0 0 JSC Atomenergomash 2015 Integrated Annual Report



Integrated Annual Report 2015

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ar2015.aem-group.ru JSC Atomenergomash provides access to the integrated interactive version of the annual report for 2015 for its stakeholders. This product allows easy information presentation of the main annual results of the Company, as well as the access to additional data, which was not included in the print version in a analysis-friendly format. i – Links to online version GRI – GRI indicators AEM – AEM indicators ∠ ⊢ Links for cross-referenced reading of the Report

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The Annual Report used the work of the photographer Vyacheslav Stepanov.



INTEGRATED ANNUAL REPORT JSC ATOMENERGOMASH

2015

Contents

page 4	page 4	page 6	page 8
—	_		
THE COMPANY	2015	KEY EVENTS	MESSAGE FROM
IN BRIEF	PERFORMANCE	IN 2015	THE COMPANY
	HIGHLIGHTS		MANAGEMENT

page 66

6. ENVIRONMENTAL IMPACT

6.1. Environmental Management	.66
6.2. Emissions and Wastes	.67
6.3. Energy Consumption	.69
6.4. Water Consumption	.71

page 12

1. THE COMPANY'S BUSINESS MODEL AND DEVELOPMENT STRATEGY

1.1. Business Model	12
1.2. Strategic Vision and Objectives	20
1.3. Target Markets and Position of the Company	21
1.4. Sustainable Development of the Company	27

page 30

page 42

2. CORPORATE GOVERNANCE

3. FINANCIAL AND ECONOMIC ACTIVITIES

2.1. Corporate Governance System	3.1. Economic Performance and Financial Position42
2.2. Ethics and Anti-Corruption Practices	3.2. Commercial Activities
2.3. Internal Control, Audit and Risk Management37	3.3. Investment Activities

36	3.2. Commercial Activities
37	3.3. Investment Activities

page 50

4. PRODUCTION ACTIVITIES

4.1. Results of Production Activities	0
4.2. Quality and Industrial Safety	52
4.3. Optimization of Production Processes	54
4.4. Procurement Activities	57

page 60

5. INNOVATION ACTIVITIES

5.	1. Scientific Activities6	0
5.	2. Innovation Development6	50
5.	3. Management of intellectual property6	64

page 90

8. INTERACTION WITH SOCIETY

8.1. Impact on Presence Regions	.90
8.2. Social Investments and Charity	.91
8.3. Compliance with Legislation	.92

page 100

APPENDICES

Appendix 1. Glossary
Appendix 2. Information about the Report
Appendix 3. Material Aspects and Their Boundaries
Appendix 4. Index of Performance Indicators of JSC Atom
Appendix 5. GRI G4 Index («Core» Compliance Option)
Appendix 6. Accounting Statements of JSC Atomenergon
Appendix 7. Internal Auditor's Report
Appendix 8. Non-Financial Auditor 's Opinion
Appendix 9. Conclusion on the Public Assurance
Appendix 10. Consideration of Stakeholder Opinions

page 74

7. HR MANAGEMENT

7.1. Personnel Composition	74
7.2. Terms of organization and remuneration	75
7.3. Occupational Safety and Health	77
7.4. Personnel Efficiency	79
7.5. Availability of Replacement Personnel	

page 94

9. COMMUNICATION ACTIVITIES

9.1.	External Communications	94
9.2.	Internal Communications	96
9.3.	Stakeholder Engagement System	98

	100
	101
	102
energomash	104
	107
nash	111
	113
	114
	117
	118

The Company in brief

JSC Atomenergomash (the Company, AEM) is a Mechanical Engineering Division of the Rosatom State Corporation (the Division) and is one of the largest power engineering

The Division is comprised of largest power-engineering businesses, including research, engineering, manufacturing, construction and installation companies. Production capacities are located in the Russian Federation, Ukraine, the Czech Republic, and Hungary.

> The Company has full control over the production chain of key equipment for the nuclear island

holdings in Russia, that offers a full range of solutions in the areas of design, manufacture, and supply of equipment for nuclear and thermal energy, gas and petrochemical, shipbuilding industries, and the market of special steels.

and the power island - from Research & Development and development of technical documentation to the design of industrial processes and the manufacture of equipment. In addition, the Division is developing new lines of business, the key of which are thermal energy, gas and petrochemical industry, shipbuilding industry, and special steel.

Equipment manufactured by the Division has been installed in more than 20 countries; 14% of the nuclear power plants in

operation worldwide and 40% of the thermal power plants in the Russian Federation and FSU countries use the Company's equipment.

2015 Performance Highlights

ECONOMIC PERFORMANCE



AEM 1.3 EBITDA 98 bln rubles

OPERATING PERFORMANCE



Products shipped nuclear power plants 1 to under construction

Fulfillment of contractual obligations **Q**

The share of production for existing nuclear power plants that has passed incoming inspection /0 from the moment of first presentation

COMMERCIAL ACTIVITIES



rubles

EFFICIENCY IMPROVEMENT

69



Energy savings **1** mln 1 mln

STAFF CAPACITY



Share of specialists under 35 years old 3 under 35

Engagement level

SCIENTIFIC ACTIVITIES



patents and intellectual property certificates

SOCIAL RESPONSIBILITY



Paid to D the budget

ENVIRONMENTAL RESPONSIBILITY





4 —



Share of orders in the portfolio of new **3**39 products





Labor productivity growth 23%



Share of employees with seniority of more than 5 years



scientific publications

bln rubles

Charity mln charity expenses 13 **6** rubles



Key Events in 2015



Commercial Activities

- The first reactor vessel manufactured at the production site of the Atommash plant (branch of AEM-Technology JSC) was supplied to the Belarusian Nuclear Power Plant after a thirty-years' interruption. In addition, this is the first WWER reactor vessel manufactured by Rosatom State Corporation¹.
- PJSC ZiO-Podolsk successfully completed contracts for the supply of steam generators to the Leningrad NPP-2 and to the second stage of the Tianwan Nuclear Power Plant (power units No. 3 and No. 4).
- The stage of power start-up and development of the power unit No. 4 with a BN-800 reactor at Beloyarsk NPP, which was developed and delivered by the chief designer of fast-neutron reactor units JSC Afrinkantov OKBM, was started.
- The enterprises of JSC Atomenergomash have assembled the vessels of two reactors of the RITM-200 power plant for the Arctic, the world's largest Russian new-generation nuclear icebreaker, which is currently under construction.



Scientific Activities

- Commissioning of unique equipment for the industrial production of MOX fuel for fast-neutron reactors, which has been largely developed and delivered by JSC SverdNIIkhimmash and JSC TsKBM.
- JSC TsKBM has successfully completed the resource testing of a new design of the GTsNA-1753 main circulation pump featuring a single-shaft arrangement with a water-cooled motor and water-cooled bearing units, which will increase the safety of nuclear power plants.
- Employees of JSC NPO TsNIITMASH received science and technology awards from the Russian Government for their developments in 2015.



- ENGINEER."
- dustrial engineers.



- previous year by 32%.
- power consumption.

JSC Atomenergomash graduated succession candidate as part of a project for the development of engineering and scientific personnel at the enterprises of the Division called "I AM AN AEM

- The team of JSC TsKBM won the branch Event Young Professionals «Temp-2015» - a large-scale project of the Rosatom State Corporation and the Rosatom Corporate Academy for attraction of young professionals to work in the nuclear industry.

- Atommash (a branch of AEM-Technology JSC) held a ceremony of award of diplomas to the first graduates of the Production Foreman School project, the concept of which was to create a comprehensive system of training managers under a program for in-

Efficiency improvement

- A project of restoration of the Atommash production complex (branch of AEM-Technology JSC), which was accompanied by the renewal of equipment, the training of members of the personnel, and the introduction of new processing technologies, was implemented. The project featured participation from the following enterprises: JSC NPO TsNIITMASH, JSC OKB GIDROPRESS, and PJSC ZiO-Podolsk; Rosatom State Corporation acted as a curator.

- The industry RPS project of JSC Afrinkantov OKBM named «Assembly, Testing, and Manufacturing of NSO 250/15 and NSO 250/30 Pump Components on the Critical Path» allowed reducing the time of manufacture of the products in comparison with the

- JSC SNIIP successfully passed the first supervisory audit of the energy management system based on ISO 9001:2008, which was conducted by the official representative of the Certification Body for Management Systems and Personnel of TÜV Thüringen.

- JSC NPO TsNIITMASH developed and implemented a new technology for sectional forging of bottoms of steam generators that will save up to 40% of the metal and reduce the complexity and

Message from the **Company Management**



K Labor productivity growth has been provided for, and the overall economic effect of the introduction of the Rosatom Production System is almost twice the figures of 2014 and amounts to approximately 700 mln rubles.

GRI 4-1

I am pleased to present to you the Integrated Annual Report of JSC Atomenergomash for 2015. The report focuses particularly on production, financial, social and environmental issues related to the activities of the Mechanical Engineering Division of Rosatom State Corporation.

namic development. Despite macroeconomic difficulties, the Company demonstrates stable growth of financial and economic performance indicators while remaining one of the leaders of the Russian power engineering industry.

An important step towards sustainable de-In the context of strategic objectives velopment was the final positioning of the Diposed before Rosatom State Corporation, it vision as a complete supplier of equipment for is necessary to pay attention to the system the nuclear industry. A significant milestone atic work of the management team of the Diand a bright page in 2015 was the shipment vision, which is aimed at reducing the costs of a reactor for the Belarusian NPP, which was and improving the efficiency. Labor producthe first reactor manufactured by entities of tivity growth has been provided for, and the the Rosatom State Corporation circuit. Thanks overall economic effect of the introduction of the Rosatom Production System is almost to the restoration of the work of the engineering giant, the Atommash, the Division is twice the figures of 2014 and amounts to apcurrently able to produce up to four sets of proximately 700 mln rubles. Another priority the reactor island equipment per year. This of development is the focus of the Compais fundamentally important for the uncondiny on innovation. Enterprises of the Division tional implementation of the portfolio of orsuccessfully develop advanced technological ders of the Rosatom State Corporation, which solutions, are key players in the industry proincludes contracts for the construction of 30 jects aimed at creating new types of equipnuclear power units in 12 countries. ment, and form an image of the future of nuclear energy today.

One of the priorities of the Rosatom State Corporation is the diversification of its business activities, the development of manufacture of new products, including products that do not fall into the framework of nuclear en- bility as well as from the high professionalism ergy. I am sure that JSC Atomenergomash should be a reference division when addressing these issues due to the numerous competences of its enterprises and the developed business development logic. At the end of



Dear colleagues and partners,

In 2015, the Division continued its dy- 2015, one may note a significant growth in the volume of orders of thermal power, gas and oil industry, and general engineering. The Division has also intensified its efforts to increase export earnings and consolidates the necessary resources for more active operation on foreign markets.

> The achievement of such high production and financial results resulted from the Company's management commitment and responsiand conscientious work of all its employees On behalf of the Rosatom State Corporation I would like to thank you for your work and to wish you continued success in the development of our Company.

Cone of the major industrial developments in 2015 was the shipment of the reactor for the Belarusian Nuclear Power Plant from the Atommash production site.

Nikipelov Andrey

Chief Executive Officer of JSC Atomenergomash

Dear colleagues and partners,

I present to you the 2015 Annual Report of the Mechanical Engineering Division of Rosatom State Corporation – JSC Atomenergomash.

Previous year was full of significant achievements and bright In the reporting year, the power start of a new unit at Beloevents that will not only consolidate the Company's leading varsk Nuclear Power Plant with a BN-800 fast-neutron reactor role in the market and nuclear power engineering but also was implemented. This is a major event for the entire industry achieve significant success in other industries that are not reand, above all, for JSC Afrinkantov OKBM, which is the chief delated to energy. signer of this type of reactors. PJSC ZiO-Podolsk, JSC OKB GI-Despite the difficult macroeconomic conditions, the com-DROPRESS, JSC SverdNIIkhimmash and other enterprises of the bined revenues of the Division increased by 15% for the year Division were involved in the production of equipment for the and amounted to more than 56 bln rubles. The order book power unit. Earlier, the launch of of MOX fuel production at Gas of the Company for the ten-year period amounted to approx-Chemical Complex FSUE had been implemented. A significant imately 400 bln rubles, which is 73% higher than the correpart of the unique equipment was developed by JSC TsKBM sponding value for 2014. In particular, contracts for the supand JSC SverdNIIkhimmash. During this project, we have also acply of reactor island equipment to the Kudankulam Nuclear guired a huge scientific and technological experience, which will Power Plant as well as auxiliary equipment for the turbine isbe in great demand in the future.

land for Kudankulam and Bushehr Nuclear Power Plants have Last year, the amount of work of JSC OKB GIDROPRESS, been sianed.

which is the chief design office for new power plants of Russian design in Finland, Vietnam, Egypt, and other countries, signifi-Systematic work on the implementation of the Company's strategy in terms of business diversification has resulted in a sigcantly increased. JSC SNIIP received a record revenue based on nificant portfolio growth in related business areas. The volume year results, which was also contributed to by the implementof contracts concluded in the market of equipment for gas and ed revamping program, which has led to a significant increase in oil industry more than tripled while the volume of contracts conterms of efficiency. In the course of the year, PJSC Energomashspetsstal confirmed its reputation as a reliable partner by ensurcluded in the power industry more than doubled; the current volume of contracts concluded in the shipbuilding industry was ing timely execution of orders for such metallurgical and energy giants like ArcelorMittal and General Electric. The Company has practically preserved. For example, PJSC ZiO-Podolsk started the manufacture of consistently strengthened its presence in Europe, India, South boiler equipment for a number of thermal power plants in Rus-Korea, and Iran and expanded the reference of supply. Moreosia as well as implements projects on modernization of thermal ver, all of the enterprises of the Division that are involved in the performance of the State Defense Order fulfill their obligations power plants in Kazakhstan. AEM-Technology JSC signed contracts for the supply of column and reactor equipment for three in full and on time.

refineries of PJSC Gazprom Neft. JSC SverdNIIkhimmash won an In 2015, JSC Atomenergomash expanded its comprehensive order for the design and the supply of vacuum-evaporator intechnological cooperation with the world's largest engineering stallations for the receipt of «Extra» grade table salt in Kalinincompanies. During the year, it signed a Memorandum of Undergrad region. In addition to the production of power reactor standing on joint implementation of projects in the field of proplants, contracts for the supply of propellers and other equipduction of boiler equipment for the SCSP with Mitsubishi-Hitachi ment for the new generation of icebreakers produced by Bal-Power Systems. Two Memoranda of Understanding in the field of manufacture of equipment for a new generation of incineratic Plant were signed. One of the major industrial developments in 2015 was the tors were also signed: with Mitsubishi Heavy Industries Environmental & Chemical Engineering and with Hitachi Zosen Inova AG and LLC RT-Invest. Issues of implementation of joint projects in other areas are discussed with such companies as Siemens, Gen-

shipment of the reactor for the Belarusian Nuclear Power Plant from the Atommash production site. This is the first reactor manufactured by the plant in the post-Soviet period, and the first reactor manufactured by Rosatom State Corporation. Since 2012, eral Electric, and AREVA. Enhancing production efficiency, including through furwhen Atommash became a part of the Division, the Company has implemented a large-scale program to restore the producther implementation of the Rosatom Production System, fultion of equipment for the nuclear industry. This included the filling all contractual obligations in a timely manner, increasmodernization of machinery equipment, the installation of new ing the revenue across all business lines, and participating welding equipment, and other operations. At the same time, actively in import substitution programs will remain our strastaff training and introduction of new technologies were impletegic priorities in 2016. mented. Assistance was provided by specialists of several com-In conclusion, I would like to express my sincere gratitude panies of the Division: JSC NPO TsNIITMASH, JSC OKB GIDROto our customers and partners for their trust and constructive PRESS, PJSC ZiO-Podolsk. Successful shipment of a reactor for cooperation and to all the employees of JSC Atomenergomash Belarusian Nuclear Power Plant and steam generators for Rosfor their successful and efficient work and commitment to the tov Nuclear Power Plant has confirmed that the plant has comvalues of Rosatom State Corporation. I am confident that the pletely regained its competence in the nuclear field and is able results of the reporting year will be a solid basis for subsequent today to produce up to four sets of reactor island equipment sustainable development of JSC Atomenergomash as a globper year. Currently, the Company is manufacturing equipment al Company that provides its customers with the most reliable for a number of Russian and foreign nuclear power plants. Also, and efficient solutions the production for Kursk Nuclear Power Plant, "Kudankulam" Nuclear Power Plant, and Hanhikivi Nuclear Power Plant will be launched soon.

THE COMPANY'S BUSINESS MODEL AND DEVELOPMENT STRATEGY

1.1. Business Model

GRI 4-9 A value chain — from the used resources to the finished product and its key sales channels — lies at the core of the business model of JSC Atomenergomash. The business model also reflects the assessment of the added value (fixed capital gains) in the reporting year both for the Company in terms of its strategic objectives and for the stakeholders in terms of their basic needs. The Sustainable Development Strategy of the Company provides an efficient use of its capital while taking into account the long-term risks and opportunities² which are caused by the global agenda, priorities of Rosatom State Corporation, and interests of key stakeholders. Detailed information on the capitals is disclosed in the relevant sections of the Report.





Production hall at the Volgodonsk branch of JSC AEM Technologies - Atommash

Public Business Model of the Mechanical Engineering Division of the Rosatom State Corporation

ssiM				
	AEM resources			
= + + ති මාති මාති	Personnel composition Human capital → Over 19,000 qualified employees			
	Infrastructure Manufacturing capital → Exclusive manufacturing capacities and r	nodern equ	uipment	1
	Financial and economic performance Financial and economic capital → Revenue growth driven by an e	o noisnars	of the order portfolio and an enhancement of operational efficiency	
	Technologies Innovation capital → A balanced portfolio of actively developing	traditional e	and potentially innovative power technologies	
	Core activities			
Products	by business area	7		
	Nuclear power Reactor compartment, turbine plant and auxiliary NPP equipment		Transport and marine energy solutions Reactors for icebreaker and marine fleets, floating nuclear plants and the Russian Navy fleet	
	RU MCS Reactor plant monitoring and control system for WVER designs		Thermal power Reactor plant monitoring and control system for WVER designs	
<u>ل</u> ان الم	RAW/SNF RAW/SNF storage, transportation and processing equipment		Gas and petrochemical industry Oil and gas processing equipment for oil refineries and marine and ship-based plants	
	Special steels Castings and forgings from special steel		General equipment Special equipment and heavy machinery components for the military-industrial complex	
	Shipbuilding Various types of equipment for shipbuilding		Wind power Wind power facilities equipment	
	Equipment Equipment Production	\uparrow	Equipment Equipment installation Maint storage	tenance
	Sales			
95,212 55.37%	Total orde portfoli		92.7 1 increase by	4
	Contra	acts signe	d in 2015 by business area (bln RUB)	

uoi

industry in

Creation and development of internationally competitive technological solutions for the power

ar power/ Gas and General Other RAW/SNF Special steels Shipbuilding Thermal power Transport and marine energy petrochemical equipment solutions industry	of value for stakeholders Creation of value for the Company	Strategic objective 2015 results	Personnel Enhancement of employee Staff turnover reduction 13% efficiency and development of Increase in productivity 23% Decrease in words othered 12 26%	Reduction in CO ₂ emissions, 19,9% Infrastructure Enhancement of efficiency and Volume of realized investment 3.7 bin RUB flexibility of Increase in the percentage of products to existing nuclear manufacturing capacities power plants that passed input control from the first time	Social capital Financial and economic efficiency and bucrease in combined revenue 15% Deductions for budget 6.5 bin RUB economic efficiency and bucket in the secondary assets 909 mln rubles Deductions for budget 6.5 bin RUB performance Dending on charity 13.6 mln rubles performance	Technologies Product competitiveness and Patents and intellectual activity results certificates granted 77
er/ Nuclear power/ .ts New products	reation of val					

978 0.57%

1,176 0.68%

1,234 072%

3,273 1.90%

4,503

4,582 2.66%

6,491 3,77%

9,915 5,77%

44,591

Specialization of the Division's Enterprises

In order to expand the activity of the Company in been appointed. This approach to business organization main markets and to improve efficiency of cross-func- ensures an optimal use of resources with due considerational interaction within the Division, the Division's com- tion of the available scientific and technical competence panies have been grouped into business areas based on and production possibilities. key product segments and business area directors have

Division's enterprises	Nuclear power	WWER RUMCS*	RAW/SNF**	TMES***	Shipbuilding	Special steels	Thermal power	Gas and petro- chemical industry	General equipment	Wind Power
AEM-Technology JSC	\bigcirc		\bigcirc		\bigcirc			\bigcirc		\bigcirc
PJSC ZiO-Podolsk	\bigcirc			\bigcirc	\bigcirc		\bigcirc	\bigcirc	\bigcirc	
JSC ZIOMAR EC	\bigcirc						\bigcirc	\bigcirc		
JSC TSKBM	\bigcirc		\bigcirc							
JSC OKB GIDROPRESS	\bigcirc									
JSC Afrikantov OKBM	\bigcirc		\bigcirc	\bigcirc	\bigcirc					
ARAKO spol. s.r.o.	\bigcirc				\bigcirc		\bigcirc	\bigcirc		
JSC SverdNIIkhimmash			\bigcirc							
JSC GSPI			\bigcirc							
JSC SNIIP		\bigcirc		\bigcirc	\bigcirc					
LLC AAEM	\bigcirc									
PJSC EMSS						\bigcirc				

GRI 4-6 Business Georgraphy

JSC IFTP



PJSC ZiO-Podolsk JSC ZIOMAR EC

i 001





1.2. Strategic Vision and Objectives

In 2015, the Strategic Council of Rosatom State Corporation approved an amended development strategy of the Division until 2030, which involves the transformation of the Company into a high-tech diversified holding that will be competitive in the global market and sustainable in the long term. The strategic objectives of the Company are developed on

the	basis	of	three	key	long-	term	objectives	of
Ros	atom	Sta	te Co	rpor	ation	, nam	ely:	

- increasing the share of the Company in international markets;
- development of new products for the Russian and international markets;
- reduction of production costs and timing of processes.



4 - Revenue forecast for 2016 is presented on the basis of JSC Atomenergomash Business Plan for 2016-2018.







Share of revenue from foreign operations⁵

1.3. Target Markets and Position of the Company⁷

rently estimated at about USD 110 bln a year, USD 350 bln a year, of which 60% is thermal with thermal power equipment accounting for power equipment, 29% is gas and petrochemi-60%, gas and petrochemical equipment for cal equipment, and 11% is nuclear power equip-25%, and nuclear power equipment for 15% of ment. By 2030, the market could grow to USD this amount. By 2030, the market capacity could 500 bln a year according to the preliminary be over USD 150 bln a year.

In the reporting year, most of investments in equipment for new power plants were made in thermal power. In the future (until 2030), the GWh. The main areas of the power engineeralignment of the investment balance in terms ing market in Russia involve plans to introduce of equipment for nuclear and thermal power new generating capacity in accordance with is projected.

may increase by 2030. The Russian power engi- oped by Rosatom State Corporation.

