TVEL – innovation lab of the XXI century

The table of natural chemical elements of TVEL Corporation

Chemical elements and their compounds used in manufacturing process at TVEL Corporation facilities:

- in nuclear fuel fabrication
- in nuclear and industrial production
- in industrial production
# CONTENTS

## GENERAL

- Addresses of Senior Officials ............................................................. 6
- TVEL Corporation mission, goals and values ....................................... 9
- JSC TVEL general information ............................................................ 11
- Branches and offices ........................................................................ 12
- Background ....................................................................................... 14

## CORPORATE POLICY

- TVEL Corporation structure ............................................................... 16
- Corporate governance .................................................................... 18
- Strategy ........................................................................................... 22

## OPERATIONS

- JSC TVEL’s marketing activities ......................................................... 52
- International cooperation ................................................................. 54
- Priorities .......................................................................................... 64
- Investments ...................................................................................... 66
- Innovations and scientific achievements .......................................... 70
- Production facilities ........................................................................ 73

## FINANCIAL MANAGEMENT

- Finance management and key results ............................................... 78
- Auditors’ statement .......................................................................... 80
- Accounting report ........................................................................... 82
- Dividend payment report .................................................................. 83
- Budgeting and cost management ...................................................... 101
- Auditing Committee statement ....................................................... 102

## CORPORATE RESPONSIBILITY

- HR management ................................................................................ 104
- Youth policy .................................................................................... 106
- Development of local communities .................................................. 112
- Safety and security .......................................................................... 113
- Occupational safety ......................................................................... 122
- Environmental impact ...................................................................... 123

## APPENDICES

- 2008 Corporate Events Calendar ...................................................... 126
- Terms and Abbreviations .................................................................. 128
- Contacts ............................................................................................ 136
- GRI Indicators .................................................................................. 141
- Feedback Questionnaire ................................................................... 142
Wolfgang Sowa, Senior Vice President, AREVA NP:

“One cannot but note the sustainably high quality of the Russian fuel and spirited, innovative approaches to promising developments.”

JSC TVEL key results of 2008

51,96 bln rubles  Product sales
29,93 bln rubles  Net profit
65,25 bln rubles  Net asset value
7199 pcs  Fabricated fuel assemblies
GENERAL
Joint
Stock Company TVEL’s (hereinafter JSC TVEL’s) activities are aimed at solving strategic tasks of State Corporation Rosatom as to ensure the growth of nuclear technology exports to a level comparable with the level of the use of these technologies in this country. JSC TVEL’s contribution to the solving of SC Rosatom’s strategic tasks is represented by outcomes of the activity to develop nuclear fuel cycle technologies and improve their competitiveness in traditional and promising markets. This Annual Report of Joint Stock Company TVEL contains certain projections of the financial situation, economic and social indicators and prospects of the company development. Feasibility of these projections and achievement of the said results is directly linked to economic, social and legal factors that are forming in the Russian Federation and abroad. Actual results may differ from the projections which are relevant at the time of producing this Annual Report.

Chairman of the Board’s address

Dear ladies and gentlemen!

JSC TVEL, a nuclear fuel cycle company, is one of innovation leaders of modern Russia. The innovation path of development chosen by the company is based on the close interaction with the scientific elite, research and industrial centers of the country.

In 2008, a global nuclear fuel supplier JSC TVEL consolidated its successes in nuclear fuel supply to Eastern Europe and strengthened its positions in Asian countries. The nuclear power plants construction program in Russia and the company’s competitiveness abroad have allowed building up an outstanding portfolio which loads JSC TVEL’s production facilities and makes them certain about their future.

Vladimir Travin,
Director of JSC Atomenergoprom,
Chairman of the Board of JSC TVEL
President’s address

Dear ladies and gentlemen!

Available resources, sound research basis, advanced technologies and continuously upgraded production capacities allow JSC TVEL to focus its efforts on the areas of development which are to ensure the long-term leadership in innovations. The company pays special attention to issues of modernization of processes and deployment of new technologies; therefore, it has been supporting the most promising projects at any stage of their development already for a long time. JSC TVEL has actively cooperated with many Russian research institutes and design bureaus – VNIIM named after A.A. Bochvar, MEPhI, MSTU, MSAI, OKI Gidropress, OKBM Afrikantov and other.

Stability of relations and integrated approach to the cooperation remain basic principles of JSC TVEL interaction with customers. The focus on interests of partners allows the company to meet at maximum their needs in reliable and high-quality fuel featuring perfect performance characteristics at competitive prices.

JSC TVEL, after having consolidated its success in traditional areas in 2008, is mastering products for new sales segments, such as TVS-KVADRAT fuel.

JSC TVEL’s massive efforts are targeted to broaden the array of industrial products and increase the output of the non-nuclear productions.

JSC TVEL works extensively to create conditions for unlocking creativity potential of its employees, raise prestige of working in nuclear, and implements social support and career-making programs for young specialists at its enterprises.
## JSC TVEL general information

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<th>Open Joint Stock Company Registrator R.O.S.T.; 18 Stromynka st., Moscow 107996, Russian Federation</th>
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<td>Sole shareholder of the company</td>
<td>Joint Stock Company &quot;Atomic Energy Power Corporation&quot;</td>
</tr>
<tr>
<td>Full name and registered address of the company Auditors</td>
<td>Nexia Pacholi LLC; 8 3-rd Setunsky Proezd, Moscow 119136, Russian Federation</td>
</tr>
</tbody>
</table>
Background

Reviving traditions of Minsredmash

Nuclear fuel fabricated by TVEL Corporation runs nuclear power plants in Armenia, Bulgaria, China, the Czech Republic, Finland, Germany, Hungary, India, Iran, Lithuania, the Netherlands, Russia, Slovakia, Sweden, Switzerland, Ukraine, and the United Kingdom. TVEL supplies nuclear fuel to 30 research reactors in Russia and abroad, as well as to Russian ship-propulsion reactors. TVEL Corporation’s enterprises manufacture a broad range of industrial products which are supplied to many world countries.

TVEL Corporation is striving to meet at maximum the interests and expectations of its consumers as regards the fuel economic and technical characteristics. Each fuel supply contract includes a necessary set of quality assurance measures which correspond to the most rigid international requirements.

At present, JSC TVEL is an affiliate of JSC “Atomic Energy Power Corporation (JSC Atomenergoprom), which is a public vertically integrated holding consolidating civil nuclear assets within the State Atomic Energy Corporation “Rosatom” (SC Rosatom).

TVEL Corporation represents a group of legal entities: JSC TVEL (the parent company of the Corporation), its affiliated and subsidiary companies linked by stable economic, production and legal ties. The Corporation incorporates well-known enterprises such as JSC Mashinostroitelny Zavod (Elektrostal, Moscow Region), JSC Novosibirsk Chemical Concentrates Plant (Novosibirsk, Novosibirsk Region), JSC Chepetsky Mechanical Plant (Glazov, Republic of Udmurtia), JSC Moscow Composite Metal Plant (Moscow).

TVEL Corporation enterprises provide a broad range of services in the development and fabrication of nuclear fuel: manufacture of fuel assembly components, fabrication of nuclear fuel and its delivery to consumers. TVEL Corporation has met fuel needs of 74 power reactors of different types in Russia and 16 countries in Asia and Europe.

JSC TVEL was established on September 12, 1996 by Russian Federation President’s Decree No 166 of February 8, 1996 “Regarding the Improvement of Management of Nuclear Fuel Cycle Enterprises”.

Branches and offices

JSC TVEL has offices in:

- Ukraine (31 Konstantinovskaya str., Kiev 04071);
- The Slovak Republic (17 Kutlikova str., Bratislava 5, 85250).

JSC TVEL’s offices operate on the basis of provisions approved by the Company’s Board of Directors.

Heads of branches and offices are appointed by the Company’s President and act on the basis of letters of attorney.

Offices are not legal entities and possess the property which is accounted for both in their separate books and Company’s books. The Company has not established branches.

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TVEL Corporation is striving to meet at maximum the interests and expectations of its consumers as regards the fuel economic and technical characteristics. Each fuel supply contract includes a necessary set of quality assurance measures which correspond to the most rigid international requirements.
TVEL Corporation structure

Keys to corporate success of TVEL Corporation are the synergy of science and production.

Primary activity flow chart

Nuclear fuel fabrication process

JSC TVEL in nuclear industry
Agreements were reached on market-oriented pricing mechanisms with Eastern and Central Europe partners.

Hungary and Ukraine started the transition to the VVER-440 fuel of the second generation.

**New activity areas**

The TVS-KVADRAT project continued in 2008.

In 2008, in frames of “product sales in the US” program contacts were established with 11 out of 31 American nuclear operators, arrangements made with legal and technical consultants and a project presentation carried out at JSC MSZ.

For TVEL Corporation 2008 became a significant milestone of entering the market of zirconium components and recovered uranium.

The drafting of contractual documents concerning the unfinished nuclear fuel-related products to India was another important development of 2008. After the nuclear material and technology trade limitation had been lifted in regard of India, JSC TVEL was the first to offer mutually beneficial terms of nuclear material supplies to Indians.

**Traditional activity areas**

In 2008 TVEL Corporation solved a number of important tasks which allowed retaining the positions within the group of four global largest nuclear fuel suppliers and laid bases for the further development:

The won tender resulted in a strategic contract with Slovakia.

Vladimír Hlavinka, Director of the Production Division, CEZ (Czech Republic):

“TVEL Corporation supplies nuclear fuel to Dukovany nuclear power plant, and owing to the win at the international tender, it will be supplying nuclear fuel for Temelin NPP also, commencing 2010. The experience we have regarding TVEL fuel supplies to Dukovany is positive, (fuel) technical parameters are improving and it has always been marked for its reliability.”
Corporate management

New image of TVEL Corporation: Precondition of building competitive advantages

In the area of corporate management, JSC TVEL has been sticking to the policy of meeting the basic Russian and international standards, in particular, the national Corporate Code of Conduct provisions. The corporate management practices are being improved aiming at higher capitalization of the company through the achievement of better effectiveness, responsibility and transparency of its operations and management.

In 2008 the company adopted a new Company’s Charter that reflects the shareholder’s approach to the division of authorities of the managerial bodies of the company. In JSC TVEL there are basic internal corporate documents in effect which regulate activities of the managerial bodies. A system of controls over implementation of Board of Directors’ decisions has been introduced by the company’s President to improve effectiveness of fulfillment of boards of directors’ decisions at affiliates and subsidiaries.

In 2008 the corporate policy was aimed at perfecting the TVEL Corporation structure, improving manageability of affiliates and their operational effectiveness.

The implementation of the corporate policy involves the coordination and control of affiliates’ activities related to operations, science and technology, investment, finance, pricing, sales, social and human resources areas. There are regulations covering the procedural and institutional relations of JSC TVEL and affiliated companies as regards decision-making procedures in the course of economic activities.

Strategic development indicators of JSC TVEL’s key enterprises and integrated improvement programs of their operational effectiveness have been formulated and approved as the company’s New Image endeavor. The achievement of these is based on the optimization of the manufacturing and functional structure and cost reduction through setting up new and upgrading of existing productions, improvement of processes, implementation of an efficient labor incentive system, restructuring of non-related assets and processes.

TVEL Corporation implements the corporate procedures taking account of recommendations of the Corporate Code of Conduct recommended by the FFMS of Russia. The Code’s provisions on ensuring rights of shareholders, information disclosure, quality of preparing and conduct of boards of directors’ and shareholders’ meetings, efficiency of financial and economic activity controls are formalized in codes of conducts and in-house provisions on management and control bodies in effect in the affiliated companies.

The Company was drafting this Annual Report in a dialogue with key stakeholders: representatives of the State Corporation Rosatom, JSC Atomenergoprom and representatives of the expert community, in particular, PricewaterhouseCoopers (www.pwc.com) and Association of Independent Directors (www.nand.ru) to discuss requirements for improvement of the annual report quality.

Received recommendations were taken account of when drafting the 2008 report.
The Board of Directors plays a key role in the strategic governance of the Company and TVEL Corporation, as a whole. The Board tasks also include the development of the corporate governance system and practices of JSC TVEL and its affiliates and subsidiaries. The sole shareholder selects professionals to the Board taking account of the said tasks. Generally, the Board consists of outside directors who do not work in the Company; they are professionals who have a great experience in the industry and deep understanding of specificity of operations of the Company and TVEL Corporation, as a whole.

The current members of the Board of Directors were elected by decision No 4 of JSC TVEL’s sole shareholder, JSC Atomenergoprom, dated 27.06.2008.

Vladimir Valentinovich Travin,
Chairman of the Board of JSC TVEL.
Born on June 7, 1960, in B. Kozino, Gorky (now, Nizhniy Novgorod) Region.
In 1983 he graduated from the Moscow Institute of Physics and Technology specializing in experimental nuclear physics.

2005–2006 — Director of JSC Arzamas Experimental Enterprise;
2006–2007 — Deputy of Head of the Federal Atomic Energy Agency;

Alla Igorevna Arkhangelskaya,
Member of the Board of JSC TVEL.
Born on July 12, 1960, in Moscow.
In 1982 she graduated from the Moscow Institute of Management named after S. Ordzhonikidze.

1993–2008 — Had successively positions at Rosenergoatom Concern, including that of Deputy Executive Director for Economy and Director for Economy;
2008–2009 — Director of Price, Tariffs and Cost Management Department, Director of Economic Forecasting, Pricing and Budget Planning Department at JSC Atomenergoprom.

Boris Petrovich Boldyrev,
Member of the Board of JSC TVEL.
Born on July 31, 1953, in Michurinsk, Tambov Region. In 1979 he graduated from the Leningrad Institute of Engineering and Economics.

2005–2005 — Head of Interregional Inspectorate for Large Taxpayers at the RF Ministry of Taxes and Duties;
2005–2005 — Head of Financial Department at the All-Russia Research Institute of Nature Protection;
2005–2005 — Adviser of the Head, Head of Department at the Federal Atomic Energy Agency;
2005–to date — Deputy Director of JSC Atomenergoprom.

Alexey Anatolievich Grigoriev,
Member of the Board of JSC TVEL.
Born on April 15, 1952, in Kiev.
In 1975 he graduated from the Moscow Institute of Chemical Technology and in 1983 – All-Union Foreign Trade Academy.

2005–2005 — Head of Financial Department at the All-Russia Research Institute of Nature Protection;
2005–2008 — Adviser of the Head, Head of Department at the Federal Atomic Energy Agency;
2008–to date — Deputy Director of JSC Atomenergoprom.

Vadim Lvovich Zhivov,
Member of the Board of JSC TVEL.
Born on May 19, 1963, in Moscow.
In 1986 he graduated from the Moscow Energy Institute and in 1990 – the All-Union Lee Distant Education Institute.

2003–2006 — Vice President of JSC Kapitel;
2006–2007 — Adviser to Director General; First Deputy Director General for Feedstock; First Deputy Director General, Director of the Feedstock Supplies Directorate at JSC Techsnabexport;
2007–to date — First Deputy Director General, Acting Director General of JSC Atomredmetzoloto.
Petr Georgievich Shchedrovitskiy,
Member of the Board of JSC TVEL.
Born on September 17, 1958, in Moscow. In 1980 he graduated from the State Pedagogical Institute named after V.I. Lenin.

2005–2006 — Director General of TsNIIATOMINFORM;
2006–2007 — President of JSC VNIIAES;
2007–2008 — Deputy Director of JSC Atomenergoprom;
2008–to date — Deputy Director General of SC Rosatom.

