so that the sooner the countries switch to mutual recognition of certificates and mutual supervision, the easier it will be for all parties. However, it should be noted that the mutual recognition of certificates does not entail the fact that each country is located in different territories, in different climatic zones. Accordingly, the requirements for the products will be different, this fact must be taken into account, blindly not leading the certification of a particular concrete product to a single sample of requirements.

Concerning to the certification process at the construction site of the NCC company, when the object is commissioned, a large amount of documentation must be submitted. Including the acts of survey of all the works carried out at the site. In each act it is necessary to list the materials that were used for a particular job. And, of course, every material requires certificates. During construction, the project engineer performs a variety of tasks, including checking the documentation and all necessary certificates for acts of hidden work. In order to verify one name, it is necessary to open several normative documents and in each of them to check the product register for certification. It certainly takes a long time. The product names may not be unambiguous and efforts should be made to classify it as binding/ non-mandatory. When commissioning, certificates and inspections are checked by inspectors. In the absence of mandatory certificates, the facility may not be put into operation, so do not underestimate the importance of the process of selecting the right relevant certificates. The table with the list of the main products and the assessment of the certification required for it was carried out. After that, the work of the engineers of the NCC company in the verification of acts of hidden work was optimized.

Each product was tested for the need for mandatory certification, declaration, the need for state registration and a fire certificate. It became clear on what materials and products what certificates are needed, through which the work of the project engineer in the company NCC was greatly simplified.

NCC Real Estate is the company that always provides the best quality of the product, so it is so important to take care of ensuring compliance with all required standards and requirements. After looking to the future and realizing that people will live for decades in the houses that engineers build, a very important aspect is the observance of quality construction using certified materials according to all norms.

### **Figures**

gure 1. Certification bodies of the Russian Federation in the GOST R system 6
gure 2. Certification elements and their role in the certification process
gure 3. Certificate of compliance GOST R for obligatory certification
gure 5. Certificate of compliance GOST R for voluntary certification
gure 7. Declaration of conformity in the GOST R system 15
gure 8. Certificate of state registration16
gure 9. Certificate of fire safety 17
gure 10. Rejection letter19
gure 11. Certification procedure21
gure 12. General information about Swedish Krona construction site 25
gure 13. View of Swedish Krona construction site in progress
gure 14 View of Swedish Krona construction site26

#### **Tables**

Table 1. Certified products of NCC Swedish Krona, p. 30

#### List of references

Commission Decision of 28 May 2010 No. 299.A singlelist.Goods subject to sanitary and epidemiological supervision (control) at the customs border and customs territory of the Customs Union

Confirmation of conformity (in the form of obligatory certification), withindication of normative documents, installing mandatory requirements 1

Decree of the Government of the Russian Federation of December 1, 2009 N 982 as amended on January 1, 2017 . Informationabout the products submitted to the mandatory

Federal Law "Technical Regulations on fire safety requirements" of 22.07.2008 N 123-FL

Klochkov V. Metrology, standardization and certification // Infa-M — 2015.— P. 342–365;

Official Bonava site (https://www.bonava.ru). (Referred 15 February 2017)

Paragraph 3 of the Decree of the Government of the Russian Federation of 1 December 2009 No. 982 "On approval of a single list of products subject to mandatory certification and a single list of products, the confirmation of compliance which is carried out in the form of the adoption of a declaration of conformity"

"RDS 10-232-94, GOST R certification system. The procedure of certification of products in construction" (approved by the Resolution of the Ministry of Construction of the Russian Federation No. 18-24 of October 27, 1994) "RDS 10-232-94, GOST R certification system. The procedure for certification of products in construction" (approved by the Resolution of the Ministry of Construction of the Russian Federation No. 18-24 of October 27, 1994)

Web site: www.rospromtest.ru (Referred 6 March 2017)

Appendix 1.View of list of products subject to mandatory declaration of compliance in GOST R system
Appendix 2.English version of view of list of products subject to mandatory declaration of compliance in GOST R system

ИНФОРМАЦИЯ О ПРОДУКЦИИ, ПОДЛЕЖАЩЕЙ ОБЯЗАТЕЛЬНОМУ ПОДТВЕРЖДЕНИЮ СООТВЕТСТВИЯ (В ФОРМЕ ПРИНЯТИЯ ДЕКЛАРАЦИИ О СООТВЕТСТВИИ), С УКАЗАНИЕМ НОРМАТИВНЫХ ДОКУМЕНТОВ, УСТАНАВЛИВАЮЩИХ ОБЯЗАТЕЛЬНЫЕ ТРЕБОВАНИЯ ДЛЯ ПРОДУКЦИИ, НАХОДЯЩЕЙСЯ В ВЕДЕНИИ РОССТАНДАРТА (СИСТЕМА СЕРТИФИКАЦИИ ГОСТ Р) 1