5 - Information on 2015 is provided without regard to projects carried out for RAOS Project Oy at Hanhikivi Nuclear Power Plant (according to the methodology of Rosatom State Corporation for calculating foreign revenue of the Mechanical Engineering Division). 6 – ARAKO spol. s.r.o. and PJSC Energomashspetsstal.
 7 – All forecasts are based on the expert assessment of JSC Atomenergomash.

The strategy of JSC Atomenergomash identifies long-term targets that outline the implementation

Share of the Russian power engineering industry



formed by foreign assets⁶

non-nuclear sectors (new businesses)

The global power engineering market is cur- neering market is currently estimated at about evaluation.

> By 2023, the total capacity of the world's power plants is expected to increase to 8,100 the General Scheme of Deployment of Electric-

The Russian power engineering market is ity Generation Facilities up to 2020 and further expected to follow general global trends for to 2030 and the Road Map for the Construction the next few years; however, the growth rate of Nuclear Power Plants, which is being devel-





Thermal Power



The target market of JSC Atomenergomash for thermal power equipment is the market in Russia formed by new thermal capacity additions. Competence of enterprises of JSC Atomenergomash

allow participating in the projects of construction of thermal power plants at all the stages of the value chain. A key asset in terms of production of equipment in this business area is PJSC ZiO-Podolsk.

The market volume is defined both by the General Layout of Electric Power Industry Facilities in the Russian Federation until 2020 and by the need of generating companies in revamping and servicing of thermal power plants. At the same time, the Division is stepping up cooperation in the field of revamping of power equipment in Russia and in the markets of CIS countries, which are historically close to Russia, primarily in Kazakhstan.

The Company's strategy in the Thermal Power business aims to enhance its competence in the current markets and to gain a foothold in new markets by providing a comprehensive offer for the supply of boiler equipment, establishing technology partnerships with global industry leaders as well as through active participation in projects for the reconstruction and modernization of power facilities both in Russia and abroad.

A significant portion of the revenue in this area is generated by boiler equipment at PJSC ZiO-Podolsk - steam boilers for power units with capacities ranging from 50 MW to 800 MW and downstream heat recovery steam generators for modern combined-cycle plants with a power unit capacity of up to 800 MW.

The events in the Thermal Power business in 2015, which were key for JSC Atomenergomash, are:

- detail design of the boiler plant for combined cycle units with enlarged deliverable high prefabrication was developed;
- a Memorandum on the implementation of SCSP projects was signed with Mitsubishi-Hitachi Power Svstems;
- a contract for the supply of fuel cell equipment to the territory of the Republic of Kazakhstan was concluded;
- a contract for the supply of waste heat boilers for 4 CCGT-235 blocks was concluded;
- a contract for the supply of a pulverized coal boiler system for the Arkhangelsk Pulp and Paper Mill was concluded;
- a contract for the provision of services for the overhaul of 10 boilers in the Republic of Kazakhstan was concluded;
- a Memorandum of Understanding was signed with Mitsubishi Heavy Industries Environmental & Chemical Engineering Co., Ltd. as regards the implementation of projects for the incineration of municipal solid waste;
- a Memorandum of Understanding was signed with Hitachi Zosen Inova AG and LLC RT-Invest as regards cooperation in the implementation of projects for the construction of incinerators.

The main challenge for the development of the Thermal Power business in 2015 was a decline in demand and increased price competition in the local market. As compensatory measures, JSC Atomenergomash has intensified efforts to develop its international business and is consolidating resources to advance to the global market with a competitive offer for the ther-

ues. In particular, an expansion of mutually beneficial relations with NEM Energy in terms of expanding the line-recovery boilers and gas turbines with a capacity in the In 2016, Division plans to continue to develop the exist- range between 9 MW and 50 MW is planned. In particu-

mal power industry. One of the priorities is to intensify the activities of the Division in Kazakhstan as a one of its key foreign markets. ing production capacity and technology. Work to estab- lar, the Company plans to further develop cooperation lish new technology partnerships and long-term business with key Russian general contractors engaged in thermal relationships with customers in strategic markets contin- power projects in foreign markets.

Gas and Petrochemical Industry

In 2015, the Russian market of equipment for gas in the Gas and Petrochemical business area. The stratand oil industry facilities slowed its growth on the back- egy of JSC Atomenergomash in this area involves the ground of the sanctions imposed against the Russian strengthening of its position on the market, increas-Federation and the revision of invest- ing the supply volume of reactor, heat-exchange and ment plans of the customers of the pet- capacitive equipment as well as pumps and valves.



rochemical complex. Therefore, the

equipment under the import substitution programs. Gazpromneft - Omsk Refinery. In particular, AEM-Technology JSC mastered the man-As part of the expansion proposal for the gas and ufacture of axisymmetric valves, which are included in petrochemical industry market, JSC SverdNIIkhimmash the sectoral registries of PJSC Gazprom, and first con-signed a contract for the design and supply of vacutracts were concluded. um-evaporator installations for the receipt of "Extra" One of the key strategic goals of JSC Atomenergo- grade table salt in the Kaliningrad Region. This conmash is to increase the share of revenue from non-nu- tract has become one of the largest orders for the clear sectors to 50%, in particular, by expanding sales Company in this area.

Special Steels

The business direction is formed on the basis of PJSC Energomashspetsstal, which is a manufacturer of special cast and forged products for energy (wind, steam, hydro, nuclear), shipbuilding, metallurgy and general



engineering. Its aim is to increase the Company's presence in international and Russian markets for special steels as well as to increase the revenue from non-nu-

clear sectors. In the reporting year, about 48% of all contracts in this area were foreign orders. At the end of the reporting period, more than 12,000 tons of ingots for markets in Europe, India, and South Korea.

further metallurgical processing were produced for the The objectives for 2016 in the field of Special steels include the execution of new orders from major Russian Despite the challenging macroeconomic situation, and international companies (such as LLC Baltic Ship-PJSC Energomashspetsstal fully complied with all of its yard - Ship building, ArcelorMittal, BHEL (India)) as well as participation in the creation of a research Multi-Purcontractual obligations: - blanks for RITM-200 reactor vessels (developed by pose Fast-Neutron Reactor.

JSC Afrinkantov OKBM) for two atomic icebreaker

Shipbuilding

Shipbuilding is one of the most dynamic business sion's enterprises will allow JSC Atomenergomash to areas of JSC Atomenergomash, which contributes to become one of the leading suppliers of equipment achieving the strategic objective of the Division to for icebreaker and Navy fleets, including reactors, shell increase the Company's revenue in non-nuclear sec- equipment, monitoring and control systems, castings tors and enhance its position in the and forgings and components in the future.



international market. The strong posi-In shipbuilding, JSC Atomenergomash considers the tions of JSC Afrikantov OKBM in marine Russian market for large-capacity and high-tech ships nuclear reactor engineering, as well as its target market, the volume of which determined as the aggregate capacity of the Divi- by the "Strategy of Development of the Shipbuilding

8 – The rating is made on the basis of an expert assessment of JSC Atomenergomash

In 2015, AEM-Technology JSC signed contracts for Company is actively considering oppor- the supply of column and reactor equipment for Orsk tunities to supply various ranges of its Refinery, JSC Gazpromneft - Moscow Refinery, and JSC

- LK-60Ya were shipped, and blanks for hull castings for project 22220 nuclear icebreakers were manufactured and supplied;
- the delivery of rolls for the steel plants of ArcelorMittal (Luxembourg) was implemented on a permanent basis;
- over 1,000 tons of wind turbine rotors were manufactured for General Electric (the USA);
- over 500 tons of steel castings for grinding mills were delivered for JSC Tyazhmash.

relevant federal target programs "Development of Civil Marine Shipbuilding in 2009–2016" and "Development bln rubles in 2015 and amounted 57 bln rubles. of the Defense Industry Complex", which envisage the construction of over 100 vessels up to 2030.

presence in the market of equipment of the shipbuild- ment, expansion of the range of equipment supplied to the supply of a range of non-power plant marine ufactured at the facilities of the Division's enterprises.

Industry of the Russian Federation up to 2030" and the equipment supplied, including for the Russian Navy. The order book in this business area grew by almost 19

In 2016, the strategic priorities for this business area will continue to be: implementation of import substitu-In 2015, the Company significantly strengthened its tion programs, development of a new type of equiping industry of the Russian Federation primarily due for the Navy, and increase of the share of orders man-

International Cooperation

As part of new projects, the Division expands its position not only in the domestic market but also abroad. The growth of the prestige of the Division in the world market contributes to the development of cooperation with foreign leaders.



Mitsubishi Hitachi Power Systems, Ltd. (MHPS)

In January 2015, JSC Atomenergomash and Mitsubishi Hitachi Power systems, Ltd. (MHPS) signed a Memorandum of Understanding. The document provides for cooperation between the parties in

the field of thermal energy, including design and manufacture of coal-fired boilers of the capacity class of 660 MW, supply of ultra-supercritical pressure steam turbines, and a large supercritical capacity with generators.

The terms of cooperation include further work on the basis of the License Agreement for Technology (LAT).

Mitsubishi Heavy Industries Environmental & Chemical Engineering Co., Ltd. (MHIEC)



In September 2015, JSC Atomenergomash and its enterprises PJSC ZiO-Podolsk and JSC ZIOMAR EC signed a Memorandum of Understanding with Mitsubishi Heavy Industries Environmental & Chemical Engineering Co., Ltd. (MHIEC).

The document provides for the cooperation of these companies in creating productions for the disposal of solid municipal waste in the territory of Russia and CIS countries.

1.4. Sustainable Development of the Company

The Company recognizes that following the concept ny's business performance. Thus, the Company aims to of sustainable development is one of the most impor- keep the balance between its strategic objectives and tant success factors in the medium and long-term per- the interests of all stakeholders in economic, social, and spective. The principles of sustainable development are environmental areas. deeply integrated into the Company's operations and The Company has developed an agenda that takes are reflected in the mission of JSC Atomenergomash into account both current and potential initiatives and projects. The agenda for sustainable development of laid down in its corporate strategy: to establish and develop globally competitive technological solutions JSC Atomenergomash is based on the results of the UN for the power industry in order to maintain a comforta- Conference on Sustainable Development "Rio +20" and ble life for people and to achieve growth in the Compa- a similar agenda of Rosatom State Corporation.

Rio +20	Rosatom State Corporation	JSC Atomenergomash	
Health and population	Ensuring nuclear radiation safety and	Ensuring industrial safety	
Disaster risk reduction	security of nuclear facilities		
Energy	Ensuring energy security	Executing orders to provide the country with electricity	
Sustainable consumption	Minimizing the environmental impact	Consuming resources and energy in a responsible manner	
Poverty eradication	Providing positive economic and social	Implementing charitable and	
Food security	 impacts on a regional, national and international scale 	social projects in the regions of presence	4
Human rights and equality			
Sustainable development financing		Making payments to the budgets of all levels	!
Promoting employment and social protection		Providing stable jobs for the population in the regions of presence	(
Human development	Improving the capital utilization	Staff capacity building	
Education	efficiency		
Technologies		Innovation and R&D	8
Transparency	Ensuring public acceptance of development for nuclear energy	Company's communications and public reporting	9



ARAKO

Operationalization of the agenda in the field of sustainable development of JSC Atomenergomash

1

Ensuring industrial safety



0.42 LTIFR for the Division in 2015. Planned value for 2015: 0.63

⊿л р. 78

4

Implementing charitable and social projects in the regions of presence



Charity expenses in 2015 13.6 mln rubles vzn p. 91

Paid to the budget ubles in 2015 6.5 bln RUB ע ק א

7 Staff capacity building



Number of employees in the skill pool in 2015 163 persons

⊻7ı p. 82



Consuming resources and energy in a

responsible manner

Total energy savings in 2015 – over 1 mln GJ

3



2

5

Fulfillment of contractual obligations in 96.9%

Making payments to the budgets

of all levels

←_1↑

·· O ··)

8

Innovation and R&D

R&D expenses

∠⁄⊐ p. 62

in 2015 11.3 bln RUB

6

∠71 p. 70

Providing stable jobs for the population in the regions of presence



Social expenses (employee benefits) per employee in 2015 22.4 thousand RUB

⊻⊐ı p. 76

9

Company's communications and public reporting



Number of mentions in mass media in 2015: Positive – 16.3% Negative – 1.4% Neutral – 82.3%

∠⁄⊐ p. 96

Dye penetrant weld inspection (the Atommash branch of AEM-Technology JSC in Volgodonsk)



CORPORATE GOVERNANCE

2.1. Corporate Governance System

JSC Atomenergomash pays special attention to the quality of its corporate governance. The alignment of the corporate governance system is based on applicable provisions of the current legislation of the Russian Federation and applicable recommendations of the Corporate Governance Code.

Basic principles of corporate governance GRI 4-56 i 003

Within the scope of the strategy of JSC Ato- recorded in the Charter of the Company as well development of a global competitive power-en- that are open to public access. gineering holding, the formation of an effective system of corporate governance is one of the pri- ance Code recommended by the Bank of Russia ority directions of development.

plies with the corporate governance principles ing into account the specifics of the legal status relating to delineation of the functions of the Com- of Rosatom State Corporation, which ensures pany's governing bodies, increasing the degree the unity of management of organizations in the of interaction, preventing conflicts of interest, and nuclear industry, as set forth in applicable laws specifically defining responsibilities of the parties to and regulations of the Russian Federation and in each other. Corporate governance principles are a number of local regulations.

GRI 4-34 Governing bodies

The governing bodies of the Company under its Charter are:

- the General Meeting of Shareholders of the Company, which is the supreme governing body of the Company;
- the Board of Directors of the Company, which implements general management of business activities of the Company with the exception of the issues referred to the exclusive competence of the General Meeting of Shareholders of the Company;
- the Chief Executive Officer of the Company, who is the sole executive body of the Company and who implements the management of current (operational) activi-
- GRI 4-13

Structure of authorized capital

The authorized capital of the Company consists of the nominal value of the Company's shares purchased by shareholders. In compliance with the Charter of JSC Atomenergomash, the authorized capital of the Company amounts to RUB 1,015,926 (one million fifteen thousand nine hundred and twenty-six rubles) and is divided into 1,015,926 (one

menergomash, which is primarily focused on the as in other regulatory documents of the Company

Certain provisions of the Corporate Governin its letter No. 06-52/2463 dated April 10, 2014 In its day-to-day activities, the Company com- are applied by the Company in practice by tak-

> ties of the Company; the competence of the Chief Executive Officer includes all the issues related to the management of current (operational) activities of the Company with the exception of the issues referred to the exclusive competence of the General Meeting of Shareholders and the Board of Directors of the Company.

Pursuant to applicable provisions of its Charter, the Company has no Audit Commission (Auditor); internal control of performed facts of economic life of the Company is implemented in accordance with internal documents and local regulations of the Company.

million and fifteen thousand and nine hundred and twenty-six) ordinary registered shares with a par value of 1 ruble each. Each ordinary share of the Company confers equal rights to the shareholder who owns it.

As of December 31, 2015⁹, the outstanding shares were distributed as follows:

Corporate governance scheme of JSC Atomenergomash



Board of Directors

"On Joint Stock Companies."

GRI 4-38 GRI 4-39 i 006

The Board carries out the strategic management of the Company's activities and effective control over the activities of its executive body. The Board of Directors was elected by reso- Governance Code. lution of the Annual General Meeting of Shareholders held on June 30, 2015.

30 —

51,000 (3.92%) TVEL Joint Stock Company

> Total 1,300,183 (100%)

460 (0.04%) Energomashkomplex Limited Liability Company

The Chief Executive Officer is responsible for carrying out the decisions adopted by the General Meetings of Shareholders and the

In 2015, seven General Meetings of Shareholders of were held (one annual and six extraordi-

No dividends were paid in 2015 as no decisions to declare and to pay dividends were of the Company.

The Company does not have independent members of the Board of Directors within the meaning defined in the Corporate

^{9 –} At present, shares of JSC Atomenergomash of an additional issue (state registration number: 01-01-11322-A-005D) registered by the Main Office of the Central Bank of the Russian Federation on December 24, 2014 are offered. The placement expires on December 20, 2016. As of December 31, 2015, 284,257 (two hundred and eighty-four thousand and two hundred and fifty-seven) ordinary registered uncertified shares of an additional issue had been placed.

Information about the Members of the Board of Directors



Has been in office since June 29, 2012 until the present



SILIN

Date of birth: October 26, 1954 The term of office: November 27, 2014 until the present



ANDREY NIKIPELOV

Date of birth: March 7, 1968

Term in office: from June 29, 2012 until the present

i 008 i 009	In 2015
GRI 4-49	
GRI 4-50	
i 010	

i 011

i 012

AEM 24.4

i 013

In 2015, no decisions on the payment of re- was paid, and no compensation of expenses muneration and/or compensation of expenses was provided. to members of the JSC Atomenergomash Board Members of the Board of Directors do not of Directors were adopted, no remuneration own any shares of the Company.

Chief Executive Officer

In accordance with the requirements of Arti-GRI 4-35 cle 69 of the Federal Law "On Joint Stock Compa-Chief Executive Officer is responsible for carrying holders on April 16, 2012. out the decisions adopted by the General Meetings of Shareholders and the Board of Directors. any shares of the Company.

KPIs set for the Chief Executive Officer of JSC Atomenergomash in 2015

AEM 24.5	Indicator	Target value	Actual value	Performance Status
	AEM's adjusted free cash flow (AFCF), bln rubles	-5.4	2.0	Maximum
	Labor productivity, bln rubles/person	3.31	2.947	Minimum
⊾⊐ page 79	Index of implementation of the REA Concern Investment Program as it pertains to AEM, %	100	100	Target
	Integral indicator for new products, %	100	120	Maximum
	Integral indicator of investment performance ¹⁰ , %	100	93	Minimum
	Revenue from new products outside the contour and inside the contour on a competitive basis, mln rubles	22,695	17,134	Not performed
	Semi-fixed costs, mln rubles	23.84	23.45	Target
	Overseas revenue, mln USD	128	122	Minimum
	LTIFR, %	0.63	0.42	Target
⊾⊐ page 78	Fulfillment of the State Defense Order (SDO), $\%$	100	100	Target
⊾⊐ page 50	Book of orders of the State Corporation for 10 years for new products, mln rubles	70,748	116,304	Maximum
	Book of foreign orders for 10 years, mln USD	99	129	Maximum
	IRR of the portfolio of projects for new businesses, %	12	34	Maximum

economic situation.

tive Officer of the Company will include the following indicators: "The timeliness of deliveries ecutive Officer on an annual basis. of equipment under concluded contracts" and Level 2 and above."

AEM 24.6 ation for the Chief Executive Officer is deter-

10 - Detailed information is contained in the relevant section.

VLADISLAV KOROGODIN

Date of birth: October 25, 1969 Term in office: from June 30, 2015 until the present

32 -

NIKOLAY

until the present

Date of birth: June 23, 1972

The term of office: October 4, 2013

DROZDOV



The Chief Executive Officer of the Company, Andrey Nikipelov, was elected by a decision nies" and Article 9 of the Company's Charter, the of the Extraordinary General Meeting of Share-

The Chief Executive Officer does not own

Failure to comply with key indicators at the mined by the employment contract in accordtarget level is due to the postponement of a ance with applicable provisions of the current number of non-nuclear and foreign projects for labor legislation of the Russian Federation and long-cycle equipment and to the overall macro- by the wage system in place at the organizations of Rosatom State Corporation. The amount of

In 2016, the KPI Chart of the Chief Execu- the bonus takes into account the fulfillment of key performance indicators set for the Chief Ex-

In accordance with the legislation, informa-"The absence of violations on the scale of INES tion about the declared income, property and liabilities is presented on the official website of The criteria for and the amount of remuner- Rosatom State Corporation in the Anti-Corruption section.



Top Management



VLADIMIR ANGELOV

VLADIMIR SMIRNOV

Director for Nuclear Power In office since 2014

In office since November 2015



ALEXANDER LEVENSHTEIN

Internal Audit Director In office since 2007



ANDREY NIKIPELOV

Chief Executive Officer In office since 2012

SERGEY FILATOV

Deputy Chief Executive Officer Director for Economics and Finance In office since 2014

VLADIMIR RAZIN

First Deputy Chief Executive Officer,

Director of Operations

In office since 2012

SERGEY KULESHOV

Deputy Chief Executive Officer Corporate Governance Director

In office since 2006

SUKHOTINA

KSENIA

First Deputy Chief Executive Officer for Strategy and Organizational Development

In office since 2010

34 -

SERGEY SHATOKHIN

Director for Gas and Petrochemical Industry

Director of Thermal Energy In office since October 2015

NATALIA SHIROKOVSKIKH

Chief Accountant In office since 2012

2.2. Ethics and Anti-Corruption Practices

Regulations on the Security Department of JSC Atomenergomash and its EMPs:

- protecting the economic interests of the Russian Federation and Rosatom State Corporation in the course of cooperation with foreign partners;
- protecting state secrets and information;
- protecting intellectual property.
- participating in the implementation of the State policy of the Russian Federation in the field of economic security and combating corruption;
- identifying and analyzing factors and conditions that contribute to the emergence of threats to economic security and assets;
- drafting regulations on the prevention of threats to economic security and assets of the Division's enterprises in top-priority areas;
- providing information to the Company's management on matters related to economic security, asset protection, and combating corruption;
- carrying out organizational, methodological and functional management of the enterprise asset protection units;
- preparing and following up measures designed to prevent the following from occurring in the Corporation and its entities: corruption and corrupt practices; external and internal threats to financial security; external and internal threats to personnel security; external and internal threats to intellectual property; shadow economic activities; illegal activities in the field of management of federal property and property complexes; illegal activities in the field of procurement, performance of work, and provision of services for the needs of Rosatom State Corporation and its organizations.

In this area, the following key activities are implemented that serve as the basis of the KPI:

- 1. Quality of monitoring the sale of unclaimed movable property of the Company and its EMPs
- 2. Development and implementation of anti-corruption programs at the enterprises of the Division
- 3. Protection of the Company's interests in court and enforcement proceedings as well as administrative and criminal proceedings in which the Company acts as the plaintiff/claimant
- 4. Quality of expert work related to contracts and screening of counterparties
- 5. Timely consideration of reports of corruption and fraud received via the Hotline.
- AEM 30.4 as structural units of the Federal Security the Asset Protection Department. Service of Russia, the Ministry of Inter-Corporation for 2014-2015.

In addition, a package of measures criminal cases were initiated¹¹ to prevent risks and eliminate consequences of violations has been devel-

In order to prevent theft and fraud oped. Control over the risk identification and to reduce the risk of economic dam- process and preventing fraud by counage, enterprises of JSC Atomenergo- terparties is carried out jointly with the mash in collaboration with state author- Internal Audit Department in accordities, local authorities, public associations, ance with the Regulations on the Secucollectives of workers and citizens as well rity Directorate and the Regulations on

As a result of the activities of the nal Affairs of the Russian Federation and Security Department, attempts to cause the tax authorities are implementing the economic damage to the companies of Anti-Corruption Plan of Rosatom State the Division in the amount of 422.5 mln rubles were thwarted in 2015, and 12

GRI-SO5 AEM 22.3

Enterprise

Number

	of criminal cas
JSC OKB GIDROPRESS	2
PJSC ZiO-Podolsk	1
PJSC Energomashspetsstal	2
OJSC Venta	2
AEM-Technology JSC	4
JSC TsKBM	1
Total:	12

tained information about the signs of corrup- the President of the Russian Federation cartion and other offenses were checked, and 18 ried out on-site inspection of JSC Atomenergoof them were confirmed. The share of anon- mash in April 2015, during which the members ymous reports decreased by 14% as com- of the Commission examined the documents pared to 2014. Based on the results of verifi- and the practices aimed at corruption prevencation of «hot line» messages, 11 employees tion. No concerns were raised on the basis of were held disciplinarily liable, and labor con-verification results. tracts with two employees were terminated by mutual agreement.