Members of JSC TVEL’s Board do not own the Company’s shares. In 2008 The Company’s Board of Directors held eight meetings. In the period reported, the Board’s key decisions were on the increase the equity capital of JSC TVEL through an issue of additional shares and decisions regarding the Company’s investment and dividend policy. In 2008 members of the Board were not paid bonuses.

Vladislav Igorevich Korogodin,
Member of the Board of JSC TVEL.
Born on October 25, 1962, in Arzamas-75, Gorky Region. In 1992 he graduated from the Moscow Institute of Physics and Technology.

1999–2004 — Head of Division, Head of Department at JSC Techexport;
2000–2003 — Deputy Head of the Federal Atomic Energy Agency;
2003–2006 — Director of Marketing and Sales Markets Department at JSC Atomenergoprom;
2006–to date — Deputy Director of JSC Atomenergoprom.

Vladimir Anatolievich Fedoseev,
Member of the Board of JSC TVEL.
Born on March 1, 1962, in Arzamas-75, Gorky Region. In 1986 he graduated from the Gorky State University named after N.I. Lobachevsky.

2001–2004 — Director – Chief Designer at NIKIRET-SNPA Eleron, Zarechniy, Penza Region;
2004–2007 — Director General of PA Start, Zarechniy, Penza Region;
2007–to date — First Vice President, President of JSC TVEL.

2005–2006 — Analyst, Senior Analyst at JSC SInS;
2006–2007 — Deputy Head of Department at the Federal Atomic Energy Agency;
2008–to date — Deputy Director, Director of Department at JSC Atomenergoprom.

Yuri Alexandrovich Olenin,
Member of the Board of JSC TVEL,
President of JSC TVEL.
Born on July 12, 1960, in Moscow. In 1982 she graduated from the Moscow Institute of Management named after S. Ordzhonikidze.

2000–2004 — Director – Chief Designer at NIKIRET-SNPA Eleron, Zarechniy, Penza Region;
2004–2007 — Director General of PA Start, Zarechniy, Penza Region;
2007–to date — First Vice President, President of JSC TVEL.

2005–2006 — Director General of TsNIIATOMINFORM;
2006–2007 — President of JSC VNIIAES;
2007–2008 — Deputy Director of JSC Atomenergoprom;
2008–to date — Deputy Director General of SC Rosatom.
Renting of fixed assets and discharge of partially used fixed assets are subject to approval by boards of directors, as per articles of association of affiliated companies. Acquisition and alienation of real assets by the affiliated companies, irrespective of its cost, is also subject to a decision by a respective board of directors. Real assets are sold through bidding at a market price. TVEL Corporation’s property management procedures ensure effectiveness and transparency of decisions being made on deals with fixed assets and are aimed at increasing the Corporation’s proceeds. Covers both the JSC TVEL’s property and property of its affiliated companies. The management of shares of the business units is based on the corporate relations mechanism, as well as on in-house documents of TVEL Corporation which define interactions procedures of JSC TVEL and its affiliates in various areas of economic activities and operations. Most significant decisions regarding the fixed asset management are made by the general shareholders’ meeting (sole shareholder) and the Board of Directors of JSC TVEL within their competence. In affiliated companies the boards of directors have major part in their governance through the mandate to deal with essential issues of the affiliates’ operations, as formalized in their articles of association. Affiliates’ board of director meetings are prepared with the involvement of JSC TVEL’s structural divisions which work on materials to draft agendas and resolutions. The Corporation’s fixed asset management is carried out using the common database of fixed assets, including federal property in the use by JSC TVEL’s affiliated companies. Renting of fixed assets and discharge of partially used fixed assets are subject to approval by boards of directors, as per articles of association of affiliated companies. Acquisition and alienation of real assets by the affiliated companies, irrespective of its cost, is also subject to a decision by a respective board of directors. Real assets are sold through bidding at a market price. TVEL Corporation’s property management procedures ensure effectiveness and transparency of decisions being made on deals with fixed assets and are aimed at increasing the Corporation’s proceeds.

Chief Executive Officer
According to the Company’s Charter, basing on the decision of the general shareholders’ meeting (directive No 2366-r of June 29, 2007, by Rosimushchestvo) and the contract signed with the Company, the functions of Chief Executive Officer are performed by Company’s President Yuri Olenin. JSC TVEL President does not own the Company’s shares. According to the contract signed by the Company with the President of the Company, the President’s annualizing award is determined by a decision of the Board of Directors of the Company basing on financial and economic performance of the Company.

Internal control and audit
The Company’s financial and economic activities are controlled by the Auditing Commission. By decision No 4 of June 27, 2008, made by JSC TVEL’s sole shareholder, the Auditing Commission of four persons was elected as follows:

Galina Lysova – Chief Accountant of JSC Atomenergoprom,
Olga Zolotareva – Head of Division at JSC Atomenergoprom,
Vyacheslav Medvedev – Deputy Director of Department at JSC Atomenergoprom,
Oleg Linyaev – Head of Division at JSC Atomenergoprom.

Property management
In TVEL Corporation the property management is aimed at improving the structure and utilization effectiveness of fixed assets, including shares of affiliated and other business units, as well as real estate objects. The management covers both the JSC TVEL’s property and property of its affiliated companies. The management of shares of the business units is based on the corporate relations mechanism, as well as on in-house documents of TVEL Corporation which define interactions procedures of JSC TVEL and its affiliates in various areas of economic activities and operations. Most significant decisions regarding the fixed asset management are made by the general shareholders’ meeting (sole shareholder) and the Board of Directors of JSC TVEL within their competence. In affiliated companies the boards of directors have major part in their governance through the mandate to deal with essential issues of the affiliates’ operations, as formalized in their articles of association. Affiliates’ board of director meetings are prepared with the involvement of JSC TVEL’s structural divisions which work on materials to draft agendas and resolutions. The Corporation’s fixed asset management is carried out using the common database of fixed assets, including federal property in the use by JSC TVEL’s affiliated companies.
Dividend policy

The dividend policy of JSC TVEL and its affiliates and subsidiaries is made with the account taken of a need to invest in the production, modernization and improvement of the equipment. The sole shareholder has set up 25% of net profit as dividends to be paid by the Company.

Major transactions and interested party transactions

In 2008 JSC TVEL concluded no transactions termed by law the major transactions or interested party transactions.

Code of Conduct

TVEL Corporation is a “pilot ground” for deployment of the Code of Conduct of the State Atomic Energy Corporation Rosatom. Objectives to be accomplished through the deployment of ethics standards in the company’s activities are higher manageability, broader good practices, higher trust, and ability to settle conflicts in a constructive manner. The Code of Conduct is called for to set up basic principles of corporate, professional and business ethics, as well as key mechanisms of corporate governance to organize and control over practical implementation of these principles.

The developed standards of conduct are based on the IAEA recommendations, traditions of the industry and best practices of Russian and foreign companies.
The Corporation is pursuing the growth strategy to develop new productions:

1. Fabrication of conductors out of superconducting materials – setting up a production line of superconductors for ITER and further promotion of superconductors in the relevant sales market.

2. Fabrication of titanium rolled stock and sponge titanium – setting up a production line for titanium rolled stock and sponge titanium for industry needs.

3. Fabrication of hafnium – setting up a production of hafnium metal and hafnium concentrate for industry needs.

4. Fabrication of uranium products – combined strategy (refined uranium bars – retrenchment strategy (gradual reduction of output); uranium tetrafluoride – growth strategy (improvement of product competitiveness, larger sales, keeping up cost level, bringing the productions in compliance with existing regulations); depleted uranium products – growth strategy (broadening of the product list and larger sales).

5. Fabrication of calcium items – growth strategy (development of new technologies, seizing opportunities opened by the market).

6. Niobium production – growth strategy (increase in production capacity of the niobium production section to produce niobium blanks to support zirconium and superconductor production with feed).

7. Manufacture of zirconium items – growth strategy (improvement of quality, cost reduction, larger sales and market share, continuation of launched development programs), reduction of fuel channels output, increase in sales of zirconium dioxide and items thereof.

8. Energy efficiency – stability strategy (implementation of energy efficient technologies, reduction of costs, reduction of environmental releases).

9. Support of main productions – retrenchment strategy (partial giving up non-related activities: setting up affiliated companies, outsourcing).

These strategic goals are achieved through the implementation of an integrated development strategy comprised of separate business-related strategies:

1. Fabrication of fuel assemblies for power reactors:
   - VVER – growth strategy (improvement of product competitiveness, larger sales, bringing the productions in compliance with existing regulations).
   - RBMK – retrenchment strategy (gradual reduction of output).

2. Fabrication of fuel assemblies for research reactors – combined strategy (improvement of product competitiveness, larger sales, bringing the productions in compliance with existing regulations, gradual reduction of productions).

3. Fabrication of fuel assemblies for floating power reactors – growth strategy (larger sales, bringing the productions in compliance with existing regulations).

4. Manufacture of zirconium items – growth strategy (improvement of quality, cost reduction, larger sales and market share, continuation of launched development programs), reduction of fuel channels output, increase in sales of zirconium dioxide and items thereof.

5. Fabrication of uranium products – combined strategy (refined uranium bars – retrenchment strategy (gradual reduction of output); uranium tetrafluoride – growth strategy (improvement of product competitiveness, larger sales, keeping up cost level, bringing the productions in compliance with existing regulations); depleted uranium products – growth strategy (broadening of the product list and larger sales).

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8. Energy efficiency – stability strategy (implementation of energy efficient technologies, reduction of costs, reduction of environmental releases).

9. Support of main productions – retrenchment strategy (partial giving up non-related activities: setting up affiliated companies, outsourcing).
Main parameters of this new production strategy of TVEL Corporation are set forth in:
- “Strategic outlook: The companies development until 2030”;
- Integrated development programs of companies “New Image of Companies until 2020”;
- “Program for Productions Development and Cost Reduction until 2015”;
- “Plan of Measures to Reduce Process Space and Optimize Number of Staff until 2010”;
- “Main Areas of Technology Development and Backfitting of Enterprises in 2007-2009 and until 2020”.

These documents provide for concrete steps, including the implementation of new technologies and identifying financial resources, investment activities and human resources programs.

The development strategy of incorporated companies includes a number of sub-programs such as productions development and cost reduction program, nuclear and industrial sectors development program, as well as the program for development of investment sector, R&D and new technology deployment, and human resources development.

The task to form the New Image has intensified efforts of TVEL Corporation’s companies to restructure non-related assets, auxiliary and supporting facilities, and set up affiliated entities instead of respective structural divisions.

The objective of the separation of non-related assets and productions, which support main facilities, from the property portfolio is to reduce or avoid the burden of keeping them up, gain additional proceeds, and consolidate resources to solve key development issues of the affiliated companies of JSC TVEL and TVEL Corporation, as a whole.

The JSC Atomenergoprom’s management highly appraised good practices of TVEL Corporation in shaping a new image of its companies, diversifying the productions, optimizing work space, improving product quality, building up competitiveness in the domestic and foreign markets, and forming effective cooperation within the industry.

In 2008 TVEL Corporation continued implementing the strategic development tasks outlined in the Integrated Productions Development and Cost Reduction Program (New Image) and formalized in integrated development programs of JSC TVEL’s affiliated companies (approved by affiliates’ boards of directors and concurred with local administrations).

The implementation of the Integrated Productions Development and Cost Reduction Program in 2008 brought about RUB858-million benefit.
Restructuring of JSC TVEL's affiliates

Main areas:
• formation of a social platform for New Image
• optimization of working space
• headcount optimization
• restructuring of non-related assets
• implementation of new technologies
• optimization of process management
• energy conservation

Measures to achieve performance targets

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Wages</th>
<th>Average Number of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>100</td>
<td>100</td>
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<tr>
<td>2007</td>
<td>126</td>
<td>99</td>
</tr>
<tr>
<td>2008</td>
<td>169</td>
<td>81</td>
</tr>
<tr>
<td>2009</td>
<td>268</td>
<td>65</td>
</tr>
</tbody>
</table>

Comparative analysis of labor efficiency and average wages, % (against 2006)
Goals and targets of development for 2009 and in mid-term

In mid-term TVEL is faced by the following tasks:

Traditional areas:
• To continue the strengthening of relations with partners basing on the technology/leadership, quality and safety of products.

New areas:
• To brisk up the work on entering and rooting in promising sales markets of India, China, Japan and South Korea with ready-made fuel and its components.
• To continue entering the ready-made PWR fuel segment with TVEL-developed design (TVS-K) proceeding from the task of supplying the commercial fuel charge in 2015. In the light of this task, in 2009 it is necessary to finally identify partners and then start fuel licensing within the established timeframe.
• In 2009 the strategic partner is to be identified and a thorough study of the NRC licensing procedure will be carried out.

In the area “products sales in Western Europe” contracts on technical interaction were signed and project presentation was held at JSC NCCP.

In 2009 the deepening of the cooperation is to be continued, including the practical work to be started to formalize agreements with nuclear operators in Western Europe, as well as to study into a feasibility of alliances.

A certain progress has been achieved with Canadian AECL as regards the cooperation on zirconium components. Now, JSC CMP is being qualified as a pressure tubes producer; the qualification process is prepared with regard to calandria tubes. A lead batch of pressure tubes was already delivered to Canada.

In 2009 the JSC CMP qualification for operations with Canadian consumers will continue.

Also, JSC CMP may be qualified also for manufacture of TREX tubes for South Korean consumers who were sent a commercial proposal on supply of zirconium alloy blanks for PWR fuel in 2008.

In 2009 the work will continue to promote recovered uranium components in China, Canada and South Korea. By present, TVEL has announced its participation in the international project REUSE, which provides for the use of recovered uranium in CANUD fuel cycle. TVEL has a potential of supplying components for Canada-designed reactors to China and Canada. In addition, considerations on recovered uranium component supplies to South Korea will continue in 2009.

Josef Kovac, Director General, Paks NPP (Hungary):
“Past, present and future of Paks NPP are closely linked to the nuclear fuel supplier, TVEL, and its legal predecessor. Since Paks NPP commissioning, the components of nuclear fuel assemblies required for the plant operation have been supplied exclusively from the Russian source. High quality of products made by joint stock company TVEL, on the whole, has contributed to reliable and safe operation of Paks NPP. A proof of our cooperation is the fact that when in 2003 Paks NPP needed assistance, TVEL Corporation rendered a substantial support to the plant. This helped to solve the problem of loading damaged fuel into shrouds, and I would like to extend special gratitude for that to TVEL Corporation on behalf of our company.”

According to its development goals, TVEL Corporation is under transition from the human resource management in conditions of steady production to the human resource management in the situation where production is developing and growing along with product supplies.

To this end the Company has developed a system of key performance indicators (KPIs). It is a breakdown of mid-term strategic goals of SC Rosatom and allows monitoring of how main development indicators are achieved and creates reward mechanisms depending on whether the target values of indicators are achieved.

KPIs not only regulate the TVEL Corporation development process but also allow to ensure dependence of workers’ incomes on their labor outcomes that is formalized in the remuneration provisions and individual labor agreements.

The TVEL Corporation’s 42-indicator KPI system covers all management units headed by JSC TVEL vice presidents, as well as top managers of reporting production companies.

The building up the KPI-based management system is a priority in the human resource management of SC Rosatom, and in 2009 the remuneration system based on KPI results will be introduced at all companies incorporated in JSC TVEL. 

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Risk management, institutional control and audit

TVEL Corporation attaches great significance to the implementation of an integrated risk management system which embraces both the Company, affiliates and subsidiaries’ activities. In 2009 the plan is to further improve the risk management system in frames of the implementation of the TVEL Corporation’s Global Information System.