Наименование объекта	Код поз.	Обозначение	Подтверждаемые
	объекта по	определяющего	требования
	ОК 005-93	нормативного	определяющего
	[ОКП]	документа	нормативного
			документа
1	2	3	4

0130 Вода, лед, холо,	да, лед, г	холод
-----------------------	------------	-------

Вода питьевая, расфасованная в емкости	01 3100	СанПиН 2.1.4.1116-02	Документ в целом
		ГОСТ Р	Пп. 5.9.1, 5.9.2,
		52109-2003	5.9.3, 5.11.2
		ГОСТ Р	П. 4.22
		51074-2003	100000000000000000000000000000000000000

0253 Масла смаз	очные (нефтяные)
-----------------	------------------

No.	2	A. State of the st	
Масла моторные	02 5312	ГОСТ Р 51634-	П. 3.1

<sup>&</sup>lt;sup>1</sup> В данном документе учтены изменения в Постановление Правительства РФ от 01.12.2009 № 982, внесенные Постановлениями Правительства РФ от 17.03.2010 № 149, от 20.10.2010 № 848, от 13.11.2010 № 906, от 21.03.2012 № 213.

автотракторные* Масла моторные для автотракторных дизелей*	02 5313 02 5314 02 5313	2000	
автотракторных			
автотракторных	02 5313		
	A CONTRACTOR OF THE PARTY OF TH	ΓΟCT 8581-78	П. 2.2, табл. 1
дизелей*			(показатели 1 при
			100 °C; 5, 10, 11, 15
1000 100	ALINES TORIN		- в части фосфора)
Масла моторные для	02 5313	ГОСТ 12337-84	П. 2.2, табл. 2
дизельных двигателей*			(показатели 3, 4, 7)
Масла моторные	02 5314,	ΓΟCT 10541-78	П. 2.2, табл. 1
универсальные для	02 5312	111000000000000000000000000000000000000	(показатели 1 – при
автомобильных			плюс 100 °С и минус
карбюраторных			18 °C; 5, 9, 10)
двигателей*			
Масла моторные для	02 5313	ΓΟCT 25770-	П. 2.2, табл.
быстроходных дизелей		83	(показатели 3, 6, 7)
транспортных машин*			
Масло МТ-16П*	02 5313	ΓΟCT 6360-83	П. 1.2, табл.
		*	(показатели 3, 4, 7)
Масло АМГ- 10*	02 5335	ГОСТ 6794-75	П. 1.2, табл.
			(показатели 1, 3, 4,
		*	6, 8, 9)
Жидкость рабочая 7-	02 5339	ΓΟCT 20734-	П. 1.2, табл.
50C-3*		75	(показатели 1 - 3,
700			6, 9, 11)
3.5	02 5360	ΓΟCT 23652-	П. 2.2, табл.
Масла		79	(показатели 4,15)
Масла трансмиссионные*	1	1	
		N 1 (1 1971) - 4 (1 1971) 1971	
	02 5371	ГОСТ 32-74	П. 2.2, табл.
трансмиссионные*	02 5371	ГОСТ 32-74	(показатели 2, 8)
трансмиссионные*	02 5371 02 5371	ГОСТ 32-74 ГОСТ	
трансмиссионные* Масла турбинные*		III. Santa Tal Pittig Andia	(показатели 2, 8)
50C-3*		75 ΓΟCT 23652-	П. 1.2, табл. (показатели 1 - 6, 9, 11) П. 2.2, табл.

Масла нефтяные турбинные с присадками*	02 5371	ΓΟCT 9972-74	П. 2.2, табл. (показатели 3, 10)
Масла компрессорные*	02 5372	ΓΟCT 1861-73	П. 2.2, табл. (показатели 2, 5, 8)
Масло компрессорное из сернистых нефтей КС- 19*	02 5372	ΓΟCT 9243-75	П. 1.2, табл. (показатели 3, 6, 13)
Масло вазелиновое медицинское**	02 5392	ГОСТ 3164-78	П. 1.2

### 0272 Газ нефтепереработки и пиролиза, продукты газоперерабатывающих заводов

Газы углеводородные	02 7236,	ΓΟCT 20448-	Пп. 1.3.1, табл. 2,
сжиженные (кроме	02 7239	90	поз. 3, 4, 6
газов углеводородных			
сжиженных топливных			
для коммунально-			
бытового потребления			
и газов			
углеводородных			
сжиженных топливных			
для автомобильного			
транспорта) *	<b>%</b>		