GRI 4-58

i 017

in 2015:

- 4,122 inspections of activities of the of inspections, 22 cases were sent to the law enforcement authorities, on the basis of which 12 criminal proceedings were initiated, and disciplinary charges were brought against 130 employees (including disciplinary liability based on

2.3. Internal Control, Audit and Risk Management

The "Internal Control and Audit" function in Executive Officer and all the employees of the the Company is implemented by the Internal Company have the right to make a proposal to Audit Directorate, which reports directly to the implement a follow-up measure. Chief Executive Officer of the Company. The Directorate implements its activities in compli- nal Control and Audit function is the absence of ance with international professional standards actual incidents or significant adverse findings of internal audit that is guided by the principles during inspections by state authorities related of independence, impartiality, competence, and to the processes that were previously inspected professional attitude to work.

It is foreseen that ongoing supervisory activities in the Internal Control and Audit function of the company structure will be divided into the AEM 25.2 Standard for Procurement.

> ities, a six-month Monitoring Plan is prepared, Atomenergomash. Based on the results of the which includes information on the inspection audits, proposals and recommendations were period and the number of hours allocated for the implementation of each control activity. Company. No facts of availability of concerns In accordance with the approved procedures, raised by state bodies according to the results when preparing the Monitoring Plan, the Chief of inspections of processes were identified.

11 – Including 0 corruption-related cases.

i 015

i 016

ses		
		_
		_
		_
		_

the results of verification of «hot line» notifications):

- 2,799 preventive conversations and activities aimed at the prevention of theft and corruption and violations of labor discipline were held;
- 11,416 contracts were examined, and 548 contracts were rejected.

Within the scope of verification of anti-corruption measures in Rosatom State Corpora-In 2015, 69 «hot line» notifications that con- tion, the Commission of the Administration of

According to the nuclear safety requirements, engineered safeguards and special monitor-In addition, the following were implemented ing tools have been installed at a number of enterprises.

In order to improve the corporate culture Company and EMPs. Based on the results and to create an atmosphere of integrity and a zero tolerance to theft, an "Anti-Corruption" section was set up on the Company's official website at the following URL: http://www.aemgroup.ru/protivodejstvie-korrupczii/.

The key performance indicator for the Interby the internal auditor.

In the reporting year, the Internal Audit Directorate performed 20 audits (at 14 scheduled audits, which brings the implementation of following areas: audit, control and audit activ- this indicator to the rate of 143%) of structural AEM 25.1 ities, and compliance with the Unified Industry units and EMPs in order to identify risks and to evaluate the effectiveness of activities and In order to enable the performance of activ- business processes that are significant for JSC prepared for the relevant departments of the

In 2015, the KPIs for the following business line were completed.

agement Group, which acts on the basis of the Regulation on Risk Management Group of JSC Atomenergomash. Its activities are aimed at creating a corporate risk management system and at coordinating risk management and insurance activities. The tasks of the Group include reqular audits of risks and ascertaining whether they are within the set risk limits, organizing interaction in making risk-related decisions between all participants in the risk management process from the CMP level to the level of Rosatom State Corporation.

As of the end of 2015, the integration of the corporate risk management system into strategic, investment, and budget planning processes was completely implemented. Within the scope of unification of risk management and insurance processes, JSC Atomenergomash started an analysis of property risks of the basic manu-

AEM 25.3 facture of EMPs (including the implementation of pre-insurance surveys) with the formation of a property risk management program. In 2015, the prepararedness of the Company for risks. the Risk Management Group was included into the profile of mandatory preliminary approval of agreements planned for conclusion by JSC Atomenergomash, which greatly enhanced risk monitoring and control at the stage of preparation of contracts.

Property risk surveys of main production EMPs that have completed their transition to JSC Atomenergomash has formed a Risk Man- the control of JSC Atomenergomash (JSC Afrinkantov OKBM and JSC OKB GIDROPRESS) was scheduled for 2016. The implementation of the introduction of quantitative risk assessment techniques in 2016 is planned in integration with the created project management system of JSC of the Risk Management Group of JSC Atomenergomash in 2016 also includes the creation of a risk management plan for the "Hanhikivi" Nuclear Power Plant project in order to reduce risks, to optimize costs, and to ensure compliance with applicable requirements of the requlator from the Customer.

> Operation within the risk appetite boundaries established by the order of Rosatom State Corporation in 2015 as a maximum negative deviation of the adjusted free cash flow of JSC Atomenergomash from the planned value of 5 percent has been set as a key performance indicator in this area. In 2015, a positive deviation of 193.4% was registered, which confirms

Compliance of Risk Management of JSC Atomenergomash GRI 4-14 with ISO 31000:2009 "Risk Management: Principles and Guidelines" i 020

ISO 31000:2009. ANNEX A. PROPERTIES OF THE IMPROVED RISK MANAGEMENT	PRACTICE OF RISK MANAGEMENT AT JSC ATOMENERGOMASH
Risks of the organization comply with its risk criteria	Implementation of regular checks of conformity of the indicators of the organization to established risk limits
Continuous improvement	Implementation of constant analysis and improvement of the regulatory and methodical documentation on risks together with Rosatom State Corporation; planning to introduce a quantitative risk assessment model for the organization; implementation of surveying assessment of property risks
Full responsibility for the risks	Determination of owners of main risks, who are responsible for and empowered to implementation of risk management, identification of the persons responsible for development, implementation, and maintenance of risk management concepts
Introduction of risk management into the decision-making process	All the components of risk management are presented in accordance with the key decision-making processes in the organization
Permanent communications	Establishment of permanent communication with external and internal stakeholders, including all-inclusive and frequent reporting on the effectiveness of risk management as part of proper governance
Full integration into the structure of management of the organization	Effective risk management is considered to be the natural means of achieving the objectives of the organization by the management. The process of risk management is integrated into the processes of formation of strategic plans of the organization

Dynamics of the Key Risks of the Company

[1] Risk management: [2] Risk management: Reservation, transfer to the GN level, asset Selection of top-priority projects for financing, cash optimization, investment program, the holding structure, cost reduction, and the pooling, and reservation use of scheme escalation mechanism in long-term contracts [2] Investment risks Security risks (reduction in funding sources) (physical damage to the assets of the Company risks of theft and fraud 10/ Personnel risks (deficit of workers with the necessary skills) 6 4 Reputational risks 2/ (deterioration of public . tions to the Company, atomic technologies as a whole [1] Financial risks (risk of reduction of financial stability) [4] Market risks (reduced sale volumes loss of markets) 2014 [5] Operational risks Technological risks ____ (missed delivery deadlines (non-competitive existing postponement of sales) 2015 [4] Risk management: [5] Risk management: [6] Risk management: Working with the Natural hedging, conclusion Development of direct export sales in the target customer and the supplier, of long-term contracts regions through partner coordination of leading sales channels, identification deadlines with the customer and use of points of growth intensification of own in the market, sale of production, control over integrated services logistics and production currency clauses into import substitution.

GRI 4-2 ment of key risks of the Company as compared are listed (for more information about the to the previous year (the information in paren- measures, please refer to Interactive version of theses indicates the main areas of influence of the Report, Annex "Key risk factors by the type risk and risk exposure by types). For the most of capital").



i 018

[3] Risk management:

Organization of legal settlements, establishment of partnerships with local and foreign companies, search for alternative partners, elaboration of alternative supply options for equipment that has been and is currently manufactured

Regulatory risks

(legislative inefficiency, increased requirements for localization in foreign markets)



products and technologies)

with suppliers, increase in the volumes of advanced payments from customers, controlling purchases in foreign currency, inserting contracts, and promoting

[7] Risk management:

Organization of precontractual work with the customer, pricing taking into account the market situation, search for new customers, attraction of national and regional structures to address issues of strategic cooperation with the customer

The risk radar shows the dynamics of assess- significant risks, risk management measures

Industrial Asset Insurance



During the second and third quarters of 2015, the Risk Management Group of JSC Atomenergomash developed an organization chart of preparation and implementation of insurance of basic production EMPs of JSC Atomenergomash (Atommash and Petrozavodskmash branches of AEM-Technology JSC, JSC TsKBM, PJSC ZiO-Podolsk, JSC SverdNIIkhimmash) and agreed it with all the participants as well as conducted a pre-insurance survey and analysis of property risks, which resulted in the following:

- development of plans for the implementation of recommendations on risk reduction;
- preparation of tender documentation for insurance of EMPs of JSC Atomenergomash.

Based on the implemented survey, competitive procedures were held in the fourth quarter of 2015 and insurance contracts for 2016 were concluded.

The volume of insured risks of EMPs amounted to 25.2 bln rubles.

Due to lower average insurance rate because of the implemented survey and implementation of risk reduction plans, the economic effect on the insured EMPs amounted to 41.8 mln rubles.

Creation of a property risk management program in 2015 as well as implementation of insurance and formation of risk management plans for EMPs allowed JSC Atomenergomash to receive a positive conclusion based on the results of an audit of the implementation of the Quality Assurance Program of JSC Atomenergomash, which was performed by Fennovoima in January 2016.



AEM 25.4 Insurance traditionally is one of the most important risk management tools.

Insurance expenses in the reporting year, by type (thousand rubles)



Production hall of package units (the Atommash branch of AEM-Technology JSC in Volgodonsk)



Factor analysis of the change in combined revenue (mln rubles)

TMES:

1.846

Increase in the output

from Sevmash and Baltic Plant

Nuclear Power:

3,287

Delivery of a reactor vessel, a steam-gas

generator, a steam separator to Belarusian

Nuclear Power Plant and a steam-gas generator, MCP, and MCPU equipment to

48,917

2014

Rostov Nuclear Power Plant



3.1. Economic Performance and Financial Position

The most important indicator of the effectiveness of an enterprise that reflects the successful implementation of business activities is the i 022 economic performance of the Company.

ny's senior managers include the indicators that nues. The execution of budgets of the enterdescribe financial and economic activities of JSC prises of the Division is controlled at the level of Atomenergomash, namely: adjusted free cash the Directorate for Economy and Finance. flow, revenue from new products, labor pro-

Key performance indicators of the Compa- ductivity, semi-fixed costs, and overseas reve-

Combined revenue by operating sector (mln rubles) AEM 1.1





in 2015 in comparison with 2014





-0.91

2012



42 —







— 43



Net debt structure (mln rubles)



AEM 1.12 Short-term solvency ratio¹³

i 030 i 031

i 032

AEM 1.14

GRI-EC4 i 033

> i 034 i 035 i 036

0.73	0.71
2013	2014

This ratio indicates the company's solvency in the short term.

State Aid in 2015 (mln rubles)

12 - Other (including industry funding)
 13 - This indicator shows the receivables to payables ratio.
 Calculated from the balance sheet item "Short-term receivables".

The process of machining of steam generator body holes (the Atommash branch of JSC AEM-Technology in Volgodonsk)

9 mln rubles (of which 892 mln rubles were the income of JSC TsKBM) was recorded as a result of the restructuring of non-core assets.







Amount
192.3
125.4
30.0
347.7

0.72

2015

3.2. Commercial Activities



Commercial operations of the Company are aimed at building up a portfolio of orders in the nuclear industry and in related industries.





AEM 3.2 Structure of contracts concluded in the reporting year by operating segment (mln rubles)



3.3. Investment Activities

Investment activity of the Company is aimed at the maintenance and development of production capacities of the enterprises of the Division in order to enhance the effectiveness of operation, to implement the industry order, and to ensure out-of-the-industry obligations. In order to improve the quality of investment planning¹⁴ and to achieve key parameters

of the investment phase of the projects, the Division uses the following KPIs in this area:





14 - In order to plan investment activities in 2015, an industry-wide system of management and control of investment activity at the enterprises of the Division was used, which developed solutions for the projects of integration of control and enforcement within the framework of a unified information system

- 1. an integral investment activity indicator,
- which includes three components: - planned/forecast return on the portfolio;
- compliance with key milestone dates.
- 2. reduction of the share of costly projects;
- 3. optimization of project budgets.

Volume of investments by EMP and country (mln rubles)

Total 37	
37	PJSC EMSS (Ukraine)
0	ARAKO (Czech Republic)
EMPs abro	ad

- AEM 4.2 ration Program:

- Relocating the asset and production complex of JSC TSKBM. - Relocating research, engineering, and design assets (JSC GSPI and JSC VNIIAM).

production equipment.

Main investment projects in 2015

	Company	Major projects	Project budget (for IIR)	Period
	PJSC ZiO-Podolsk	Replenishing and maintaining the production capacity of PJSC ZiO-Podolsk.	969 mln rubles	2011–2016
		Increasing the capacity of PJSC ZiO-Podolsk to support the targets for general equipment production.	588.87 mln rubles	2009–2016
		Increasing the capacity of PJSC ZiO-Podolsk to enable non-nuclear equipment production.	190.29 mln rubles	2009–2016
	AEM-Technology JSC	Assimilating production of products for nuclear power plants and the gas and petrochemical industry.	872.02 mln rubles	2013–2019
		Establishing high-tech production of stamp-welded gate and wedge gate valves for nuclear, thermal power, oil and gas industry enterprises using nanostructured protective coatings.	348.19 mln rubles	2013–2016
		Setting up a production complex for manufacturing of heavy equipment for nuclear power plant reactors at a welding production facility.	2,155.09 mln rubles	2011–2016
	JSC TsKBM	Technical revamping and modernization of the production complex of JSC TsKBM.	597.63 mln rubles	2011–2015
	In the reporting yea of the investment p amounted to 3.7 bl the plan of 6.1 bln ru program of the Divisi	r, the volume of financing - the reject program of the Company activities n rubles as compared to their relevu- ubles. Thus, the investment - the postport on has been completed by key project	tion of the implementa and projects in view o vance; ponement of the imple cts for subsequent per	ation of the f the loss of mentation of iods due to
AEM 4	2.3 a rate of 60% in 2015	due to several factors: changes i ment with - savings c	in the timing of deliver hin the responsibility o as a result of procurem	y of equip- f the supplier; pent

Volgodonsk branch of JSC AEM-Technology - Atommash

Key investment projects are implemented at the following enterprises: JSC Afrikantov OKBM, PJSC ZiO-Podolsk, JSC OKB GIDROPRESS, AEM-Technology JSC, JSC NPO TsNIITMASH, and JSC TsKBM. Projects aimed at reducing operating costs under the Mechanical Engineering Division Reconfigu-

These projects include both the sale of freed up land and the purchase of new

PRODUCTION **ACTIVITIES**

- Traditionally, the key performance indicators for production activities of the Division are as follows: - implementation of the investment program of JSC Rosenergoatom Concern in terms of delivery
- from JSC Atomenergomash (completion: 100% in 2015); - performance of contractual obligations (completion: 96.9%);
- fulfillment of the State Defense Order (completion: 100%).



AEM 5.2

Nuclear Power

- supply of products for the following NPPs: Beloyarsk Nuclear Power Plant, Bilibino Nuclear Power Plant, Kola Nuclear Power Plant, Rostov Nuclear Power Plant (power units 3, 4), Kalinin Nuclear Power Plant, Smolensk Nuclear Power Plant, Balakovo Nuclear Power Plant, Novovoronezh Nuclear Power Plant, Novovoronezh Nuclear Power Plant-2, Kursk Nuclear Power Plant, Leningrad Nuclear Power Plant, Leningrad Nuclear Power Plant-2, Baltic Nuclear Power Plant, Mohovce Nuclear Power Plant, Tianwan Nuclear Power Plant-2, Belarusian Nuclear Power Plant, Kozloduv Nuclear Power Plant, Temelin Nuclear Power Plant (power units 1, 2), Bushehr Nuclear Power Plant, and Yuzhno-Ukrainsk Nuclear Power Plant:



Thermal Power

- commissioning of facilities that use products developed by JSC ZIOMAR EC and supplied by PJSC ZiO-Podolsk:
- > new CCGT-220T power unit at CHPP-12 of MOSENERGO;
- > power unit No. 1 at Chelyabinsk TPP;
- > new combined heat and power plant at Nizhneturinskaya TPP;
- delivery of products to the production site of PJSC Uralkali, Verkhnetagilskaya TPP, Berezovskaya TPP, Zhambyl TPP, Yaroslavl PGO-CHP, Yaivinskaya TPP, Shatura TPP, Pskov TPP, Perm TPP, etc.;
- completion of delivery of the equipment of the waste heat boiler for the Nadezhda Metallurgical Plant of the Zapolyarye branch of PJSC MMC Norilsk Nickel.



Gas and Petrochemical Industry

- delivery of equipment manufactured by PJSC ZiO-Podolsk and the Volgodonsk branch of AEM-Technology JSC to major Russian oil and gas companies:
- > PJSC GAZPROM (completed execution of a major contract for the delivery of central dust collecting units for the Bovanenkovo-Ukhta main natural-gas transmission pipelines);
- > PJSC LUKOIL (completed shipment of input column separating units and equipment for oil refineries of YamaIneftegaz business unit and Kogalymneftegaz business unit respectively);
- > PJSC TATNEFT (for the large refinery complex of JSC TANEKO under construction in Nizhnekamsk, the Republic of Tatarstan);
- delivery of ARAKO equipment for the PERN Przyjazn State Oil Transportation Company (Poland).



Special Steels

- shipment of castings and forgings for the RITM-200 reactor shell for the nuclear icebreaker LK-60 has been completed;
- shipment of the product to ArcelorMittal plants (Belgium, Germany, Spain, Luxembourg, France, the Czech Republic), Alstom Company (Poland), VoestAlpine (Austria), Iron Acciai Speciali (Italy), Bhushan Power (India), General Electric (the USA, Brazil), AH Industries (Denmark), OJSC Power Machines, Acciai Brianza (Italy), Eurostaal (Netherlands), Oberste-Beulmann (Germany), Euskalforging (Spain), Von Schaewen (Germany), ThyssenKrupp Rothe Erde (Germany) Voestalpine (Austria), Steinhoff (Germany), and other leading European companies.

Case of AEM-Technology JSC

Reactor shipment



In October 2015, the Atommash branch of AEM-Technology JSC in Volgodonsk completed the manufacture of a WWER-1200 water-water energetic reactor for the power unit 1 of the Belarusian Nuclear Power Plant and shipped it to the customer's address. This is the first reactor vessel manufactured at the production site of the Atommash plant after nearly a 30-year's break and the first manufactured by Rosatom State Corporation.

AFM 5.4 In 2015, more i 041 than •



Capacities of the enterprise allow producing up to 4 sets of equipment per year. Currently Atommmash is manufacturing reactor compartment equipment for Novovoronezh, Rostov, and Belarusian Nuclear Power Plants. Manufacture of a reactor facility is a unique expertise only possessed by a few countries in the world.

of the products of the Division were manufactured at the own capacities of the Division's enterprises

AEM-Tech of

____ 51

4.2. Quality and Industrial Safety

GRI-PR1

State Corporation. A necessary condition for in the manufacturing of all kinds of products. achieving security in the course of operation of nuclear facilities is to control the quality of prod- EMPs is ensured by the developed and certified ucts manufactured by the enterprises of the Divi- guality management system of the EMPs meeting sion. The safety of nuclear facilities is directly re- the requirements of ISO 9001. lated to the quality of manufactured products.

The growing safety requirements for the nuclear facilities under construction and in operation impose special obligations on all enterprises of the Division regarding product quality, where

Security is one of the key values of Rosatom quality assessment becomes an integral element

The high quality of products manufactured by

Enterprises holding ISO 9001 certificates AEM 6.1

Name of the entity	Name of certification system	Certificate's validity period
ARAKO spol. s.r.o.	TÜV SÜD	September 14, 2018
JSC Atomenergomash	IQNet (the Russian Register of St Petersburg)	December 26, 2016
JSC OKB GIDROPRESS	BUREAU VERITAS Certification	October 23, 2017
JSC Afrikantov OKBM	TÜV Thüringen	April 17, 2017
JSC NPO TsNIITMASH	BUREAU VERITAS Certification	March 11, 2017
CJSC ATM	AFNOR Certification	November 14, 2016
AEM-Technology JSC	IQNet (the Russian Register of St Petersburg)	July 26, 2016
OJSC Venta	GOST R VCS	December 24, 2017
JSC VNIIAM	Evro-Reestr VCS	July 17, 2018
PJSC ZiO-Podolsk/JSC ZIOMAR EC	Lloyd's Register Quality Assurance	September 14, 2018
JSC SverdNIIkhimmash	Management System Register VCS	September 1, 2018
JSC SNIIP	TÜV CERT	September 15, 2018
JSC TsKBM	IQNet (LLC Test – St Petersburg)	June 30, 2017
LLC AAEM	IQNet (the Russian Register of St Petersburg)	September 15, 2018
LLC EMKO	IQNet (the Russian Register of St Petersburg)	April 13, 2018
PJSC EMSS	TÜV Thüringen	August 21, 2016

In pursuit of its quality objectives, in 2015 JSC Atomenergomash:

- Demonstrated continued compliance of its quality management system with the requirements of GOST ISO 9001:2011;
- Maintained its membership in self-regulatory organizations of the nuclear industry; the scope of the certificate of clearance for work affecting the safety of facilities using

The percentage of products to existing nuclear power plants that passed input control from the first time, %



nuclear energy was extended to include the enterprises and facilities of the chemical, gas and petrochemical industries as well as oil and gas facilities;

- Increased the input level control.

The percentage of products to nuclear power plants under construction that passed input control from the first time, %



Case of PJSC ZiO-Podolsk

Auditors are satisfied



PJSC ZiO-Podolsk has successfully passed a preliminary audit of the quality management system, which was carried out by the supervisory authority of Finland STUK and leading auditors of the Fennovoima OY consortium.

The audit of PJSC ZiO-Podolsk was held for the first time. For three days, Finnish experts evaluated the quality management system and the technological equipment at manufacturing capacities of PJSC ZiO-Podolsk.

Case of JSC SNIIP

IAP (Individual Audit Plan) Audit



In October 2015, JSC SNIIP held an audit of its IAP (Individual Audit Plan of Jiangsu Nuclear Power Corporation (JNPC)) for compliance with a contract concluded by and between JSC SNIIP, JSC Atomstroyexport, and Jiangsu Nuclear Power Corporation (JNPC) for the first time. Within the scope of a large-scale inspection, the representatives of the Chinese party assessed the production capacity of JSC SNIIP as an enterprise for the development and manufacturing process control systems (ARMS and ACS) for the 3rd and 4th units of Tianwan Nuclear Power Plant. As a result of the successful assessment, JSC SNIIP affirmed its right to manufacture ACS systems for Tianwan Nuclear Power Plant in accordance with IAEA standards.

i 042



AEM 6.5

i 044

In the reporting year, the Company ensured the required level of the quality of equipment quirements identified during the external audits manufactured for nuclear power plants un- in the reporting year were eliminated. der construction and in operation (based on the results of acceptance inspection upon first two complaints, one of which was rejected. presentation).

follows:

- ensuring the required level of the quality of equipment manufactured for nuclear power plants under construction and in operation (based on the results of acceptance inspection upon first presentation);
- demonstrating continued compliance of the quality management system of JSC Atomenergomash with the requirements of GOST ISO 9001:2015.