Stringent requirements set forth for nuclear power plant operation determine JSC TVEL’s absolute commitment to prevention of risks of failure to fulfill its obligations as regards scope, timeliness, quality and safety of nuclear fuel being supplied. This cornerstone position constitutes the backbone of the entire management system.

Secure and uninterruptible fabrication and supplies of nuclear fuel to users are ensured through adequate redundancy of production capacities and resources, as well as systemic management of hedging of potential risks which could affect the nuclear fuel fabrication process.

Ossi Koskivirta, Vice President, Fortum Concern (Finland): “Fortum Concern and its predecessor, Imatran Voima Oy, has long-standing relations both with JSC TVEL and its predecessors and nuclear fuel fabrication plants in Russia. It should be noted that the Russian fuel has been always notable for its high quality that is confirmed by the absence of leaking fuel at Loviisa NPP over 9 years.”

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Management techniques

Investment management
1. Political risks

Decisions on compensation for certain political risks associated with limitations on importation of foreign nuclear material to the country and exportation of enrichment services from the Russian Federation are worked on with the support of SC Rosatom.

In particular, JSC TVEL broadens its participation in international scientific programs and international scientific organizations.

The Company is involved in international negotiations and work to develop mechanisms protecting from imposition of restraints.

2. Economic risks

Commercial risks of JSC TVEL arising in connection with supplies of nuclear fuel to Russian and foreign customers are characterized by acceptable values.

To compensate for commercial risks, the Company strives to retain the leadership in technology in traditional areas and builds up stable, mutually beneficial relations with clients on this basis.

Management of risks associated with uncompetitive price of fuel supplied to an importing country includes programs for the reduction of production, economic and transaction costs.

Financial risks associated with changes in interest rates, currency exchange rates and inflation have a strong upward trend, though their degree cannot produce critical influence on financial indicators of JSC TVEL’s operations in conditions of further development of the corporate structure of the nuclear complex.

Investment risks, including in the course of implementation of large-scale projects in accordance with the JSC TVEL’s Investment Memorandum, are managed through the monitoring of innovative and investment processes at the stages of project development and review, construction preparation, construction and installation works, startup and commissioning of production facilities.

3. Social risks

Social risk management includes measures related to staff incentives, wage raise and improvement of social protection of employees of JSC TVEL and its affiliated companies, including provisions for non-governmental pension support, as duly approved by governing bodies of incorporated companies.

JSC TVEL is planning to produce regular reports on social responsibility and corporate sustainability using world’s best practices while improving the reporting structure to make it more representative for the Company’s stakeholder environment.

4. Technological risks

Technological risks of JSC TVEL and its affiliated companies are determined by the nature of operations, i.e. fabrication and supplies of nuclear products and may affect reliability, continuity and safety of processes. Technological risks are kept well below permissible values. Management of technological risk reduction is carried out primarily using binding decisions, consistent implementation by the Company of policies in the field of technical retrofitting, environmental protection, radiation, nuclear and industrial safety, as well as quality improvement policy.

5. Environmental risks

In JSC TVEL the environmental risk management includes the implementation of decisions on ensuring environmental, radiation and nuclear safety of employees of enterprises and public residing near nuclear fuel cycle facilities.
These decisions are based on principles of mindful use of nature, preservation of nature in the course of industrial activities, rehabilitation of land, improvement of radiation monitoring system and work conditions of the personnel. Decisions related to protection of the environment and health of JSC TVEL affiliates’ employees are drafted and implemented by special engineering units which include laboratories of nuclear safety, environmental protection, radiation safety, as well as occupational safety divisions and technical supervision groups.

6. Legal risks
Amendments and supplements which have been made and are planned to the Russian legislation on the uses of atomic energy will produce a positive effect as regards the improvement of economic stability of the nuclear power and industry complex. At present, risks associated with legal regulation of JSC TVEL’s activities are considered low.

The Company is not involved in court proceeding which could substantially affect its economic activities.

Possible liability for third party debts cannot produce a serious impact to the Company’s financial and economic activities.

The institutional control and audit of financial and economic activities is carried out by a special structural division.

In the period reported the following areas were targets of JSC TVEL’s institutional audit:

1. Financial and economic activities of affiliated and subsidiary companies of JSC TVEL with 7 respective audits carried out.

2. Financial and economic activities of JSC TVEL with 8 respective audits carried out.

3. Assessment of business plans of newly set up affiliated companies; 12 business plans assessed.

4. Participation in auditing committees of JSC TVEL’s affiliates and drafting statements on results of financial and economic activities and annual accountancy (financial) of affiliates for 2007. Nine such statements of auditing committees were drafted.

5. Other activities: analysis of market value of shares and market value of buildings; analysis of contracts; consultancy on financial and economic activities of JSC TVEL and its affiliated companies.

Quality management
TVEL Corporation has operated the Corporate Quality Management System which is certified by TÜV CERT as conforming the requirement of international standard ISO 9001. The system covers the entire cycle of design, development, manufacture, storage, supply and science and technology support of utilization of fuel assemblies and reactor core components.
1. The Corporate Quality Management System (CQMS) certificate was confirmed for JSC TVEL, JSC MSZ, JSC CMP, JSC NCCP and JSC TVEL-INVEST.

The CQMS covers the entire cycle of design, development, manufacture, storage, supply and science and technology support of utilization of fuel assemblies and reactor core components.

2. The work to develop and implement the Corporate Environment Management System (CEMS) is carried out.

The CEMS is one of the elements of the integrated corporate management system for quality, environment and safety based on international standards.

3. Databases and problem sets were developed with regard to the analysis of RBMK nuclear fuel fabrication and operation.

A system of access to and information exchange between databases on fabrication and operation of nuclear fuel for VVER-440, VVER-1000 and RBMK reactors at different companies (facilities) is being developed.

A real-time quality monitoring system is expected to gradually introduce in 2008-2009.

4. Action plans to optimize in-process inspections, including the implementation of statistical methods to ensure stability of powder and pellet fabrication processes and deployment of new automatic inspection equipment for sizes and appearance of pellets and component parts and weld inspection are being implemented.

This work is in line with main areas of technology development and backfitting in 2007-2009 and until 2020.

5. JSC TVEL ensured product quality in full compliance with all requirements set in nuclear fuel supply contracts.

Customers had no claims as regards quality of ready-made products in the course of supervision, inspection and acceptance at the manufacturers' and incoming inspections.

6. Activities of the program “Metrology – TVEL, 2006-2008” planned for 2008 were implemented.
Information technologies

In 2008 the work continued on the project “Development of the Corporate Information System” which is to support achievement of business goals facing the JSC TVEL management as well as the information and analytical decision-making on strategic and operative management.

The project “Development of the Corporate Information System” is a set of interlinked projects that includes projects on the levels of the Corporation and Companies.

The works being done at the level of the Corporation include the development of an integrating information system, corporate data transfer network, basic data management system, and information protection system. The company tier comprises the work to deploy information systems of enterprises which information then will be sent to JSC TVEL and compiled in the integrating information system.

The following was accomplished in the frames of this project in 2008:

1. Project “Development of the Basic Data Management System (BDMS)”: basing on IBM WebSphere Product Center, key documents were developed and approved, such as:
   - A uniform methodology for standardization and categorization of material handbooks and the Corporation’s enterprises.
   - An application concept of the Material and Equipment Resources Reference Book in the corporation-wide procurement process.
   - The work was started to accomplish the second stage of integration of the enterprises’ information systems and BDMS using the Materials Reference Books being compiled in the course of resources applications placement;

2. Project “Development of the Corporate Data Transfer Network (CDTN)”: installation was completed. The CDTN is ready for operation; it is planned to be qualified against 1G security requirements.

3. Project “Development of the JSC TVEL Integrating Information System (IIS)” on the basis of mySAP Business Suite: the system tests were completed in the production management and consumption of feed given on commission sections. The work is underway with JSC NSZ, JSC CNP and JSC NCCP as to get the system ready for pilot operation which is to start in February 2009.

4. Project “Development of TVEL Corporation Information Protection System”: the qualification of IT infrastructure of JSC TVEL and JSC TVEL-INVEST against 1G security requirements was completed.

5. Project “Development of the JSC NCCP Information System” on the basis of mySAP Business Suite software: the system sections implemented are the production planning, material flow management, sales management, finance management, fixed assets management, accounting and taxes, and controlling. Integral tests are carried out.

6. Project “Development of the JSC MSZ Information System” on the basis of mySAP Business Suite software: the preparation for launching the project was carried out taken account of lessons learnt from the system deployment at JSC CMP and JSC NCCP. The system technical requirements were drafted.

7. Project “Development of the JSC TVEL-INVEST Information System” on the basis of mySAP Business Suite software: follow-up was carried out on the implemented and put into operation system with functioning sections for the production planning, material flow management, sales management, finance management, fixed assets management, accounting and taxes, and controlling; human resources management and document flow.

8. Project “Improvement of the JSC CMP Information System” on the basis of mySAP Business Suite software: follow-up was carried out on the implemented and put into operation system with functioning sections for the production planning, material flow management, sales management, finance management, fixed assets management, accounting and taxes, and controlling; human resources management and document flow.

In line with JSC Atomenergoproekt’s policy, the Company participated in corporation-wide projects being implemented at the nuclear power and industry complex’s enterprises:

1. Development of JSC TVEL IT concept,
2. In frames of the project “Development of the Corporate Regulatory and Reference Information System of Nuclear Power and Industry Complex (CRRIS NPC)” terms of reference were written regarding TVEL Corporation’s BDMS integration with CRRIS NPC,
3. In frames of the project “Development of NPC Intranet” the terms of reference was approved for JSC TVEL’s nod within this network.

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Crisis management

The Russian Federation Government Commission’s resolution on improvement of sustainability of the Russian economy development put JSC TVEL on the list of systemic companies.

This does not mean that such company will enjoy a guaranteed financial support. Here, the main objective is to maintain stability of such companies through instruments of credit and other available measures, such as governmental orders, customs and tariff policies etc.

TVEL Corporation implemented the following to prevent consequences of the financial and economic crisis:

- Programs for optimization of work space, headcount; restructuring of non-related, ancillary and supporting structural divisions
- Rigid resource saving and assessments of economic expediency of spending on services and goods
- Centralized decision-making which affects flow of material assets and workforce transfers
- Personal responsibility of division heads for versatility of knowledge and competences
- Updating of in-house regulations on budgeting, financing and investing
- System of drafting new deals and planning of contracts where mediators, agents and outsourced subcontracting are excluded to a maximum possible degree
- Revision of the Corporation investment programs’ priorities
- Corporate regulations on project management
- A committee for strategic development and investment policy.

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JSC TVEL's marketing activities

TVEL Corporation's products are one step ahead of competitors

Olga Kravets, Vice President, NAEC Energoatom (Ukraine):

"In recent years TVEL Corporation has moved far in terms of engineering innovations, i.e. many new promising designs have been developed and fuel becomes more economical and reliable from year to year. We are offered the complete fuel array which meets customers’ needs, i.e. ensures reliable operation of our nuclear power plants, and in this regard we are absolutely satisfied with the fuel being fabricated by TVEL Corporation."

JSC TVEL's marketing activities are aimed at solving the strategic task of the Corporation, i.e. the building-up and developing sustainable relations with traditional partners on the basis of technological leadership, as well as promoting TVEL Corporation’s products in new sales markets.

Company’s marketing goals and means

Marketing activities based on mutually beneficial cooperation with partners and aimed at maximum meeting of their needs are one of the main tools of achieving the Company’s strategic goal. Recently, JSC TVEL has cooperated with its partners in following areas:

- uprating of reactors
  - In 2008 the reactor uprating program was started in Russia (Balakovo NPP). In Slovakia (Mohovce and Bohunice NPPs) the program to uprate reactors to 107% was launched.
  - In the Czech Republic (Dukovany NPP) the program to uprate reactors to 105% commencing 2009 was started. The uprating to 108% is carried out at two reactors of Paks NPP in Hungary.
- increasing capacity factor and transition to 18-month fuel cycle
  - In 2008 the program was started to shift to 18-month cycles at Balakovo-1 to cover then other reactors of the plant and other plants with VVER-1000 reactors.
- transition to 5-year and 6-year fuel campaigns
  - In Russia this transition has started at Kola NPP and Kalinin-1. Also, this work is carried out in the Czech Republic (Temelin and Dukovany NPPs), Slovakia (Bohunice and Mohovce NPPs), Hungary (Paks NPP) and Finland (Loviisa NPP).
- possibility of the fuel operation in the load-following mode 100-75-100%
  - This has been achieved at Dukovany and Temelin NPPs (the Czech Republic) and Mohovce and Bohunice (Slovakia). In Ukraine (Khmelnytskyi NPP) a reactor started operating in the daily load-following mode. The capability of daily load-following in a broad range will be implemented in AES-2006 design for which JSC TVEL is designing the fuel.
- improvement of quality of fuel assemblies maintenance
  - The development of a rig for fuel assembly inspection and repair is nearing completion in Russia. Fuel disassembly capabilities have been provided in Finland (Loviisa NPP). A TVSA inspection rig is planned to build in frames of the TVSA fuel development and implementation in the Czech Republic (Temelin NPP). A fuel assembly inspection rig is expected to develop in Bulgaria (Kozloduy NPP).
For JSC TVEL the key regional product sales areas are CIS (including Russia) and Central/Eastern Europe. In addition, JSC TVEL is actively expanding to the dynamically developing Asian region. In cooperation with AREVA the fuel is supplied to markets of Western Europe.

CIS Region

In the area Russia is the largest regional segment.

At present, Russia operates 10 NPPs with 15 VVER reactors (nine VVER-1000s and six VVER-440s), 11 RBMK-1000 reactors, 4 EGP-6 reactors and 1 R BN-400 reactor.

Ukraine is the second top regional segment in terms of number of reactors in CIS. The country operates 4 NPPs with 15 reactors: 13 VVER-1000s and 2 VVER-440s. Two reactors are supplied until the end of their operating life. Other 13 reactors are supplied under the contract signed in 1997.

In 2008 first moves were made to shift the cooperation to a new qualitative level, i.e. the cooperation in fabrication of nuclear fuel components. In 2008 the Licensing Agreement was signed to transfer fuel assembly head and tail pieces manufacturing technology to Ukraine.

In future it is planned to set up a joint venture to fabricate nuclear fuel to Russian designs in Ukraine. In 2008 a draft Memorandum of Understanding between SC Rosatom and the Ministry of Fuel and Energy of Ukraine concerning the establishing a nuclear fuel
Copper 63,546

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concerning supplies of the profiled uranium-gadolinium fuel of the second generation which would allow operating the reactors at an increased, 108% thermal power.

Bulgaria operates one nuclear power plant (Kozloduy) with two VVER-1000 reactors (4 VVER-440 reactors were shutdown). The nuclear fuel is supplied under the contract valid until the end of reactors’ service lives. In 2008 JSC TVEL signed the contract concerning the follow-up of the KASKAD code operation at Kozloduy, as well as an annual workshop on the nuclear fuel deployment and operation experience at this plant was held under the JSC TVEL aegis.

Finland operates two reactors of the Russian design, VVER-440, at Loviisa nuclear power plant. The fuel is supplied on the basis of contracts dated back to 1971 and 1973 and valid until 2027 (1-st reactor) and 2030 (2-nd reactor). In 2008 the uranium-gadolinium fuel of an average enrichment of 4.37% was supplied to Loviisa.

Lithuania operated 1 RBMK-1500 reactor. The 1998 contract provides for the supplies until the end of its operation. The reactor is slated for shutdown in the end of 2009.