## 0963 Прокат сортовой нержавеющий (включая жаропрочный)

Прутки литые из	09 6300	ГОСТР ИСО	Стандарты в целом
сплава ХК62М6Л для		10993-1-2009j	192
искусственных	695	ГОСТР ИСО	

INFORMATION ON THE PRODUCTS MANDATORY TO
CONFORMATION OF THE CONFORMITY (IN THE FORM OF ADOPTION
OF THE DECLARATION OF CONFORMITY), WITH THE INSTRUCTION
OF NORMATIVE DOCUMENTS INSTALLING MANDATORY
REQUIREMENTS FOR PRODUCTS ROSSTANDART (CERTIFICATION
SYSTEM OF GOST R)<sup>1</sup>

	General	Designation of	Confirmed
Object name	classifier of	the defining	requirements of the
	products	regulatory	defining regulatory
	OK 005-93	document	document
	[OKP]		
1	2	3	4

0130 Water, ice, cold

Drinking water,	01 3100	Sanitary rules	The whole document
prepacked in containers		and regulations	
		2.1.4.1116-02	
		GOST R	Paragraph 5.9.1,
		52109-2003	5.9.2, 5.9.3, 5.11.2
		GOST R	Paragraph 4.22
	90	51074-2003	

0253 Lubricating oils (petroleum)				
Motor-tractor oils *	02 5312	GOST R	Paragraph 3.1	

<sup>&</sup>lt;sup>1</sup> This document takes into account changes in the Resolution of the Government of the Russian Federation from 01.12.2009 № 982, made by the Government of the Russian Federation from 17.03.2010 № 149, from 20.10.2010 № 848, from 13.11.2010 № 906, from 21.03.2012 № 213.

	02 5313	51634-2000	
	02 5314		
Motor oils for automotive diesel engines *	02 5313	GOST 8581-78	Paragraph 2.2, Table 1 (indicators 1 at 100 ° C, 5, 10, 11, 15 - in the part of phosphorus)
Oils for diesel engines *	02 5313	GOST 12337-84	Paragraph 2.2, Table 2 (indicators 3, 4, 7)
Oils, motor, universal, for carburettor *	02 5314, 02 5312	GOST 10541-78	Paragraph 2.2, Table 1 (Indicators 1 - at plus 100 ° C and minus 18 ° C, 5, 9, 10)
Motor oils for high-speed diesel engines of transport vehicles *	02 5313	GOST 25770- 83	Paragraph 2.2, Table (Indicators 3, 6, 7)
MT-16P oil *	02 5313	GOST 6360-83	Paragraph 1.2, Table (Indicators 3, 4, 7)
Oil AMG-10*	02 5335	GOST 6794-75	Paragraph 1.2, Table (Indicators 1, 3, 4, 6, 8, 9)
Working liquid 7-50C-3*	02 5339	GOST 20734- 75	Paragraph 1.2, Table (Indicators 1 - 3, 6, 9, 11)
Transmission oils *	02 5360	GOST 23652- 79	Paragraph 2.2, Table (Indicators 4.15)
Oils for turbines *	02 5371	GOST 32-74	Paragraph 2.2, Table (Indicators 2, 8)
Oils for ship gas turbines *	02 5371	GOST 10289-79	Paragraph 1.2, Table (Indicators 3, 10)

Oils, turbine with	02 5371	GOST	Paragraph 2.2, Table
additives *		9972-74	(Indicators 3, 10)
Oils compressor *	02 5372	GOST 1861-73	Paragraph 2.2, Table
			(Indicators 2, 5, 8)
Compressor oil from	02 5372	GOST 9243-75	Paragraph 1.2, Table
sulphurous KS-19 oils			(Indicators 3, 6, 13)
Oil vaseline medical **	02 5392	GOST 3164-78	Paragraph 1.2

## 0272 Oil refining and pyrolysis gas, products of gas processing plants

Gases hydrocarbon	02 7236,	GOST 20448-	Paragraph 1.3.1,
liquefied (except for	02 7239	90	Table 2, pos. 3, 4, 6
hydrocarbon liquefied			
petroleum gas for			
domestic consumption			
and hydrocarbon			
liquefied petroleum gas			
for road transport)*			

## 0963 High-quality rustproof rolled metal (including refractory steel)

Cast bars of alloy	09 6300	GOST R ISO	Standards in general
HK62M6L for artificial		10993-1-2009j	
joints **		GOST R ISO	
		10993-3-2009j	
		GOST R ISO	
		10993-4-2009j	
		GOST R ISO	
		10993-5-2009j	