As a result of the audit, the plant received a high evaluation of its existing quality management system. Representatives of Fennovoima OY also noted a high level of openness and effective cooperation during the audit and made recommendations for further improvement of the QMS.

All the cases of non-compliance with safety re-

In 2015, companies of the Division received Upon review of the second complaint, which concerned the enterprises that supplied com-The quality objectives set for 2016 are as ponents, corrective actions were implemented.

4.3. Optimization of Production Processes

i 045

Rosatom State Corporation declared 2015 the Year of Building of the Rosatom Production System (RPS)¹⁵.

In 2015, the number of RPS projects almost doubled as compared to 2014. JSC Afrikantov OKBM and JSC TsKBM, which started the process of establishing RPS enterprises, implement the larger share of the projects. The primary objectives of the process are:

- logistics rationalization;
- order smoothing;
- implementation of the 5C system;
- optimization of the most problematic business processes.

Number of RPS projects (pcs) AEM 7.1





RPS costs and economic effect from RPS projects (mln rubles)



Case of JSC Atomenergomash

Combining competencies



In 2015, after further studies of experimental part of "Steam generator bottom workpiece", JSC NPO TsNIITMASH issued a permit for PJSC EMSS to manufacture parts of the "bottom" by sectional forging and stamping. The use of this technology will allow JSC Atomenergomash

One of the key RPS drivers is the involvement of em-Leaders in terms of the number of submitted and ployees in the form of submitting proposals on improv- implemented applications among the enterprises of ing processes. In the reporting year, the enterprises of JSC the Engineering Division were JSC Afrinkantov OKBM, Atomenergomash filed twice as many applications as in AEM-Technology JSC, and PJSC ZiO-Podolsk. 2014. At the same time, the share of implemented applications amounted to approximately 56%.



While the number of projects is increasing every year, the cost of the projects is reduced, and the effect increases in multiples.

15 – An industry project aimed at creating a universal system for managing comprehensive optimization of production and management processes at enterprises of Rosatom State Corporation based on the best local and foreign experience



to refuse assistance from foreign suppliers of steam geneator bottom workpieces and to save up to 40% of the metal as well as to reduce labor complexity and power consumption.

Case of PJSC EMSS

Order effect



During the first 11 months, the forging shop of PJSC Energomashspetsstal decreased the consumption of natural gas per ton of production by 23%; today, the actual consumption does not exceed the planned values. These results

were achieved thanks to a differentiated approach to every detail and to a deeper study of the production technology, which reduced the amount of heat and accelerated the process of manufacturing of products.

One of the strategic objectives of Rosatom State Corporation is the reduction of process times. In 2015, 146 RPS projects out of 213 addressed this issue in the Division.

Case of JSC Atomenergomash

Personal example



One of the best methods of persuasion is by a personal example. Therefore, heads of the enterprises of the Division personally supervise important RPS projects. The Chief Executive Officer of JSC Atomenergomash Andrey Nikipelov oversees

the project on reduction of the manufacturing time for the main circulating pump. The personal RPS project of the Chief Executive Officer of JSC TsKBM Evgeniy Ser-

geev «Aligning production in the manufacture of MCP-1391» allowed identifying the main problems and eliminating the material and time costs. The result was an increase in the output from 8 to 10 (25%) of removable parts of MCP-1391 pumps for nuclear power plants both in Russia and abroad.

Also, personal projects of the director - chief designer of JSC Afrinkantov OKBM Dmitry Zverev and the Chief Executive Officer of JSC OKB GIDROPRESS Victor Dzhangobegov were successfully implemented.

Removable portion of the main circulation pump unit RCP-1391 at the assembly site (JSC TsKBM)



4.4. Procurement Activities

GRI 4-12 GRI 4-13 AEM 8.5 i 048

i 049

JSC Atomenergomash implements procurement operations in compliance with applicable provisions of the Federal Law "On Procurement of Goods, Works and Services by Certain Types of Legal Entities" No. 223-FZ dated July 18, 2011 and the Unified Industry Procurement Standard Division in total purchases in 2015 was 66.4%. of Rosatom State Corporation.

During the year, enterprises of the Divi- exceeded 90 bln rubles. sion signed contracts for 139 bln rubles, which exceeds the value for the same period in 2014 by more than two and a half times. More than half 100 bln rubles).





The Company traditionally uses equip- corresponding amount for 2014 by a factor ment manufactured by Russian companies of three. The possibility of a maximum substiin its works. In 2015, enterprises of the Divi- tution of imported equipment in the field of sion signed contracts worth a total of approx- energy production is considered. imately 133 bln rubles, which exceeded the

Within the scope of the organization of its procurement activities, the Company is committed to the development of a cooperation system among the enterprises of the Division. The share of purchases from enterprises of the The value of concluded contracts in this area

Key performance indicators for procurement for 2015 became the increase in the share of public procurement procedures and the timeliness of these contracts were concluded by JSC Atom- of procurement procedures. Thus, these indicaenergomash, AEM-Technology JSC, and JSC Afri- tors in the reporting year were at the target level nkantov OKBM (in the amount of approximately (94.5% and 95.8%, respectively). The amount of savings based on the results of the reporting year amounted to approximately 2.5 bln rubles.

JSC Atomenergomash



Share of purchases from Russian suppliers (%) GRI EC9, AEM 8.3 i 054





AEM 8.7

and medium-sized enterprises to the procure- SMEs exceeds 40%. ment processes. Despite the decline in the share

Case of PJSC ZiO-Podolsk

Interaction with SMEs



In May and June, PJSC ZIO-Podolsk held a unique logistics operation for the delivery of oversized cargo from place of production (Podolsk) to the Leningrad NPP-2 construction site in the town of Sosnovy Bor. For the first time, Podolsk steam generators were delivered to a nuclear power plant by a special PO-PO barge-platform, which is intended for transportation of large oversize cargo. The carrying capacity of this special river transport is 1,200 tons, and the barge is owned by SV-Trans, a company that specializes in the transportation of oversized cargo (Podolsk office). The use of this new delivery scheme (by water) makes it possible to achieve significant financial and delivery time savings (about 3 months).

Fly tundish when casting large ingots in a vacuum (PJSC Energomashspetsstal)





2014

32,133.41 (88.16%)

2013

According to the Decree of the Government of purchases from small and medium-sized enter*i* 055 of the Russian Federation dated May 29, 2013 prises (SMEs) to 10.4% in the reporting year, their and registered under No. 867-r, JSC Atomener-volume has increased and exceeds 14 bln rubles. gomash contributes to expanding access of small At some enterprises, the share of purchases from



INNOVATION ACTIVITIES

5.1. Scientific Activities

JSC Atomenergomash unites a whole host of leading institutes and design bureaus, which possess unique competencies in developing innovative solutions for the power industry. Many scientists who are employed by enterprises of the Division have state awards for their developments.



Number of graduate students i 056 employed by the Division's i 057 enterprises persons

Number of doctoral candidates employed by the Division's enterprises

persons



, persons One of the important performance indicators

AEM 10.3 i 059 AEM 10.4 i 060

for scientific activity of the Division's enterprises for scientific activity is participation in scientific is the number of published scientific papers and articles. In 2015, the enterprises of JSC Atomenergomash published 256 scientific papers and articles, more than half of which were made by employees of JSC Afrinkantov OKBM.

Another important performance indicator conferences with reports. In 2015, the Division enterprises were represented in 491 conferences (including 62 international conferences), inclusive of 255 conferences with reports.

5.2. Innovation Development

One of the main factors that increase the competitiveness of the Company is investment into innovation, research, and development. Being aware of the need to develop this area, the Division includes the implementation of R&D projects into its scope of priorities.

In order to implement and to use the latest technologies and innovations, JSC Atomenergomash implements an Innovative Development Program.

Specialist in the field of handling radioactive aerosols (JSC SNIIP)



i 061

Case of JSC TsKBM

Walk on the water



circulation pump MCP-1753 was successfully completed at the JSC TsKBM site. The equipment includes a system of water lubrication for all the components and electric motors instead of fire-hazardous oil lubrication system, wheih was traditionally used in other models. This equipment is unique for all well-known

In November 2015, testing of the main | manufacturers. In addition to the water-lubrication system, the unit has a high efficiency, which will increase the turnaround time by a factor of 1.5 and save up to 400 kWh for each nuclear power plant as compared to pump units of the previous generation.

compared to 2014.

AEM 9.3 Number and total value of R&D agreements concluded with universities (mln rubles)¹⁶

Company	2013		2014		2015	
	Number of agreements	Total value	Number of agreements	Total value	Number of agreements	Total value
JSC Afrikantov OKBM	11	34.9	5	36.7	10	33.5
JSC SverdNIIkhimmash	2	0.5	5	5.7	1	0.1
JSC NPO TsNIITMASH	-	-	-	-	3	0.058
JSC TsKBM	2	3.768	-	-	2	2
AEM-Technology JSC	1	160.0	-	-	-	-
TOTAL	16	199.168	10	42.4	16	35.658

16 - Including R&D performed under external orders in the framework of the main activity of the enterprise (NACE code: 73)

R&D expenditures (mln rubles) AEM 9.1



i 063

Case of JSC Afrinkantov OKBM

Research and Development with universities



The specialists of JSC Afrinkantov OKBM and the NSTU named after R.Ye. Alekseev developed nanostructured coating compositions and a technology of their application to hard-alloy axis and end tools. The developed coating compositions will improve the wear resistance of carbide drills and milling cutters by a factor of 1.5–3.5 in comparison with the standard coating.



5.3. Management of intellectual property

JSC Atomenergomash approved an Intellectual Property Management Concept that defines key principles and regulations concerning intellectual property management. In particular, the Concept describes the following processes:

- ensuring legal protection of IP;
- development, design and use of IP;
- providing information support for IP management;
- encouraging innovation and creativity;
- controlling the development and use of IP;
- providing regulatory and methodological support.





Within the scope of the volume of implemented Research and Development activities, a decline of about 27% was registered in 2015.

Case of JSC SNIIP

Import substitution



JSC SNIIP successfully implements work on the program of import substitution in the field of computer technology. One of the key projects was the development and "turnkey" installation of a comprehensive top-level automated radiation monitoring system built entirely on the basis of domestic computa-

tional tools and mathematical software developed by JSC SNIIP from scratch. This computer system has the required performance and reliability. In the short term, these solutions will be implemented in safety-critical systems and nuclear energy facilities in use.



Case of JSC Afrinkantov OKBM

IP Implementation



The welding division of JSC Afrinkantov OKBM commissioned the installation of "Progress-5" manufactured by JSC NITI Progress for automatic TIG welding of end joints of stator walls with hermetic housings of electric motors of pumping equipment for nuclear power plants with the use of non-consumable electrodes. The installation allows welding of stator partitions with the diameter from 47 mm to 310 mm, the length of the stator housing from 470 mm to 2,500 mm, and the weight of 100 to 5,000 kg. Welding is performed automatically without a filler wire. Welding parameters for each type of stator partitions are stored in memory of the installation. The introduction of a "Progress-5" welding machine improved the quality of welded joints and the hermetic motor resource and almost halved the complexity of manufacturing.

In 2015, the Division's enterprises received 77 patents and intellectual property certificates. Despite the decline in total volume, a steady growth in this area is demonstrated by AEM-Technology JSC, JSC OKB GIDROPRESS, and JSC SNIIP. The leaders in this area are JSC Afrinkantov OKBM, AEM-Technology JSC and JSC TsNIITMASH.

AEM 9.4 i 066



A surface mount line operator during the configuration of the PCB machine (JSC SNIIP)

Number of patents and intellectual property certificates (pcs)

ENVIRONMENTAL IMPACT

i 068

i 070

6.1. Environmental Management

Environmental safety issues are an essential part of the positioning of the Division's enterprises both in terms of operation in the market for advanced energy solutions and in terms of environmental protection in their business activities.

AEM 14.2 Enterprises holding ISO 14001 certificates¹⁷

Companies	Availability of ISO 14001 certificate
JSC SNIIP	YES
AEM-Technology JSC	Certification is planned for 2016
PJSC Energomashspetsstal	YES

AEM 14.3 In accordance with applicable provisions of assessments (one-third of the corresponding the current legislation of the Russian Feder- amount for 2014). GRI-EN29 ation, the Company carries out environmen-AEM 14.1 tal impact assessments, which result in impo- the cost of measures to prevent and minimize i 069 sition of penalties in case of identification of the impact on the environment as well as the inconsistencies: for example, the enterprises costs of running the environmental manage-GRI-EN31 of the Division were fined 250 thousand ru- ment system. In 2015, the total cost for this ar-AEM 14.4 bles in 2015 based on the results of performed ticle amounted to 93 mln rubles.

In addition, enterprises of the Division bear

Case of PJSC EMSS

Environmental compatibility of production



plan for environmental protection and rational use of natural resources:

- 1. the replacement of cyclones and dust pockets with a modular filter with automatic purification of cartridges and individual chip catchers, respectively;
- 2. the repair of water delivery and sewage networks and facilities, pumping equipment of artesian wells, and water supply systems;

The Company implements an action 3. organization of selective waste collection;

> 4. the implementation of a recertification audit of the enterprise for compliance of its environmental management system with the applicable requirements of ISO 14001.

6.2. Emissions and Wastes

In accordance with applicable provisions of consumption wastes and permits for air pollutthe current legislation of the Russian Federa- ant emissions. tion, the enterprises develop draft standards for Enterprises of the Division directly emit waste generation and disposal limits as well as greenhouse gases of two types: carbon dioxdrafts of maximum permissible emissions of pol- ide (CO_3) and nitrous oxide (N_3O) . lutants into the air. As a result, enterprises obtain documents for disposal of production and



Case of AEM-Technology JSC

Initiatives to reduce emissions



GRI-EN19 AEM 13.2

- sanitary protection zone;
- legislation; until 2018.
- was recorded.

Emissions of ozone-depleting substances is only carried out by two enterprises of the Division.

GRI-EN20	Emissions of ozone-depleting substances (tons)					
AEM 13.3	Company	Substance type	2013	2014	2015	
	JSC SverdNIIkhimmash	CCl ₄ (carbon tetrachloride)	0.04	0.04	0.04	
	JSC Afrikantov OKBM	CCl ₄ (carbon tetrachloride)	0.068	0.018	0.022	
		CHCl ₃ (trichloromethane)	-	0.03	0.026	
	PJSC ZiO-Podolsk	$CF_{3}CCI_{3}$ (trifluorotrichloroethane)	0.5	-	-	
		CHCl ₃ (trichloromethane)	0.006	-	-	
		CCl ₄ (carbon tetrachloride)	0.003	0.013	0.013	
		CF ₃ CI (trifluorochloromethane)	0.1	0.1	-	

17 – ISO 14001 is a series of international standards on environmental management.





Carbon dioxide (CO_{3})



AEM-Technology JSC has proposed the following initiatives to reduce emissions: - maintenance and servicing of dust, gas treatment plants, landscaping of the

- monitoring of compliance with standards, compliance with environmental

- construction and commissioning of new production facilities aimed at reducing the amount of pollutants in the atmosphere or the number of emission sources,

- environmental monitoring of emissions of pollutants into the atmosphere and the efficiency of the GOU. In 2015, a reduction of CO₂ emissions by 21.3 tons

Most of the emissions originate from PJSC Energomashspetsstal, JSC Afrikantov OKBM, PJSC ZiO-Podolsk, and the branches of AEM-Technology JSC. In general, the amount of emissions in the reporting year for the Division decreased by 20% as compared to 2014.



The weight of waste generated in the whole Division declined by 13% as compared to 2014. Approximately 85% of the generated wastes are classified as "non-hazardous"; more than half of them are generated from steel manufacturing operations at PJSC Energomashspetsstal and JSC Afrikantov OKBM. In turn, much of the hazardous waste appears in the main production areas of the Division: AEM-Technology JSC, PJSC ZiO-Podolsk, and JSC Afrinkantov OKBM.





Total weight of non-hazardous waste (tons)



The main waste treatment methods include of waste respectively. Other methods include the reuse or the disposal at landfills; most en- the use of 67.8% of the waste to extract valuaterprises of the Division used these methods of ble components used by PJSC ZiO-Podolsk. treatment to process more than 30% and 50%

6.3. Energy Consumption



JSC Atomenergomash is consistently working to ensure the efficient use of energy resources. implement energy efficiency programs.

vember 23, 2009 and the Order of Rosatom State Corporation No. 1/676-P dated August 9, 2011, the Division implements the Energy Conserva- estends to decrease.

Case of PJSC EMSS

Energy efficiency improvement

 $\mathbf{\nabla}$ \square

i 076

In June 2015, PJSC Energomashspetsstal successfully passed the second supervisory audit for compliance with the international standard ISO 50001: 2011. Specialists of Insert-Ukraine LLC (an official representative of the German certification body TÜV Thüringen in Ukraine) confirmed that the energy management system of PJSC Energomashspetsstal was built and operated in accordance with the requirements of international standard ISO 50001: 2011,

i 073

tion and Energy Efficiency Improvement Program. The current energy efficiency improvement The enterprises of the Division develop and improgram was drawn up based on the results of plement measures to reduce energy costs and energy audits carried out at the enterprises of JSC Atomenergomash in 2010–2011. After the Pursuant to the Federal Law No. 261 dated No- new energy audits, which will take place in 2016, the programs will be updated.

The average energy consumption for key enterpris-

and therefore recommended to extend the current status of the certificate. During the audit, the experts found no inconsistencies with the standards and only pointed out possible improvements in certain areas.

The Committee noted that the work to improve the energy efficiency of PJSC Energomashspetsstal involved its executives, technical personnel, and ordinary workers.

The top three companies in terms of energy savings are AEM-Technology JSC, JSC TsKBM, and JSC NPO TsNIITMASH.



i 077



Total energy savings: more than 🧹 min GII9

Energy savings (thousand GJ) GRI-EN6

AEM 11.3



Case of AEM-Technology JSC

Regional Stage of the All-Russian Energy Efficiency Competition



The Petrozavodskmash branch of AEM-Technology JSC became the winner of the regional stage of the second All-Russian contest "ENES-2015". In the category of "Leader of the Implementation of the Best Available Technologies in the Field of Energy Saving and Energy Efficiency", the project of "Installation of furnaces for heat treatment of pipes of the main circulation piping (MCP). Upgrading the site of manufacture of MCP spools", which was implemented by the plant jointly with the NGO Saint Peters-

6.4. Water Consumption



Water resources support economic activities of enterprises and are also used in industrial processes (for cooling/heating systems for checking the tightness of products and as part of process fluids).

Consumed²⁰ water (thousand m³)²¹





The average energy consumption for key enterprises tends to decrease. Over the past three years, the average dynamics of the decrease was 3%.

20 – The data were obtained by direct measurement 21 - Enterprises of the Division that are not represented in the table rent premises and do not keep records of water consumption

| burg Electrotechnical Company was recognized as the best. Through the implementation of this project, the Company significantly reduced its costs during the heat treatment of products. The results of the regional stage of the competition were summed up on October 28, 2015 by the Ministry of Construction, Housing, Public Utilities, and Energy of the Republic of Karelia.

GRI-EN22 Volume of wastewater discharges²² (thousand m³) AEM 13.5

Company	Type of Receiving Facility	2013	2014	2015
JSC SverdNIIkhimmash	Municipal sewerage system	31.5	31.7	27.3
JSC OKB GIDROPRESS	Municipal sewerage system	59.2	58.7	54.5
JSC Afrikantov OKBM	Municipal sewerage system	289.8	422.8	324.7
PJSC Energomashspetsstal	Municipal sewerage system	304.6	215.3	175.5
AFM-Technology ISC	Onega lake	26.3	24.8	23.7
	Municipal sewerage system	1,036.9	982.2	988.4
JSC OZTMITS	Municipal sewerage system	34.9	31.9	29
JSC GSPI	Marinka river	2.5	2.4	2.2
JSC SNIIP	Municipal sewerage system	40.09	34.67	24.17
OISC Voota	Municipal sewerage system	247.809	175.198	114.491
	Nizhneturinsk reservoir	52.40	71.58	53.43
JSC VNIIAM	Municipal sewerage system	4.38	5.16	4.47
PJSC ZiO-Podolsk	Municipal sewerage system	287.05	248.45	320.91
JSC IFTP	Municipal sewerage system	3.33	2.92	3.53
JSC TsKBM	Municipal sewerage system	27.24	25.51	17.85
JSC NPO TsNIITMASH	Municipal sewerage system	57.8	50.4	48.9

In the reporting year, the volume of wastewater discharges decreased by 7%. This change was due to the decrease in water intake by enterprises of the Division.

22 – The information is given only for those enterprises that perform the relevant accounting.



HR MANAGEMENT

7.1. Personnel Composition

GRI 4–10 The key values of Rosatom State Corporation include the "One Team" value. Creating a team that AEM 15.1 is capable of competing on a global scale is a strategically important objective of the Division, the implementation of which is achieved through the development of human capital, involvement and i 082 increase in the motivation of staff, as well as in the formation of a positive image of the employer on the Russian and international markets.

> Over 55% of the total number of employees is employed at the four largest enterprises of the Division: PJSC ZiO-Podolsk, JSC Afrikantov OKBM, AEM-Technology JSC, and PJSC Energomashspetsstal.

Number of employees (persons)

JSC Atomenergomash	258	
PJSC ZiO-Podolsk		
JSC ZIOMAR EC	284	
JSC Afrikantov OKBM	4,259	
JSC OKB GIDROPRESS		
JSC GSPI		
JSC TsKBM		
JSC SverdNIIkhimmash	551	
JSC SNIIP	518	
JSC NPO TsNIITMASH	504	
OJSC Venta	340	/
JSC OZTMITS	128	
AEM-Technology JSC		
CJSC ATM	107	
LLC EMKO	26	
JSC VNIIAM	124	
JSC IFTP	63	
LLC AAEM	92	
LLC ARAKO	200	
PJSC Energomashspetsstal		



people were employed under fixed-term contracts in 2015

Part-time employment in 2015 was

Total number of employees

of the Division

19,536



men over women, with an average ratio of in the Division. 64 to 36. Research and design organizations are noted for a high proportion of past retire-

Gender and age personnel composition at the end of 2015 (%) GRI-LA12 AEM 15.5 i 083 Under 35 years Ratio Ο Ο О Ο 64 10.73 8.09 21.89 36

Enterprises of the Division are actively work- cialized companies in 2015, due to outsourcing to transfer auxiliary and support functions ing and more than 700 people are planned to to outsourcing companies. For example, more transfer in 2016. than 500 people were transferred to spe-

7.2. Terms of organization and remuneration

The corporate policy in the field of remuneration is based on the need to ensure a adequate about organizational changes at all enterprises standard of living for employees with due con- of the Division complies with the Labor Code of sideration of the average wage in the engineer- the Russian Federation and is at least 2 months. ing industry and in the regions of presence. Salaries and wages are paid in full compliance with Industry Agreement, the organizations annuthe CUWS, which is set for all organizations that ally consider the indexation of employees' salaare part of Rosatom State Corporation. The main ries equal at least to the inflation rate in Russia objective of the current system is to stimulate according to the Federal State Statistics Serperformance and to guarantee social protection vice. In 2015, the average salary of the enterto the employees of the Division.

tive agreements, which apply to all employees the KPI-based bonuses). (80.7% of employees of the Division).