Western Europe Region

In frames of the cooperation with AREVA the TVEL Corporation-produced fuel is supplied to 7 reactors of western design. The commercial relations with AREVA are based on the umbrella contract which fixes commitments to supply fuel to Beznau NPP (Switzerland) until 2020, Goesgen NPP (Switzerland) until 2016 and Gundremmingen NPP (Germany) until 2012. In 2008 a contract was signed which provides for fuel pellets supplies to Sizewell B NPP (UK) in 2010-2011.

Asian Region

The Asian region is one of the most promising for nuclear. Countries of this region have ambitious nuclear generation development programs. TVEL Corporation is consistently building up its presence in Asia and a springboard for further expansion.

China operates two reactors of the Russian design (VVER-1000). Supplies are carried out on the basis of the contract signed in 1998 and valid until March 2010.

Southeast Asia

In 2008 JSC TVEL and Pako NPP signed the contract concerning supplies of the profiled uranium-gadolinium fuel of the second generation which would allow operating the reactors at an increased, 108% thermal power.

Central/Eastern Europe Region

Slovakia

In Slovakia there were 2 nuclear power plants (Bohunice and Mihovice) in operation in 2008; they comprised 5 VVER-440 reactors (a total of 6, one reactor was shutdown in the end of 2006 and another one in the end of 2008). Fuel supplies are carried out under the contract signed in 2003. In November 2008 JSC TVEL signed contractual documents for integrated nuclear fuel supplies to all Slovak reactors in 2011-2015, as well as the Option Agreement setting the principles of cooperation beyond 2015 and providing for fabrication of nuclear fuel for all existing and planned for commissioning reactors of the Russian (Soviet) design. JSC TVEL made a proposal to build an assembling facility to its Slovak partners.

Czech Republic

The Czech Republic operates 2 nuclear power plants of the Russian (Soviet) design which run 6 VVER reactors (4 VVER-440s (Dukovany) and 2 VVER-1000s (Temelin). Dukovany is supplied under the contract valid until the end of 2013 with an extension option until 2018. Temelin’s supplies are contracted until 2020 under the contract signed in 2000. In 2008 Czech nuclear power plants were actively implementing the upgraded fuel that will significantly improve plant performance of our partners. For instance, Dukovany received the first batch of uranium-gadolinium fuel of the second generation; this will allow the plant operating at an increased thermal power rate (105%) commencing 2009. The TVSA-T fuel assembly licensing program for Temelin NPP was underway. Also, JSC TVEL signed contractual documents with the Czech partners as to the use of feed on commission to fabricate fuel assemblies for Temelin.

Hungary

Hungary operates one nuclear power plant (Paks) with 4 VVER-440 reactors. The fuel is supplied in accordance with the contract signed in 1999 covering the period until the end of the reactors’ operating life. In 2008 JSC TVEL and Pako NPP signed the contract concerning supplies of the profiled uranium-gadolinium fuel of the second generation which would allow operating the reactors at an increased, 108% thermal power.

Bulgaria

Bulgaria operates one nuclear power plant (Kozloduy) with two VVER-1000 reactors (4 VVER-440 reactors were shutdown). The nuclear fuel is supplied under the contract valid until the end of reactors’ service lives. In 2008 JSC TVEL signed the contract concerning the follow-up of the KASKAD code operation at Kozloduy, as well as an annual workshop on the nuclear fuel deployment and operation experience at this plant was held under the JSC TVEL aegis.

Finland

Finland operates two reactors of the Russian design, VVER-440, at Loviisa nuclear power plant. The fuel is supplied on the basis of contracts dated back to 1971 and 1973 and valid until 2027 (1-st reactor) and 2030 (2-nd reactor). In 2008 the uranium-gadolinium fuel of an average enrichment of 4.37% was supplied to Loviisa.

Lithuania

The country operated 1 RBMK-1500 reactor. The 1998 contract provides for the supplies until the end of its operation. The reactor is slated for shutdown in the end of 2009.

Western Europe Region

In frames of the cooperation with AREVA the TVEL Corporation-produced fuel is supplied to 7 reactors of western design. The commercial relations with AREVA are based on the umbrella contract which fixes commitments to supply fuel to Beznau NPP (Switzerland) until 2020, Goesgen NPP (Switzerland) until 2015 and Gundremmingen NPP (Germany) until 2012. In 2008 a contract was signed which provides for fuel pellets supplies to Sizewell B NPP (UK) in 2010-2011.

Asian Region

The Asian region is one of the most promising for nuclear. Countries of this region have ambitious nuclear generation development programs. TVEL Corporation is consistently building up its presence in Asia and a springboard for further expansion.

China

China operates two reactors of the Russian design (VVER-1000). Supplies are carried out on the basis of the contract signed in 1998 and valid until March 2010.
India
In India there are two VVER-1000 reactors. Supplies are carried out on the basis of the contract valid until the reactor operating lives. In 2008 the initial core charge and first reload were supplied for both reactors.

Iran
In near future Iran will put on line the first reactor of Bushehr NPP (VVER-1000). The contract was signed for 10 refuelings. In 2008 the initial core charge was supplied to Bushehr-1.

Research reactor fuel
JSC TVEL considers supplies of research reactor fuel as a contribution to the world science and provision of cutting-edge technologies to the world in strategic plane. In 2008 the cooperation with all customers in the research reactor fuel market continued. The fuel was supplied to research reactors Maria (Poland), VVR-M (Ukraine). Also, contracts were signed for nuclear fuel supplies in 2009 to Bulgaria (JRT-2000) and the Czech Republic (JWR-35).

World nuclear fuel market
The world nuclear fuel market has two dimensions: regional and reactor-type-wise. At present, 441 nuclear reactors are operated worldwide.

Largest segments of the world nuclear fuel market are North America (USA, Canada, and Mexico) with 126 reactors and Western Europe (Belgium, Finland, France, Germany, Lithuania, the Netherlands, Spain, Sweden, Switzerland, and the United Kingdom) with 131 reactors.

In Asian Region (India, China, Japan, Pakistan, South Korea, Taiwan) there are 112 reactors in operation. Given ambitious plans of nuclear generation development in China, India and, similarly, Japan and South Korea, the number of reactors could double in this region by 2030.

In Russia and Eastern Europe (Russia, Armenia, Bulgaria, the Czech Republic, Hungary, Romania, Slovakia, Slovenia, and Ukraine) there are 65 reactors.

And lastly, four power reactors are operated in South America (Argentina and Brazil) and two more in Africa (South Africa).
**Distribution by reactor types (%)**

<table>
<thead>
<tr>
<th>RUSSIAN (SOVIET) DESIGN</th>
<th>PWR</th>
<th>PHWR</th>
<th>BWR</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel for VVERs (Russian design). 52 reactors in operation. A feature of VVER fuel is its hexagonal geometry.</td>
<td>48.8</td>
<td>21.3</td>
<td>15.7</td>
<td>9.7</td>
</tr>
<tr>
<td>Fuel for PWRs. 46 reactors in operation. A feature of this fuel is that it utilizes unenriched uranium.</td>
<td>45.5</td>
<td>15.7</td>
<td>17.6</td>
<td>10.6</td>
</tr>
<tr>
<td>Fuel for BWRs. 54 reactors in operation. Basic dimensions are 9x9 and 10x10 with a trend to standardize dimensions to use 10x10 fuel in such reactors.</td>
<td>48.8</td>
<td>21.3</td>
<td>15.7</td>
<td>9.7</td>
</tr>
<tr>
<td>Fuel for PHWRs (western design). 213 reactors in operation. This segment features the largest number of standard dimensions: 14x14, 15x15, 16x16, 17x17, 18x18. The most common is 17x17. In future a share of this fuel will grow since exactly this fuel is considered in designs of new water-water reactor tecnologies.</td>
<td>45.5</td>
<td>15.7</td>
<td>17.6</td>
<td>10.6</td>
</tr>
</tbody>
</table>

According to JSC TVEL’s information, the nuclear fuel market is divided, in terms of reactor types, as follows:

- Fuel for PHWRs. 46 reactors in operation. A feature of this fuel is that it utilizes unenriched uranium.
- Fuel for BWRs. 54 reactors in operation. Basic dimensions are 9x9 and 10x10 with a trend to standardize dimensions to use 10x10 fuel in such reactors.
- Fuel for PWRs (western design). 213 reactors in operation. This segment features the largest number of standard dimensions: 14x14, 15x15, 16x16, 17x17, 18x18. The most common is 17x17. In future a share of this fuel will grow since exactly this fuel is considered in designs of new water-water reactor technologies.

AREVA SA. Major shareholder is the state. Nuclear fuel market share is 30%.

We acknowledge a trend is observed to enrich uranium for PHWRs up to 1.5-2%.

AREVA SA is an affiliated company of the JSC Atomic Energy Power Corporation (JSC Atomenergom KB) which is a vertically integrated public holding that consolidates civil assets of the Russian nuclear industry. JSC TVEL is the sole supplier of fuel for reactors of the Russian design. It also fabricates fuel with recovered uranium for Western Europe PWRs and BWRs in cooperation with AREVA. Thus, it can be said that TVEL Corporation is present in all segments of the nuclear fuel market for light-water reactors to a greater or lesser degree.

In near term TVEL Corporation is planning to broaden its presence in the PWR segment through the promotion of its own design of PWR 17x17 fuel – TVS-KVADRAT, and through deepening the cooperation with foreign companies. The PWR fuel segment has been selected as the most widely represented in the world with 213 reactors running on this fuel of which 132 reactors utilize 17x17 fuel.

1 Recently, a trend is observed to enrich uranium for PHWRs up to 1.5-2%.
2 Early 2009 Siemens announced its intention to leave the JV.
International cooperation

Dr. Shreyans K. Jain,
Chairman & Managing Director
of Nuclear Power Corporation
of India Limited:
“Contract with TVEL Corporation
signifies another landmark
in the relationship between NPCIL
and Russian Companies
in furthering the role of nuclear power
as a clean generating technology.”

Participation in the ITER
International Project

In 2008 the innovative project to set up a
production line for superconducting materi-
als at JSC CMP continued to support the ful-
fillment of the Russian commitments under
the International Thermonuclear Experimen-
tal Reactor (ITER) Project.

In February 2008 the ITER Interna-
tional Organization raised its requirements
for physical parameters of Nb₃Sn-based
superconducting strands. The critical current
value was set as 190 A that is equivalent to
the critical current density of 720 A/mm².
The changes in technical parameters of the
superconducting strand required updating of
the technology developed by VNIM.

In 2010–2013 commercial batches of
Nb₃Sn and NbTi strands for the ITER mag-
netic system will be produced.

The Nb₃Sn- and NbTi-based superconductor
production at JSC CMP is the only in Russia.

The task that is facing JSC TVEL and
JSC CMP is the diversification and com-
mmercialization of the superconducting ma-
terials production for other areas of science
and technology.

Low-temperature superconductors’
most common applications are supercon-
ducting magnets which are used as com-
ponents in medical tomography, diagnostic
equipment, energy accumulators and
current limiters.
Priorities

Innovations are the basis of TVEL Corporation’s production strategy

Fuel assemblies for power reactors

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>VVER-1000</td>
<td>1324</td>
<td>1273</td>
<td>1299</td>
</tr>
<tr>
<td>VVER-440</td>
<td>1916</td>
<td>1796</td>
<td>1877</td>
</tr>
<tr>
<td>RBMK-1000-1500</td>
<td>3210</td>
<td>3230</td>
<td>3428</td>
</tr>
<tr>
<td>BN-600</td>
<td>246</td>
<td>282</td>
<td>226</td>
</tr>
<tr>
<td>EGP-6</td>
<td>144</td>
<td>144</td>
<td>144</td>
</tr>
<tr>
<td>Research reactor fuel assemblies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL:</td>
<td>6742</td>
<td>6890</td>
<td>7199</td>
</tr>
</tbody>
</table>

Nuclear technologies and products

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>VVER–1000</td>
<td>1324</td>
<td>1273</td>
<td>1299</td>
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<tr>
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<td>1916</td>
<td>1796</td>
<td>1877</td>
</tr>
<tr>
<td>RBMK–1000,–1500</td>
<td>3210</td>
<td>3230</td>
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<td></td>
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</tr>
<tr>
<td>TOTAL:</td>
<td>6742</td>
<td>6890</td>
<td>7199</td>
</tr>
</tbody>
</table>

JSC TVEL • 2008 • ANNUAL REPORT

Paolo Ruzini, Director General and Chairman of the Board, Slovenské elektrárne, a.s. (Slovakia):

“I have fully ascertained that we work with a really reliable partner who is keeping with the times, has highly competent staff and state-of-the-art equipment. TVEL Corporation has bright prospects.”

In 2008 JSC TVEL met its plans for purchasing feedstock and materials, intermediate products, component parts and fabrication of fresh fuel fully and as planned. This ensured fulfillment of contractual commitments for nuclear fuel which was supplied as per required quality, product listing and timeliness.

The nuclear fuel feed is supplied on the basis of long-term contracts signed with companies of SC Rosatom.

Actual fuel assembly production in 2006–2008 is given in the Table below.

In 2008 no nuclear material control and accounting violations reportable as “anomaly” were recorded at JSC TVEL’s enterprises.

According to directive of the Russian Federation Government No 1207-r of August 18, 2008, the Federal Technical and Export Control Service of Russia duly granted a general license to JSC TVEL for export of uranium of not more than 5% (with uranium-235) enrichment as fresh (non-irradiated) reactor fuel from the Russian Federation to the Republic of Armenia, the Republic of Bulgaria, the Republic of Hungary, the Republic of Lithuania, the Slovak Republic, Ukraine, the Republic of Finland and the Czech Republic.

TVEL Corporation’s main products are fuel assemblies for power and research reactors.

In 2008 JSC TVEL met its plans for purchasing feedstock and materials, intermediate products, component parts and fabrication of fresh fuel fully and as planned. This ensured fulfillment of contractual commitments for nuclear fuel which was supplied as per required quality, product listing and timeliness.

The nuclear fuel feed is supplied on the basis of long-term contracts signed with companies of SC Rosatom.
Development of the Russian TVS-KVADRAT design

In 2002 JSC TVEL launched a project to develop a fuel assembly design for PWRs, i.e. TVS-KVADRAT. This process uses best achievements and latest developments of the VVER fuel. As a result, the Russian PWR fuel design not only sits tight with western analogues but even runs ahead in a number of technical characteristics. In particular, the assembly utilizes an engineering solution for the skeleton and spacers which avoids fretting wear in TVS-KVADRAT. Maximum burnup per fuel rod approaches 72 MW*days/kgU. Geometry of TVS-KVADRAT is stable.

The project implementation will improve the market potential and increase sales, as well as help to retain and strengthen TVEL Corporation’s positions in the nuclear fuel market.

The TVS-KVADRAT engineering design included an extensive work, in particular:

• TVS-KVADRAT design was developed using the patented spacer;
• An analysis of rigidity and strength properties of TVS-KVADRAT as a whole and its elements was carried out;
• Neutronics was calculated for different fuel cycles;
• Thermal hydraulic substantiation was done;
• An engineering design of the fuel rod for TVS-KVADRAT was developed;
• TVS-KVADRAT behavior in design basis accident conditions was assessed;
• Mechanical, pressure and life tests of full-scale mock-ups of TVS-KVADRAT were carried out.

The TVS-KVADRAT design for PWRs uses fuel of uranium dioxide added with gadolinium (UO₂ + Gd₂O₃) of 5.0% enrichment with regard to ²³⁵U.