AEM 16.2 Average wages (thousand rubles/month)²⁴ i 088

i 084

GRI 4-11 AEM 16.3

i 085

GRI-LA4

AFM 16 1

i 086

i 087

i 089



23 – The Common Unified Wage System 24 – Includina KPI-based bonuses

Given the production specifics, namely, the ment age employees, which reflects the shortphysically demanding nature of work at pro- age of a young scientific workforce in Russia. duction facilities, there is a predominance of Share of specialists under 35 years old: 33%



The minimum period for notifying employees

In order to ensure compliance with the prises of the Division increased by 8% and Most enterprises of the Division have collec- amounted to 63 thousand rubles (including



2014



2015

GRI-LA2

GRI-FC3 AEM 16.4

i 090

- JSC Atomenergomash cares about the wel-
- AEM 15.2 fare and the social security of its employees. In 2015, total expenditure on social security of employees of the Company exceeded 425 mln rubles.

Enterprises of the Division provide all their employees (regardless of their status and type of contract) with a comprehensive package of social and benefits approved in applicable provisions of the current regulatory documents:

- medical insurance;
- pension programs;
- housing programs;
- health resort treatment and vacations for employees and their children;
- holding sports and cultural events;
- catering for employees;

- financial aid;
- corporate benefits on subscriptions to sports and health facilities;
- support to industry veterans and retirees.

Enterprises of the Division implement their corporate social programs through the Atomgarant industry private pension fund in accordance with the provisions of concluded pension contracts.

JSC Atomenergomash implements a program of private pension coverage. The pension program covers all interested staff members of the Company who have not reached the retirement age. At the moment, more than 700 people participate in the program. In 2015, 90 employees of the Division entered the program.

AEM 16.7 i 091

Employee benefits per employee per year (thousand rubles/year)



GRI-LA3

AEM 15.3 i 092 GRI-LA16 AEM 16.5

The Company aims to retain its employees, including those who left on a maternity leave. sion filed two complaints through official mech-For example, in 2015, the ratio of returning em- anisms for filing complaints; positive decision ployees²⁵ was equal to 81.2%.

In the reporting year, employees of the Diviwas rendered on both.

Average age of employees at the end of 2015 AFM 154 i 093









Middle manaaers



manaaers

7.3. Occupational Safety and Health

The main objective of enterprises of the Division is the compliance with all industrial and occupational safety and health requirements.

Within the scope of the presented activities, hazardous production facilities", the Decree of the Company is guided by applicable provisions the Ministry of Labor of the Russian Federation, of the current regulatory documents, including as well as by relevant GOST, SNIP, PB, RD, Octhe Labor Code of the Russian Federation, the cupational Safety Standards, and OHSAS 18001 Federal Law No.116-FZ "On industrial safety at requirements.

Enterprises holding OHSAS 18001 certificates²⁶

EMPs
JSC ZIOMAR EC
PJSC ZiO-Podolsk
JSC SNIIP
OJSC Venta
AEM-Technology JSC
JSC VNIIAM
PJSC Energomashspetsstal

GRI-LA8

AEM 17.3

The Division is a party to the current Sectoral of social partnership and other issues. AEM 17.4 Agreement on Nuclear Power, Industry and Science, which aims to provide the necessary labor of the Federal Law "On Special Assessment of and socio-economic conditions for employees Working Conditions", a number of enterprises in the sector of economy while considering the employed a new procedure to conduct a speinterests of employers and the State. The agree- cial assessment of working conditions in the ment regulates social and labor relations that reporting year. At the other enterprises, the establish common principles for the regulation of results of the previous certification of workrelated economic relations in the sector, includ- places are still valid. In 2015, special assessments ing mutual obligations of parties in terms of were conducted for 4,085 workplaces. employment, ensuring working conditions and safety, social guarantees and benefits, compensation for employees, as well as the development

Frequency of occupational accidents²⁷



GRI-LA6

AEM 16.9 i 094



Number of injuries

Number of days lost owing to injuries

LTIFR

The performance in this area is assessed based on the "Lost Time Injury Frequency Rate (LTIFR)" KPI.

26 - OHSAS 18000 is a series of standards containing requirements and guidelines for the development and implementation of occupational safety and health management systems, which enables organizations to manage the risks integrated in their management system and improve its functioning

27 – In enterprises that are not included in the table, no injuries were recorded in the period.

25 – The ratio of employees who returned from childcare leave to those who had to return

Availability of OHSAS 18001 certificate Certification is planned for 2016 Certification is planned for 2016 YES Certification is planned for 2016 Certification is planned for 2016 YES Certification is planned for 2016

In compliance with applicable provisions



Preventive work to prevent occupational injuries and diseases continued in 2015.

Occupational injuries and diseases



conditions regularly undergo periodic medical examinations and are also entitled to out-of-turn medical examinations (check-ups) in compliance

All the employees who work under harmful with applicable provisions of the Labor Code of the Russian Federation.

GRI-LA7 AEM 17.6

i 097

i 096

Number of employees working under harmful conditions (people)



According to the Sectoral Agreement, enterprises spend no less than 0.5% of their production costs on improving working conditions.

28 – The baseline value: the average value for 3 years



7.4. Personnel Efficiency

JSC Atomenergomash and enterprises of the Division have adopted a unified policy for personnel performance management. The goal of this policy is to improve personnel efficiency by:

- establishing common principles and tools for setting KPIs and assessing their achievement by employees;
- evaluating the skill level of employees, including in order to ensure effective remuneration of employees;

AEM 18.1



AEM 18.3

GRI-LA11

AEM 18.2

i 099

try have performed studies with the involve- pany's development. ment of staff, which is an important aspect that and leader is totally focused on their work and Russian employers.

29 – This indicator is consolidated for the budget perimeter.

- preparing recommendations for the skill pool;
- compiling individual employee development plans for the subsequent planning of trainina.
- Performance reviews are conducted for all employees of the Division's enterprises.
- The main indicator of personnel performance is labor productivity.

Labor productivity within the Division (thousand rubles/person per year)²⁹



All the enterprises of the nuclear indus- makes every effort for the benefit of the Com-

In 2016, an annual engagement survey reflects the efficiency of the staff, since 2011. was conducted among the Division's employ-The involvement of the staff allows the Com- ees. Average engagement level in the Division pany to achieve its strategic objectives and to amounted to 75% based on the study results. create the necessary conditions for the develop- The Division's results were at the level of the ment of staff where every employee, manager, industry's figures and above the average for

— 79

7.5. Availability of Replacement Personnel

ena in any company. The Division's enterprises sonnel turnover in 2015 almost halved to 17%. have no cyclic fluctuations in personnel numbers (seasonal, etc.), and changes in these numbers are due to operational requirements as well as headcount optimization measures or vol-

Staff turnover is one of the natural phenom- untary resignation of employees. Average per-



JSC Atomenergomash maintains a rather high percentage of employees of enterprises who have worked for more than five years the average value for the Division: more than

Share of newly hired/dismissed employees (%)³⁰



ability of replacement personnel is to attract sion's enterprise. young specialists for internships and subsequent work at the Division's enterprises. This primarily prises from all levels continued to operate at the results from the ambitious strategic objectives Division; professional development and training for innovative developments and the need to transfer accumulated knowledge in the field

The most important task in ensuring avail- of advanced technologies owned by the Divi-

In 2015, the skill pool for employees of enterprograms are being implemented.



30 – Ratio to the average headcount.

32.9 66.4 29.6 81.6 80.9 67.2 52.2 57.2 54.3 60.3 68.5 50.0 50.0 53.2 74.6 30.4 82.9



AEM 19.3 In 2015, 51.85% of the Top 1000 appointments were made from the skill pool.

> Share of employees from the skill pool appointed to a top 1000 position, for the Division as a whole (%)



The most important factor in ensuring the stability of an enterprise's human resources potential is its attraction for young qualified specialists.

32 – Major assets: top-level executives; capital: middle-level management; talents: specialist-level employees and managers of small groups

33 – Since 2013, unified criteria and standards for selecting people for the industry skill pool have been introduced and only the industry pools are taken into account in making appointments to the Top 1000 positions; accordingly, the indicator has been adjusted downwards.



47.7 26.4 43.3 33.9 30.3 32.9 30.3 27.6 28.4 29.8 20.9

41.0 37.4 19.2 26.6

15.9

28.3 31.5 31.8 AEM 9.3 the Division maintain constant interaction with fied personnel.

i 105

AEM 19.6 i 106

and consider the needs of the Division to the the enterprises as well as organizing excursions, maximum extent possible, active work is con- training and internships for students as part of ducted to integrate vocational education and strategic cooperation. production. This objective lies at the core of

JSC Atomenergomash and the enterprises of creating and opening basic departments and branches of departments from leading Russian all stakeholders such as educational institutions, technical universities (National Research Nuclear training centers at enterprises, etc., as part of University MEPhI, MSTU STANKIN, Bauman Mosaccomplishing the objective of securing quali- cow State Technical University, Nizhny Novgorod Alekseev State Technical University, Ural To control the university training programs Federal University named after Boris Yeltsin) at

JSC Afrikantov OKBM

JSC OKB GIDROPRESS

JSC SverdNIIkhimmash





AEM 19.8

industry: Job Fairs, Career Days of Rosatom State conferences are equally important. Corporation, Open Days, guided tours, etc. In addition, the industrial enterprises of JSC Atomenergomash organize competitions of profes-

PJSC Energomashspetsstal AEM-Technology JSC Total

Number of functioning base departments at enterprises

PJSC ZiO-Podolsk

Case of JSC Atomenergomash

The graduation of Masters



JSC NPO TSNIITMASH

In July 2015, National Research Nuclear University MEPhI held the presentation of master's theses of specialists of PJSC ZiO-Podolsk and JSC ZIOMAR EC. In the reporting year, 8 people completed their training at the factory department of NRNU MEPhl. Members of the State Examination Commission noted that the master's theses were prepared at a high level, had a scientific novelty and perfection, as well as practical importance and relevance. The Base Department No. 76 "Power Engineering" was organized in November 2011 at the plant of PJSC ZiO-Podolsk in the framework of the strategic partnership agreement signed between JSC Atomenergomash and NRNU MEPhl.

reactor vessel p th of AEM-Tech 5 unit e nash protective ((the Atomn pipe the welds of Diagnostics of



Enterprises of the Division traditionally partic- sional skills and engineering competitions. The ipate in joint activities with universities and sec- participation of enterprises in conferences and ondary general educational institutions aimed forums of young professionals, as well as the at training potential personnel for the nuclear organization of in-house scientific and technical

The Forum of Young Professionals in Volgodonsk



of AEM-Technology JSC in the city of Volgodonsk held a divisional forum of young professionals. This event united young workers who were active participants in the social life of their companies in order to discuss topical issues of youth councils, to develop a common approach to the implementation of youth policy, and to approve the plan of strategic

In May 2015, the Atommash branch development of the youth councils.

By working together and by sharing their experience, the activists of youth councils of enterprises of the Division formulated the main problems, found ways of solving these problems, and created a Divisional Youth Council Program of JSC Atomenergomash for the period 2015–2017.

Professional growth of employees is the

The level of education of staff of the enter-

with secondary vocational education (with at

Recruiting senior students for practical training, which results in hiring of the best of them, key to dynamic development and competitive is an important aspect of the cooperation with advantage of the Division. universities. The main KPIs include the university acceptance ratio and its achievement, the rate prises of the Company is growing every year: AEM 15.6 of employment and retention of high-potential about 55% of employees have a college edugraduates, and the satisfaction of applications cation in 2015. In spite of the above, employees for target enrollment in universities.

In 2015 the Division's enterprises provided least 17% of the employees having higher eduon-the-job training for more than 900 senior stu- cation) prevail at production sites; in engineerdents of secondary and higher vocational educa- ing design and management companies, there tion institutions; the best students were offered is a prevalence of employees with higher proemployment. Despite the decline in the num- fessional education and with academic degrees ber of students who passed on-the-job train- and titles of professors, and RAS Academicians. ing, the number of students who were offered employment as a result of the training increased by more than five times (102 people) as compared to 2014.

i 108

AEM 19.1 i 109

AFM 157 i 110

Candidates and Doctors of Science (persons)

 Candidates	
83	JSC NPO TSNIITMASH
83	JSC Afrikantov OKBM
58	JSC OKB GIDROPRESS
18	JSC SNIIP
11	JSC SverdNIIkhimmash
88	Other
Total 341	



Total

73



AEM 15.8 RAS Academicians, professors (persons) i 111



Academicians

1	JSC Afrikantov OKBM
1	JSC OKB GIDROPRESS
0	JSC NPO TsNIITMASH
0	JSC Atomenergomash
0	JSC GSPI
Total	
2	

The enterprises of the Division play an Employees actively participate in drawing up active role in the programs for the develop- individual development plans. All corporate proment of corporate competencies and man- grams are formed taking into account the wishes agement skills. Training in sectoral programs is of the employees of the Company, the Division's aimed at employee development, team build- strategic objectives, and the results of evaluation ing, strengthening ties to the community, and of managerial and professional staff competence. increased engagement. Great attention is paid The KPIs for senior officials include the indicator to helping new employees to adapt and provide "Level of Engagement Based on Training Factor". them with the key knowledge from experienced tutors in order to preserve all important and valuable knowledge in the Division.

GRI-LA9 AEM 19.9 i 113

i 112



ر گ

Average hours of training per employee per year

	Specialists and operating staff
2013	45.8
2014	43.3
2015	47.2
2016 (forecast)	41.5

 Professors
5
2
19
1
1

Total

28

In 2015, the average time of training per employee increased by

Middle managers	Senior managers
40.8	67.5
51.7	54.6
44.4	43.8
41.4	45.9



Hydrotesting of a nuclear reactor in a special underground bench (the Atommash branch of AEM-Technology JSC in Volgodonsk)

Case of PJSC ZiO-Podolsk and JSC OKB GIDROPRESS

Divisional professional skills competition



In October 2015, the two companies of the Division hosted the annual contest of professional skills in Podolsk. In 2015, it was decided to hold a competition for key professions of the Mechanical Engineering Division:

- Welder;
- Designer;
- Process Control Engineer;
- Production Line Supervisor.

Welder competitions were held in two categories: manual arc welding with coated electrodes and manual TIG welding with non-consumable electrodes.

The competition was attended by 48 specialists from nine companies in the management profile of JSC Atomenergomash.

INTERACTION WITH SOCIETY

8.1. Impact on Presence Regions

The Division's enterprises are geographically dispersed and located not only in different parts of the Russian Federation but also in Central and in Eastern Europe. In this regard, positioning in the regions plays an important role for the Company and this primarily concerns interaction with local companies and specialists.

GRI-EC5 A number of key enterprises of the Division that participate in the Industry Agreement comply AEM 20.2 with the requirement that ensures that the monthly salary based on the minimum position level is not below the subsistence level for the working population in the constituent entities of the i 114 Russian Federation. In 2015, all the parties to the Industry Agreement fulfilled this requirement.

AEM 20.4 In addition, enterprises of the Division make annual tax payments to the budgets of various levels; six enterprises of the Division are included in the list of the largest taxpayers in their respective regions: JSC Afrikantov OKBM, JSC TsKBM, JSC OKB GIDROPRESS, AEM-Technology JSC, PJSC ZiO-Podolsk, and JSC ZIOMAR EC. The amount of payments to local budgets increases annually.

GRI-EC6 Being a socially responsible company, JSC Atomenergomash hires employees (including man-AEM 20.1 agers) mainly from the local population³⁴. Residents of other regions of Russia are involved in the absence of specialists or suitably qualified managers in the local labor market. i 115

At the key regional enterprises, the senior management positions³⁵ are mainly occupied by representatives of the local community³⁶.

Payments to the budgets of different levels (thousand rubles)

Budget Type	20	13	20	14	20	15	2016 (fo	orecast)
	Assessed (thousand RUB)	Paid (thousand RUB)	Assessed (thousand RUB)	Paid (thousand RUB)	Assessed (thousand RUB)	Paid (thousand RUB)	Assessed (thousand RUB)	Paid (thousand RUB)
Total	3,623,424	3,752,241	4,805,678	3,744,199	6,552,303	6,544,455	5,064,720	4,931,865
including:								
Federal budget	3,245,339	3,067,000	4,367,121	3,355,674	5,740,392	5,696,057	4,670,327	4,614,997
Budgets of the constituent entities of the Russian Federation	285,702	582,169	334,773	293,454	729,197	732,116	303,414	256,814
Local budgets	92,383	103,072	103,785	95,072	82,714	116,282	90,979	60,054

34 – Local employees are those who live permanently in the area where the employer enterprise operates, i.e. not hired from other regions

35 – Senior managers: managers at the level of directors for functional lines through the Chief Executive Officer.
 36 – Representatives of the local population: workers who live (are registered) on a permanent basis in the area of activity of the employer.

8.2. Social Investments and Charity

in the regions where they operate, especially a large share of this amount was spent by JSC in towns and cities. In addition, the Company Afrikantov OKBM. supports participation in charitable projects.



Case of JSC Atomenergomash



Excursion to Moscow



JSC Atomenergomash tries to participate in social and charity projects. The trip to Moscow for the children from Efremovskaya boarding school is a case in point: 20 children aged from 6 to 14 trip was rich and very informative. years old from the boarding school who have been deprived of motherly affection and love arrived in Moscow.



social program in terms of welfare assistance to this purpose. to retired pensioners and veterans of its

AFM 20.3

i 116

i 117

Enterprises of the Division participate in the In general, enterprises of the Division spent improvement and development of infrastructure 13.6 mln rubles on charitable projects in 2015;



They visited the Mars Tefo interactorium, ridden a flying saucer, visited the Dinosaur City museum, and received positive emotions at a Husky kennel. The

One of the Company's most important enterprises. In the reporting year, enterprises of objectives is implementation of the corporate the Division allocated more than 30 mln rubles

8.3. Compliance with Legislation

JSC Atomenergomash and the enterprises of the Division observe the law, comply with international standards, and strive to improve the transparency of their activities. Therefore, an important task of the Company's Legal Department is to reduce the number and the severity of cases of non-compliance with the legislation.

GRI-PR9 GRI-SO8 AEM 22.4 i 120 In the reporting period, the Division companies were fined 1 mln rubles for non-compliance with the current legislation. Also, the Company was subjected to a nonmonetary sanction in 2015.

Case of JSC Afrinkantov OKBM

The best legal department



The City of St Petersburg hosted the 10th annual awards ceremony for winners of the "Best Legal Departments of Russia" on May 28, 2015. The ceremony was held in the St Petersburg International Legal Forum and was attended by about 200 guests. In the category of "Engineering", the legal department of JSC Afrinkantov OKBM was recognized the best legal department of Russia in 2015.

The organizer of the competition was Legal Insight, one of the most authoritative legal magazines. The award is aimed at identifying the most effective legal services of Russian and international companies for a possible exchange of experiences and models of structuring legal departments.

Shells of a refinery reactor vessel (the Atommash branch of AEM-Technology JSC in Volgodonsk)



COMMUNICATION **ACTIVITIES**

9.1. External Communications

Marketing communications, including promotion activities, advertising, participation in exhibitions etc. are an important area of the activities of JSC Atomenergomash. The well-established communications of JSC Atomenergomash are a precondition for its proper functioning as an economic power unit and one of the key prerequisites for its successful activities in the market.

In 2015, a number of events were organized as part of the marketing activities: seven press tours, including those for foreign journalists and representatives of countries that are potential AEM 23.2 customers for the Division's products. In addi-AEM 23.3 tion, a regional forum of nuclear industry suppliers (ATOMEX-Region) was held in Yekaterinburg in November 2015. JSC Atomenergomash and the Companies of the Division took part in 30 conference and exhibition events (including 17 abroad). The Division had a booth at six of them:

> - POWER-GEN RUSSIA-2015 international exhibition of manufacturers of thermal power equipment (Moscow, the Russian Federation, March 3-5, 2015);

- International Forum "ATOMEXPO 2015" (Moscow, Russia, June 1-3);
- AtomEco-2015 International Exhibition (Moscow, the Russian Federation, November 9-11, 2015);
- International Forum of Nuclear Industry Suppliers "ATOMEX 2015" (Moscow, Russia, October 13-15),
- Annual International Nuclear Power Industry Exhibition "Atomexpo-Belarus 2015" (Minsk, Belarus, April 22-24);
- NDExpo Atomic Energy for Sustainable Development International Forum and Exhibition (Nizhny Novgorod, the Russian Federation, April 14-16, 2015).

One of the important areas of information work is the establishment of direct communication with potential equipment customers. In this regard, forms of cooperation that were previously unused were launched in 2015, in particular seminars for customers.

Case of AEM-Technology JSC

Information support of the shipment of a reactor for the power unit No. 1 at Belarusian Nuclear Power Plant



One of the major industrial developments in 2015 was the shipment of the reactor for the Belarusian Nuclear Power Plant from the production site of the Atommash branch of AEM-Technology JSC in Volgodonsk. This is the first reactor manufactured by the plant in the post-Soviet period, and the first reactor manufactured by Rosatom State Corporation. Thanks to the implemented set of PR

activities, the restoration of the manufacture of equipment for the nuclear industry at Atommash was widely covered by both federal and regional mass media. In total, about 120 publications were published, which included stories on the following television channels: Russia-1, Russia-24, LifeNews, Zvezda, and others.

Case of JSC TsKBM

Forum "Atomex-Region 2015"



2015 Forum of Nuclear Industry Suppliers, which was organized by JSC Atomenergomash and JSC SverdNIIkhimmash, was held in Yekaterinburg. During the Forum, procurement specialists of the Division had a meeting with representatives of

JSC Atomenergomash website traffic





One of the important performance indica-visits equaled more than six thousand unique vistors in the field of mass communications is cor- itors per month. porate website traffic. The average number of

Case of JSC Atomenergomash





On July 15, 2015, Rosatom State Corporation held a seminar on thermal energy for potential customers in Cape Town as part of the largest electric power exhibition and forum on the African continent. The seminar was attended by speakers from JSC Atomenergomash and PJSC ZiO-Podolsk seminar. As a result, participants of the event were able to exchange the necessary information and to establish stable business relationships.

i 121

On October 23, the Atomex-Region | nuclear industry suppliers. The purpose of the meeting was to remove existing barriers and to develop joint solutions for further cooperation between customers and suppliers from the nuclear power industry.

the POWER-GEN AFRICA-2015 exhibition



plementation of the marketing communications velopments and the advantages of the Division's plan as regards participation in exhibitions, work with the media, and organization of press tours,

In 2015, the Company plans to continue im- conferences and round tables on innovative deproducts.