TVS-KVADRAT fabrication lines were set up at TVEL Corporation’s enterprises. At present, the design is being prepared for licensing in the United States and Europe. Topical reports are being drafted for review by national regulators along with licensing of Russian alloys, computer codes and methodologies. The ultimate goal will be approvals granted by national regulatory authorities (the U.S. NRC in the USA) for the operation of the Russian fuel assemblies in PWR reactors.

Industrial products

According to the 2008 results, TVEL Corporation’s industrial product sales in the domestic and foreign markets amounted to RUB5.6bn (107% of the target). This includes US$14m sales of calcium and US$9m sales of lithium products in markets of Western Europe, the USA and South Korea.
Investment activities

To achieve the set goals and objectives, TVEL Corporation develops and upgrades its production capacities. Investment projects are broken up into five areas accordingly to the manufactured products and in line with the investment policy of JSC Atomenergoprom.

**Area 1:** Programs of the development of nuclear products manufacture, achievement and maintaining the world level of nuclear fuel fabrication.

The program provides for:
- the development of new nuclear product fabrication processes, such as the full cycle of fabrication of nuclear fuel for floating nuclear power plants, fabrication of fuel for BN-800 reactor;
- the design of equipment and development of the technology for fabrication of fuel with 7% enrichment with 235U, upgrading of the production line for profilied fuel rods for RBMK reactors and development of adjustable fuel rod process lines;
- the development of zirconium production: refurbishment of the zirconium production (Phase Two); refurbishment of the zirconium rolling section.

The program implementation will help to:
- develop production of new items for floating nuclear power plants, small power NPPs, and BN-800;
- fabricate upgraded nuclear fuel with improved parameters;
- shift to more economical fuel cycles;
- increase installed capacities;
- produce competitive, high quality products;
- retain competitive advantages;
- reduce production costs.

Main projects in this area are:

1. Development and modernization of fuel assembly production capacities at JSC MSZ and JSC NCPP;
2. Setting up the TVS-KVADRAT fabrication line;
3. Development of precision casting capacities for fuel assembly component parts;
4. Development and modernization of zirconium production capacities at JSC CMP.

In 2008 investments amounted to RUB 5.220bn; the 2009 plan is RUB 4.971bn.

**Area 2:** Programs of the development of non-nuclear production.

The TVEL Corporation’s investment policy related to industrial products is set to achieve target indicators of the New Image.

The program provides for:
- the development of diversified processes which generate additional profit covering a part of fixed costs and compensating for profitability drops when the main productions work load is temporarily low (2010-2011);
- placing additional orders for industrial products, additional work load for the main productions and, by this, reduction of some fixed costs attributed to the main products.

Main projects in this area are:

1. Development of calcium production by aluminothermy technique at JSC MSZ;
2. Setting up and testing of titanium production at JSC CMP;
3. Setting up of superconducting material production at JSC CMP.

In 2008 investments amounted to RUB 753m, the 2009 plan is RUB 603m.

**Area 3:** Programs of the infrastructure, engineering utilities and social facilities development.

The program provides for:
- the modernization of power supply that will allow deploying modern, more reliable equipment, implement energy conservation solutions and computer-aided energy metering systems;
- the refurbishment of water intake and recirculation systems, which will allow reducing iron contents in artesian water, set up the closed cycle of recirculation water supply, and extend the equipment service life;
- the implementation of the corporate information system which will improve quality of management, optimize working assets, reduce inventories, and reduce the work-in-process by plant-wide order-wise planning;

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In 2008 investments amounted to RUB 753m, the 2009 plan is RUB 603m.
Innovations and scientific achievements

*Integration of science and production is the basis of the country’s innovation-based growth*  
V.V. Putin

**Investment targets**

The development and deployment of a new chlorine technology for processing of zirconium concentrates providing for separation of zirconium and hafnium and impurity trapping in the zirconium production process. The deployment of the magnesium-based thermal technique to fabricate sponge zirconium. The deployment of new forging and rolling equipment to produce zirconium-alloy cladding tubes and component parts. When being used in fuel assemblies, products made of zirconium alloys using the new technologies will improve performance indicators of fuel operation at nuclear power plants owing to low hafnium content (up to 50 ppm) and increase fuel burnup.

The development and implementation of the technology and Russian design equipment to produce uranium dioxide powders basing on the recovery pyrohydrolysis technique (RPT). The development and implementation of the dry technology for fabricating pellets using pallets for placing the pellets. The assimilation of the first commercial-scale automated rig for pellet outer surface inspection. The implementation of non-aqueous technologies for fabrication of uranium dioxide powder (RPT) and fuel pellets significantly reduces impact to the environment and enhance quality of the end products.

The implementation of new, adjustable process line to fabricate fuel rods for VVER-1000 and VVER-440 reactors; this includes the deployment of two-channel installations to inspect fuel column and the welding machine fitted with a process parameters recorder.

The development of technology for bundling fuel rods at new automated lines which allow assembling bundles with different pitch between spacers and controlling forces applied in the course of assembling. The automation of main and inspection operations improves a consumer’s confidence in quality of fabricated fuel.

The manufacture of stainless steel end pieces and component parts of fuel assemblies using the precision casting technique. The newly set up section will supply not only nuclear fuel productions but also other industries.
Production enterprises

High production standards are a guarantee of TVEL Corporation products competitiveness

JSC MSZ and JSC NCCP have over half a century experience in nuclear fuel fabrication. At present, these enterprises are Russia’s leading producers of this product for nuclear power plants of Russia and foreign countries.

JSC Mashinostroitelny Zavod (JSC MSZ)

JSC MSZ is one of the largest enterprises of the Russian nuclear industry. Plant No 12 (former name of JSC MSZ) was established in 1917 to produce ammunition and converted to fabricate nuclear fuel in 1945 having become the first industrial facility within the system of the First Main Department of the Council of People’s Commissars of the USSR to implement the “atomic project”.

The core of JSC Mashinostroitelny Zavod’s production program is nuclear fuel which is fabricated and supplied as fuel assemblies for different types of power reactors (VVER-440, VVER-1000, RBMK-1000, RBMK-1500, BN-600, EGP-6, PWR), ship-propulsion reactors of the Russian fleet and research reactors.

Along with nuclear fuel for nuclear power plants the plant produces calcium granules and chips.

The enterprise has operated a production line of anisotropic ferrite-strontium magnet of various geometry for many years. At present, it has developed productions of magnets based on neodymium-iron-boron alloy.

It has developed a production line of highly thin-walled tubes made of corrosion resistant steel and alloys for fuel rods and fuel assembly components for power reactors and machine engineering applications.

JSC Novolipetsk Chemical Concentrates Plant (JSC NCCP)

JSC NCCP is one of the largest enterprises of the Russian NFC which produces nuclear fuel for power and research reactors, as well as lithium and its compounds. The plant was established in 1948.

It is a state-of-the-art automated complex of chemical and machine engineering lines producing fuel for nuclear power plants (key product is the fuel for VVER-1000 reactors), research and production reactors.

The enterprise has developed a large-scale process for fabrication of lithium products.
The plant supplies control rods to 42 reactors of Russian and foreign nuclear power plants, including countries such as Ukraine, Lithuania, Bulgaria and China.

The plant’s products are used at nuclear power plant being built in China, Iran and India.

The production capacities, competent staff, expertise and traditions of the plant do not let it be satisfied with what has already been achieved and urge to successful implementing of new types of products and further development of productions.

JSC Chemical-Metallurgical Plant (JSC ChMP)

Krasnoyarsk Chemical-Metallurgical Plant was established by a resolution of the Council of Ministers of the USSR in 1956.

The plant produces lithium and alkali metal (potassium, cesium, rubidium, gallium) compounds, construction lime, chalky flour, and limestone.

In frames of the technical and technological development the plant has improved its lithium production line. Lithium hydroxide is used in glasswork, manufacture of water-resistant lubricants, and electrolyte for alkaline storage batteries.

The company renders services to TVEL Corporation’s enterprises in the areas of design, construction, and commissioning of production and non-production facilities in a centralized manner.

JSC TVEL-LEASING

The company has allowed consolidating leasing operations within TVEL Corporation and expanding capabilities of the enterprises as to renew their main production assets.

JSC Chepetsky Mechanical Plant (JSC CMP)

JSC CMP is the only plant in Russia which produces zirconium, zirconium-based alloys, as well as items of nuclear grade zirconium alloys, natural and depleted uranium, calcium metal and its compounds.

The enterprise was established in 1946. It has developed and mastered unique technologies for production nuclear grade zirconium, binary and composite zirconium alloys, including rolled zirconium tubes and sheets and items thereof which are used not only in nuclear industry but also in chemical, oil and gas, food industries and medicine.

The enterprise has leading positions in Russia as regards the nuclear fuel based on natural uranium and is one of the world largest calcium producers.

Natural uranium products are ingots, uranium metal powders, uranium oxide and uranium tetrafluoride.

It is the only enterprise in Russia which has unique equipment for making superconductors based on niobium-titanium and niobium-tin alloys which will be used in coils of toroidal and poloidal magnetic fields of the ITER fusion reactor, the largest international project of the future.

JSC Moskov Composite Materials Plant (JSC MCMP)

Since 1960 JSC MCMP has been the lead company for the design and manufacture of control rods for power reactors VVER-1000, RBMK-1000/1500, BN-600, research and production reactors, as well as propulsion reactors for ships and special-purpose marine vessels.

JSC MCMP was established in 1932 and was one of the first enterprises to join the Ministry of Medium Machine Engineering of the USSR.

The plant supplies control rods to 42 reactors of Russian and foreign nuclear power plants, including countries such as Ukraine, Lithuania, Bulgaria and China.

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Enterprises of supporting infrastructure

JSC TVEL-STROY

The company renders services to TVEL Corporation’s enterprises in the areas of design, construction, and commissioning of production and non-production facilities in a centralized manner.

JSC TVEL-INVEST

The company is the centralized material and equipment supplier which supports operations of production enterprises within TVEL Corporation.

JSC TVEL-Leasing

The company has allowed consolidating leasing operations within TVEL Corporation and expanding capabilities of the enterprises as to renew their main production assets.

JSC Commercial Center 100

The Center is responsible for shipments, responsible storage of goods and leasing for TVEL Corporation’s enterprises.
Financial management and key results

Key financial indicators in 2006-2008 (mn RUB)

Actual financial indicators in 2008 “net profit” and “net assets value” take account of results of the acquisition of JSC ARMZ shares.

Comparison of financial indicators in 2006-2008 (mn RUB)

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales proceeds</td>
<td>28 526</td>
<td>27 203</td>
<td>31 961</td>
</tr>
<tr>
<td>Net profit</td>
<td>3151</td>
<td>5926</td>
<td>34 881</td>
</tr>
<tr>
<td>Net assets value</td>
<td>30 203</td>
<td>34 881</td>
<td>65 248</td>
</tr>
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</table>

Financial indicators

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Actual value in 2006</th>
<th>Recommended value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity to Total Assets</td>
<td>0,69</td>
<td>Equal or more than 0.5</td>
</tr>
<tr>
<td>Current assets to own turnover means coverage ratio</td>
<td>0,38</td>
<td>Equal or more than 0.1</td>
</tr>
<tr>
<td>Inventory to own turnover means coverage ratio</td>
<td>0,52</td>
<td>0,5–0,7</td>
</tr>
<tr>
<td>Own-equity mobility ratio</td>
<td>0,29</td>
<td>0,3–0,5</td>
</tr>
</tbody>
</table>
JSC TVEL Accounting Report

JSC TVEL Accounting Report (ths. RUB)

Profit and Loss Account (ths. RUB)

<table>
<thead>
<tr>
<th>I. Non-current assets</th>
<th>As of beginning of 2008</th>
<th>As of end of 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uncompleted construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profitable investments in material values</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term financial investments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other non-current assets</td>
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<td></td>
</tr>
<tr>
<td>TOTAL of Section I</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>5,000</td>
<td>12,696,193</td>
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<table>
<thead>
<tr>
<th>II. Current assets</th>
<th>As of beginning of 2008</th>
<th>As of end of 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Including tangible current assets involved</td>
<td></td>
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<tr>
<td>Account receivable</td>
<td></td>
<td></td>
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<tr>
<td>Cash and short-term financial investments</td>
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<td></td>
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<tr>
<td>TOTAL of Section II</td>
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<tr>
<td></td>
<td>9,046,069</td>
<td>25,802,092</td>
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<table>
<thead>
<tr>
<th>III. Capital and reserves</th>
<th>As of beginning of 2008</th>
<th>As of end of 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equity capital</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undistributed profit of past years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL of Section III</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10,713,925</td>
<td>34,848,161</td>
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<table>
<thead>
<tr>
<th>IV. Long-term liabilities</th>
<th>As of beginning of 2008</th>
<th>As of end of 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL of Section IV</td>
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</tr>
<tr>
<td></td>
<td>30,925,614</td>
<td>58,793,782</td>
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<thead>
<tr>
<th>V. Liabilities</th>
<th>As of beginning of 2008</th>
<th>As of end of 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounts payable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL of Section V</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5,825,539</td>
<td>18,949,689</td>
</tr>
</tbody>
</table>

Auditors’ statement
Notes to JSC TVEL’s 2008 financial statements

1. The Company’s activities in the period reported. An analysis of the financial standing and results of 2008

In the period reported the assets increased by RUB1,928.8m (80.53%), including:

• Growth of non-current assets by RUB33,305.2m (262.32%), with the largest growth under headings:
  
  “Long-term financial investments” – by RUB30,435.3m (427.30%),
  “Fixed assets” – by RUB1,438m (116.64%),
  “Uncompleted construction” – by RUB1,631.6m (61.58%).

The current assets growth in the period reported showed RUB8,623.5m (21.90%). In the period reported, due to different growth rates of non-current assets (262.32%) and current assets (21.90%), the investment structure significantly changed towards the growth of non-current assets (capitalization of investments). A share of non-current assets grew from 24.39% to 48.94%, mainly at the expense of increased financial investments resulted from the acquisition of shares of JSC Akmersmedmetizoloto and the receipt of shares of JSC MCMP and JSC CMP from the parent company as payment for the additional issue of JSC TVEL’s shares.

In the period reported, the growth of the Company’s property by RUB1,928.8m (80.53%) was due to increments of:

• own funds by RUB29,582.5m (84.89%),
• borrowed funds (loans, accounts payable) by RUB12,063.1m (72.33%).

As of December 31, 2008, the own capital was RUB64,430.6m. The period reported showed an upward trend for long-term and short-term loan capital (loans, accounts payable).

The growth of own funds (84.89%) outpaces the growth of attracted (borrowed) funds (72.33%).

As of the end of 2008, JSC TVEL’s own capital was RUB64,430.6m. Its share of RUB46,501.7m forms non-current assets (capital investments). The own funds in turnover amount to RUB18,429.2m. Since the rate of own capital (84.89%) is behind the rate of growth of the non-current assets (262.32%), own funds in turnover reduced by RUB3,722.8m as compared to 2007.
The recommended ratio values are met though with a downward trend. The growth of deficit of own funds in turnover, while the need in financing source growths, leads to larger loans.

The ready assets of RUB16,548.1ths (cash, short-term financial investments and end product inventories) cover short-term loans of RUB 28,154.5th by 58.8%.

** Demonstrate a share of liabilities that can be written off with cash on bank accounts, quick securities and settlement gains.
** Demonstrate a share of short-term accounts payable that can be written off with cash on bank accounts and quick securities.

### 2. Basic provisions of the Company’s accounting policies

The accounting policy is formed in accordance with accountancy and reporting standards established by the legislation and accountancy and reporting provisions of the Russian Federation.