9.2. Internal Communications

i 122 ployees' awareness of activities of JSC Atomener- and their solutions in detail. gomash. The corporate media published a series jects of the Company and EMPs, which described development projects: AEM 37.1

A key challenge in the area of internal com- the goals and objectives of the projects as well as munications in 2015 was to increase the EMP em- the progress, the main achievements, problems,

JSC Atomenergomash and key EMPs impleof materials about the implementation of key pro- mented the following corporate communications

Corporate newspaper "AEM Bulletin"

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formation space for the Division, the complete online version of the corporate monthly corporate publication AEM Bul- newspaper was implemented at the folletin is issued. The Bulletin is published lowing URL: http://vestnik-aem.ru. Vestnik in three languages (Russian, Czech, Hun- Online is an information resource that is garian) in four countries: Russia (with a aimed at expanding the audience of the circulation of 5,300 copies), Ukraine paper version through the modern pres-(with a circulation of 500 copies), the entation of information and unique con-Czech Republic (with a circulation of 130 copies), and Hungary (with a circulation of 80 copies).

As part of maintaining a common in-

In 2015, continuous updating of a tent that was not included in the printed version as well as the openness of the resource. The online edition has been adapted for viewing on mobile and personal devices.

Industry TV project "The Rosatom Country"



tom Country." In 2015, the news block sion's enterprises were aired in 2015. of the Division included stories pre-

Divisional Web Portal



A corporate web portal was launched ing literature as well as various service tion on corporate actions and contains a and its EMPs. data bank of local regulations and train-

Awareness Days



and employees are held regularly in the 2015 at Rosatom State Corporation. format of Awareness Days aimed at not only conveying important information about the Company to employees but

Interactive information kiosks at enterprises of the Division



see personal data, time sheet, learn tion to the management. more about the vacation schedule, staff Free access is provided to all the refer- donsk and the Petrozavodsk branches ence information about the enterprise of AEM-Technology JSC.

In order to create a favorable image pared by the following EMPs: Atomof its enterprises in the cities of pres- mash and Petrozavodskmash branches ence and to inform the general public of AEM-Technology JSC, JSC SverdNIIkhabout the key projects, JSC Atomener- immash, PJSC ZiO-Podolsk, JSC Afrinkangomash joined the industry project of tov OKBM, JSC NPO TsNIITMASH, and broadcasting an information and an- JSC SNIIP. A total of more than 100 TV alytical TV program called "The Rosa- stories covering the work of the Divi-

in 2015. It can be accessed by all the employees of JSC Atomenergomash and the portal, its cascading to main EMPs thus brings together the staff of the began, which must be completed in management company into a single in- 2016. The outcome of this work will be formation environment. The portal al- the creation of a common portal for all lows receiving current news, informa- the employees of JSC Atomenergomash

Following the traditional practice of also arranging dialogue between per-Rosatom State Corporation, meetings sonnel and management. For exambetween the Company's management le, three Information Days were held in

Interactive information kiosks have as well as to key news and information been installed at enterprises of the Di- publications of Rosatom State Corporavision. Information kiosks (terminals) are tion and JSC Atomenergomash in these designed to improve services for em- kiosks. In addition, provision is made for ployees and to raise their awareness. Us- a feedback mechanism: each employee ing the terminals, every employee can can leave a message and pose a ques-

Kiosks are installed at PJSC ZiO-Poappraisal chart, or order a certificate. dolsk, JSC ZIOMAR EC, and the Volgo-

Virtual museum of nuclear engineering



ar engineering dedicated to the 70th torical photos and facts that effectively anniversary of the nuclear industry was combine with the original interface of launched on the official website of JSC the section. The museum allows raising Atomenergomash. The main purpose the employees' awareness of the activof this resource is to highlight the his- ities of the Company and EMPs as well tory of the nuclear industry and nuclear as increasing their involvement in key engineering from 1940s to the present processes.

In 2015, a virtual museum of nucle- day. The museum houses unique his-

GRI 4-33 action pattern, the Company held public di- process. Public consultations for the draft Realogues in a correspondence format. For ex- port, which were held in absentia (May 5, 2016 ample, a survey of stakeholders regarding the May 13, 2016), summed up the results of inter-Concept of the Report as well as its content action in the framework of preparation of the plan was conducted in absentia at the begin- Report and identified a number of areas for ning of the reporting campaign (October 21, improvement in future reporting campaigns. 2015 – October 30, 2015). Narrowly focused dialogues were conducted in the format of remote ers performed public assurance of the Report. interaction with subject matter experts, which kan page 115 both saved time and increased the involvement

> The process of pimpling of an area of nuclear reactor body nozzles on the pipe shell (press shop of PJSC Energomashspetsstal)

Case of JSC Atomenergomash

KVN Divisional Festival



On September 23, Atomenergomash hosted the first corporate KVN Festival "Atom. Version 7.0", which was dedicated to the 70th anniversary of the nuclear industry, in the City of Moscow. The event brought together 11 enterprises of the Engineering Division. A total of 120 participants took part in the divisional KVN festival. The festival judging panel consisted of CEOs of AEM enteprises and was headed by Andrey Nikipelov, the Chief Executive Officer of JSC Atomenergomash. All teams showed a

decent level of play and were not inferior to the guests of the Festival, a Major KVN League team of Triod & Triod. The winner of the first divisional KVN festival was the team of JSC NPO TsNIITMASH "Delo Tekhniki", which later represented the Engineering Division with the team of KVN JSC Atomenergomash Cup at the Rosatom State Corporation KVN Cup on December 23, 2015.

9.3. Stakeholder Engagement System



GRI 4-26

i 124

GRI 4-24

The Company considers stakeholder engagement as one of the fundamental factors stakeholder prioritization, i.e., identification of of sustainable development and consistently GRI 4-25 develops productive cooperation in this field to- comparative analysis of the stakeholder maps gether with the enterprises of the Division. This work involves the following tasks:

- definition of interests and expectations of stakeholders;
- responding to the expectations of stakeholders and searching for a consensus on problematic issues;
- establishing long-term partnerships with key stakeholders.

Stakeholder engagement practices include several groups, for accomplishing these tasks. A generated in the three previous reporting campaigns has led to the conclusion about the absence of significant changes in estimates. In connection with the above, a decision, according to which no annual update of the rank map will be implemented except in cases of significant changes in the conditions of the Company, was approved. The actual stakeholder map can be found in the Integrated Annual Report of the Company for 2014.



In accordance with the stakeholder inter- of experts throughout the Report preparation Based on the results of this work, stakehold-

Appendix 1. Glossary Abbreviations used in the Report

ARMS	automated radiation monitoring
	system
NP	nuclear power
NPP	nuclear power plant
FNR	fast-neutron reactor
WWER	water-water power reactor
IC	input control
WPP	wind power plant
GPC	gas and petrochemical industry
SSC	State Scientific Center
SDO	State Defense Order
MCPU	main circulating pump unit
MCP	main circulation piping
CSA	capacity supply agreement
CUWS	common unified wage system
PBIMS	project book information
	management system
CIR	integrated investment resource
KPI	key performance indicator
CS	compressor station
SMB	small and medium-sized business
OR	oil refinery
RC	oil refinery company
EMPs	entities included in the Company's
	management perimeter
GSM	General Shareholder Meeting
SNF	spent nuclear fuel

FNPP SG CCGT	floating nuclear power plant vertical-type steam generator combined cycle gas turbine power
IPA	plant Innovative Development Program
RPS DAVA/	Rosatom Production System
	intellectual property
RU	reactor unit
BoD	board of directors
RUMCS	reactor unit monitoring and control system
QMS	quality management system
JV	joint venture
AFCF	adjusted free cash flow
SUZ- ShEM	control and protection system solenoid stepper drive
SCSP	supercritical steam parameters
TMES	transport and marine energy solutions
TP	thermal power
TPP	thermal power plant
CHPP	combined heat and power plant
UAL	universal nuclear icebreaker
PE	power engineering
NSSS	nuclear steam supply system
LTIFR	lost time injury frequency rate

Terms used in the Report

LTIFR – lost time injury frequency rate.

Aspect - a topic that describes one of the Company's activity areas or its impact on stakeholders.

Employee engagement – an emotional and intellectual state that motivates employees to do their job efficiently.

Input control – the control of the quality and the completeness of products received at the Nuclear Power Plant site and intended for use in the course of its construction and operation.

Senior management (top management) - Company employees who adopt decisions having a significant effect on the Company's activities as a whole (from the functional directors' level up to the CEO).

Integrated additional incentive (SRI) - a part of the wages paid to the employee on a monthly basis for the level of competence, professionalism, and labor productivity which is defined on the basis of efficacy and potential (the RECORD score or the professional worker status assessment procedure).

Combined revenue – a total revenue of the companies included in the combined accounting statements perimeter in accordance with a company approved procedure, net of revenue from intra-group sales and other adjustments.

Local employees/managers – employees who live permanently in the area where the employer enterprise operates.

AFCF – a key performance indicator for operations of Rosatom State Corporation; a cash flow from operating activities adjusted for non-cash items. It characterizes the dynamics of the cash flows available for development.

Stakeholder (interested party) - an individual, group of individuals or organization that is influenced by or can exert an influence on the company.

Significant operating regions – regions in which an enterprise's production facilities and key personnel are located.

Material aspect - an aspect reflecting a significant area of the Company's activities or a significant impact on stakeholders.

Appendix 2. Information about the Report

GRI 4-28

GRI 4-30

i 126

GRI 4-15

Joint-Stock Company Nuclear and Power Engineering (hereinafter referred to as JSC Atomenergomash or the Company) has issued this Integrated Annual Report (hereinafter referred to as the Report) to disclose information regarding the performance of the Engineering Division of Rosatom State Corporation (hereinafter referred to as the Division) for the period from January 1, 2015 to December 31, 2015 GRI 4-29 and to present its development outlook.

JSC Atomenergomash traditionally follows an annual reporting cycle; the previous Report covering the results for the 2015 reporting year was released in 2016. The Report was prepared meeting the requirements of the following regulatory

documents (as amended):

- tered under No. 208-FZ "On Joint-Stock Companies";
- tion in the Field of Public Accounting";

- Regulation of the Bank of Russia dated December 30, 2014 and registered under No. 454-P "On Disclosure of Information by Issuers of Equity Securities"; - Letter of the Bank of Russia dated April 10, 2014 and registered under No. 06-52/2463 "On the Corporate Governance Code";

- porate Governance Quality in Companies with State Participation";
- Accountability's AA1000 Series Standards
- G4 Sustainability Reporting Guidelines;
- International Integrated Reporting Framework (IIRC);
- ISO 26000:2010 "Guidance on social responsibility".

The Company has approved internal documents: Standard and Regulation for Annual Public Reporting amended by the Order of the Chief Executive Officer of the Company dated March 3, 2016 and registered under No. 33/63-P. These documents establish the procedure for the preparation of a Public Report and the responsibility of the participants in this process as well as requirements for a Public Report, including the System of Categorized Performance Indicators of JSC Atomenergomash.

The Company's Strategic Development Department (the Strategy and Organizational Development Directorate) is responsible for preparing the Report. The Public Reporting Committee (chaired by the Director of the Strategic Development Department), the main responsibility of which is to coordinate the preparation of the Report and assess the materiality and completeness of the information disclosed in the Report, takes part in all key stages of the Report preparation.

GRI 4-48 the final version of the Report.

i 127

i 128

i 129

Disclaimer

This Report contains a number of forward-looking statements concerning the future state of the Company in terms of various aspects, its plans and expected results. By nature, forward-looking statements involve inherent risk and uncertainties. A range of economic, political, social, and other stochastic factors may influence the Company's activities and its external environment. In this regard, the Company points out that actual results may differ from those expressed, directly or indirectly, in the forward-looking statements contained within the Report.

- The Federal Law of the Russian Federation dated December 26, 1995 and regis-

- Order of Rosatom State Corporation dated December 15, 2015 and registered under No. 1/1069-P "On Amendments to the policy of Rosatom State Corpora-

- Order of the Federal Agency for State Property Management No. 306 dated

August 22, 2014 "On Approval of the Methodology for Self-Assessment of Cor-

The Board of Directors and the General Meeting of Shareholders must approve

Appendix 3. Material Aspects and Their Boundaries

GRI 4-18 List of aspects with indication of the materiality level

#	Aspect	Corresponding GRI aspect
1	Economic Performance and Financial Position	Economic Performance
2	Market Presence	_
3	Commercial Activities	_
4	Investment Activities	-
5	Results of Production Activities	_
6	Quality and safety	Consumer's health and safety
7	Optimization of production activities	_
8	Procurement Activities	Procurement practices
9	Innovation Development	_
10	Scientific Activities	_
11	Energy Consumption	Energy
12	Water Consumption	Water
13	Emissions and Wastes	Emissions and waste; discharges
14	Environmental Management	General information (ecology)
15	Personnel Composition	Diversity and equal opportunities
16	Labor Conditions and Organization	Relations between employees and management; Mechanisms for bringing complaints against labor practices
17	Occupational Health and Safety	Occupational Health and Safety
18	Personnel Efficiency	_
19	Availability of Replacement Personnel	Employment, training and education
20	Impact on Presence Regions	Market Presence
21	Social Investments and Charity	Indirect economic impacts
22	Anti-corruption practices	Anti-corruption enforcement
23	Compliance with Legislation	Compliance with requirements (categories: ecology, society, product responsibility)
24	Marketing and PR Communications*	Marketing communications
25	Activities of corporate governance bodies	_
26	Internal Control, Audit and Risk Management	_

GRI 4-22 There were no restatements of information compared with the previous year.

GRI 4-13 In 2015, there were changes in the structure of the Division: LLC Neftegazspetsstroy was excluded from the consolidation profile.

GRI 4-17 The boundaries of each material aspect were determined by a survey among the members

GRI 4-20 of the Public Reporting Committee of JSC Atomenergomash. The coverage of the key EMPs was

GRI 4-21 changed due to changes in the composition of the Division.

GRI 4-23 The Consolidated Financial Statements Profile is used in the "Aspect No. 1" column. Based on the results of the material aspects analysis performed by the Company, the information disclosure boundaries will not cover companies outside the Division³⁷.

37 – External suppliers accounting for more than 5% of the purchases or having a significant impact on the Company in terms of material aspects were not identified.

Boundaries of material aspects																								
Company												Asp	ects											
	-	2	m	4	5	-	80	6	10	1	12	13	14	15	16	1	1	9 2	0	1 2	2 23	24	25	26
LLC AAEM Turbine Technology		+	+	+	+		+							+	+	+	+	+		+	+		+	
ARAKO	+	+	+	+	+	+	+				+	+		+	+	+	+	+		+	+	+	+	
CJSC Atomtruboprovodmontazh	+	+	+	+	+	+	+				+	+		+	+	+	+	+		+	+			
JSC Atomenergomash	+	+	+	+	+		+		+					+	+		+	+	+	+	+	+	+	+
AEM-Technology JSC	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
OJSC Venta	+	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+	
JSC VNIIAM		+	+		+	+	+		+	+	+	+		+	+	+	+	+		+	+			
JSC OKB GIDROPRESS	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
JSC GSPI	+	+	+	+	+		+			+	+	+	+	+	+	+	+	+	+	+	+		+	
PJSC ZiO-Podolsk	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
JSC ZIOMAR EC	+	+	+	+	+		+	+	+		+			+	+	+	+	+	+	+	+		+	
JSC IFTP			+		+				+	+	+	+	+	+	+	+	+	+		+	+		+	
JSC OZTMITS	+	+	+	+	+		+			+	+	+	+	+	+	+	+	+		+	+			
JSC Afrikantov OKBM	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
CJSC REMKO	+				+												- T	+		+	+			
JSC SNIIP	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
JSC SverdNIIkhimmash	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
JSC TsKBM	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
JSC NPO T5NIITMASH	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
LLC EMKO	+	+	+		+		+						+	+	+		+	+			+		+	
PJSC ENERGOMASHSPETSSTAL	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	+	+	+	+		

Appendix 4. Index of Performance Indicators of JSC Atomenergomash

#	Code	Indicator	Report section	Capital Type	Page
1	1.1	Combined revenue	3.1. Economic Performance and Financial Position	Financial and economic capital	20,42
2	1.2	Net profit	_	Financial and economic capital	i 023
3	1.3	EBITDA	_	Financial and economic capital	4, i 024
4	1.4	EBITDA margin	_	Financial and economic capital	43
5	1.5	Operating margin	_	Financial and economic capital	i 025
6	1.6	Semi-fixed costs	_	Financial and economic capital	i 026
7	1.7	Share of management expenses in revenue	-	Financial and economic capital	i 027
8	1.8	Cost per 1 ruble of marketable products	-	Financial and economic capital	i 028
9	1.9	Income from the sale of non-core assets and unclaimed movable property	_	Financial and economic capital	i 029
10	1.10	Current ratio	-	Financial and economic capital	i 031
11	1.11	Debt to equity ratio	-	Financial and economic capital	i 032
12	1.12	Short-term solvency ratio	-	Financial and economic capital	45
13	1.13	Net debt/EBITDA ratio	-	Financial and economic capital	i 030
14	1.14	State aid	_	Financial and economic capital	45, i 033
15	2.1	Share of the Russian power engineering industry	1.2. Strategic Vision and Objectives	Financial and economic capital	21, 24
16	2.2	Share of revenue from new businesses	_	Financial and economic capital	21
17	2.3	Share of revenue that is formed by foreign assets	_	Financial and economic capital	21
18	2.4	Share of revenue generated by foreign operations	_	Financial and economic capital	21
19	3.1	Order book	3.2. Commercial Activities	Financial and economic capital	46, i 038
20	3.2	Contracts concluded in the reporting year	_	Financial and economic capital	46
21	4.1	Volume of investments	3.3. Investment Activities	Financial and economic capital	47, i 039
22	4.2	Largest investment projects	-	Financial and economic capital	49
23	4.3	Implementation of the investment program	-	Financial and economic capital	49
24	5.1	Products shipped to facilities	4.1. Results of Production Activities	Production capital	50
25	5.2	Fulfillment of the State Defense Order/state assignments	-	Production capital	50
26	5.3	Fulfillment of contractual obligations	_	Production capital	50, i 040
27	5.4	Share of products manufactured at own facilities	_	Production capital	51, i 041
28	6.1	List of enterprises holding ISO 9001 certificates	4.2. Quality and Industrial Safety	Production capital	52
29	6.2	Number of incidents at the facilities (accidents, fires, etc.)	_	Production capital	i 042
30	6.3	Cases of non-compliance with safety requirements	-	Production capital	53, i 043
31	6.5	Number of complaints with respect to products	_	Production capital	53, i 044
32	7.1	Number of RPS projects	4.3. Optimization of Production Processes	Production capital	54
33	7.2	RPS costs and economic effect from RPS proiects		Production capital	54, i 046
34	7.3	Suggestions for improvements	_	Production capital	55, i 047
35	8.1	Share of public procurement processes	4.4. Procurement Activities	Production capital	i 051
36	8.2	Total value of concluded contracts	_	Production capital	57, i 050
37	8.3	Share of purchases from domestic suppliers	_	Production capital	59, i 054
		1			,

#	Code	Indicator	Report section	Capital Type	Page
38	8.4	Amount of money saved as a result of open competitive procedures		Production capital	i 053
39	8.5	Share of purchases within the Division	-	Production capital	57, i 048
40	8.6	Share of competitive procurement processes for which complaints about the procurement organizer's actions were found to be substantiated		Production capital	i 052
41	8.7	Share of purchases from small and medium-sized businesses	-	Production capital	59, i 055
42	9.1	R&D Expenditures	5.2. Innovation Development	Innovation capital	62, i 062
43	9.2	Share of revenue spent on Research and Development	-	Innovation capital	i 063
44	9.3	Research and Development agreements concluded with universities	7.5. Availability of Replacement Personnel	Innovation capital	63
45	9.6	Sale of intellectual property	5.2. Innovation Development	Innovation capital	65, i 066
46	9.7	Acquisition of intellectual property		Innovation capital	i 067
47	9.4	Number of patents and intellectual property certificates		Innovation capital	64, i 065
49	10.1	Number of postgraduate students in postgraduate centers at the Division's enterprises	5.1. Scientific Activities	Innovation capital	60, i 056
50	10.2	Number of theses presented in dissertation councils at the Division's enterprises		Innovation capital	60, i 058
51	10.3	Scientific papers and articles		Innovation capital	60, i 059
52	10.4	Participation in scientific conferences		Innovation capital	60, i 060
53	11.1	Energy Consumption	6.3. Energy Consumption	Natural capital	70, i 078
54	11.2	Energy expenses		Natural capital	i 074
55	11.3	Energy savings		Natural capital	70, i 079
56	12.1	Consumed water	6.4. Water Consumption	Natural capital	71, i 080
57	13.1	Direct emissions of greenhouse gases	6.2. Emissions and Wastes	Natural capital	67, i 071
58	13.2	Reduction of greenhouse gas emissions through ongoing programs and initiatives		Natural capital	67
59	13.3	Emissions of ozone-depleting substances		Natural capital	67
60	13.4	Emissions of other pollutants into the air		Natural capital	68, i 072
61	13.5	Volume of wastewater discharges		Natural capital	72
62	13.6	Weight of wastes		Natural capital	68, i 073
63	14.1	Fines and non-monetary sanctions for non-compliance with environmental legislation	6.1. Environmental Management	Natural capital	66, i 069
64	14.2	List of enterprises holding ISO 14001 certificates		Natural capital	66
65	14.3	Results of environmental impact assessments		Natural capital	66
66	14.4	Costs of preventive and corrective measures in the field of ecology		Natural capital	66, i 070
67	15.1	Personnel Composition	7.1. Personnel Composition	Human capital	74, i 082
68	15.2	Payments and benefits for employees depending on type of employment	7.2. Labor Conditions and Organization	Human capital	76
69	15.3	Maternity leave	_	Human capital	76, i 092
70	15.4	Average age of employees		Human capital	76, i 093
71	15.5	Gender and age personnel composition	7.1. Personnel Composition	Human capital	75, i 083
72	15.6	Share of employees with higher education	7.5. Availability of Replacement Personnel	Human capital	86, i 108
73	15.7	Number of employees with a degree		Human capital	86, i 110
74	15.8	Number of employees who are RAS academicians or professors		Human capital	87, i 111
75	16.1	Employees' notification period regarding significant changes	7.2. Labor Conditions and Organization	Human capital	75, i 086
76	16.2	Average salary	-	Human capital	75, i 088
77	16.3	Coverage of enterprise by collective agreements		Human capital	75, i 085
78	16.4	Employees participating in the non-state pension provision program	-	Human capital	76, i 090
79	16.5	Number of complaints with respect to labor organization	-	Human capital	76
80	16.6	Salary growth index	-	Human capital	75, i 087
81	16.7	Employee benefits per employee per year	-	Human capital	76, i 091
82	16.8	Decimal factor	-	Human capital	i 089
83	16.9	Special assessment of labor conditions	7.3. Occupational Health and Safety	Human capital	77, i 094