The policy adopted in 2008 has been consistently implemented from one reportable year to another; similar provisions were in effect in 2007 as well, and are planned to apply in future.

The purchased property is valued through summing up factually incurred buying expenditures; the free-of-charge property is valued basing on its market value as of the writing in date; the property produced by the Company is valued basing on its cost of production; the property received as a contribution to the equity capital is valued using a cash value agreed upon by shareholders.

The initial value of property received under contracts, which provide for non-cash payments, is determined proceeding from the value of assets transferred or subject to transfer by the Company. Value of such assets is established basing on the price the Company uses to determine value of similar assets in comparable circumstances.

In 2008 no changes were made to the accountancy policy that could substantially affect the financial standing, cash flows or financial results of the Company (regarding the year reported and each other period which data are on accountancy for the reported year).

### 2.2. Accountancy of non-tangible assets

The useful life of non-tangible assets is determined by a Company’s working

### Quick assets ratio

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Standard</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quick assets ratio</td>
<td>Within (0.6–0.7)</td>
<td>0.21</td>
<td>0.25</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td>Absolute liquidity ratio</td>
<td>Within (0.05–0.1)</td>
<td>0.02</td>
<td>0.03</td>
<td>0.09</td>
<td></td>
</tr>
</tbody>
</table>

### Profitability indicators

<table>
<thead>
<tr>
<th>ITEM</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability of sales by sales revenues</td>
<td>0.17</td>
<td>0.23</td>
<td>0.21</td>
</tr>
<tr>
<td>Assets profitability</td>
<td>0.10</td>
<td>0.16</td>
<td>0.44</td>
</tr>
<tr>
<td>Own capital total profitability</td>
<td>0.15</td>
<td>0.24</td>
<td>0.65</td>
</tr>
</tbody>
</table>

### Solvency ratios

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>Standard</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profitability</td>
<td></td>
<td>0.23</td>
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<tr>
<td>Absolute liquidity ratio</td>
<td>Within (0.05–0.1)</td>
<td>0.02</td>
<td>0.03</td>
<td>0.09</td>
</tr>
</tbody>
</table>

### Solvency ratio values are met though with a downward trend.

### Profitability of sales by sales revenues

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Net assets value</td>
<td>30,203,210</td>
<td>34,881,234</td>
<td>65,248,401</td>
</tr>
</tbody>
</table>

Over the entire history of the Company, the net assets dynamics has been positive.

The purchased property is valued through summing up factually incurred buying expenditures; the free-of-charge property is valued basing on its market value as of the writing in date, the property produced by the Company is valued basing on its cost of production, the property received as a contribution to the equity capital is valued using a cash value agreed upon by shareholders.

The initial value of property received under contracts, which provide for non-cash payments, is determined proceeding from the value of assets transferred or subject to transfer by the Company. Value of such assets is established basing on the price the Company uses to determine value of similar assets in comparable circumstances.

In 2008 no changes were made to the accountancy policy that could substantially affect the financial standing, cash flows or financial results of the Company (regarding the year reported and each other period which data are on accountancy for the reported year).

### Accountancy of non-tangible assets

The useful life of non-tangible assets is determined by a Company’s working
2.3. Accountancy of fixed assets

Fixed assets are put on books at their initial value which is taken as a sum of factual expenditures of their acquisition, construction and manufacture, excluding the added value tax and other recoverable taxes (except for cases outlined in the Russian Federation legislation).

In accounting statements the fixed assets data are given as their residual values.

Values of fixed asset objects are written off through depreciation charged linearly proceeding from the initial value of fixed assets and depreciation rate calculated taking account of the useful life of this object. No depreciation applied to non-tangible assets with indefinite useful life.

The useful life of fixed assets is determined when an object is put on books, and is fixed in an object transfer/acceptance record.

Assets, which meet criteria of attributing to the fixed assets but of a value that is not greater than 20,000 RUB per item, are put on books as inventories.

Objects subject to mandatory state registration of property right which meet criteria of attributing to the fixed assets but with respective property rights that have not been duly registered, are accounted for as fixed assets separately commencing the date the documents for the state registration have been submitted. Depreciation of such objects is calculated in accordance with the general procedure starting from the month that follows the month of the object commissioning.

Changes to the initial value of fixed assets at which they were put on books for accountancy are allowed only in cases of construction extension, placing additional equipment, reconstruction, and partial liquidation of fixed asset objects.

The Company does not do revaluation of fixed assets.

Repairs of fixed assets are accounted for through putting factual expenditures on general business expenses as repairs proceed.

Depreciation of fixed asset objects being leased is calculated by the lessor or lessee depending on whose books, as set in the leasing contract terms, these objects are on during the entire validity period of the leasing contract.

2.4. Formulation of research and development expenses

R&D expenses are shown in books within investments in non-current assets on a separate sub-account of account 08 “Investments in non-current assets”.

R&D expenses to be written off as regular expenditures commencing the 1-st commission when an object is put on books, and is fixed in an object transfer/acceptance record.

Non-tangible assets which useful life cannot be confidently determined are considered non-tangible assets having indefinite useful life.

The useful life is annually checked for necessary updates.

Value of non-tangible objects is written off through depreciation charged linearly proceeding from the initial value of non-tangible assets and depreciation rate calculated taking account of the useful life of this object. No depreciation applied to non-tangible assets with indefinite useful life.

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2.6. Formulation of profits
Proceeds from regular activities include:
• gains from sales of nuclear fuel and non-nuclear end products;
• receipts associated with paid transfer of rights arising from patents for inventions, commercial specimens and other types of intellectual property;
• receipts associated with temporary leasing and ownership of own assets under leasing agreements;
• trade operations;
• commissions.

2.7. Formulation of costs
In the end of the period reported (month) a sum of general economic and commercial expenses is charged off the reduction of proceeds from sales of products (works, services) as semi-fixed costs. Incomplete factual production cost of a calculation object (order, complete delivery, listed products) is calculated in a systemic way. The Company sets up reserves to ensure safety of most nuclear and radiation hazardous processes, as per the Russian Governmental Decree No 576 of 21.09.2005.
The Company credits the income due on debentures in accordance with contracts signed and shows among other profits. A respective amount of the debt payable to the Company on debentures is included in the respective other debentures.

2.9. Financial investments

Financial investments are divided into short-term and long-term depending on the planned period of their use.

The accountancy of financial investments is carried out with regard of each investment item.

Financial investments are accounted for proceeding from their initial value that includes all expenses irrespectively of the amount incurred.

Debt securities which current market value cannot be determined are accounted for basing on their initial value over their circulation period. The difference between the initial value and nominal cost of the said securities is charged off to financial results when the securities are written off.

Financial investments which current market value can be duly determined are shown in accounting statements, as of the reported quarter of the year, basing on their current market value through the adjustment of their valuation shown in accounting statement as of the preceding date.

When financial investments, which current market value can be determined, are written off, their value is determined proceeding from the latest valuation.

When financial investments, which current market value cannot be determined, are written off, their value is determined proceeding from the initial value of each financial investment item accounted for.

The Company renders interest payable or franchise on notes payable among other costs of those periods the accrued interest is attributed to.

The Company renders long-term debts on received credits and loans the short-term one at the point where 365 days remain before the return of the principal under the credit or loan agreement.

Additional costs incurred by the Company in relation to receipt of credits and loans, including cost of legal services; expert reviews; payment of taxes and dues (as provided by the legislation); payment of other similar costs are included in other costs of that period reported when these costs were incurred and without prior accounting as accounts receivable.

The Company reports interest payable or franchise on notes payable among other costs of those periods the accrued interest is attributed to.

Costs of the period they were incurred, excluding their part subject to inclusion in the investment asset value.

The Company renders long-term debts on received credits and loans the short-term one at the point where 365 days remain before the return of the principal under the credit or loan agreement.

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The Company credits the incomes due on debentures in accordance with contracts signed and shows among other profits. A respective amount of the debt payable to the Company on debentures is included in the respective other debentures.
In addition, heading 150 shows expenses of uncompleted R&D as RUB683,347th and advance payments effected for R&D as RUB1,211th.

Financial investment valuation is given in the Accounting Statement basing on the acquisition cost of respective assets.

The provision towards depreciation of financial investments in 2008 was not made.

The Company does not have real estate objects which have been newly commissioned and are in use or are in process of the state registration.

In 2008 JSC TVEL’s current assets grew to amount to RUB8,623,512th or + 21.9%.

The Company does not have inventories or material values in collateral.

Over 2008 the Company’s equity capital grew by 87,000 rubles owing to an additional issue of shared and amounted to RUB6,311th, as of 31.12.2008.

The Company’s equity capital is divided into 6,311,368 common nominal shares of a nominal price of 1 (one) ruble each.

According to the Russian Presidential Decree No 556 of 27.04.2007 “On the Restructuring of Nuclear Power and Industry Complex of the Russian Federation”, all shares of JSC TVEL were transferred to the equity capital of the open-type joint stock company Atomic Energy Power Corporation. The shares were placed and fully paid for.

### 3. Notes on substantive headings of Accounting Statement and Profit and Loss Statement

#### 3.1. Notes on separate accounting headings

<table>
<thead>
<tr>
<th>Results by activity</th>
<th>Remainder as of January 1, 2008</th>
<th>Received in 2008</th>
<th>Written off in 2008</th>
<th>Remainder as of December 31, 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>568 115</td>
<td>183 770</td>
<td>364 816</td>
<td>97 016</td>
</tr>
<tr>
<td>Development</td>
<td>176 129</td>
<td>98 453</td>
<td>163 347</td>
<td>111 255</td>
</tr>
<tr>
<td>Technology development</td>
<td>73 944</td>
<td>45 945</td>
<td>70 210</td>
<td>43 670</td>
</tr>
<tr>
<td>TOTAL</td>
<td>818 186</td>
<td>238 177</td>
<td>544 422</td>
<td>241 941</td>
</tr>
</tbody>
</table>

JSC TVEL • 2008 • ANNUAL REPORT
In 2008 the provision towards doubtful accounts receivable was not made, as of annual inventory-taking results. Substantive accounts uncollectible that should be shown in the accounting statement of the Company, with the provision extracted under the prudence concept, were not revealed.

To support the attracted loans, the Company concluded property right pledge agreements (pledge of the right to receive hard currency proceeds from export contracts) with a crediting bank, JSC Gazprom-bank to a total amount of RUB6,268,212 (heading 960 of the Accounting Statement).

Diluted earnings per share were not calculated due to absence of cases of:

a) the Company's placing common shares without their payment commitments that does not affect distribution of profit between shareholders;

b) placement of additional common shares at a price below the market price.
The Company’s proceeds from and financial results of sales of goods, products and services in 2008 can be represented as segment-wise data:

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>Sales proceeds (ths RUB)</th>
<th>Operation’s share, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Nuclear fuel fabrication</td>
<td>46 914 163</td>
<td>30.3</td>
</tr>
<tr>
<td>2. Fabrication of fuel for production reactors</td>
<td>991 069</td>
<td>1.9</td>
</tr>
<tr>
<td>3. Fabrication of pilot batches of superconductors</td>
<td>562 051</td>
<td>1.1</td>
</tr>
<tr>
<td>4. Production of uranium hexafluoride</td>
<td>3 057 465</td>
<td>5.8</td>
</tr>
<tr>
<td>5. Leasing</td>
<td>414 414</td>
<td>0.8</td>
</tr>
<tr>
<td>6. Trading operations</td>
<td>274 815</td>
<td>0.5</td>
</tr>
<tr>
<td>7. Agency operations</td>
<td>12 468</td>
<td>0.1</td>
</tr>
<tr>
<td>8. Other operations</td>
<td>234 245</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Geographically, the proceeds are distributed as follows:
- Russian NPPs – 15 944 432 ths RUB (34.4%),
- Ukrainian and Armenian NPPs – 15 980 154 ths RUB (34.4%),
- NPPs in Eastern Europe and Lithuania – 9 855 059 ths RUB (21.2%),
- Chinese NPPs – 1 221 546 ths RUB (2.6%),
- Iranian NPP – 780 511 ths RUB (1.7%),
- Indian NPPs – 2 632 441 ths RUB (5.7%).
5. Events occurred after 31 December 2008
(events after the reporting date)
According to the decision by JSC Atomenergoatom, the sole shareholder of JSC TVEL, No 3 of 28.04.2008, JSC TVEL’s equity capital was increased through the placement of additional 661,711 shares (notification on the operation completion in the JSC TVEL’s register No 0956-TaO-09/SVR-0026 of 19.12.2008).
Changes to the Company’s Charter were registered on February 25, 2009, as per the Entry Certificate of the Unified State Register of Legal Entities, series 77 No 011902319 of 25.02.2009.
After the said event the JSC TVEL’s equity capital amount to 6,962,539 rubles that is to be reported in 2009.

6. Conclusion
Basing on the Company’s activity results in 2008, a general upward trend of the grand total, substantial growth of net assets, equity capital profitability growth may be considered positive. A general conclusion is that:
• the Company’s assets are sufficient to cover its current operation expenditures in mid-term, however, the limit value of short-term committed loans approached in terms of assurance of current liquidity;
• ratios describing the Company’s financial standing in 2008 exceed permissible critical values;
• the Company is sufficiently stable in terms of finance without any threat of insolvency.
For 2009 the following KPI set was developed for JSC TVEL:
- amount of export proceeds,
- export orders portfolio for nuclear fuel supplies during 5 years,
- amount of proceeds from non-nuclear product sales,
- amount of investment resource,
- amount of fixed costs reduction,
- labor efficiency growth,
- safety criterion – absence of personnel exposures in excess of 50 mSv per year.

The KPI set and their values-determining procedure for 2009 were decomposed by TVEL Corporation management and brought to each affiliate and subsidiary’s notice. Results of meeting the established KPI values are reflected in the personnel incentives system, including senior executives of affiliates and subsidiaries within TVEL Corporation.

The KPI system allowed TVEL Corporation to rank management priorities targeted to effective conduct of business as regards fabrication and supplies of nuclear fuel in accordance with requirements dictated by the reforming of the nuclear industry.

Conclusions of the Auditing Commission:
In 2008 the accounting was carried out in accordance with the Provisions for Accounting in RF as approved by Minfin of Russia.

The Accounting (financial) report is compiled in accordance with the existing legislation.

The net profit of the Company in 2008 subject to distribution is confirmed in the amount of 29,925,614 ths RUB.

The data of the Company’s annual report as regards financial and economic activities in 2008 are confirmed taking account of the positive statement granted by the Auditors (OOO Nexia Pacholi, auditing license granted by Minfin of Russia No Е000733 of 25.06.2002, valid until 25.06.2012)

Chairman of the Auditing Commission:
Oleg Linyaev

Auditing Commission members:
Galina Lysova
Osara Zolotareva
Vyachsew Mirzadev

20 April 2009, Moscow
CORPORATE RESPONSIBILITY

5 Hidrosphere
HR management
We value success of each employee!

The HR policy is determined by the task of improvement of products and services competitiveness in the world market.

The main goal of the Corporation’s HR policy is to meet the needs of enterprises in competent staff interested in the business results of the Corporation.

The HR policy’s basic principle is the effective use of knowledge, skills, and expertise of employees in the interests of development of TVEL Corporation and employees themselves, as well as ensuring continuity of competences and skills.

The HR management is carried out basing on the principles of meeting the law, safety culture, corporate and professional conduct, social responsibility with the account taken of strategic priorities of TVEL Corporation and personal interests of each employee.