#	Code	Indicator	Report section	Capital Type	Page
84	17.1	Occupational accidents, fatal accidents, and occupational diseases		Human capital	77, i 095
85	17.2	LTIFR	_	Human capital	78
86	17.3	List of enterprises holding OHSAS 18001 certificates	_	Human capital	77
87	17.4	Health and safety topics covered in formal agreements with trade unions	_	Human capital	77
88	17.5	Occupational safety and health expenditures	_	Human capital	79, i 098
89	17.6	Work under harmful conditions	_	Human capital	78, i 097
90	18.1	Labor productivity	7.4. Personnel Efficiency	Human capital	79
91	18.2	Percentage of employees receiving regular performance reviews		Human capital	79, i 099
92	18.3	Engagement level		Human capital	79
93	19.1	Practical training of students	7.5. Availability of Replacement Personnel	Human capital	86, i 109
94	19.2	Number of employees in the skill pool	_	Human capital	82, i 103
95	19.3	Share of employees from the skill pool appointed to a top 1000 position, for the Division as a whole	_	Human capital	82
96	19.4	Personnel turnover	_	Human capital	80, i 100
97	19.5	Share of employees with seniority of more than 5 years	_	Human capital	81, i 102
98	19.6	Base departments at enterprises	-	Human capital	84, i 106
99	19.7	Financing of educational institutions		Human capital	85, i 107
100	19.8	Joint activities with educational institutions	_	Human capital	86
101	19.9	Average hours of training per employee per year	_	Human capital	87, i 113
102	20.1	Share of senior management hired from the local community	8.1. Impact on Presence Regions	Social capital	90, i 115
103	20.2	Ratio of the minimum monthly salary and the minimum subsistence level in the regions	_	Social capital	90, i 114
104	20.3	Payments to the budgets of different levels	_	Social capital	90, i 116
105	20.4	List of enterprises included in the list of the largest taxpayers in the regions		Social capital	90
106	21.1	Charity expenses	8.2. Social Investments and Charity	Social capital	91, i 118
107	21.2	Amount of social support to industry veterans		Social capital	91, i 119
108	22.3	Prevented economic damage	2.2. Ethics and Anti-Corruption Practices	Other capital	37
109	22.4	Sanctions for non-compliance with the current legislation	8.3. Compliance with Legislation	Other capital	92, i 120
110	23.1	Violation of the requirements and practices of marketing communications	9.1. External Communications	Other capital	i 116
111	23.2	Key PR events organized by the Company	_	Other capital	94
112	23.3	Implementation of the plan a conference and exhibition events	_	Other capital	94
113	23.4	Mentions in the media		Other capital	96
114	24.1	Number of held General Meetings of Shareholders	2.1. Corporate Governance System	Other capital	31, i 005
115	24.2	Payment of declared (accrued) dividends	_	Other capital	31
116	24.3	Number of meetings held by the Board of Directors	_	Other capital	33, i 011
117	24.4	Approval of decisions on the payment of remuneration to the members of the Board of Directors of the Company		Other capital	33
118	24.5	KPI of the Chief Executive Officer	-	Other capital	33
119	24.6	Approval of decisions on the payment of remuneration to the Chief Executive Officer		Other capital	33
120	25.1	Implementation of the plan of control activities	2.3. Internal Control, Audit and Risk	Other capital	37
121	25.2	Concerns issued by state agencies with respect to the processes previously inspected by the Internal Audit Directorate	- Management	Other capital	37
122	25.3	Respect of the boundaries of risk preparedness	_	Other capital	38
123	25.4	Insurance expenses	_	Other capital	40, i 021

Appendix 5. GRI G4 Index ("Core" Compliance Option)

GRI 4-18 GRI 4-32	#	Standard element	Report section	Excluded information	Page	Auditor's assurance
		STRATEGY AND ANALYSIS				
	1	4-1 Statement from the most senior decision-maker	Message from Company Management		9	+
	2	4-2 Description of key impacts, risks, and oppotunities	2.3. Internal Control, Audit and Risk Management		39	
		PROFILE OF THE ORGANIZATION				
	3	4-3 Name of the organization	The Company in Brief		121	+
	4	4-4 Primary brands, products, and services	1.1. Business Model		i 001	+
	5	4-5 Location of headquarters	The Company in Brief		121	+
	6	4-6 Countries of operation	1.1. Business Model		17	+
	7	4-7 Legal form and nature of ownership	The Company in Brief		121	+
	8	4-8 Main markets	1.1. Business Model		18	+
	9	4-9 Scale of the organization			12	+
	10	4-10 Number of employees	7.1. Personnel Composition		74, i 082	+
	11	4-11 Employees covered by collective agreements	7.2. Labor Conditions and Organization		75, i 085	+
	12	4-12 Supply chain	4.4. Procurement Activities		57	+
	13	4-13 Changes in size, structure or ownership	2.1. Corporate Governance System		30	+
			Appendix 3. Material Aspects and		57 102	
	14	4-14 Precautionary approach	2.3. Internal Control, Audit and Risk Management		38, i 020	+
	15	4-15 Externally developed charters, principles, or other initiatives	Appendix 2. Information about the Report		101	+
	16	4-16 Memberships of associations or organizations	7.2. Labor Conditions and Organization		i 084	+
		IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES				
	17	4-17 Report profile	Appendix 3. Material Aspects and Their Boundaries		102	+
	18	4-18 Process for defining the report content and aspect boundaries	Appendix 2. Information about the Report. Appendix 3. Material Aspects and Their Boundaries		i 127 102	+
	19	4-19 Material aspects	Appendix 5. GRI G4 Index ("Core" Compliance Option)		107 i 128	+
	20	4-20 Boundaries of material aspects within the organization	Appendix 3. Material Aspects and		102	+
	21	4-21 Boundaries of material aspects outside the organization	- I NEIF BOUNDARIES		102	+
	22	4-22 Restatements of information provided in previous reports	-		102	+
	23	4-23 Changes in the scope and aspect boundaries			102	+
		STAKEHOLDER ENGAGEMENT				
	24	4-24 List of stakeholder groups	9.3. Stakeholder Engagement System		98, i 125	+
	25	4-25 Basis for identification and selection of stakeholders	-		98, i 123	+
	26	4-26 Organization's approach to stakeholder engagement	-		98, i 124	+
	27	4-27 Key concerns raised by stakeholders	Appendix 10. Consideration of Stake- holder Opinions		118	+
		GENERAL INFORMATION ABOUT THE REPORT				
	28	4-28 Reporting period	Appendix 2. Information about the		101	+
	29	4-29 Date of most recent previous report	- керогт		101	+
	30	4-30 Reporting cycle	-		101	+
	31	4-31 Contact point	Contact information		121	+

#	Standard element	Report section	Excluded information	Page	Auditor's assurance
32	4-32 GRI content index	Appendix 5. GRI G4 Index ("Core" Compliance Option)		107	+
33	4-33 External assurance of the report	9.3. Stakeholder Engagement		99	+
		Appendix 8. Public Assurance report		114	
		Public Assurance		117	
	CORPORATE GOVERNANCE				
34	4-34 Corporate governance structure	2.1. Corporate Governance System		30	+
35	4-35 Process for delegating authority	-		33	+
36	4-36 Responsibility for environmental, economic and social topics	-		34, i 014	+
37	4-38 Composition of the highest governance body			31, i 006, i 007	+
38	4-39 Overlapping positions of Board of Directors Chairman and Chief Executive Officer	-		31	+
39	4-40 Procedure for nomination and selection of potential Board of Directors members	_		i 008	+
40	4-41 Preventing conflicts of interests	-		i 009	+
41	4-42 Role of the Board of Directors in approving values, mission and strategy			i 013	+
42	4-48 Approval of the Report	Appendix 2. Information about the Report		101	+
43	4-49 Communicating critical concerns to the Board of Directors	2.1. Corporate Governance System		33, i 010	+
44	4-50 Critical concerns that were communicated to the Board of Directors	-		33, i 010	+
45	4-52 Process for determining remuneration			i 011	+
	ETHICS AND INTEGRITY				
46	4-56 Values, principles, standards and norms of behavior	2.1. Corporate Governance System		30, i 003	+
47	4-58 Mechanisms for reporting unethical and unlawful behavior	2.2. Ethics and Anti-Corruption Practices		37	+
	PERFORMANCE INDICATORS				
48	Economic performance Environmental Management System ³⁸	3.1. Economic Performance and Financial Position7.2. Labor Conditions and Organization		42 75	+
49	EC3 Coverage of the organization's obligations related to pension plans with defined benefits	7.2. Labor Conditions and Organization		76, i 090	+
50	EC4 Financial assistance received from government	3.1. Economic Performance and Financial Position		45, i 033	+
	Market presence Environmental Management System	8.1. Impact on Presence Regions		90	+
51	EC5 Ratios of standard entry level wage by gender compared to local minimum wage at significant locations of operation	-		90, i 114	+
52	EC6 Proportion of senior management hired from the local community at significant locations of operation			90, i 115	+
	Indirect economic impacts: Environmental Management System	8.2. Social Investments and Charity		91	+
53	EC7 Development and impact of infrastructure investments and gratuitous services			91	+
	Procurement practices: Environmental Management System	4.4. Procurement Activities		57	+
54	EC9 Policy and proportion of purchases from local suppliers (by region)			59, i 054	+
	Energy: Environmental Management System	6.3. Energy Consumption		69	+
55	EN3 Energy consumption within the organization	-	Total energy consump- tion is not calculated because accounting systems do not allow eliminating double counting associated with the consumption of energy produced in the Division profile	70, i 078	+
56	EN6 Reduction of energy consumption			70, i 079	+

#	Standard element	Report section	Excluded information	Page	Auditor's assurance
	Water: Environmental Management System	6.4. Water Consumption		71	+
57	EN8 Total water withdrawal by source			71, i 081	+
	Emissions: Environmental Management System	6.2. Emissions and Wastes		67	+
58	EN15 Direct emissions of greenhouse gases		Data are not converted into CO ₂ equivalent.	67, i 071	+
59	EN19 Direct emissions of greenhouse gases	-		67	+
60	EN20 Emissions of ozone-depleting substances	-	Data are not con- verted into FCF-11 equivalent.	67	+
61	EN21 Atmospheric emissions of NOX, SOX and other significant pollutants	-		68, i 072	+
	Emissions and wastes: Environmental Management System	_		68	+
62	EN23 Total weight of waste by type and disposal method			68, i 073	+
	Compliance with environmental requirements; Environmental Management System	6.1. Environmental Management		66	+
63	EN29 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmen- tal laws and regulations	_	_	66, i 069	+
	General information: Environmental Management System	_		66	+
64	EN31 Total environmental protection expenditures and investment by type		Information is partially disclosed due to the absence of centralized accounting.	66	+
	Employment: JV	7.5. Availability of Replacement Personnel 7.2. Labor Conditions and Organization		80 75	+
65	LA1 Total number and rates of new employee hires and em- ployee turnover by age group, gender and region	7.5. Availability of Replacement Personnel	Data in absolute values are not disclosed (the number of persons who were accepted into and who left the organization).	80, i 100	+
66	LA2 Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant locations of operation	7.2. Labor Conditions and Organization		76	+
67	LA3 Percentage of employees who returned to work after maternity/paternity leave as well as the remaining share of em- ployees of the Company who remain with the company after the maternity/paternity leave in terms of the gender	-	The total number of employees who were entitled to maternity leave and the reten- tion rates are not disclose because such records are not kept.	76, i 092	+
	Relations between staff and management: Environmental Management System	-		75	+
68	LA4 Minimum notice periods regarding significant operational changes, including whether these are specified in collective agreements			75, i 086	+
	Occupational Health and Safety: Environmental Management System	7.3. Occupational Health and Safety		77	+
69	LA6 Type of injury and rates of injury, occupational diseases, lost days, and absenteeism, and total number of work-related fatalities, by region and by gender		Coefficients have not been calculated be- cause records are kept in absolute numbers.	77, i 095	+
70	LA7 Workers with high incidence or high risk of diseases related to their occupation	-		78, i 097	+
71	LA8 Health and safety topics covered in formal agreements with trade unions	-		77	+
	Training and education: Environmental Management System	7.5. Availability of Replacement Personnel 7.4. Personnel Efficiency		80 79	+
72	LA9 Average training hours per year per employee by gender and personnel category	7.5. Availability of Replacement Personnel	A breakdown by gender is not provided because such records are not kept.	87, i 113	+
73	LA11 Percentage of employees receiving regular performance and career development reviews, by gender and by employee category	7.4. Personnel Efficiency		79, i 099	+

#	Standard element	Report section	Excluded information	Page	Auditor's assurance
	Diversity and equal opportunities: Environmental Manage- ment System	7.1. Personnel Composition		74	+
74	LA12 Composition of governance bodies and personnel with a breakdown by gender and age group	-	No breakdown by personnel category is provided because such records are not kept.	75, i 083	+
	Mechanisms for bringing complaints against labor practices: Environmental Management System	7.2. Labor Conditions and Organization		75	+
75	LA16 Number of complaints filed against labor practices that were processed and resolved through formal mechanisms	-		76	+
	Combating fraud: Environmental Management System	2.2. Ethics and Anti-Corruption		36	+
76	SO5 Confirmed incidents of corruption and actions taken	- Practices		37	+
	Compliance with requirements (society): Environmental Man- agement System	8.3. Compliance with Legislation		92	+
77	SO8 Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmen- tal laws and regulations	-		92, i 120	+
	Consumer's health and safety: Environmental Management System	4.2. Quality and Industrial Safety		52	+
78	PR1 Percentage of significant product and service catego- ries for which health and safety impacts are assessed for improvement	-		52	+
79	PR2 Total number of incidents of non-compliance with regulations and voluntary codes concerning the impact of production and services on health and safety in terms of the types of outcomes	-	A breakdown by gender is not provided because such records are not kept.	53, i 043	÷
	Marketing communications Environmental Management System	9.1. External Communications		94	+
80	PR7 Requirements for marketing communications and current practices	-		i 121	+
	Compliance with requirements (product responsibility): Envi- ronmental Management System	8.3. Compliance with Legislation		92	+
81	PR9 Fines and non-monetary sanctions for non-compliance with laws and regulations and requirements for products	-		92, i 120	+

In preparing the Report, the Company followed the principles detailed in the GRI G4 Guidelines:

GRI 4-18	Principles	How considered
	Stakeholder inclusiveness	In the reporting year, two part-time social dialogues were conducted. All observations and recommendations were reflected within the Report.
	Sustainability context	The Report traditionally includes a section on sustainable development strategies, which provides relevant information and contains cross-references to the thematic sections of the Report.
	Materiality	Materiality of aspects was assessed in the course of preparation of the Report in accordance with the developed methodology.
	Completeness	The Report presents all material information for 2015.
	Balance	The Report provides information on both the achievements and the problems and risks of the Company.
	Comparability	All the data contained in the Report are presented using comparable boundaries and measurement units.
	Accuracy	All indicators are calculated on the basis of methodologies adopted by the Company.
	Timeliness	Publication of the Report is implemented according to the schedule complying with the legislation of the Russian Federation.
	Clarity	The Report contains a system of cross-references. In addition, the Report includes a glossary.
	Reliability	Reliability of the information provided in the Report is ensured through internal audit procedures and independent external assurance.

Appendix 6. Accounting Statements of JSC Atomenergomash

Item	Code	As of December 31, 2015	As of December 31, 2014	As of December 31,
ASSETS		2015	2014	2015
I. NON-CURRENT ASSETS				
Intangible assets,	1110	14,069,248	14,134,043	12,948,401
including: business reputation	1111	13,636,533	13,575,350	12,410,359
Research and development results	1120	297,505	352,069	217,741
Intangible search assets	1130	-	-	-
Tangible search assets	1140	-	-	-
Fixed assets	1150	29,642,821	27,095,964	22,482,140
Buildings, machinery, equipment, and other fixed assets	1151	24,999,965	23,851,876	19,059,120
Incomplete capital investments in fixed assets	1152	2,985,687	2,682,555	3,051,014
Prepayments to suppliers and contractors for capital construction and to suppliers of fixed assets	1153	1,657,168	561,533	3/2,007
Income-yielding investments in tangible assets	1160	2,407	691,128	79,662
Financial investments	1170	10,218,934	2,939,103	7,126,688
including: Financial investments in affiliates	1171	68,812,	107,705	1,456,003
Deferred tax assets	1180	2,996,267	2,506,214	1,990,442
Other non-current assets	1190	7,235,334	12,948,092	10,121,446
Total for Section I	1100	64,462,515,	60,666,613	54,966,521
II. CURRENT ASSETS				
Inventories,	1210	22,959,014	22,011,571	19,201,562
including:	1011	0 774 700	10.015.05.4	7.054.645
raw materials and other similar values	1211	9,774,723	10,015,254	7,851,645
work in progress	1212	10,357,386	8,102,321	9,410,452
finished products and goods for resale	1213	2,384,421	3,156,849	1,816,739
shipped goods	1214	442,484	/3/,148	122,/2/
other inventories and expenses	1219	-	-	-
Value added tax on purchased goods	1220	1,089,984	610,335	932,440
Accounts receivable	1230	48,220,746	34,105,656	26,729,726
settlements with buyers and customers	1222	23,127,496	19,006,575	14,504,894
advance payments issued	1232	2 814 400		4,705,513
other debtors	1233	5,814,400	3,798,559	5,/8/,813
Gross revenue not involced	1234	4,011,002	4,704,140	1,0/1,000
Cash and cash aquivalents	1240	4,911,095	41,730,299	9,304,094
Other current accets	1250	52,049,530 E 112 0E0	4,324,723	155 511
	1200	12/ 2/2 2/1	107 575 221	60 822 067
BALANCE	1200	198.805.757	168,241,944	115.800.488
LIABILITIES				
Authorized capital (ioint-stock capital	1310	1 016	1 016	738
authorized fund, contributions of partners)	1010	1,010	1,010,	, 50,
Authorized capital of the Company, the share of which	1311	7.301.107	6.152.616	5.836.885
does not belong to the parent company	1911	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	07.027010	570507005
Own shares repurchased from shareholders	1320	-	-	-
Contribution to the authorized capital obtained from	1330	5,940,971	59,300	8,124,978
shareholders (members) prior to the registration of			,	, ,
changes in constituent documents				
Revaluation of non-current assets	1340	386,374	244,904	318,306
Paid-in capital (without revaluation)	1350	23,266,946	22,094,631	14,725,036
Reserve capital,	1360	566,589	485,190	442,158
including:				
reserves formed in accordance with the law	1361	141,021	106,383	67,246
reserves formed in accordance with the constituent	1362	425,568	378,806	374,912
documents				
Retained earnings (uncovered loss)	1370	2,715,790	4,844,136	4,351,417
Total for Section III	1300	40,178,794	33,881,792	33,799,518
Minority share	1301	(7,998,525)	(3,172,418)	1,651,369
Business reputation	1302	447,661	383,882	252,597

ltem	Code	As of December 31, 2015	As of December 31, 2014	As of December 31, 2013
IV. LONG-TERM LIABILITIES				
Borrowings	1410	5,034,716	10,297,050	8,785,119
Deferred tax liabilities	1420	-	-	-
Estimated liabilities	1430	248,197,	234,698	307,315
Other liabilities	1450	47,209,615	47,021,315	21,374,594
Total for Section IV	1400	52,492,528	57,553,063	30,467,028
V. SHORT-TERM LIABILITIES				
Borrowings	1510	40,446,756	26,544,751	13,109,538
Accounts payable,	1520	67,042,557	48,309,078	32,496,673
including:				
suppliers and contractors	1521	12,206,141	10,468,512	7,185,364
advance payments received	1522	44,011,373	30,118,422	19,956,378
debt to the staff of the organization	1523	538,201	506,862	518,126
amounts owed to state extra-budgetary funds	1524	269,599	186,939	180,036
debts for taxes and dues	1525	2,442,914	2,246,404	1,136,976
other creditors	1526	7,574,330	4,781,939	3,519,792
Revenue of the future periods	1530	311,957	453,096	312,419
Estimated liabilities	1540	5,349,564	3,860,083	3,277,045
Special-purpose financing	1546	534,469	428,569	434,228
Amounts owed to customers	1547	-	-	-
Other liabilities	1550	-	48	73
Total for Section V	1500	113,685,302	79,595,625	49,629,976
BALANCE	1700	198,805,757	168,241,944	115,800,488

Deputy Chief Executive Officer -Director for Economics and Finance

S. N. Filatov

Combined Statement of Financial Performance for January – December 2015

Notes	Item	Line code	During the reporting period	Over the same period of the previous year
5.8	Revenue	2110	56,154,272	48,916,761
	Prime cost of sales	2120	(46,681,611)	(40,899,130)
	Gross profit (loss)	2100	9,472,661	8,017,631
	Commercial expenses	2210	(1,362,848)	(1,191,254)
	Administrative expenses	2220	(5,534,666)	(5,128,077)
	Profit (loss) on sales	2200	2,575,147	1,698,300
	Income from participation in other organizations	2310	2,851	3,438
	Interest receivable	2320	2,416,326	910,857
	Interest payable	2330	(3,606,149)	(1,687,805)
	Other income	2340	13,286,529	5,947,408
	Other expenses	2350	(16,643,332)	(11,977,649)
3.3	Capitalized income (loss)	2360	(38,895)	27,398
	Pre-tax profit (loss)	2300	(2,007,523)	(5,078,053)
	Current income tax	2410	(2,921,423)	(1,475,419)
	including permanent tax liabilities (assets)	2421	(80,327)	(382,773)
	Change in deferred tax liabilities	2430	(324,628)	(361,118)
	Change in deferred tax assets	2450	1,169,087	734,450
	Other	2460	134,494	130,070
	Redistribution of income taxes in the consolidated	2465	(317,654)	80,676
	group of taxpayers			
	Net profit (loss)	2400	(4,267,648)	(5,969,394)
	Profit attributable to the group	2470	642,286	(1,335,918)
	Profit attributable to minor shareholders	2480	(4,909,933)	(4,633,476)

Appendix 7. Internal Auditor's Report

Report of the Directorate of Internal Audit of the Company based on the results of the internal audit process of the generation of public reports of JSC Atomenergomash for 2015.

The internal audit process of generation of the public annual report of JSC Atomenergomash was conducted in accordance with:

- under No. 1/1293-P;
- under No. 1/1069;

- Series AA1000 international standards;
- field of public reporting.

Regulations of annual reporting were approved by the Order of the Chief Executive Officer of JSC Atomenergomash dated March 3, 2016 and registered under No. 33/63-P according to which, the responsibility for the preparation and the presentation of information is entrusted to managers and employees of structural units involved in the process of public reporting.

The key points about the actual organization of the process in the Company are: the creation of a concept of annual reports, the coordination and the approval of annotated content of the report, the preparation of a draft annual report, the implementation of dialogues with stakeholders, the adjustment of the draft report, and the implementation of public consultations.

In the course of the audit, the following were performed:

- reporting);
- ation of public reporting;

The audit results lead to the conclusion on a satisfactory condition of the system of internal controls of the generation of public reporting and on the compliance of the generation of public reporting of JSC Atomenergomash with the current legislation, the Policy of Rosatom State Corporation in the field of public accounting, and internal regulatory requirements of JSC Atomenergomash that govern the business process of the formation of public reporting.