In TVEL Corporation the HR management is carried out in the following areas:
- building up a remuneration system which motivates higher labor efficiency, competitiveness of products, works, and services, achievement of higher competence and lead in mastering new technologies;
- the use of objective appraisal criteria which encourage workers to improve quality of working in team and individually;
- building up of a training system which ensures transfer of knowledge, professional perfection and awareness of workers of all issues within their competences;
- assistance of age-related discrepancies, development of tutorship, social and moral support of young specialists;
- recruitment and training of staff reserve of highly qualified specialists for promotion to managerial positions (administrative and technical);
- development of social policy and social partnership system in the Company;
- organizational reforms to optimize and use in a reasonable manner the available staff potential, ensuring of fast response of all companies within the Corporation to market demands.

Programs of effective development of affiliated companies were launched in frames of TVEL Corporation’s HR policy implementation. The cost optimization represents one of such programs. It targets to the growth of real profits through higher labor efficiency and cost reduction.

As of the end of 2008, the Corporation’s accountable staff was 16,294 persons that is 25.6% less than in 2007.

The staff size reduction was a result of the committed work to restructure and reform enterprises, centralize support units, optimize management tiers, convert non-related processes into affiliated companies and legal entities of other types. The affiliates and outsourced activities listed in 42.7% of dismissed staff, with 28.2% retired.

In 2008 JSC PIMCU was removed from the list of TVEL Corporation. Now the staff categories can be represented as follows: basic workers – 26.8%, auxiliary workers – 36.9%, non-industrial staff – 1.9%, specialists – 21.5%, managers – 12.5%, clerks – 0.4%.

A HR department’s priority is to create an age-balanced team of the company. This approach facilitates transfer of unique knowledge, technologies and traditions.

In the Corporation the staff turnover is low, on the whole, and facilitates timely team renewal.

The HR management is carried out in the following areas:

- building up a remuneration system which motivates higher labor efficiency, competitiveness of products, works and services, achievement of higher competence and lead in mastering new technologies;
- the use of objective appraisal criteria which encourage workers to improve quality of working in team and individually;
- building up of a training system which ensures transfer of knowledge, professional perfection and awareness of workers of all issues within their competences;
- assistance of age-related discrepancies, development of tutorship, social and moral support of young specialists;
- recruitment and training of staff reserve of highly qualified specialists for promotion to managerial positions (administrative and technical);
- development of social policy and social partnership system in the Company;
To improve work effectiveness, real well-being, create conditions of social protective-ness of employees and stability of the team, TVEL Corporation is implementing social programs:

1. Program “Health Care”,
2. Housing Program,
3. Motherhood and Childhood Support,
4. Social Support of Veterans,

The Health care program has become the main constituent of the employment benefits. This program includes:
- Voluntary medical insurance of workers and veterans;
- Industry injury insurance;
- Vouchers for treatment at health resorts;
- Rehabilitation in the company’s health centers;
- Allocation of fund for better nutrition of workers in hospitals;
- Health improvement of workers’ children at resorts and health centers.

Housing programs of affiliated companies are of great importance for both young and experienced workers. Investments in new housing, reconstruction of living communities, financial support in paying mortgage interests, company’s guarantees to get loans, granting of loans to buy housing: these are constituents of programs aimed at improvement of housing conditions of the Corporation’s employees.

The non-governmental pension sup-port of employees is becoming popular. For the employees it provides an opportu-nity of having a decent living after retire-ment, and the company is benefiting owing to reduction of competent staff turnover.

Such programs are in effect nearly at all enterprises of the Corporation embracing over 12,000 people.

The care of veterans is a tradition being maintained by the Corporation. Veterans are rendered social support, such as welfare assistance, free and partially paid resort vouchers, and free medical care through additional medical insurance.
Costs of training, bringing up competent specialists, as well as retraining and annual advanced training of the personnel at TVEL Corporation amounted to over RUB65m in 2008 and covered more than 10,000 persons.

Contests run under TVEL Corporation aegis
1. Contest of engineering and R&D solutions (categories in JSC TVEL corporate awards),
2. Professional skills contest “The Best in Profession at TVEL Corporation”,
3. Professional skills contests at TVEL Corporation’s affiliated companies,
4. Annual science and technology conferences of young employees of TVEL Corporation’s affiliates,
5. Children’s art contest among children of TVEL Corporation’s employees (in frames of the Russian-Ukrainian Information Commission),

Training and advanced training
The advanced training, professional training and retraining of the personnel have always been and remain a priority among other tasks of TVEL Corporation’s HR policy.
To provide for training of engineers and attract young specialists – students and graduates of higher education establishments and colleges – the work is underway with the educational institutions to arrange for such relevant education and training.

In spite of the wide geography of educational institutions, TVEL Corporation interacts with, the main human resources sources are regional higher and intermediate education establishments. In case of JSC MI2, it is the Ivanovo State Energy University and Ivanovo State University of Chemical Technology; for JSC CMP it is the Ural and Uzhok State Technical Universities; and for JSC NCCP it is the Tomsk Polytechnic University and several State Academy of Technology.

Respectively, workers and technicians are hired out of graduates of regional intermediate education establishments:
- Moscow Regional Polytechnic College;
- Siberian Polytechnic College;
- Elektrostal Branch of the Moscow College of Management and New Technologies;
- Glazov Polytechnic College.

To attract and retain graduates, all enterprises have developed and put into effect provisions for additional payments (personal surcharges) to young specialists. Personal scholarships are paid to students of institutes and colleges. College students do probation in shops of the enterprises. Graduates of higher education establishments do probation and pre-graduation practice in structural divisions of affiliated companies and write graduation papers on topics associated with respective companies’ operations. In 2008 the probation in the Corporation’s affiliated companies was organized for 950 students of higher and intermediate education establishments.

When hired, young specialists are given rooms in youth and family hostels, interest-free loans to improve housing conditions, and allowance assistance.

The youth policy includes:
- Contests for “The Best Young Employee of the Company”, “The best in Profession”, “The Best Tutor of Young Specialists”, and “The Best Young Team” awards,
- Dedication to young workers,
- Tours to enterprises, familiarization with history and latest production achievements;
- Regular meetings with management and veterans of the enterprise;
- Conferences, workshops and trainings for young employees;
- Youth festivals, tourist rallies, sports competitions, and evening parties;
- Meetings of young specialist teams of enterprises, experience exchanges;
- Youth corporate newspaper.

Youth policy

Continuity of generations in transfer of critical knowledge is a HR policy priority at TVEL Corporation

The task of attracting and retaining young people is of utmost importance for TVEL Corporation. Young people are primarily interested in wage rates, opportunities of improving their housing conditions and welfare assistance in the first instance at work. All these concerns are being addressed.
Higher education establishments training specialists for TVEL Corporation

Intermediate vocational education establishments training specialists for TVEL Corporation
The New Image program is carried out in a close contact with regional authorities, local administrations and non-governmental organizations. The program is aimed at improvement of economic performance of TVEL Corporation’s enterprises that affect economies of these regions and cities.

Some employees of affiliated companies take part in regular work of and forming state executive and local administrations.

TVEL Corporation takes active part in social and educational aspects of hosting regions. In 2008 it continued implementing programs in the area of regional development, housing loans, pension support, health care, education, culture and sports. The enterprises support orphanages and education institutions in Glazov, Elektrostal and Novosibirsk on an ongoing basis.

Development of local communities

Nuclear industry will create new jobs, raise prestige of nuclear cities

TVEL Corporation pays increased attention to the development of potential of cities, which host its production facilities, and sustainable development of their ecosystems. TVEL Corporation responsibility expands to raising positive perception of its affiliates-hosting cities as a necessary condition of development of hosting territories.

Key enterprises of TVEL Corporation are located in Elektrostal (Moscow Region), Glazov (the Republic of Udmurtia), and Novosibirsk.

In 2008 the Russian Public Opinion Research Center (VCIOM) carried out a poll among personnel of TVEL Corporation’s enterprises that included studies on workers’ attitudes to situation in various social spheres of their cities (health care, education, employment, pension and social support, housing and public utilities, environment, and attitudes to local authorities, leisure).

The poll resulted in the TVEL Corporation management’s decision to intensify the dialogue with local administrations as regards the strategy and development prospects of the cities, the start of systematic work to improve perception of the cities by the general public. This laid the basis for developing special programs “My City – My Facility”, “First Step towards Atomic Project” and the start of city-wide sports and culture events.

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Safety and security

Safety of the entire production cycle is an essential condition of TVEL Corporation development.
Nuclear and radiation safety, nuclear nonproliferation

Radioactivity is a natural phenomenon that serves man.

JSC TVEL’s nuclear and radiation safety assurance policy is based on ruling out nuclear and radiation accidents, improving nuclear safety parameter controls in processes and radiation monitoring, as well as reduction of radioactive waste generation.

“Nuclear nonproliferation” is ensured through the improvement of systems for control and accounting of nuclear materials and nuclear fissile materials.

In 2008 no safety and permissible parameters established by federal nuclear and radiation safety regulations were exceeded; no events reportable under accident and occurrence categories of the International Nuclear Event Scale (INES) were recorded.

At TVEL Corporation’s enterprises an average annual effective dose to the personnel is at a sufficiently low level (0.004-0.005 sieverts) of 25% of the guideline and does not exceed the permissible values set forth by the law “On the Radiation Safety of the Public” (No 3-FZ of January 9, 1996).

The law “On the Radiation Safety of the Public” stipulates:
- For the general public an average annual effective dose should be 0.001 sieverts or a lifetime dose (70 years) of 0.07 sieverts; in certain years higher effective dose values are permissible provided an average annual effective dose over five sequential years does not exceed 0.001 sieverts;
- For workers an average annual effective dose should be 0.02 sieverts and effective dose over the labor activity period (50 years) should be 1 sievert; it is permissible to be exposed to an annual effective dose of up to 0.05 sieverts provided an average annual effective dose over five sequential years does not exceed 0.02 sieverts.

Similar guidelines are followed in France, Germany, the United Kingdom and other European Union countries. The USA has not adopted the new guidelines and sticks to the old value for workers of 0.05 sieverts.
Environmental impact

Sustainable development of hosting region ecosystems is a traditional priority of TVEL Corporation.

The impact produced by TVEL Corporation enterprises’ operations on the environment fully meets guidelines established for them by Rostechnadzor.

Occupational safety

For us above all is Man, happy and confident in himself and future

Occupational safety issues are an essential constituent of production activities. JSC TVEL has always focused on improvement of labor conditions and its safety and considered it as one of social tasks of utmost importance. Production enterprises are making efforts to arrange for safe and healthy labor conditions (planning and funding of various labor protection measures, occupational safety briefings and training, occupational hygiene etc.). The occupational safety and labor conditions improvement measures are carried out to consistently reduce occupational injuries.

This value is more than 5 times better than at Russian enterprises.
As a comparison, in 2008 the frequency factor was 3.0 in average for Russia (Russian Labor Inspectorate’s expert data).
Improvement of environmental education of general public is a key condition of Nuclear Renaissance
Current costs of environmental protection, ths RUB

Improvement of environmental education of general public is a key condition of Nuclear Renaissance

- clean-up of radiation-contaminated territories;
- elimination of radiation-contaminated buildings and structures left after that period and have not been used for a long time.

Environmental certificates and/or plans to obtain them

The solving of environmental problems is linked to the establishing of the corporate environment management system conforming to requirements of international standard ISO 14001.

TVEL Corporation’s key enterprises – JSC MSZ, JSC NCCP and JSC CMP – have certificates of conformance of their environment management systems to international standard ISO 14001:1996.

At present, JSC TVEL is setting up an integrated corporate quality, environment and safety management system which is based on requirements of international standards ISO 9001, ISO 14001, OHSAS 18001, IAEA GS-R-3, GS-G-3.1 aiming at continuous production safety improvement.

Environmental programs and other initiatives

JSC TVEL’s environmental policy is based on principles of continuous reduction of:
- adverse impacts to the environment;
- generation of all types of waste.

The work is carried out to eliminate the legacy of the “period of creation of the USSR nuclear shield” (1945-1980):
Technologies of Laser and Centrifuge Separation of Uranium Isotopes” attended by representatives of TVEL Corporation, JSC Techsnabexport and leading scientific centers of the country, such as RRC Kurchatov Institute and Research Institute Graft.

Mind games “Peaceful Atom” were held with JSC NCCP organizational support in Novosibirsk, which were participated by more than 150 high school pupils of the city schools and establishments.

April
The seminar and conference “Potential and prospects of development of nuclear power machine engineering enterprises” was held to gather for the first time top executives of leading companies of JSC Atomenergoprom, nuclear defense complex and related institutions. JSC Atomenergoprom management acknowledged the experience of TVEL Corporation in the production reforming the leading in the industry.

The Russian nuclear fuel producer – TVEL Corporation – participated in the IX International Forum “High Technologies of the XXI Century” and presented on innovative developments and unique products.

February
Intergovernmental Office for Industrial and Environmental Supervision of the Federal Environmental, Industrial and Nuclear Supervision Service for Siberian Federal District awarded JSC Novosibirsk Chemical Concentrates Plant (JSC NCCP) a letter of award “For large contribution to industrial and environmental safety at the enterprise”.

President of the Republic of Udmurtia Alexander Veylov and TVEL Corporation President Yuri Olenin visited JSC Chepetsky Mechanical Plant.

The Company organized the World Team Championship and Grand Prix in Greco-Roman wrestling (Szombathely, Hungary).

March
Yulia Nagaeva, an employee of TVEL Corporation (Chief Expert of the Department for RWR fuel promotion in the world market) won the 5-th International Internet Beauty Contest “Miss Atom-2008”. To support implementation of the production diversification program, JSC TVEL held a science and practice workshop “Materials and Technologies of Laser and Centrifuge Separation of Uranium isotopes” attended by representatives of TVEL Corporation, JSC Techsnabexport and leading scientific centers of the country, such as RRC Kurchatov Institute and Research Institute Graft.

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May

JSC TVEL senior executives were given national awards of the Republic of Hungary for advances made in elimination of the accident at Paks-2.

An annual science and technology conference of young employees of JSC Novosibirsk Chemical Concentrates Plant, one of the leading enterprises within TVEL Corporation, was held.

JSC Mashinostroitelny Zavod put on line the Piton furnace to dispose of solid household and process waste. Reprocessing and elimination of such waste have a sizable place in the environmental protection measured being implemented by TVEL Corporation.

At JSC MSZ, an interagency commission of representatives of Rosatechnadzor, Concern Energoatom, VNIINM, OKBM Afrikantov, OKBJ Gidropress and JSC TVEL accepted a new fuel – TVSA-Alfa – produced by the enterprise. The new assembly design features mixing grids which allow operating the fuel at an increased power level. Within next 4-5 years (design operating life of the assembly) a pilot batch of TVSA-Alfa fuel will undergo in-plant tests at Kalinin NPP.

June

JSC TVEL and Pako NPP (Hungary) signed an agreement for supplies of the second generation profiled uranium-gadolinium fuel.

TVEL Corporation’s projects awarded diplomas of the III Innovation Forum of Rosatom.

The V Meeting of TVEL Corporation with Business Partners was held in St. Petersburg. The meeting was attended by TVEL Corporation’s partners from Armenia, Ukraine, Kazakhstan, Bulgaria, Hungary, the Czech Republic, Slovakia, Lithuania, Finland, Germany, and India. The event framed a science and practice workshop “TVEL Corporation. Nuclear Fuel for NPPs. Current Situation and Prospects.”