Internal Audit Director of JSC Atomenergomash

May 25, 2016

Deputy Chief Executive Officer -Director for Economics and Finance

S. N. Filatov

- the Unified Industry Regulations for the Organization and Implementation of Internal Audit and Internal Financial Audit as part of "Internal Audit" and "Internal Financial Audit" Processes approved by the Order of Rosatom State Corporation dated December 26, 2014 and registered

- the Unified Sectoral Policies of Rosatom State Corporation in the field of public accounting approved by the Order of Rosatom State Corporation dated November 11, 2015 and registered

- the Standard of Annual Financial Statements of JSC Atomenergomash approved by the Order of JSC Atomenergomash dated March 3, 2016 and registered under No. 33/63-P; - the Main Provisions of the GRI Sustainability Reporting Guidelines (version: G4);

- the International Integrated Reporting Framework (IIRC) and other regulatory legal acts in the

- evaluation of the effectiveness of the system of internal controls of the public reporting formation process (including an analysis of the regulation and formalization of key processes associated with the generation of public reporting, and an analysis of the effectiveness of the implementation of key control procedures to ensure the accuracy of the generation of public

- assessment of the compliance of the generation of public reporting with the current legislation, internal regulations and international guidelines that govern the business process of the gener-

- provision of recommendations to improve the quality of preparation of public reporting.

A. L. Levenshteyn

Moscow

Appendix 8. Non-Financial Auditor 's Opinion

Introduction

The subject of the assurance is the Integrated Annual Report of Joint-Stock Company Nuclear of the assurance" of this conclusion. and Power Engineering (hereinafter referred to the management of Joint-Stock Company Nuclear JSC Atomenergomash).

Responsibilities of the Parties

framework of the terms of reference and assume no aforementioned levels of assurance. responsibility to any third party.

Scope, criteria and level of endorsement

The subject of the assurance is the Report which of the assurance work: includes information about the activities of the Machine Building division of Rosatom State Atomic Energy Corporation (JSC Atomenergomash) as well as significant aspects of information about the activities of entities included in the management perimeter of JSC Atomenergomash (hereinafter referred to as EMPs).

The Report was evaluated based on the following criteria:

- The nature and level of compliance of JSC Atomenergomash with the AA1000APS Accountability Principles Standard 2008: inclusivity, materiality, and responsiveness.
- Compliance of the Report with requirements of the Regulations on reporting in the sphere of sustainable development of Global Reporting Initiative (the main option in compliance with GRI G4 Manual);
- observance of requirements of the International Integrated Reporting Framework.
- observance of requirements of the current legislation of the Russian Federation to annual reports of joint-stock companies regarding disclosed data;
- observance of standard requirements of Rosatom State Corporation and internal local regulations of JSC Atomenergomash regarding contents of the public reporting.

Our audit was planned and performed in accordance with AA1000 Assurance Standard 2008 (the moderate level of assurance) and ISAE 3000 International Standard on Assurance Engagements Other than Audits or Reviews of Historical Financial Information (the limited level of assurance). The assurance corresponds to the

Type 2 as defined by AA1000AS 2008, taking into account the limitations specified in the section "Limitations

The selective verification of information in the Report as the Report) for the period from January 1 to that we performed as part of the afore mentioned December 31, 2015. This conclusion is addressed to levels of assurance does not claim to provide a high level of assurance. The work was based on the supporting and Power Engineering (hereinafter referred to as materials provided by the Company's management and employees, publicly available information and analytical methods of confirmation. With respect to the quantitative information contained in the Report, The management of JSC Atomenergomash is the work performed cannot be considered sufficient fully responsible for the preparation and accuracy of for the identification of potential deficiencies and this Report. We are responsible for the assurance of misstatements. However, the collected evidence is the Report only to JSC Atomenergomash within the sufficient to express our opinion in accordance with the

Methodology of assurance

The following procedures were performed as part

- Study and selective testing of systems and processes implemented by JSC Atomenergomash in order to ensure and analyze the Group's compliance with AA1000 APS 2008 principles, collection of evidence that confirms the practical implementation of principles;
- Holding interviews and acquisition and receipt of documentary confirmations from the representatives of the management of JSC Atomenergomash and JSC SNIIP;
- Study of the minutes of dialogs and public consultations with stakeholders;
- Study of the information available on the websites of JSC Atomenergomash and key EMP concerning activities in the context of sustainable development issues;
- Study of the published statements of third parties concerning the economic, environmental and social aspects of the activities of JSC Atomenergomash and EMPs in order to verify the reliability of the statements made in the Report;
- Comparative analysis of the Report with reports of foreign companies in a similar market segment;
- Analysis of the non-financial reporting internal audit processes used at JSC Atomenergomash;
- Selective review of documents and data on the performance of the management systems employed by JSC Atomenergomash for the economic, environmental and social aspects of sustainable development;
- Review of existing processes for the collection, processing, documenting, transmission, analysis, and selection of data to be included in the Report;
- Analysis of information in the Report for compliance with criteria specified above.

Limitations of assurance

The assurance is limited to the reporting period (January 1 to December 31, 2015).

Reliability of the information on performance presented in the Report was only evaluated with respect to the compliance with the recommendations of GRI G4 Manual to the main variant of the Report preparation "compliant with" and information referenced to in the GRI Content Index. The assurance on the reliability of the guantitative performance data disclosed in the Report was made as an assessment of compliance with internal and public reporting documents provided to us.

The assurance does not apply to forward-looking of requirements to the main option "in compliance with" the GRI G4 Manual. statements or statements expressing the opinions, beliefs or intentions of JSC Atomenergomash to take As a result and within the scope of our work, we did any action relating to a future time. The assurance was not identify material misstatements in the information not performed with respect to statements based on contained in the Report that is referred to in the GRI expert opinion in the Report. Content Index.

The assurance was conducted solely with respect to the version of the Report submitted in Russian in MS Word format and containing information as subject to publication in a hard-copy form as well as in electronic form on JSC Atomenergomash website.

Conclusions

The following conclusions are based on the assurance work we conducted within the scope and limitations specified above.

Nature and degree of compliance with AA1000 APS principles

As a result and within the scope of our work, we did not identify material misstatements to criteria of AA1000 APS 2008 standard regarding observance of the principles (involvement, importance, susceptibility).

Compliance of the Report with the requirements of the Regulations on reporting in the field of sustainable development of global reporting initiative (the main option "in compliance with" the GRI G4 Maual).

In order to express an opinion on this Report, we have analyzed its compliance with GRI G4 recommendations when preparing the Report with respect to the reporting principles and standard elements for the stated level of the Report preparation "complant with."

- Disclosure of the general standard reporting elements is generally presented with observance of GRI G4 requirements for the declared option of report preparation "in compliance".
- The Report discloses impacts making the aspect essential, approaches to management of this aspect, and mechanisms of approach assessment

in the management sphere for individual essential aspects.

- All indicators that are necessary for ensuring the implementation of requirements to the main option "in compliance with" GRI G4 Manual are provided in the Report mainly with observance of instructions to GRI G4 indicators. If complete disclosure of indicators is impossible, the Report must indicate what information was excluded. The reasoning behind the incomplete disclosure is provided with respect to all the indicators that are necessary in order to ensure the implementation

Overall assessment of the Report

As a result and within the scope of our work, we did not identify any material deviations from the requirements for the main option of preparation of the report "in compliance with" the GRI G4 Manual.

Observance of requirements of the current legislation of the Russian Federation to annual reports of joint-stock companies regarding disclosed data

As a result and within the scope of our work, we did not identify material deviations of the Report from requirements of the Provision on information disclosure by issuers of equity securities (approved by the Bank of Russia on December 30, 2014 and registered under No. 454-P) in the part of the disclosure in annual reports of joint-stock companies. At the same time we note that the Report contains no detailed costs by types of energy resources.

Observance of standard requirements of Rosatom State Corporation and internal local regulations of JSC Atomenergomash regarding contents of the public reporting

Within the scope of the Report, JSC Atomenergomash disclosed a number of indicators that were presented in the Annual Reporting Standard of JSC Atomenergomash and that were recognized as significant by JSC Atomenergomash. As a result and within the scope of our work, we did not identify material noncompliance of disclosures of indicators included in the Index of Indicators of JSC Atomenergomash with the requirements of Rosatom State Corporation Policy in the field of public accounting and Annual Reporting Standards of JSC Atomenergomash.

Appendix 9. Conclusion on the Public Assurance

Compliance of the Report with the requirements of the International Integrated Reporting Standard

As a result and within the scope of our work, we did not identify material deviations of the Report from the fundamental principles of the International Standard for Integrated Reporting and from the requirements for the composition of the elements of content required for an regulated organization of auditors NP Institute integrated report. At the same time, we note of Professional Auditors and acts in accordance that the requirements of paragraph 1.20 with with the IFAC Code of Ethics for Professional respect to availability of confirmation of the Accountants. The company employs a system compliance of the Report with the requirements of the International Integrated Reporting Standard have not been complied with.

Recommendations

- values and future plans.
- 2. Increase the extent of indicators disclosure concerning which instructions to GRI G4 indicators have not been considered not in full (partial disclosure).
- 3. Provide an explanation of the reasoning behind the incomplete disclosure in accordance with the GRI guidelines in all the cases of an incomplete disclosure of indicators.
- 4. Take into account the comments contained in the above sections of the conclusion.

Statement of competence and independence

JSC NP Consult is an independent audit organization that provides professional assurance services and is a licensed provider of assurance services in accordance with applicable requirements of the AA1000AS accounting standard. JSC NP Consult is a member of the selfof control over the quality of audit services, including control over compliance with ethical norms

JSC NP Consult officially states that the 1. In order to increase the degree of present Report constitutes the assessment comparability, it is expedient to disclose of an independent auditor. JSC NP Consult GRI indicators in connection with target and its employees have no relations with JSC Atomenergomash or its subsidiaries or affiliates that could result in a conflict of interests related to the independent assurance of the Report.

Chief Executive Officer of Joint-Stock Company NP Consult

May 27, 2016

Harmand

V. Yu. Skobarev

Moscow

well as the effectiveness of Company's response to the suggestions of its stakeholders. We take into account and recognize as the dignity that during the preparation of the Report JSC Atomenergomash forced the implementation of leading international and industry standards, including the Guidance of Global Reporting Initiative (GRI) of the latest version of G4, International Integrated Reporting Council (IIRC) and AA1000 Series Standards and Policy of Rosatom State Corporation in the field of public reporting.

The Report addresses the most important topics that are relevant to the Company and to its stakeholders. The structure of the Report helped reveal the key results and impacts in the economic, environmental and social areas of activity of the Company. The method of materiality assessment for inclusion in the Report that was developed and implemented by the Company and based on the requirements of international standards has allowed for considering the opinion of the Company's top management and stakeholders. In our opinion, there is no reason to doubt the objectivity of the procedure for determining the content of the Report. In our opinion, the Report provides the most meaningful information to the stakeholders of the Company. We are not aware of any evidence that calls into guestion the accuracy of the information contained in the Report or that points to the concealment of material information. The results of operations are set out in the Report in a balanced

manner: both achievements of the Company and its key challenges and risks have been presented.

In the reporting year, the Company has attracted stakeholders in the preparation of the Report in the form of correspondence social dialogue, which has allowed participants to present their recommendations to and obtain a response from the Company. According to the results of dialogues, the Company has drawn up protocols and agreed them with the participants; in accordance with these protocols, the text of the Report was amended and comments were introduced which allowed increasing the awareness of stakeholders on the matters of interest. In addition, the Company has complied with its commitments undertaken during the previous reporting campaigns.

During this year, the Company has maintained the efficiency of interaction with stakeholders. Separately, we would like to note that the Company continuously engages in serious work in order to ensure a wider audience of dialogue, including the attraction of new participants.

We are confident that JSC Atomenergomash will consistently implement its commitments, plans, and intentions as set forth in the 2015 Report and will continue to develop activities in the field of public reporting and stakeholder engagement.

Representatives of JSC Atomenergomash (hereinafter referred to as the Company) have asked us to assess its Integrated annual report for 2015 (hereinafter referred to as the Report) in terms of its completeness and materiality as



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V. E. Zinoviev

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Head of Strategic Development and Implementation of Projects in JSC TKZ Krasny Kotelshchik



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V. V. Petrunin First Deputy Director - General Designer, Chairman of the public reporting of JSC Afrikantov OKBM



Y. Z. Saakyan General Director of Autonomous

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E. N. Feoktistova

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General Director of All-Russian Sectoral Association of Employers "Union of Employers of Nuclear and Power Industries, Science of Russia"

M. I. Ovrakh

General Director of Horizon LLC

Yu. V. Borisov

Deputy Chairman of the Russian Trade Union of Nuclear Power and Industry Workers

Appendix 10. Consideration of Stakeholder Opinions

GRI 4-27 Table on the consideration of stakeholders' suggestions on the content of the Annual Report

#	Suggestion/recommendation	Company's response
SHAR	REHOLDERS, ROSATOM STATE CORPORATION	
1.	The recommendation is to include a draft list of persons exercising public reassurance into the concept	Each year, the composition of public witnesses remains virtually unchanged. Inclusion of additional persons into the list of witnesses will be made during the reporting campaign in the event of their high interest in the Report.
2.	Include the key events of the reporting period that are relevant for the preparation of the report (the information context)	Taken into account: based on last year's experience, the report reveals cases on key events of the reporting period
3.	Reflect the history of the emergence of significant aspects	The list of issues is formalized by the Standard for public reporting of JSC Atomenergomash and is adjusted on the basis of the recommendations including recommendations filed by stakeholders.
4.	What is the general method of determining materiality? Has a survey of stakeholder been implemented?	Taken into account. The methods of determining the essential (material) aspects are formalized in the Regulations on public accountability of JSC Atomenergomash. This technique was included in the concept of the Reports of previous years, was presented at industry seminars, and was accepted as a basis for all key organizations of Rosatom State Corporation (for public reporting purposes).
5.	Recommendation on consideration of the possibility of including a subject related to import substitution into the report	Import substitution is not an independent subject for disclosure. The results of the Company that can be attributed to import substitution will be disclosed in the "Innovation Activities" section.
6.	Combination of three sections into one (Internal Control, Audit, and Risk Management) seems to be artificial. The "Information about the Report" subsection should be moved to Appendices. The "Interaction with Stakeholders" subsection should be left in the "Communication Activities" section because it directly relates to the subject matter of the section.	Comments on the preservation of the "Interaction with Stakeholders" subsection in the "Communication Activities" section and the transfer of the "Information about the Report" subsection to Appendices have been approved and will be subsequently taken into account. Combining sections devoted to internal control, audit and risk management is logical within the framework of corporate governance functions for assessment of the reliability of financial statements and effectiveness and efficiency of its operations.
7.	It makes sense to issue a brief report before the main report rather than simultaneously.	We consider such a possibility in the subsequent accounting campaigns.
8.	Participation in international competitions is recommended because it allows obtaining an estimate of a qualitatively different level of reporting and establishing connections to different stakeholder target groups (in addition to the above, it makes sense to consider IR Society and Report Watch contests/ratings)	Participation in international contests involves significant financial costs, which becomes essential in terms of reducing the budgets for training and promotion of public accountability. The list of contests is primarily determined by matching the schedule of preparation of the Report and the deadlines for submission of applications for the contest.
9.	Provide the key indicators on page 5 in a three-year dynamics.	Not taken into account because the purpose of this table is to demonstrate the results of the reporting period rather than the dynamics of increase/decrease in the relevant figures in a three-year period.
10.	"Outsourced": the effectiveness of this measure is not clear.	The effectiveness of this measure lies in the reduction of the number of employees in compliance with the principles of social responsibility and minimization of social risks.
11.	Editing the contents headings The headings "Commercial Activities" and "Efficiency of Personnel" do not provide a clear description of the content of the corresponding sections. For example, "Commercial Activities" could be replaced with "Order Book Structure." The "Efficiency of Personnel" section presents data from a study about the involvement and the case about KVN (what this has to do with efficiency is unclear). Renaming the "Environmental Impact" section into the "Environmental Safety" is recommended.	The headings that are used in the structure of chapter titles are traditional for the Company and, in our opinion, are the most familiar to and understandable for readers.
12.	Making a greater emphasis on new (non-nuclear) businesses in the report structure (by highlighting them in the table of contents, for example) is recommended.	This will be taken into account in future reporting periods.
13.	Pages 13–16: it is advisable to provide a brief list of the range of products in this location (the beginning of the report) and to provide a more detailed list in Appendices or to provide a link to the website/interactive version of the report.	The concept of "range" does not imply briefness: the beginning of the Report presents the key business trends; the online version shows the range of corresponding products.
14.	Information about transactions on pages 29–39 should be placed in an Appendix.	Taken into account (issued into the interactive version of the Report).

#	Suggestion/recommendation	Company's response
15.	Pages 50–55 provide too much descriptive information on combating corruption (the existing documents of the Company, objectives, and procedures are listed); however, a report is primarily a presentation of the results for a particular year. Revising the section is recommended. As regards the regulatory framework, a link to the corporate website might be a better choice.	Taken into account.
16.	Page 106: explanation on the provided three-year dynamics of wage relations is required. Is this value high or low? How does it compare to other divisions of Rosatom State Corporation and to other Russian companies?	The Company does not perform such benchmarking.
17.	The report contains a large number of tables and data on all the organizations of the Division; however, little analytical comments that explain these numbers are provided (this is especially noticeable in the section on the personnel). In our opinion, we should not give each indicator for all the companies but rather focus on the clarification of values and dynamics of the overall figures for the entire Division.	A significant part of tables was transferred to the interactive version of the Report; analysis and comments are given where required.
18.	Shortening the text by 15–20% is recommended because the report currently has almost 200 pages and will increase even further when Appendices are added.	Taken into account; a significant part of the information has been transferred to the interactive version of the Report.
PERS	ONNEL/TRADE UNIONS	
19.	Leaving paragraphs 7.2 and 9.3. unchanged is recommended.	Taken into account.
20.	The last stage ("Annual Report Printing" and "Annual Reportt Placement on the Website") must be completed no later than on June 1, 2016.	Not taken into account: there is a practice that has been developed on the basis of the current legislation of the Russian Federation which provides for the approval of the Report by the General Shareholders Meeting, which is held in late June. Only then the Report can be published.
21.	Paragraph 7.1.: Specific criteria that will be determined for HR policies in the future (including interaction with universities, employment agencies, and training centers) should be developed. It is necessary to determine what competences the personnel has and what competences are already in demand. What specialists are employed in terms of their specialities and ages? How are issues of loss of competence and knowledge dealt with?	Taken into account. The Company has an HR Policy that covers these questions as well. A significant part of the criteria is internal information of the Company. Some information (for example, cooperation with universities, the introduction of the RPS, the Generation Bridge program) is already disclosed in Reports of the Company.
ENT	TIES INCLUDED IN THE MANAGEMENT PERIMETER	
22.	For a better understanding of the "Specialization of the Division's Enterprises" table by a wide range of readers, explanation caption or legend for the figure should be made or uniform markers should be used because they carry no semantic load while misleading the reader.	To be taken into account in the design version: the use of uniform markers.
23.	A more detailed commentary on the table of the agenda for sustainable development should be provided in the report.	The design versions will contain references to relevant sections of the report with detailed information on all the issues.
24.	A more detailed description of the specific measures aimed at protecting intellectual property that are included in the reporting period should be provided in the report.	This will be taken into account in future reporting periods.
CUS	TOMERS/PARTNERS	
25.	What is the reason for the reduction of the number of disclosed indicators?	The Company does not seek to continually increase the amount of information disclosed but rather concentrates on the quality of disclosure.
26.	The non-disclosure of what indicators has been approved in comparison with the 2014 Report?	It was decided not to disclose specific indicators of little information value, including the indicators whose values do not change annually.
27.	How will the wishes of the stakeholders that were made in previous periods be taken into account?	Every year, the obligations accepted by the Company during the previous reporting campaigns are audited in the course of preparation of the table of consideration of the wishes of stakeholders.
28.	The process of establishing the cost with a pattern in the form of a value chain should be disclosed.	The value chain in the framework of the business model will be disclosed in the report in as much detail as in the report 2014.
29.	The volume of the report should not be reduced.	Overall, no reduction is expected. Reduction of the printed version will be compensated by the expanded volume of the interactive version of the report.

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#	Suggestion/recommendation	Company's response
30.	The schedule of work does not determine an issue date of the brief version of the report.	Taken into account.
31.	In Section 4.1, it is more logical to list Russian nuclear power plants before listing foreign ones.	Taken into account.
SCIE	NTIFIC AND EXPERT COMMUNITY	
32.	The activities of scientific and technical organizations of the Division should be reflected.	To be reflected in the appropriate section of the report.
33.	Item V: paragraphs 5.1 and 5.2. should be changed (innovation activities are the next step after scientific activities). Innovation activities should also include the innovation infrastructure, cooperation with innovation centers (e.g., Skolkovo), technology parks, research centers, universities, laboratories, research facilities, Research & Development centers, business incubators, and small innovative enterprises. Paragraph 5.3. "Management of Intellectual Property" or, alternatively, "Knowledge Management" is missing as well as paragraph 5.4. "Attracting Investment and Capital."	We agree with the comment regarding the switching of sections of "Scientific Activities" and "Innovation Activities." Interaction with universities is presented in section 7.5. "Personnel Replacement." Most scientific papers of the Division are implemented within the scope of relevant financing of federal target programs (FTP). We agree with the comment regarding the addition of paragraph 5.3. "Management of Intellectual Property." The possibility of including paragraph 5.4 "Attracting Investment and Capital" will be considered in the next reporting period.
34.	The disclosure of quantitative and qualitative comparison of the results in comparison with competing companies in domestic and international markets should be considered.	Of course, this approach can be considered to constitute the best practice, and we will strive to disclose this information in future reporting campaigns.
35.	The disclosure of detailed information on the formation and the distribution of profit should be considered, inclusive of the following: 1. preparation of plans and disclosure of financial statements based on IFRS; 2. analysis of the structure and dynamics of expenses (e.g., factor analysis of fixed and variable operating costs); 3. the policy in the area of income distribution (the description of the mechanism for determining the share of profit allocated to dividends).	 No such plans exist, the decision is adopted at the level of Rosatom State Corporation. This information is internal and is not intended for disclosure. The Company has not adopted a dividend policy, the decision on the payment of dividends is adopted by the General Meeting of Shareholders of JSC Atomenergomash.
36.	Under the current legislation, JSC Atomenergomash is not required to disclose information on compliance with the Code; however, we recommend that such information be disclosed for the purpose of improving the corporate structure and the work of audit bodies.	Taking into account the specifics of the legal status of Rosatom State Corporation, the Company applies separate norms of the Code of Corporate Governance in practice.

Table of consideration of recommendations received in the previous reporting period

#	Suggestion/recommendation	Company's response
1.	Disclose the indicator "Number of created highly productive jobs".	This will be taken into account in future reporting periods after a common calculation methodology is adopted.
2.	Consider the possibility of self-assessment in the field of social responsibility as per ISO 26000	At present, such work is not included in the Company's plans.
3.	Pay attention to market valuation of intangible assets of the Division, work relating to patent and legal protection of inventions, know-how, trademarks, brands and other intangible assets.	To be taken into account in future reporting periods.
4.	Disclose the amount of received grants as well as foreign and national investments in Research & Development and work with the public science foundations in the reports.	Partly taken into account in sections of the Report.
5.	Disclose the amounts of produced IP items and their appraised value as intangible assets, the number of publications on subjects of research, plans for the introduction of an IP management system in the Company.	Partially taken into account in section 5.2.
6.	Disclose data on Research and Development performed in cooperation with universities, as well as data on grants received from the Ministry of Education for the development of joint research, platforms, laboratories, industries, and enterprises.	Partly taken into account in sections of the Report.
7.	Disclose information about the number of claims for products and the number of warranty repairs for the last 10 years.	Partially taken into account in section 4.2.