Competitions in three sports were held in frames of Sports Contests of production enterprises for the TVEL Corporation Cup: basketball (at JSC NCCP, Novosibirsk), volleyball (at JSC CMP, Glazov, the Republic of Udmurtia) and five-a-side soccer (at JSC MSZ, Elektrostal, Moscow Region). Upon request of TVEL Corporation, the Russian Public Opinion Research Center (VCIOM) did a public poll at affiliated companies. The research became a part of measures to sum up the first year implementation results of the integrated development program “New Image of TVEL Corporation Enterprises until 2020.”

July

Chairman of the Government of the Russian Federation Vladimir Putin paid a working visit to JSC Mashinostroitelny Zavod (Elektrostal, Moscow Region). In Elektrostal the Head of Government held an outdoor meeting devoted to the development of nuclear industry in Russia until 2020 and was familiarized with JSC MSZ production process.

The III International Five-a-side Soccer Championship for the TVEL Corporation and NAECC Energoatom’s Cup was held at Rovno nuclear power plant (Kuznetsovsk, Rovno Region, Ukraine).

JSC CMP (Glazov, the Republic of Udmurtia) hosted the all-Russia science and practice workshop “Zirconium Dioxide-based Ceramics: Technologies for Synthesis, Properties and Promising Application Areas.”

TVEL Corporation acted as a co-organizer of the 10-th International Conference “Youth to Nuclear Power” in Odessa (Ukraine).
August

The directive of the Government of the Russian Federation granted JSC TVEL a general license valid until April 8, 2011 for supply of fresh nuclear fuel to reactors of eight countries: Armenia, Bulgaria, the Czech Republic, Finland, Hungary, Lithuania, Slovakia and Ukraine.

The workshop “The Company’s Restructuring Basing on Lean Production Principles” was held to study possibilities of improving labor efficiency at TVEL Corporation’s enterprises, JSC TVEL and its affiliated companies provided assistance to residents of South Ossetia. In addition to the material support, JSC TVEL organized air shipment of humanitarian goods provided by SC Rosatom to Tskhinvali. A total cost of the rendered assistance to victims of the humanitarian disaster amounted to RUB 7m.

The classical music festival “In Memory of Emma Destinová” was held in České Budějovice (the Czech Republic).

September

JSC Novosibirsk Chemical Concentrates Plant – the flagship enterprise of TVEL Corporation – celebrated its 60th anniversary.

A delegation of mayors of Czech cities and villages located near Dukovany NPP (Hrotovice, Mohelno, Žák aný, Rapotice, Rouchovany, Dukovany) paid an official visit to TVEL Corporation. The delegation also included representatives of Czech utility CEZ, commercial and industrial company ALTA and Dukovany NPP.

TVEL Corporation took part in the Annual Symposium of the World Nuclear Association held in London (the United Kingdom). The Symposium gathered about 700 representatives of nuclear communities of 30 countries.

Participation in the international contest “Nuclear Renaissance: Picture Review-2008”. Tatiana Sazganskaya, a well-known Moscow photographer and author of a picture series covering TVEL Corporation’s enterprises of today, was one of the winners (II place).

A series of lectures on nuclear fuel was organized for students of the Kiev Polytechnic University, Sevastopol Polytechnic University and Odessa National Polytechnic University.

TVEL Corporation hosted the first industry-wide conference “Titanium in Nuclear Industry” organized by JSC Atomenergoprom, TVEL Corporation and JSC MSZ jointly with Central research Institute of Structural Materials Prometei.

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TVEL Corporation organized a concert of Olga Kern and Brno Symphony Orchestra (Prague, the Czech Republic).

December
The RF Government’s Commission on improvement of sustainability of the Russian economy put JSC TVEL on the list of backbone companies which are of strategic significance for the economy of Russia.

The Moscow Composite Metals Plant (JSC MCMP), one of the national leading nuclear industry enterprises, joined the Russian nuclear fuel producer, TVEL Corporation. According to Transfer Directive of 18.12.2008 100% of JSC MCMP’s shares were transferred to JSC Atomenergoprom and JSC TVEL.

November
TVEL Corporation signed a strategic agreement with Slovenské elektrárne, a.s. for complete supplies of nuclear fuel to nuclear power plants Mohovec (1-st and 2-nd reactors) and Bohunic (3-rd and 4-th reactors). The agreement will enter into force in October 2010 and remain valid until 2015.

Kolontayevo recreation facility near Moscow hosted an award ceremony for winners of the First Professional Skill Contest “The Best in Profession at TVEL Corporation”.

The Moscow-based VNIINM named after A.A. Bochvar hosted the science and practice conference “NPP Nuclear Fuel of New Generation: Development Results, Operating Experience and Areas of Development”, which was organized by JSC TVEL jointly with VNIINM.
Background radiation: Naturally occurring ionizing radiation which affects nearly everyone, originates in the earth's crust (including radon) and comes from space.

Burnup fraction: A fraction of an initial number of nuclei of a given nuclide (or isotope) that has decayed through nuclear transmutation in a reactor due to the impact of neutrons (in thermal or fast reactors).

Burnup of nuclear fuel: A reduction of concentration of any nuclide in nuclear fuel reached from nuclear transmutations of this nuclide during the reactor operation.

Channel/reactor: A nuclear reactor which core contains the fuel with circulating coolant in separate fuel channels capable of withstanding high pressure of the coolant.

Closed nuclear fuel cycle: A nuclear fuel cycle where spent nuclear fuel removed from the reactor is reprocessed to recover fissile material and used as fuel for nuclear power generation.

Commercial operation: Operation of a NPP duly accepted for operation, as per design after it has successfully passed commissioning tests.

Conversion: A chemical process to convert U3O8 into UF6.

Criticality: A condition where the nuclear chain reaction to or more than 20% by mass can be sustained.

Criticality Core: The total part of a nuclear reactor where control rods and other control mechanisms that control the nuclear fuel are located.

Decommissioning: The process of reactor installation shut down and subsequent activities to ensure its safe dismantling, disposition of the equipment and further use of the site.

Depleted uranium: Uranium where U-235 isotope content is less than in natural uranium (less than 0.7%), which is also an enrichment degree of product of this nuclide. It can be blended with highly enriched uranium to fuel nuclear reactor.

Dose: Energy absorbed by a tissue from ionizing radiation. One gray equals one joule per kilogram, but the dose varies depending on all known particles of the dose equivalent which is used for setting exposure standards.

Dry conversion: A method to fabricate uranium dioxide pellets. Negatively charged atomic particle.

End piece: An element part of the fuel assembly.

Enriched nuclear fuel: Nuclear fuel containing more fissile isotopes than the source natural material.

Enriched uranium: Uranium where U-235 to U-238 ratio has been increased above the natural 9.7%. Normally, reactor-grade uranium is enriched to about 3.5% (uranium dioxide with enrichment grade varies from more than 90% to U-235.

Enrichment of uranium (enrichment): A set of processes related to treatment of the uranium-containing materials to separate the uranium from the other minerals of the ore and to increase the U-235 to U-238 ratio. The enrichment process includes ore grinding and milling as well as various chemical processes to separate the uranium from vanadium substrates. Enrichment by in-situ leaching includes chemical processes to separate uranium from the solutions.

Fast neutrons: Neutrons which kinetic energy is higher than a certain value. This value can vary within a broad range and depends on the application (reactor physics, protection or radiation medicine). In the reactor physics this value is often selected as 1 MeV.

Flexible materials: A material which contains one or several fissile isotopes and which can be utilized under certain conditions of creating critically.

Flexibility nuclear fuel (flexible fuel): A nuclide which is capable of fission under the influence of neutrons but only when their energy exceeds a certain limit or threshold. There is only one naturally occurring nuclide – uranium – with this property. Pu-239 and U-236 are artificial (breeding) fissile nuclides.

Fuel channel: A horizontal or vertical channel in the core of a nuclear reactor designed to host fuel rod and exposed to fast fission. Fuel fabrication: Nuclear fuel fabrication, typically, as ceramic compacts or pellets enclosed into metal tubes which are subsequently assembled into fuel assemblies.

Fuel pellet: A pellet made of enriched uranium dioxide. It is the basis of nuclear fuel and placed inside (fuel pin).

Fuel rod-cladding: Metal tubes in the reactor core which contain inside fuel pellets.

Fusion reactor: A reactor where controlled thermonuclear fusion is carried out to generate energy.

Heavy-water reactor: A nuclear reactor where heavy water is used as a moderator (for example, Canadian reactor CANDU).

Highly enriched uranium: Uranium containing isotopic enrichment equal to or more than 90% by mass.

Individual radiation dose: An equivalent dose of radiation of an individual.

IFP reprocessing: A set of chemical technology processes designed to remove fissile products from irradiated nuclear fuel and recover fissile material for reuse.

Light water reactor: A nuclear power reactor where ordinary light water is used as the moderator and coolant at the same time. Two types of such reactors are distinguished: pressurized water reactors and boiling water reactors.

Limited permissible dose: The highest individual equivalent dose over a year, which under uniform impact during 50 years will not cause undesirable biological effects or personal harm.

Low-enriched uranium: Uranium with isotopic U-235 content of less than 20%.

Low-level waste: Redistributive waste which does not require special shielding during handling because of low radionuclide content.

Marine propulsion reactor: A nuclear reactor generating power for a vessel to move.

Moderator: A material, for instance, light or heavy water or graphite, used in a reactor to slow down fast neutrons through collisions with higher nuclei to facilitate further fission.

MPC: Mining and Processing Combine.

Natural background: Ionizing radiation consisting of cosmic radiation and radiation pollution of naturally disintegrated radionuclides (on the Earth surface, in air, foodstuffs, water, human body etc.).

Natural uranium: Naturally occurring uranium with an isotopic composition of about 0.7% U-235. It can be used as a fuel in heavy water-moderated reactors.

Nuclear reactor: An energy-converting device through nuclear transmutation.

Nuclear waste: Radioactive waste which does not require special shielding during handling because of low radionuclide content.
Nuclear energy

- Internal energy of atomic nuclei which is released during nuclear fission or nuclear fusion.

Nuclear facility

- Any installation which generates, processes or handles radioactive or fissile materials.

Nuclear fuel

- A fissile material which has undergone necessary fabrication processes and been formed in such a way as to be loaded into a reactor.

Nuclear reactor

- A set of processes aimed at reducing volume of radioactive waste or rendering them in forms reliably retaining radioactivity or making it retrievable at a later stage for storage facilities designed for safe isolation of such waste.

Nuclear power

- A branch of the power engineering which uses atomic energy for electricity and heat generation.

Radioactive material

- A chemical radioactive element (metal) with atomic number of 92.

Radioactive waste management

- A general term describing all activities related to treatment, conditioning, transportation, storage and disposal of radioactive waste.

Radioactive waste treatment

- A set of processes aimed at reducing volume of radioactive waste, changing its composition or rendering it harmless retaining its radioactivity.

Radiation monitoring

- A process of acquiring information on the radiation situation in an organization, environment and on population (include dosimetry and radiometry monitoring).

Radiation safety

- A system of measures providing for the protection of nuclear facility personnel and population against radiation consequences.

Radioactive waste storage

- The placement of radioactive waste in special storage facilities designed for safe isolation of this waste, which provide for monitoring and-invariability of this waste at a given stage for treatment, storage and/or disposal.

Uranium-235

- A natural uranium isotope with atomic mass of 235 and half-life of 713.5 million years.

Uranium-238

- A natural uranium isotope with atomic mass of 238 and half-life of 4.44x10^9 years; it can be used as a breeder material for plutonium-239 generation.
Nuclear fuel cycle. A set of activities aimed at processing uranium and thorium fuel, nuclear waste management and reprocessing of spent nuclear fuel. This cycle includes fuel element production, operation, and spent fuel management. The nuclear fuel cycle is divided into two main stages: extraction and processing of uranium (enrichment and conversion) and spent fuel management (reprocessing and disposal).

Reprocessing of Nuclear Fuel: The spent fuel from operating reactors contains highly radioactive materials that need to be treated to reduce their radioactivity before they can be safely disposed of or recycled. Reprocessing involves separating the valuable materials (uranium and plutonium) from the waste components. This process is critical for ensuring the sustainability of the nuclear fuel cycle.

Spent Fuel Management: Spent fuel from operating reactors contains highly radioactive materials that need to be stored securely until they decay to a safe level. This involves cooling the spent fuel to reduce its heat output, monitoring its decay, and ensuring that it does not pose a radiation risk to the environment.

Radioactive Waste Management: Radioactive waste can be generated at various stages of the nuclear fuel cycle, including the extraction and processing of uranium, operation of nuclear reactors, and reprocessing of spent fuel. Radioactive waste management involves identifying, classifying, and managing these wastes to ensure they are handled and disposed of safely.

Quality Management System: A Quality Management System (QMS) is a set of processes, procedures, and policies designed to ensure that a product or service meets the required quality standards. In the context of the nuclear fuel cycle, a QMS is essential to ensure the safety and reliability of nuclear power plants and production facilities.
### GRI indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>GRI indicator description</th>
<th>AR section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN33</td>
<td>Total environmental protection expenditures and investments by type.</td>
<td>Environmental programs and other initiatives</td>
<td>124</td>
</tr>
<tr>
<td>LA7</td>
<td>Rates of injury, occupational diseases, lost days, and absenteeism, and total number of occupational fatalities by region.</td>
<td>Occupational safety</td>
<td>123</td>
</tr>
<tr>
<td>LA1</td>
<td>Total accidents by employment type, employment contract, and region.</td>
<td>HR management</td>
<td>107</td>
</tr>
<tr>
<td>LA3</td>
<td>Total number and rate of employee turnover by age group, gender, and region.</td>
<td>HR management</td>
<td>107-108</td>
</tr>
<tr>
<td>IC5</td>
<td>Number of agreements with universities in period reported (orders, directives).</td>
<td>HR management (youth policy)</td>
<td>112</td>
</tr>
<tr>
<td>A11</td>
<td>Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.</td>
<td>HR management</td>
<td>106</td>
</tr>
<tr>
<td>EC9</td>
<td>EC9 Understanding and describing significant in direct economic impacts, including the extent of impacts.</td>
<td>Local community development</td>
<td>116</td>
</tr>
</tbody>
</table>

### FEEDBACK: WE VALUE YOUR OPINION

You have looked through the JSC TVEL 2008 Annual Report. Your opinion on it is important for the Company and we will appreciate if you help us to improve quality of reporting by giving answers to the questions below.

Please, send the filled in format via fax: +7 (495) 324-1905 or at the mailing address: JSC TVEL, 49 Kashirskoye Shosse, Moscow 115409, Russia, marked “2008 ANNUAL REPORT”

You can also e-mail the format to: info@tvel.ru

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**Have you known something new about the company from this report?**

Yes | No
---|---

**What is your evaluation of the report in terms of:**

<table>
<thead>
<tr>
<th>Confidence in the data and information presented</th>
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<tbody>
<tr>
<td>5</td>
<td>4</td>
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</tbody>
</table>

<table>
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<tr>
<th>Ease of finding necessary information</th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Design and structure</th>
<th>5</th>
<th>4</th>
<th>3</th>
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<th>4</th>
<th>3</th>
<th>2</th>
</tr>
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</table>

**What report section was most interesting for you?**

**Give a fact/event you remember most after having read the report**

**What additional information would you like to see in the next year JSC TVEL Annual Report?**

**Comments:**

When giving your assessment, what group interests you were guided by:

<table>
<thead>
<tr>
<th>Customer</th>
<th>Supplier/Contractor</th>
<th>Competitor</th>
<th>Federal executive body official</th>
<th>Regional executive body official</th>
<th>Other (please, specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Local administrative official</td>
</tr>
</tbody>
</table>

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Thank you